

Wednesday, February 03, 2010

Page 1 of 3
REQUEST NUMBER: 10-1570

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

These Samples are on:

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

LANL Request Number: 10-1570
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

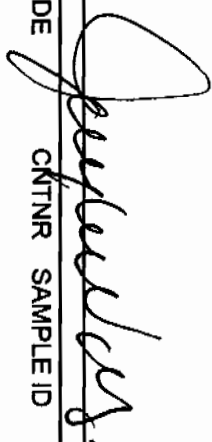
TURNAROUND REQ'D: 30 Days

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:901.1						
1		1	RE15-10-7981	R	2/1/2010	
1		1	RE15-10-7982	R	2/1/2010	
1		1	RE15-10-7983	R	2/1/2010	
1		1	RE15-10-7984	R	2/1/2010	
1		1	RE15-10-7985	R	2/1/2010	
EPA:906.0						
1		1	RE15-10-7981	R	2/1/2010	
1		1	RE15-10-7982	R	2/1/2010	
1		1	RE15-10-7983	R	2/1/2010	
1		1	RE15-10-7984	R	2/1/2010	

Wednesday, February 03, 2010

Page 2 of 3
REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-906.0	1	RE15-10-7985	R	2/1/2010	
	HASL-300:AM-241	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
		1	RE15-10-7981	R	2/1/2010	
	HASL-300:ISOU	1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:6020	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
	SW-846:6850	1	RE15-10-7985	R	2/1/2010	
		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
		1	RE15-10-7981	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:9012A	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1570

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1570

LOS ALAMOS

REQUEST NUMBER: 10-1570

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7981	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7981	1	POLY	H3	Ice	R
RE15-10-7981	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7981	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7983	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7983	1	POLY	H3	Ice	R
RE15-10-7983	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7983	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7984	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7984	1	POLY	H3	Ice	R
RE15-10-7984	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7984	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7982	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7982	1	POLY	H3	Ice	R
RE15-10-7982	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7982	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7985	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7985	1	POLY	H3	Ice	R
RE15-10-7985	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7985	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

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

SAMPLE ID: RE15-10-7981

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	OBT3		ALLH
TIME COLLECTED (HH:MM)		1415		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	15-610760	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC: moist brown silty clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b- 54 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

Alpha \leq 11 dpm
Beta/Gamma \leq 1900 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tray	Date/Time 2/01/10 1630	RECEIVED BY (Printed Name) Sherrish Newwood (Signature) Sherrish Newwood	Date/Time 2/1/10 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

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

SAMPLE ID: RE15-10-7982

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	QBT3		
TIME COLLECTED (HH:MM)		1435		SUB-MEDIA:	TUFF 1		ok
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	15-610760			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	3.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	3.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC: brown tuff with clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-54 mesa tops

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 27 dpm
Beta/Gamma \leq 2040 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) TLMcFarland	Date/Time 2/1/10 1630	RECEIVED BY (Printed Name) Sherrill Newwood (Signature) Sherrill Newwood	Date/Time 2/1/10 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

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

SAMPLE ID: RE15-10-7983

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1430		SUB-MEDIA:		TUFF 1	
PRS ID: 15-008(b)		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 15-610761		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		0.5 0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

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

SAMPLE DESC:

Brown frozen silty clay, tell fragments

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-53 ^{RS 02-01-10} meas mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1879 dpm

HE NEG

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 2/01/10 1630	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/1/10 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

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

SAMPLE ID: RE15-10-7984

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:		OBT3
TIME COLLECTED(HH:MM)		1445	SUB-MEDIA:		TUFF I
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:		HA
LOCATION ID:	15-610761	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	3.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES/NO/NA		NA
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA	

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

SAMPLE DESC:

Light Gray tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-53

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 33 dpm
Beta/Gamma \leq 2280 dpm

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

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 2/01/10 1630	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/1/10 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499

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

SAMPLE ID: RE15-10-7985

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	QBT3		ALLH
TIME COLLECTED(HH:MM)		1500		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-008(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	15-610762			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	0.4		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC: black clayey silt with organics

~~FR RE15-10-8085~~ 73m 2/1/10

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-27 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

Alpha = 11 dpm
Beta/Gamma = 1955 dpmPID $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{1.0}$ ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 2/01/10 1630	RECEIVED BY (Printed Name) Sherry Newwood (Signature) <i>Sherry Newwood</i>	Date/Time 2/1/10 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE 15-10-7332
7333
7334
7335
7336
7337
7338
7339
7342
8304
8305
8306
8307

RE 15-10-8308
8309
8300
8301
8324
7981
7982
7983
7984
7985

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

.....

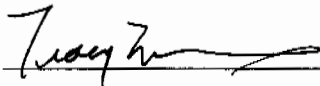
The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE 15-10-7344] rinsate
RE 15-10-8328]

RE 15-10-8332 FTB

Reason:

.....

Print Last Name McFarland Signature  Date 2/01/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1570 VALIDATION DATE: 3/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. 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: Mary Donovan

Level: I


Date: 03/25/10

VALIDATOR'S SIGNATURE: _____


DATE: 3/23/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2	Records Use only
LC/MS/MS Perchlorate Analytical Data Validation Checklist 	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The Internal Standard (IS) relative retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC1d	R, PERC1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, PERC4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2	Records Use only
LC/MS/MS Perchlorate Analytical Data Validation Checklist	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	31. The Interference Check Sample was not within $\pm 20\%$ of the known value.	UJ, PERC16a	J, PERC16a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The required CRI sample Information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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: SOIL

Extraction Batch ID: 952429

Extraction Type: Solid Prep

Client Sample No.

RE15-10-7981

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344001

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 75

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:37	per0220019a
14797-73-0	Perchlorate-101	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate-O(18)			6.53	ug/kg		1	20-FEB-10 14:37	per0220019a

[^] 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 =

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

LMF
3/23/10

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: 252429
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-7983
 Date Received: 05-FEB-10
 GEL Job No (SDG): 10-1570
 GEL Sample ID: 246344002
 Date Filtered: 16-FEB-10
 Injection Volume (uL): 20
 %Solids: 75

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:47	per0220020a
14797-73-0	Perchlorate-101	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate-O(18)			6.78	ug/kg		1	20-FEB-10 14:47	per0220020a

[^] 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 =

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

LMF
3/23/10

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: 252429
Extraction Type: Solid Prep
Sample Volume/Weight: 2.00 g
Concentrated Extract Volume: 20.0
Client Sample No.
RE15-10-7984
Date Received: 05-FEB-10
GEL Job No (SDG): 10-1570
GEL Sample ID: 246344003
Date Filtered: 16-FEB-10
Injection Volume (uL): 20
%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:56	per0220021a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate-O(18)			5.35	ug/kg		1	20-FEB-10 14:56	per0220021a

[^] 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 =

Instrument Value X 1 Concentrated Extract Volume X 1 %Solids
 Aliquot

LMF
3/23/10

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: 952429
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-7982
 Date Received: 05-FEB-10
 GEL Job No (SDG): 10-1570
 GEL Sample ID: 246344004
 Date Filtered: 16-FEB-10
 Injection Volume (uL): 20
 %Solids: 84

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.593	2.37	0.859	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate Isotope Ratio			3.26			1	20-FEB-10 15:34	per0220025a
14797-73-0	Perchlorate-101	.593	2.37	0.837	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate-O(18)			6.05	ug/kg		1	20-FEB-10 15:34	per0220025a

[^] 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 =

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

LMF
3/23/10

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 952429
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-7985
 Date Received: 05-FEB-10
 GEL Job No (SDG): 10-1570
 GEL Sample ID: 246344005
 Date Filtered: 16-FEB-10
 Injection Volume (uL): 20
 %Solids: 52


CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate Isotope Ratio						1	20-FEB-10 15:44	per0220026a
14797-73-0	Perchlorate-101	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate-O(18)			10.0	ug/kg		1	20-FEB-10 15:44	per0220026a

[^] 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 =

Instrument Value X Concentrated Extract Volume X ¹ %Solids
 Aliquot

LMF
 3/23/10

DATA VALIDATION COVER SHEET	
5122-1 <p style="text-align: center;">Data Validation Cover Sheet</p>	Records Use only 

Section I.			
REQUEST NUMBER:	10-1570	VALIDATION DATE:	3/24/10
		LAB CODE:	GEL
CONTRACT LABORATORY NAME:	GEL Laboratories LLC		
VALIDATOR:	Larry Fukui	ORGANIZATION:	Analytical Quality Associates, Inc.
ANALYTICAL SUITE (CHECK ALL THAT APPLY):			
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input checked="" type="checkbox"/> LCMSMS HIGH EXPLOSIVES	PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): _____			


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

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


1. In the ICV and CCVs associated with all samples except RE15-10-7985, the %Ds were >20% with a positive bias for HMX and RDX. The associated sample results were NDs and, thus, were not qualified.
2. The MSD %R was > the laboratory's UAL for PETN. The associated sample results were NDs and, thus, were not qualified. The MS/MSD RPD was >30% for PETN. The associated sample results were NDs and, thus, were qualified UJ,HE12g.
3. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate retention time criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary Donovan Level: I Date: 03/25/10


VALIDATOR'S SIGNATURE:  DATE: 3/24/10

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

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

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

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

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

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

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST**5122-2****LC/MS/MS High Explosive Analytical Data Validation Checklist**

Records Use only



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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216284a

Date Analyzed: 22-FEB-10 13:22

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 UJ,HE12g	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200018.wiff

Date Analyzed: 20-FEB-10 14:04

Units: ug/kg

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

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216287a

Date Analyzed: 22-FEB-10 14:51

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 UJ,HE12g	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200021.wiff

Date Analyzed: 20-FEB-10 14:51

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 =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216288a

Date Analyzed: 22-FEB-10 15:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN UJ,HE12g	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200022.wiff

Date Analyzed: 20-FEB-10 15:06

Units: ug/kg

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

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216289a

Date Analyzed: 22-FEB-10 15:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN UJ,HE12g	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200023.wiff

Date Analyzed: 20-FEB-10 15:22

Units: ug/kg

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

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0225014a

Date Analyzed: 25-FEB-10 16:26

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 UJ,HE12g	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

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

LMF
3/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200027.wiff

Date Analyzed: 20-FEB-10 16:25


Units: ug/kg

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

*Concentration =

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

LMF
3/24/10

DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	
	

Section I.

REQUEST NUMBER: 10-1570 VALIDATION DATE: 3/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

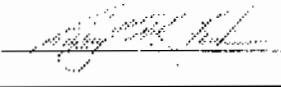
Section II. Completeness Check


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


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

- In the ICB and/or CCBs, Pb, Sb, and Tl were detected. The results for Sb in samples RE15-10-7981, -7982, and -7985 and Tl in all samples except -7984 were detects $\leq 5X$ the greatest blank concentrations and, thus, were qualified U,I4b. All other associated sample results were either detects $> 5X$ the greatest blank concentration or were NDs, and, thus, were not qualified.
- The MS %Rs were $<$ the laboratory's LAL but $\geq 10\%$ for Sb and Se. The associated sample results were NDs or were qualified ND due to CCB contamination and, thus, were qualified UJ,I6a. The MS %R was $>$ the laboratory's UAL for Mg. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were also $>$ the laboratory's UAL for Al and Fe. However, the associated parent sample results were $> 4X$ the spike concentrations and, thus, no sample results were qualified, based on professional judgment.


Reviewed by: Mary Donovan Level: I Date: 03/25/10

VALIDATOR'S SIGNATURE:  DATE: 3/24/10


DATA VALIDATION COVER SHEET	
5118-1 Data Validation Cover Sheet	Records Use only  Los Alamos NATIONAL LABORATORY EST. 1945
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 


Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. Metals interference check sample percent recovery value is $\geq 50\%$ and $< 80\%$	UJ, I2a	J-, I2a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Metals interference check sample percent recovery value is $> 120\%$.	N/A	J+, I2b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, I4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The associated matrix spike recovery was $< 10\%$. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. The associated matrix spike recovery was $< \text{the LAL}$ but $> 10\%$. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The associated matrix spike recovery was $> \text{the UAL}$. 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 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The sample and the duplicate sample results were $\geq 5X$ the RL and the duplicate RPD was $>20\%$ for water samples and $>35\%$ for soil samples.	UJ, I10a	J, I10a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was $<10\%$. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was $>$ the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344001

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7981

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 75

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6970000	ug/Kg	*	8580	25200	25200	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-36-0	Antimony U,14b	1370	ug/Kg	N	417	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-38-2	Arsenic	2.04	mg/kg		0.268	1.34	1.34	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-39-3	Barium	94800	ug/Kg	*N	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-41-7	Beryllium	0.789	mg/kg		0.0268	0.134	0.134	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-43-9	Cadmium	631	ug/Kg	U	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-70-2	Calcium	1580000	ug/Kg	*N	10100	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-47-3	Chromium	8330	ug/Kg		189	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-48-4	Cobalt	8870	ug/Kg		189	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-50-8	Copper	11100	ug/Kg	*N	379	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-89-6	Iron	12700000	ug/Kg	*	10100	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-92-1	Lead	26400	ug/Kg	EN	316	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-95-4	Magnesium J+,16b	1350000	ug/Kg	*N	10700	37900	37900	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-96-5	Manganese	292000	ug/Kg	*	252	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-97-6	Mercury	10.4	ug/kg	J	5.28	15.5	15.5	1	AV	JXL1	02/22/10 12:59	022210S1-4	951598
7440-02-0	Nickel	6.25	mg/kg		0.134	0.535	0.535	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-09-7	Potassium	1280000	ug/Kg	*N	8080	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7782-49-2	Selenium UJ,16a	1.34	mg/kg	UN	0.669	1.34	1.34	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-22-4	Silver	631	ug/Kg	U	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-23-5	Sodium	109000	ug/Kg		8840	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-28-0	Thallium U,14b	0.225	mg/kg	J	0.0803	0.268	0.268	2	MS	BAJ	03/04/10 09:39	100303-3	951157
7440-61-1	Uranium	9.1	mg/kg	E	0.0177	0.0535	0.0535	2	MS	BAJ	03/04/10 09:39	100303-3	951157
7440-62-2	Vanadium	19300	ug/Kg	N	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-66-6	Zinc	27200	ug/Kg	EN	417	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.531	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.501	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3

LMF
3/24/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344002

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7983

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 75

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6310000	ug/Kg	*	8640	25400	25400	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-36-0	Antimony UJ,16a	1270	ug/Kg	UN	419	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-38-2	Arsenic	1.8	mg/kg		0.25	1.25	1.25	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-39-3	Barium	95500	ug/Kg	*N	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-41-7	Beryllium	0.745	mg/kg		0.025	0.125	0.125	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-43-9	Cadmium	635	ug/Kg	U	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-70-2	Calcium	1730000	ug/Kg	*N	10200	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-47-3	Chromium	15500	ug/Kg		191	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-48-4	Cobalt	4770	ug/Kg		191	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-50-8	Copper	8200	ug/Kg	*N	381	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-89-6	Iron	11200000	ug/Kg	*	10200	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-92-1	Lead	15600	ug/Kg	EN	318	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-95-4	Magnesium J+,16b	1190000	ug/Kg	*N	10800	38100	38100	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-96-5	Manganese	332000	ug/Kg	*	254	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-97-6	Mercury	8.41	ug/kg	J	4.77	14	14	1	AV	JXL	02/22/10 13:07	022210S1-4	951598
7440-02-0	Nickel	6.13	mg/kg		0.125	0.501	0.501	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-09-7	Potassium	1270000	ug/Kg	*N	8130	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7782-49-2	Selenium UJ,16a	1.25	mg/kg	UN	0.626	1.25	1.25	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-22-4	Silver	635	ug/Kg	U	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-23-5	Sodium	42200	ug/Kg		8890	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-28-0	Thallium U,14b	0.202	mg/kg	J	0.0751	0.25	0.25	2	MS	BAJ	03/04/10 10:03	100303-3	951157
7440-61-1	Uranium	4.12	mg/kg	E	0.0165	0.0501	0.0501	2	MS	BAJ	03/04/10 10:03	100303-3	951157
7440-62-2	Vanadium	21500	ug/Kg	N	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-66-6	Zinc	24300	ug/Kg	EN	419	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.533	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.571	g	30	mL	02/19/10	TXB3

LMF
3/24/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344003

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7984

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1650000	ug/Kg	*	6830	20100	20100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-36-0	Antimony UJ,16a	1000	ug/Kg	UN	332	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-38-2	Arsenic	0.923	mg/kg	J	0.201	1	1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-39-3	Barium	30100	ug/Kg	*N	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-41-7	Beryllium	0.180	mg/kg		0.0201	0.1	0.1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-43-9	Cadmium	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-70-2	Calcium	411000	ug/Kg	*N	8040	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-47-3	Chromium	2650	ug/Kg		151	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-48-4	Cobalt	4670	ug/Kg		151	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-50-8	Copper	2080	ug/Kg	*N	301	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-89-6	Iron	7380000	ug/Kg	*	8040	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-92-1	Lead	3790	ug/Kg	EN	251	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-95-4	Magnesium J+,16b	208000	ug/Kg	*N	8540	30100	30100	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-96-5	Manganese	269000	ug/Kg	*	201	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-97-6	Mercury	11.4	ug/kg	U	3.86	11.4	11.4	1	AV	JXLI	02/22/10 13:12	022210S1-4	951598
7440-02-0	Nickel	2.29	mg/kg		0.1	0.402	0.402	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-09-7	Potassium	400000	ug/Kg	*N	6430	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7782-49-2	Selenium UJ,16a	1	mg/kg	UN	0.502	1	1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-22-4	Silver	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-23-5	Sodium	186000	ug/Kg		7030	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-28-0	Thallium	0.201	mg/kg	U	0.0603	0.201	0.201	2	MS	BAJ	03/04/10 10:07	100303-3	951157
7440-61-1	Uranium	0.514	mg/kg	E	0.0133	0.0402	0.0402	2	MS	BAJ	03/04/10 10:07	100303-3	951157
7440-62-2	Vanadium	3440	ug/Kg	N	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-66-6	Zinc	16600	ug/Kg	EN	332	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.557	g	30	mL	02/19/10	TXB3

LMF
3/24/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344004

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7982

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/Kg	*	8060	23700	23700	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-36-0	Antimony U,14b	811	ug/Kg	JN	391	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-38-2	Arsenic	3.38	mg/kg		0.237	1.19	1.19	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-39-3	Barium	171000	ug/Kg	*N	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-41-7	Beryllium	1.26	mg/kg		0.0237	0.119	0.119	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-43-9	Cadmium	593	ug/Kg	U	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-70-2	Calcium	3370000	ug/Kg	*N	9480	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-47-3	Chromium	9790	ug/Kg		178	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-48-4	Cobalt	5000	ug/Kg		178	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-50-8	Copper	7770	ug/Kg	*N	356	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-89-6	Iron	13000000	ug/Kg	*	9480	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-92-1	Lead	11500	ug/Kg	EN	296	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-95-4	Magnesium J+,16b	2170000	ug/Kg	*N	10100	35600	35600	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-96-5	Manganese	189000	ug/Kg	*	237	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-97-6	Mercury	51.7	ug/kg		4.43	13	13	1	AV	JXL1	02/22/10 13:14	022210S1-4	951598
7440-02-0	Nickel	9.25	mg/kg		0.119	0.474	0.474	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-09-7	Potassium	1500000	ug/Kg	*N	7590	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7782-49-2	Selenium UJ,16a	1.19	mg/kg	UN	0.593	1.19	1.19	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-22-4	Silver	593	ug/Kg	U	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-23-5	Sodium	264000	ug/Kg		8300	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-28-0	Thallium U,14b	0.175	mg/kg	J	0.0711	0.237	0.237	2	MS	BAJ	03/04/10 10:10	100303-3	951157
7440-61-1	Uranium	2.34	mg/kg	E	0.0156	0.0474	0.0474	2	MS	BAJ	03/04/10 10:10	100303-3	951157
7440-62-2	Vanadium	16700	ug/Kg	N	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-66-6	Zinc	25400	ug/Kg	EN	391	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.546	g	30	mL	02/19/10	TXB3

LMF
3/24/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344005

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7985

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL


%SOLIDS: 52

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6150000	ug/Kg	*	11700	34300	34300	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-36-0	Antimony U,14b	1430	ug/Kg	JN	567	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-38-2	Arsenic	2.44	mg/kg		0.371	1.86	1.86	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-39-3	Barium	195000	ug/Kg	*N	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-41-7	Beryllium	1.05	mg/kg		0.0371	0.186	0.186	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-43-9	Cadmium	297	ug/Kg	J	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-70-2	Calcium	9490000	ug/Kg	*N	13700	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-47-3	Chromium	7610	ug/Kg		258	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-48-4	Cobalt	3660	ug/Kg		258	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-50-8	Copper	25400	ug/Kg	*N	515	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-89-6	Iron	10000000	ug/Kg	*	13700	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-92-1	Lead	42800	ug/Kg	EN	429	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-95-4	Magnesium J+,16b	1670000	ug/Kg	*N	14600	51500	51500	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-96-5	Manganese	539000	ug/Kg	*	343	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-97-6	Mercury	42.6	ug/kg		7.76	22.8	22.8	1	AV	JXL1	02/22/10 13:16	022210S1-4	951598
7440-02-0	Nickel	6.64	mg/kg		0.186	0.743	0.743	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-09-7	Potassium	1530000	ug/Kg	*N	11000	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7782-49-2	Selenium UJ,16a	1.86	mg/kg	UN	0.929	1.86	1.86	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-22-4	Silver	859	ug/Kg	U	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-23-5	Sodium	59400	ug/Kg		12000	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-28-0	Thallium U,14b	0.125	mg/kg	J	0.111	0.371	0.371	2	MS	BAJ	03/04/10 10:14	100303-3	951157
7440-61-1	Uranium	57.8	mg/kg	E	0.245	0.743	0.743	20	MS	BAJ	03/04/10 10:18	100303-3	951157
7440-62-2	Vanadium	15800	ug/Kg	N	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-66-6	Zinc	63700	ug/Kg	EN	567	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.557	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.515	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.503	g	30	mL	02/19/10	TXB3

LMF
3/24/10

DATA VALIDATION COVER SHEET	
5120-1	Records Use only
Data Validation Cover Sheet	
	

Section I.

REQUEST NUMBER: 10-1570 VALIDATION DATE: 3/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

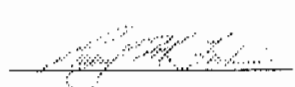
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses for total CN for sample RE15-10-7981 were performed on parent samples from other LANL RNs. No sample data were qualified as a result.


Reviewed by: Mary Donovan

Level: I


Date: 03/25/10

VALIDATOR'S SIGNATURE: 


DATE: 3/24/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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. 1942

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	Records Use only
General Chemistry Analytical Data Validation Checklist 	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7981
Sample ID: 246344001
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	--------

Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	91.2	335	ug/kg	1	AXC2	02/15/10	1331	950196	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/24/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7983
Sample ID: 246344002
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	--------

Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	85.6	315	ug/kg	1	AXC2	02/15/10	1346	950198	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/24/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7984
Sample ID: 246344003
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 5.24%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.1	236	ug/kg	1	AXC2	02/15/10	1353	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/24/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7982
Sample ID: 246344004
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 15.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	77.5	285	ug/kg	1	AXC2	02/15/10	1356	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/24/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7985
Sample ID: 246344005
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 47.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		555	118	435	ug/kg	1	AXC2	02/15/10	1357	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/24/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1570 VALIDATION DATE: 3/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the QC samples, the laboratory also rejected several results. No sample data were qualified as a result.
2. The alpha spec U-232 tracer %R was > the laboratory's UAL but ≤125% in sample RE15-10-7983. The associated sample results were detects and, thus, were qualified J-,R3a.
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 also be noted that the matrix QC parent sample for gamma spec and tritium were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: Mary Donovan


Level: I


Date: 03/25/10

VALIDATOR'S SIGNATURE:


A handwritten signature in black ink, appearing to read "Larry Fukui".

DATE: 3/24/10


DATA VALIDATION COVER SHEET	
5119-1 Data Validation Cover Sheet	Records Use only  Los Alamos NATIONAL LABORATORY EST. 1945
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only 

Yes No N/A (Choose One)				Assign Qualifier Listed Below if Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	Records Use only
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>Rad Analytical Data Validation Checklist</div> <div>  </div> </div>	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The tracer is < the Lower Acceptance Level (LAL) but $\geq 10\%R$. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	Records Use only
Rad Analytical Data Validation Checklist	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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

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: February 25, 2010

Client Sample ID:	RE15-10-7981	Project: LANL01004
Sample ID:	246344001	Client ID: LANL010
Matrix:	R	
Collect Date:	01-FEB-10	
Receive Date:	05-FEB-10	
Collector:	Client	
Moisture:	25.4%	

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00232	0.0206	+/-0.00245	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00276	0.0212	+/-0.00196	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00138	0.016	+/-0.00138	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		2.41	0.0912	+/-0.194	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.134	0.0581	+/-0.027	0.100	pCi/g						
Uranium-238		3.75	0.0622	+/-0.289	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0654	0.361	+/-0.108	0.200	pCi/g		MXR1	02/18/10	1559	950787	6
Bismuth-211	UI	3.41	R,R5a	0.303	+/-0.214	pCi/g						
Bismuth-214		0.926		0.0942	+/-0.0742	pCi/g						
Cadmium-109	UI	2.65	R,R5a	1.18	+/-0.567	pCi/g						
Cerium-139	U	-0.0308		0.0416	+/-0.013	pCi/g						
Cesium-134	UI	0.119	R,R5a	0.0918	+/-0.0302	0.100	pCi/g					
Cesium-137		0.0737		0.0605	+/-0.0305	0.100	pCi/g					
Cobalt-60	U	-0.00927		0.0579	+/-0.0178	0.100	pCi/g					
Europium-152	U	-0.0533		0.141	+/-0.0442	0.200	pCi/g					
Lanthanum-140	U	0.00129		0.123	+/-0.0372	pCi/g						
Lead-212		1.39		0.0843	+/-0.0743	0.100	pCi/g					
Lead-214		1.19		0.0979	+/-0.0807	0.100	pCi/g					
Mercury-203	UI	0.0648	R,R5a	0.0593	+/-0.023	0.100	pCi/g					
Potassium-40		25.2		0.521	+/-1.20	1.00	pCi/g					
Radium-223	U	0.188		0.932	+/-0.297	pCi/g						
Radium-224	UI	4.28	R,R5a	0.959	+/-0.500	pCi/g						
Radium-226		0.926		0.0942	+/-0.0742	pCi/g						
Radium-228		1.29		0.187	+/-0.161	0.500	pCi/g					
Ruthenium-106	U	0.0663		0.514	+/-0.154	0.800	pCi/g					

LMF
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7981
Sample ID: 246344001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Sodium-22	U	0.0169	0.0704	+/-0.020	0.080	pCi/g						
Strontium-85	U	0.0165	0.0572	+/-0.0188		pCi/g						
Thallium-208		0.393	0.0494	+/-0.0421	0.080	pCi/g						
Thorium-227	U	-0.0359	0.555	+/-0.158		pCi/g						
Thorium-231	U	0.188	0.932	+/-0.297		pCi/g						
Thorium-234		5.03	2.67	+/-1.46	2.00	pCi/g						
Tin-113	U	0.0043	0.0665	+/-0.0193	0.100	pCi/g						
Uranium-235	U	0.119	0.335	+/-0.096	0.500	pCi/g						
Yttrium-88	U	0.00917	0.062	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		336	174	+/-61.9	250	pCi/L		KXK2	02/19/10	2338	953095	7

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.5	(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

LMF
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7983
Sample ID: 246344002
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00793	0.0216	+/-0.00336	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	-0.00097	0.0207	+/-0.00166	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00172	0.0156	+/-0.00214	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.22	J-R3a	0.0806	+/-0.106	0.100	pCi/g	KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.107	↓	0.0514	+/-0.0232	0.100	pCi/g					
Uranium-238		2.08	↓	0.055	+/-0.167	0.100	pCi/g					
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0392		0.279	+/-0.0867	0.200	pCi/g	MXR1	02/18/10	1657	950787	6
Bismuth-211	UI	3.68	R,R5a	0.254	+/-0.203		pCi/g					
Bismuth-214		1.16		0.082	+/-0.0775	0.200	pCi/g					
Cadmium-109	UI	2.90	R,R5a	1.46	+/-0.492		pCi/g					
Cerium-139	U	-0.00418		0.0417	+/-0.0119	0.050	pCi/g					
Cesium-134	UI	0.0911	R,R5a	0.0705	+/-0.0223	0.100	pCi/g					
Cesium-137		0.0768		0.0451	+/-0.0247	0.100	pCi/g					
Cobalt-60	U	0.000172		0.0523	+/-0.0157	0.100	pCi/g					
Europium-152	U	0.0107		0.129	+/-0.0445	0.200	pCi/g					
Lanthanum-140	U	-0.0472		0.111	+/-0.0362		pCi/g					
Lead-212		1.57		0.0734	+/-0.072	0.100	pCi/g					
Lead-214		1.28		0.0885	+/-0.078	0.100	pCi/g					
Mercury-203	U	0.0348		0.0614	+/-0.0175	0.100	pCi/g					
Potassium-40		23.8		0.419	+/-1.10	1.00	pCi/g					
Radium-223	U	0.0635		0.832	+/-0.285		pCi/g					
Radium-224	UI	4.51	R,R5a	0.834	+/-0.379		pCi/g					
Radium-226		1.16		0.082	+/-0.0775		pCi/g					
Radium-228		1.68		0.171	+/-0.166	0.500	pCi/g					
Ruthenium-106	U	-0.135		0.382	+/-0.121	0.800	pCi/g					
Sodium-22	U	-0.00597		0.0617	+/-0.0189	0.080	pCi/g					

LMF
3/24/10

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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7983
246344002

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"

Strontium-85	UI	0.0687	R,R5a	0.0558	+/-0.0169	pCi/g					
Thallium-208		0.483		0.0455	+/-0.0359	pCi/g					
Thorium-227	U	0.0179		0.522	+/-0.154	pCi/g					
Thorium-231	U	0.0635		0.832	+/-0.285	pCi/g					
Thorium-234	U	1.85		2.27	+/-1.08	pCi/g					
Tin-113	U	0.0158		0.0596	+/-0.0169	pCi/g					
Uranium-235	U	0.0119		0.311	+/-0.0955	pCi/g					
Yttrium-88	U	0.00964		0.0423	+/-0.0122	pCi/g					

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		199		174	+/-56.4	pCi/L		KXK2	02/20/10	0116	953095	7
---------	--	-----	--	-----	---------	-------	--	------	----------	------	--------	---

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109 *	(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
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7984
Sample ID: 246344003
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 5.24%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	-0.00167	0.0201	+/-0.00173	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.000372	0.0204	+/-0.00164	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00	0.0154	+/-0.00133	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.591	0.0838	+/-0.0616	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236	U	0.0534	0.0535	+/-0.0153	0.100	pCi/g						
Uranium-238		0.701	0.0572	+/-0.0698	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0412	0.245	+/-0.0775	0.200	pCi/g		MXR1	02/18/10	1658	950787	6
Bismuth-211	UI	3.29	R,R5a	0.348	+/-0.228	pCi/g						
Bismuth-214		1.04		0.109	+/-0.0876	pCi/g						
Cadmium-109	UI	2.05	R,R5a	1.34	+/-0.540	pCi/g						
Cerium-139	U	-0.023	0.0496	+/-0.0151	0.050	pCi/g						
Cesium-134	U	0.0733	0.0835	+/-0.0226	0.100	pCi/g						
Cesium-137	U	-0.0129	0.0611	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.0069	0.0678	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.115	0.162	+/-0.0747	0.200	pCi/g						
Lanthanum-140	U	-0.0689	0.127	+/-0.044		pCi/g						
Lead-212		1.45	0.0958	+/-0.0747	0.100	pCi/g						
Lead-214		1.15	0.112	+/-0.0847	0.100	pCi/g						
Mercury-203	U	0.0224	0.0714	+/-0.0199	0.100	pCi/g						
Potassium-40		33.8	0.496	+/-1.54	1.00	pCi/g						
Radium-223	U	0.0503	1.01	+/-0.331		pCi/g						
Radium-224	UI	3.55	R,R5a	1.09	+/-0.706	pCi/g						
Radium-226		1.04	0.109	+/-0.0876		pCi/g						
Radium-228		1.70	0.195	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.12	0.486	+/-0.149	0.800	pCi/g						
Sodium-22	U	-0.00743	0.0759	+/-0.023	0.080	pCi/g						

LMF
3/24/10

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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7984
246344003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Strontium-85	U	0.0439	0.0627	+/-0.0194		pCi/g						
Thallium-208		0.480	0.0591	+/-0.0404	0.080	pCi/g						
Thorium-227	U	-0.0342	0.629	+/-0.190		pCi/g						
Thorium-231	U	0.0503	1.01	+/-0.331		pCi/g						
Thorium-234	U	1.41	2.15	+/-0.808	2.00	pCi/g						
Tin-113	U	0.000865	0.0737	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0166	0.367	+/-0.108	0.500	pCi/g						
Yttrium-88	U	-0.00171	0.0467	+/-0.0145	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium	U	114	173	+/-53.6	250	pCi/L		KXK2	02/20/10	0408	953095	7

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(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
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7982
Sample ID: 246344004
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 15.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00247	0.0222	+/-0.00188	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00169	0.026	+/-0.0017	0.050	pCi/g		KXM4	02/20/10	1431	950610	4
Plutonium-239/240	U	0.00508	0.0196	+/-0.00294	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.06	0.0915	+/-0.0971	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236	U	0.0538	0.0583	+/-0.016	0.100	pCi/g						
Uranium-238		1.23	0.0625	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.214	0.377	+/-0.118	0.200	pCi/g		MXR1	02/18/10	1659	950787	6
Bismuth-211	UI	4.42	R,R5a	0.365	+/-0.306	pCi/g						
Bismuth-214		1.20		0.137	+/-0.104	pCi/g						
Cadmium-109	UI	3.23	R,R5a	1.65	+/-0.546	pCi/g						
Cerium-139	U	-0.0079		0.0594	+/-0.018	pCi/g						
Cesium-134	U	0.0961		0.110	+/-0.0401	pCi/g						
Cesium-137	U	0.0256		0.0836	+/-0.0247	pCi/g						
Cobalt-60	U	0.0124		0.0744	+/-0.0221	pCi/g						
Europium-152	U	-0.103		0.186	+/-0.0717	pCi/g						
Lanthanum-140	U	-0.0111		0.194	+/-0.0592	pCi/g						
Lead-212		1.76		0.102	+/-0.0891	pCi/g						
Lead-214		1.54		0.127	+/-0.114	pCi/g						
Mercury-203	U	-0.0598		0.0803	+/-0.0249	pCi/g						
Potassium-40		25.8		0.783	+/-1.37	pCi/g						
Radium-223	U	-0.865		1.30	+/-0.410	pCi/g						
Radium-224	UI	4.91	R,R5a	1.16	+/-0.806	pCi/g						
Radium-226		1.20		0.137	+/-0.104	pCi/g						
Radium-228		1.87		0.264	+/-0.201	pCi/g						
Ruthenium-106	U	0.163		0.668	+/-0.198	pCi/g						
Sodium-22	U	-0.0149		0.0878	+/-0.0278	pCi/g						

LMF
3/24/10

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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7982
246344004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Strontium-85	U	0.0468	0.075	+/-0.0238		pCi/g						
Thallium-208		0.500	0.074	+/-0.0467	0.080	pCi/g						
Thorium-227	U	0.299	0.792	+/-0.237		pCi/g						
Thorium-231	U	-0.865	1.30	+/-0.410		pCi/g						
Thorium-234	U	2.43	2.99	+/-1.06	2.00	pCi/g						
Tin-113	U	-0.00663	0.0856	+/-0.0257	0.100	pCi/g						
Uranium-235	U	0.257	0.435	+/-0.129	0.500	pCi/g						
Yttrium-88	U	0.00382	0.063	+/-0.0188	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		204	173	+/-56.4	250	pCi/L		KXK2	02/20/10	0546	953095	7

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(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
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7985
Sample ID: 246344005
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 47.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241		0.0271	0.0204	+/-0.00618	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0109	0.024	+/-0.00417	0.050	pCi/g		KXM4	02/20/10	1431	950610	4
Plutonium-239/240		0.0789	0.0181	+/-0.0121	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		6.18	0.142	+/-0.501	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.591	0.0905	+/-0.078	0.100	pCi/g						
Uranium-238		22.6	0.0969	+/-1.74	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.313	0.588	+/-0.200	0.200	pCi/g		MXR1	02/18/10	1702	950787	6
Bismuth-211	UI	3.93	R,R5a	0.471	+/-0.341	pCi/g						
Bismuth-214		1.34		0.146	+/-0.124	pCi/g						
Cadmium-109	UI	4.58	R,R5a	1.90	+/-0.957	pCi/g						
Cerium-139	U	0.00753		0.0689	+/-0.0216	pCi/g						
Cesium-134	U	0.0548		0.0965	+/-0.0275	pCi/g						
Cesium-137		1.96		0.0732	+/-0.109	pCi/g						
Cobalt-60	U	-0.0014		0.0744	+/-0.0235	pCi/g						
Europium-152	U	-0.0752		0.210	+/-0.077	pCi/g						
Lanthanum-140	U	-0.0245		0.183	+/-0.0575	pCi/g						
Lead-212		1.57		0.120	+/-0.117	pCi/g						
Lead-214		1.37		0.156	+/-0.124	pCi/g						
Mercury-203	U	0.0326		0.103	+/-0.0307	pCi/g						
Potassium-40		22.0		0.747	+/-1.37	pCi/g						
Radium-223	U	-0.464		1.59	+/-0.499	pCi/g						
Radium-224	UI	4.62	R,R5a	1.37	+/-0.978	pCi/g						
Radium-226		1.34		0.146	+/-0.124	pCi/g						
Radium-228		1.63		0.242	+/-0.198	pCi/g						
Ruthenium-106	U	-0.102		0.624	+/-0.201	pCi/g						
Sodium-22	U	-0.0064		0.0789	+/-0.0251	pCi/g						

LMF
3/24/10

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: February 25, 2010

Client Sample ID: RE15-10-7985
Sample ID: 246344005

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"

Strontium-85	UI	0.214	R,R5a	0.106	+/-0.0295						pCi/g
Thallium-208		0.438		0.0771	+/-0.0511	0.080					pCi/g
Thorium-227	U	0.220		0.891	+/-0.267						pCi/g
Thorium-231	U	-0.464		1.59	+/-0.499						pCi/g
Thorium-234		17.6		4.30	+/-2.82	2.00					pCi/g
Tin-113	U	-0.0127		0.105	+/-0.0328	0.100					pCi/g
Uranium-235		0.531		0.460	+/-0.198	0.500					pCi/g
Yttrium-88	U	-0.00743		0.0573	+/-0.0184	0.100					pCi/g

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		238		173	+/-57.7	250	pCi/L	KXK2	02/20/10	0724 953095	7
---------	--	-----	--	-----	---------	-----	-------	------	----------	-------------	---

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.9	(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
3/24/10

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1570

LOS ALAMOS

REQUEST NUMBER: 10-1570

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

246344%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7981	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7981	1	POLY	H3	Ice	R
RE15-10-7981	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7981	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7983	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7983	1	POLY	H3	Ice	R
RE15-10-7983	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7983	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7984	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7984	1	POLY	H3	Ice	R
RE15-10-7984	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7984	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7982	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7982	1	POLY	H3	Ice	R
RE15-10-7982	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7982	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7985	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7985	1	POLY	H3	Ice	R
RE15-10-7985	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7985	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

2/3/10

1400

Printed Name

Signature

PATRICIA DAVIS-DOT P.D. WAT 2/5/10 09:00

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Wednesday, February 03, 2010

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

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

Page 1 of 3

REQUEST NUMBER: 10-1570

These Samples are on:

LANL Request Number: 10-1570

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

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-901.1		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
EPA-906.0		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	

Wednesday, February 03, 2010

Page 2 of 3

REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-906.0	1	RE15-10-7985	R	2/1/2010	
	HASL-300:AM-241	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	HASL-300:ISOPU	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	HASL-300:ISOU	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:6020	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:8850	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:7471A	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	

Wednesday, February 03, 2010

Page 3 of 3

REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:9012A	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1570



February 10, 2010

www.gel.com

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

Re: LANL ER Project
Work Order: 246344
SDG: 10-1570

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 05, 2010, and analyzed for Explosives by LCMSMS, 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,

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1570
Enclosures

Los Alamos National Laboratory (72733-001-09)

LANL ER Project

Work Order #: 246344

SDG: 10-1570

TABLE OF CONTENTS

Case Narrative.....	1
Chain of Custody and Supporting Documentation.....	4
Data Review Qualifier Flag Definition Sheet.....	17
LC/MS/MS Perchlorate Analysis.....	19
Sample Data Summary.....	24
Quality Control Summary.....	30
Sample Data.....	53
Standards Data.....	53
Quality Control.....	78
Miscellaneous Data.....	83
LC/MS/MS Explosives Analysis.....	92
Sample Data Summary.....	98
Quality Control Summary.....	109
Sample Data.....	257
Standards Data.....	293
Quality Control Data.....	557
Miscellaneous Data.....	587
Metals Analysis.....	609
Case Narrative.....	610
Sample Data Summary.....	616
Quality Control Summary.....	622
Standards.....	710
Raw Data.....	722
Miscellaneous.....	1156
General Chemistry Analysis.....	1193
Case Narrative.....	1194

Sample Data Summary.....	1199
Quality Control Summary.....	1206
Instrument QC Data Summary.....	1209
Cyanide, Total.....	1211
Miscellaneous.....	1223
 Radiological Analysis.....	 1225
Sample Data Summary.....	1238
Quality Control Data.....	1255
Raw Data.....	1263
Background and Efficiency Data.....	1757
Standards Data.....	1846
Runlogs.....	1881

Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246344
SDG # : 10-1570**

February 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 February 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 9-14C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985

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, 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.



Valerie Davis

Project Manager

List of current GEL Certifications as of 10 February 2010

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

Chain of Custody and Supporting Documentation

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1570

LOS ALAMOS

REQUEST NUMBER: 10-1570

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

246344%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7981	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7981	1	POLY	H3	Ice	R
RE15-10-7981	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7981	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7983	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7983	1	POLY	H3	Ice	R
RE15-10-7983	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7983	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7984	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7984	1	POLY	H3	Ice	R
RE15-10-7984	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7984	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7982	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7982	1	POLY	H3	Ice	R
RE15-10-7982	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7982	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7985	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE15-10-7985	1	POLY	H3	Ice	R
RE15-10-7985	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7985	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Wednesday, February 03, 2010

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

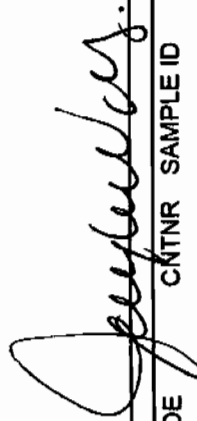
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



These Samples are on:

LANL Request Number: 10-1570

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA:901.1						
		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
EPA:906.0						
		1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	

Wednesday, February 03, 2010

Page 2 of 3
REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-906.0	1	RE15-10-7985	R	2/1/2010	
	HASL-300:AM-241	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	HASL-300:ISOPU	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	HASL-300:ISOU	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:6020	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:6850	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:7471A	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1570

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	
	SW-846:9012A	1	RE15-10-7981	R	2/1/2010	
		1	RE15-10-7982	R	2/1/2010	
		1	RE15-10-7983	R	2/1/2010	
		1	RE15-10-7984	R	2/1/2010	
		1	RE15-10-7985	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1570



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL		SDG/ARCOC/Work Order: 10-1570	
Received By: Patricia Dover-Dent		Date Received: February 5, 2009	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 80 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags blue ice dry ice none other (describe) 3-6 9-14C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: time written on containers, not on COC
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 9021 3C	7209 7849 8963 4C	7209 7849 8724 6C	7209 7849 8665 12C
7209 7849 9065 3C	7209 7849 8805 4C	7209 7849 9043 6C	7209 7849 8676 13C
7209 7849 9010 3C	7209 7849 8779 4C	7209 7849 8827 6C	7209 7849 9000 14C
7209 7849 8780 4C	7209 7849 8838 5C	7209 7849 9124 6C	
7209 7849 8735 4C	7209 7849 8816 5C	7209 7849 8941 9C	
7209 7849 8713 4C	7209 7849 8790 5C	7209 7849 8952 10C	
7209 7849 8746 4C	7209 7849 9054 6C	7209 7849 8687 11C	
7209 7849 8974 4C	7209 7849 8702 6C	7209 7849 8698 12C	

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 83
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTNGT: 52.0 LB MAN
CAO: 0014176/CAPE2449
BILL SENDER

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 83
LOS ALAMOS, NM 87545
UNITED STATES US

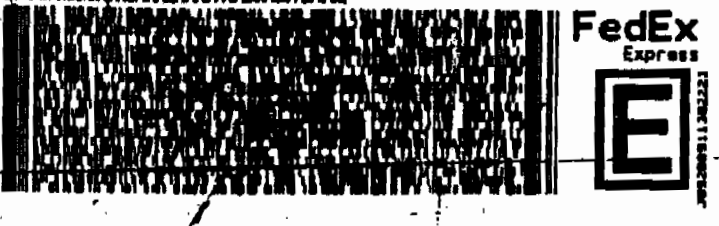
SHIP DATE: 04FEB10
ACTNGT: 52.0 LB MAN
CAO: 0014176/CAPE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWKO

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR3A00332VRA00



TRKH 7209 7849 9021
0201 FRI - 05FEB A1
PRIORITY OVERNIGHT

TRKH 7209 7849 9065
0201 FRI - 05FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

XX CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 83
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTNGT: 56.0 LB MAN
CAO: 0014176/CAPE2449
BILL SENDER

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 83
LOS ALAMOS, NM 87545
UNITED STATES US

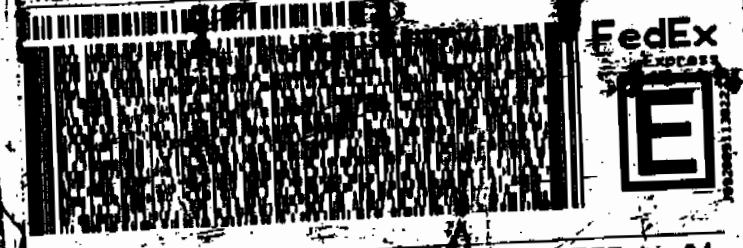
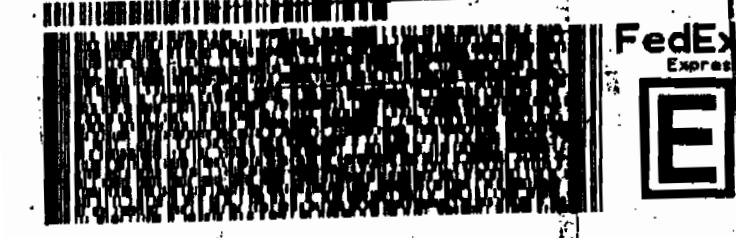
SHIP DATE: 04FEB10
ACTNGT: 59.0 LB MAN
CAO: 0014176/CAPE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWKO

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWKO



3 of 3
NPSH 7209 7849 9010
0263
MatrN 7209 7849 8996 0201
FRI - 05FEB A1
PRIORITY OVERNIGHT

2 of 2
NPSH 7209 7849 8780
0263
MatrN 7209 7849 8779 0201
FRI - 05FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

XX CHSA

29407
SC-US
CHS

ALAMOS NATL LAB
0 BLDG 1237 DPU 03
ALAMOS, NM 87548
TED STATES US

ACTMST: 46.0 LB-MAN
CAD: 0014176/CAFE2449

BILL GENDER

ILERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

40

ARLESTON SC 29407

(843) 556-8171
REF: 68010AMR1A0150GK0

0014176/CAFE2449



FedEx
Express



0014176/CAFE2449

2 of 3
7209 7849 8735

7209 7849 8724 (0201)

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



ALAMOS NATL LAB
0 BLDG 1237 DPU 03
ALAMOS, NM 87548
TED STATES US

SHIP DATE: 04FEB10
ACTMST: 46.0 LB-MAN
CAD: 0014176/CAFE2449

BILL GENDER

ILERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

40

ARLESTON SC 29407

(843) 556-8171
REF: 68010AMR1A0150GK0

0014176/CAFE2449



FedEx
Express



0014176/CAFE2449

3 of 3
7209 7849 8746

7209 7849 8724 (0201)

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

SHIP ID: 50FA (505) 605-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

SHIP DATE: 04FEB10
ACTMST: 50.0 LB-MAN
CAD: 0014176/CAFE2449

BILL GENDER

LOS ALAMOS, NM 87548
UNITED STATES US

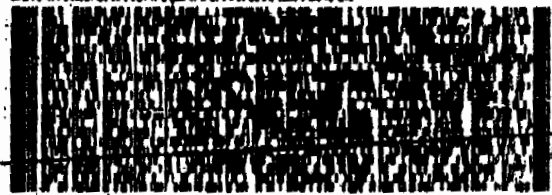
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

40

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR3A0520A00

0014176/CAFE2449



FedEx
Express



0014176/CAFE2449

7209 7849 8713

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



ALAMOS NATL LAB
0 BLDG 1237 DPU 03
ALAMOS, NM 87548
UNITED STATES US

SHIP DATE: 04FEB10
ACTMST: 50.0 LB-MAN
CAD: 0014176/CAFE2449

BILL GENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

40

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR3A0520A00

0014176/CAFE2449



FedEx
Express



0014176/CAFE2449

MPSH 2 of 2
7209 7849 8974
Mstr 7209 7849 8963 (0201)

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN: SAFA (805) 865-0068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DMU 83
LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTMGT: 57.8 LB MAN
CAG: 0014176/CAFE2449
BILL SENDER

ORIGIN: ID: SAFA (805) 865-0068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DMU 83
LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTMGT: 57.8 LB MAN
CAG: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010NR1A015AGWKO

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010NR1A015AGWKO

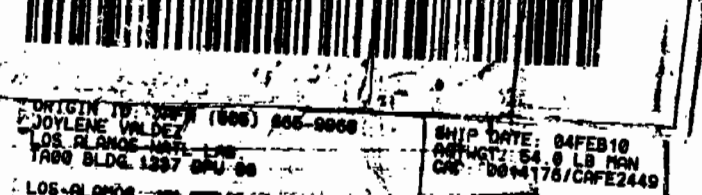
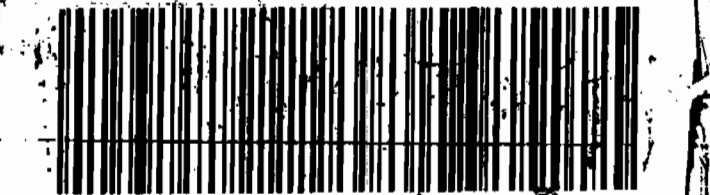


1 of 2
TRKH 7209 7849 8963
201
FRI - 05FEB A1
PRIORITY OVERNIGHT
MASTER NH

2 of 2
TRKH 7209 7849 8805
201
FRI - 05FEB A1
PRIORITY OVERNIGHT
MASTER NH

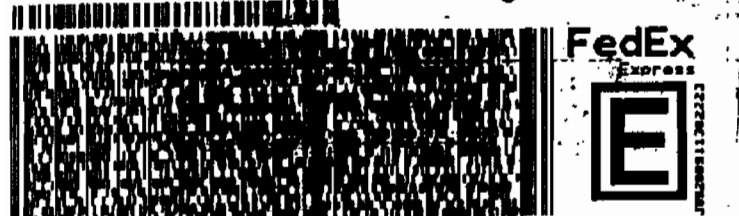
FedEx
TRKH 7209 7849 8963
201
FRI - 05 FEB A1
PRIORITY OVERNIGHT
XX CHSA
29407
SC-US
CHS

29407
SC-US
CHS
XX CHSA



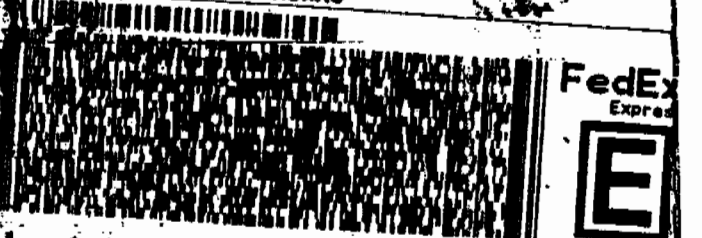
LOS ALAMOS NM 87545
UNITED STATES US
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010NR1A015AGWKO



1 of 2
RKH 7209 7849 8779
201
FRI - 05FEB A1
PRIORITY OVERNIGHT
MASTER NH
29407
SC-US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD
CHARLESTON SC 29407
(843) 556-8171
REF: 68010NR1A015AGWKO



1 of 2
RKH 7209 7849 8838
201
FRI - 05FEB A1
PRIORITY OVERNIGHT
MASTER NH
29407
SC-US
CHS
XX CHSA

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

SHIP DATE: 04FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

LOS ALAMOS, NM 87545
UNITED STATES US

ERIE DAVIS
ERAL ENGINEERING LAB
0 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR1A015AGMKO

FedEx
Express



1 of 2

7209 7849 8816

MASTER NH

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGE BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR3A0532VAD0

FedEx
Express



2 of 2

PSH 7209 7849 9054

1263 7209 7849 9043 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR1A015AGMKO

FedEx
Express



1 of 2

TRKH 7209 7849 8790

MASTER NH

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGE BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

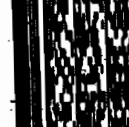
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 68010AMR1A0520A00

FedEx
Express



3 of 3

NPSH 7209 7849 8702

0263 7209 7849 8687 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (506) 605-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWT: 49.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

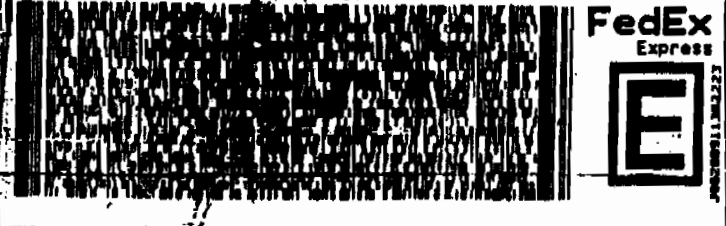
SHIP DATE: 04FEB10
ACTWT: 59.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR3A0332VRA00



1 of 3
TRKH 7209 7849 8724
0201
NN MASTER NN
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
XX CHSA

1 of 2
TRKH 7209 7849 9043
0201
NN MASTER NN
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA



ORIGIN ID: SAFA (506) 605-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWT: 60.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

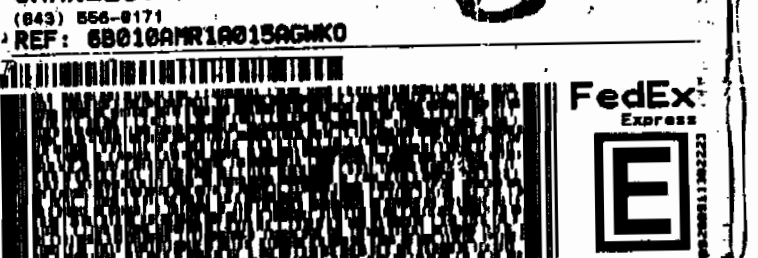
CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO

ORIGIN ID: SAFA (506) 605-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWT: 57.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO



2 of 2
PSH 7209 7849 8827
263
strH 7209 7849 8816 0201
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA

2 of 2
TRKH 7209 7849 9124
0201
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA

LOS ALAMOS NATL LAB
TA90 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 59.8 LB MAN
CRD: 0014176/CAFE2449

BILL SENDER

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA90 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 61.0 LB MAN
CRD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

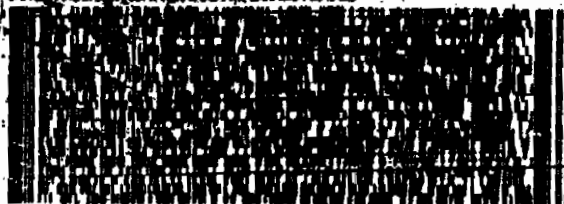
CHARLESTON SC 29407

(843) 566-8171
REF: 6B010AMR3A0520A00

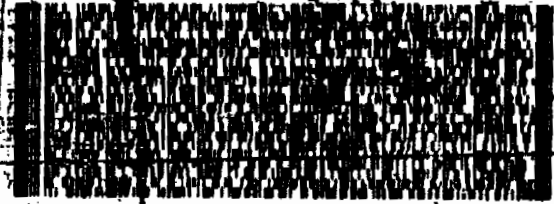
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171
REF: 6B010AMR3A0520A00



FedEx
Express



FedEx
Express



1 of 2
TRKH 7209 7849 8941
0201
NM MASTER NM

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



2 of 2
NPSH 7209 7849 8952
0263
Matr-N 7209 7849 8941 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



ORIGIN ID: SAFA (505) 666-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA90 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 62.8 LB MAN
CRD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171
REF: 6B010AMR3A0520A00



FedEx
Express



ORIGIN ID: SAFA (505) 666-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA90 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 40.0 LB MAN
CRD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171
REF: 6B010AMR3A0520A00



FedEx
Express



1 of 3
TRKH 7209 7849 8687
0201
NM MASTER NM

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

2 of 3
NPSH 7209 7849 8698
0263
Matr-N 7209 7849 8687 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

09-09

JAN 10 1997
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

BILL SENDER

120
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 558-8171
REF: 6B0100NR3A0520A00

001100NR3A0520A00

FedEx
Express



1 of 2
TPS# 7209 7849 8665
0263
Matr# 7209 7849 8665 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA



15014176-434 NRT V3 09-03

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

140
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 558-8171
REF: 6B0100NR1A015AGNKO

001100NR1A015AGNKO

FedEx
Express



2 of 3
TPS# 7209 7849 9000
0263
Matr# 7209 7849 8995 0201

FRI - 05FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

SHIP DATE: 04FEB10
ACTWT: 38.0 LB MAX
CAD: 0014176/CAFE2449

BILL SENDER

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.

LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1570**

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: 952433

Prep Batch Number: 952429

Sample Analysis

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202041327	Interference Check Sample (ICS)
1202041320	Method Blank (MB)
1202041321	Laboratory Control Sample (LCS)
1202041322	246354001(RE16-10-3612) Matrix Spike (MS)
1202041323	246354001(RE16-10-3612) 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.

10-1570-PERLCMS

Page 1 of 4

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements

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

CCB Requirements

All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements

All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements

All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)

The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Client sample 246354001 (RE16-10-3612) from SDG 1572 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement

The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance

The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time

During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments

The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments

The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio

The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Heather K. Mauer Date: 02/25/10

SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-7981

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Date Received: 05-FEB-10

Instrument: LCMSMS

GEL Job No (SDG): 10-1570

Method: SW846 6850 Modified

GEL Sample ID: 246344001

Matrix: SOIL

Date Filtered: 16-FEB-10

Extraction Batch ID: 952429

Injection Volume (uL): 20

Extraction Type: Solid Prep

%Solids: 75

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:37	per0220019a
14797-73-0	Perchlorate-101	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate-O(18)			6.53	ug/kg		1	20-FEB-10 14:37	per0220019a

[^] 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 =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

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: 952429
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-7983
 Date Received: 05-FEB-10
 GEL Job No (SDG): 10-1570
 GEL Sample ID: 246344002
 Date Filtered: 16-FEB-10
 Injection Volume (uL): 20
 % Solids: 75

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:47	per0220020a
14797-73-0	Perchlorate-101	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate-O(18)			6.78	ug/kg		1	20-FEB-10 14:47	per0220020a

^a 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 =

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

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: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7984

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344003

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:56	per0220021a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate-O(18)			5.35	ug/kg		1	20-FEB-10 14:56	per0220021a

[^] 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 =

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

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: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7982

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344004

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.593	2.37	0.859	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate Isotope Ratio			3.26			1	20-FEB-10 15:34	per0220025a
14797-73-0	Perchlorate-101	.593	2.37	0.837	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate-O(18)			6.05	ug/kg		1	20-FEB-10 15:34	per0220025a

[^] 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 =

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

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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7985

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344005

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 52

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate Isotope Ratio						1	20-FEB-10 15:44	per0220026a
14797-73-0	Perchlorate-101	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate-O(18)			10.0	ug/kg		1	20-FEB-10 15:44	per0220026a

[^] 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 =

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

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1570

Extract Batch Code: 952429

Date Filtered: 16-FEB-10

Matrix: SOIL

Sample ID: 1202041321

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.07	ug/kg	103		70 - 130
Perchlorate Isotope Ratio		3.17				-
Perchlorate-101	2.00	2.07	ug/kg	104		70 - 130
Perchlorate-O(18)		4.8	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.

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG):

10-1570

Extract Batch Code: 952429

Date Filtered:

16-FEB-10

Matrix:

SOIL

Sample ID:

1202041327

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.12	ug/kg	106		70 - 130
Perchlorate Isotope Ratio		3.13				
Perchlorate-101	2.00	2.15	ug/kg	108		70 - 130
Perchlorate-O(18)		4.92	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.

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220018a

Date: 20-Feb-2010

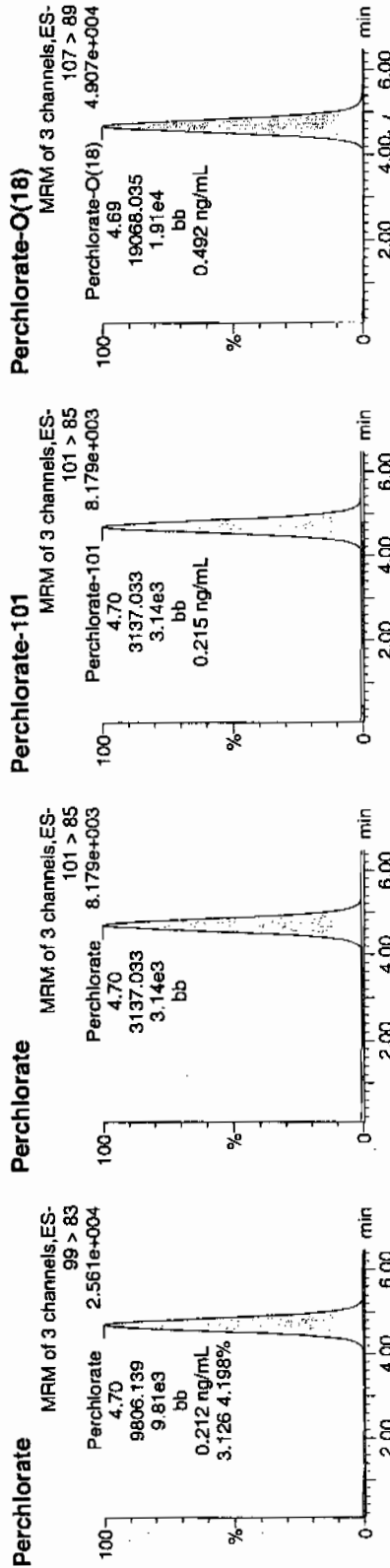
Time: 14:28:01

ID: 1202041327

Vial: 1:4,C

WWD
20-21-10

1202041327 | 5020 | 7.5 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041327	Perchlorate	99 > 83	4.70	9806.139	9806.139	bb			0.2117	105.86	5.86	1088.5...	3.13
1202041327	Perchlorate-101	101 > 85	4.70	3137.033	3137.033	bb			0.2152	107.58	7.58	2681.1...	
1202041327	Perchlorate-O(18)	107 > 89	4.69	19068.035	19068.035	bb			0.4925	98.50	-1.50	5427.9...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1570

Extract Batch Code: 952429

Date Extracted: 16-FEB-10

GEL MS/PS ID: 1202041322

Client ID: RE16-10-3612

GEL MSD/PSD ID: 1202041323

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.17	0.577	ug/kg	2.80	103		2.9	107		3.56		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.2			3.33			0			-
Perchlorate-101	2.17	0.605	ug/kg	2.78	100		2.77	99.8		.511		30	75 - 125
Perchlorate-O(18)	0	5.63	ug/kg	5.36			5.59			4.16			-

^ 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:

Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1570

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20-FEB-10	per0220001a	IPB001
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220001a	IPB001
Perchlorate	0.00	0	NA	20-FEB-10	per0220002a	IPB001
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220002a	IPB001

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022010a.mdb 21 Feb 2010 10:20:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

Name: per0220001a

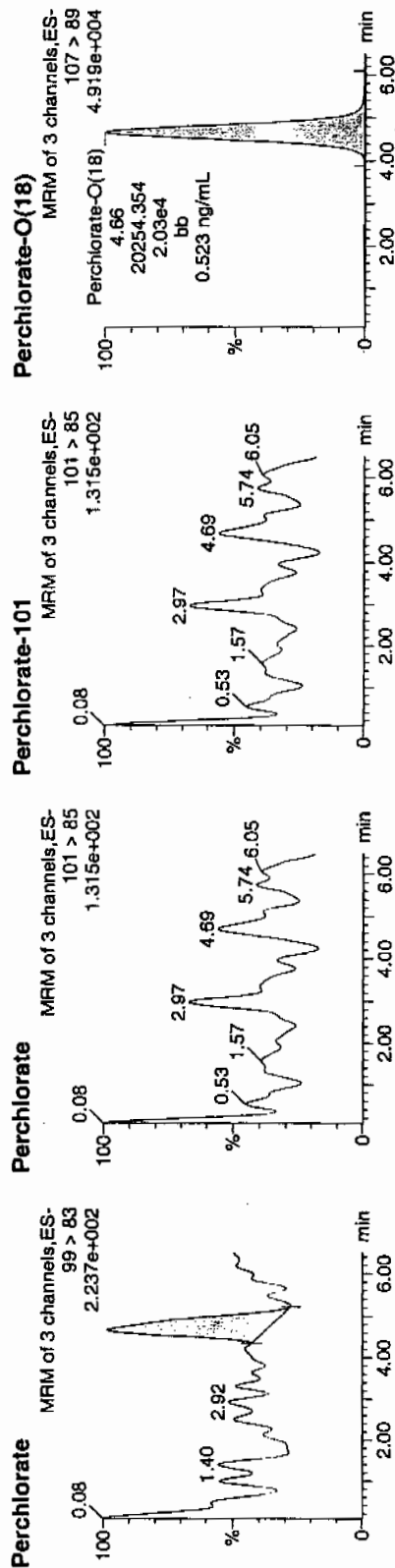
Date: 20-Feb-2010

Time: 11:45:54

ID: IPB001

Vial: 1:1,A

02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	4.66	61.000	61.000	bb			0.0013			9.339	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.66	20254.354	20254.354	bb			0.5231	104.63		4.63	6035.7...

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Page 2 of 107

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Sample Name: per0220002a

Date: 20-Feb-2010

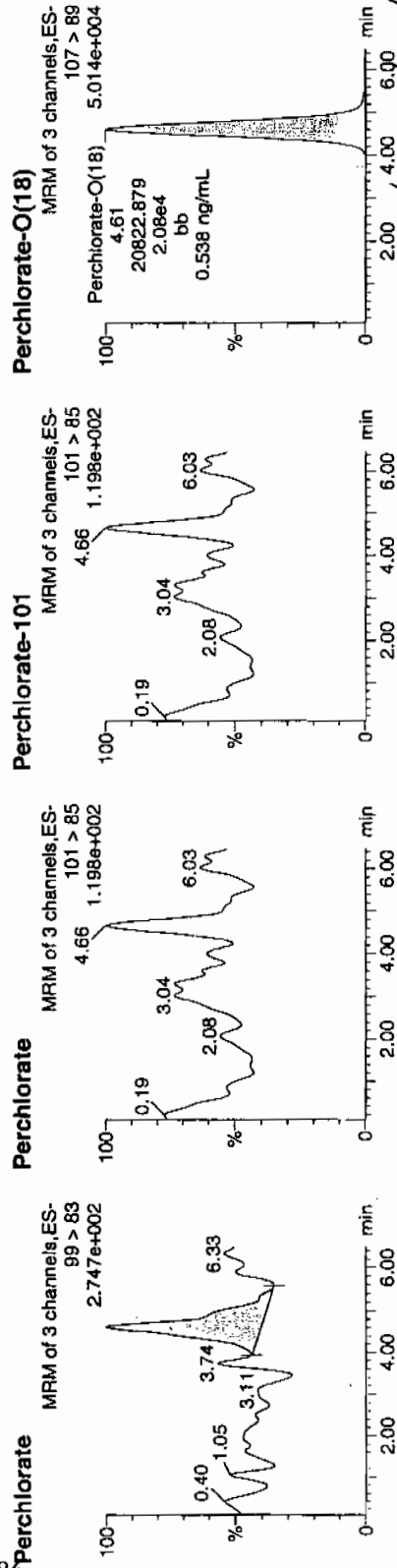
Time: 11:55:26

ID: IPB001

Vial: 1:1,A

88

WWS
02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	4.61	83.510	83.510	bb			0.0018			10.778	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.61	20822.879	20822.879	bb			0.5378	107.56	7.56	9300.6...	

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1570

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20-FEB-10	per0220008a	IPB002
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220008a	IPB002
Perchlorate	0.00	0	NA	20-FEB-10	per0220010a	IPB003
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220010a	IPB003
Perchlorate	0.00	0	NA	20-FEB-10	per0220015a	IPB004
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220015a	IPB004
Perchlorate	0.00	0	NA	20-FEB-10	per0220023a	IPB005
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220023a	IPB005
Perchlorate	0.00	0	NA	20-FEB-10	per0220036a	IPB006
Perchlorate-101	0.00	0	NA	20-FEB-10	per0220036a	IPB006

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Page 8 of 107

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220008a

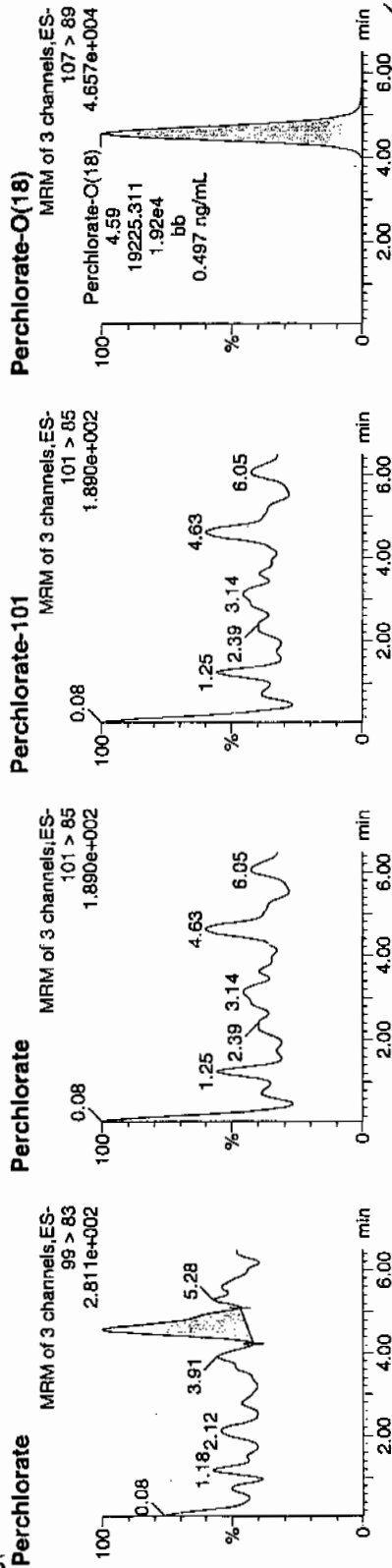
Date: 20-Feb-2010

Time: 12:52:34

ID: IPB002

Vial: 1:1,A

02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	4.58	63.464	63.464	bb			0.0014			18.597	0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-Q(18)	107 > 89	4.59	19225.311	19225.311	bb			0.4966	99.31	-0.69	9318.4...	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Page Name: per0220015a

Date: 20-Feb-2010

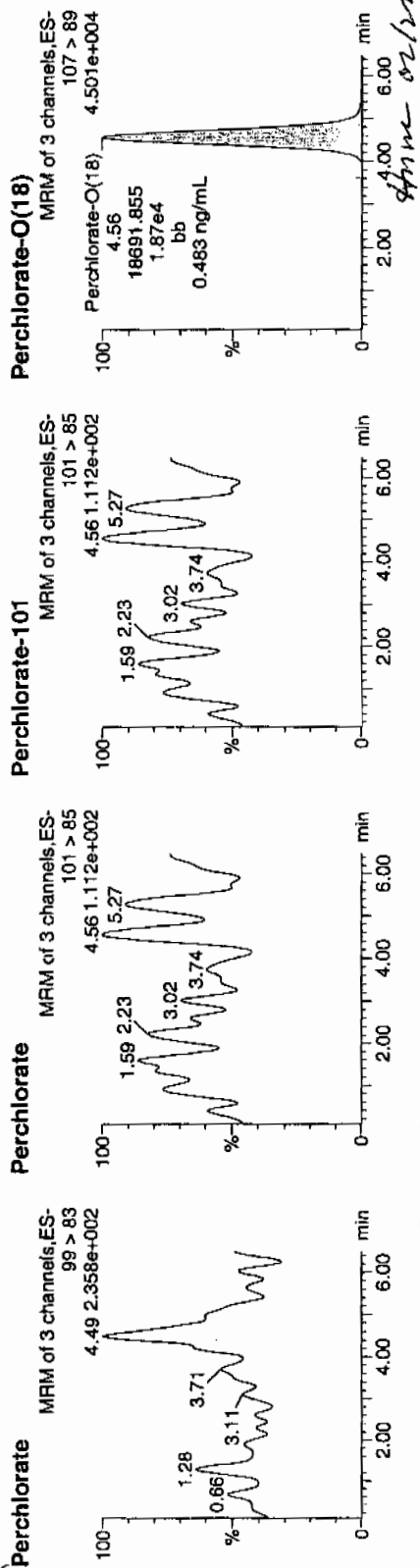
Time: 13:59:24

ID: IPB004

Vial: 1:1,A

86

and
02-21-10



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											
IPB004	Perchlorate-O(18)	107 > 89	4.56	18691.855	18691.855	bb			0.4828	96.56	-3.44	7592.8...	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220023a

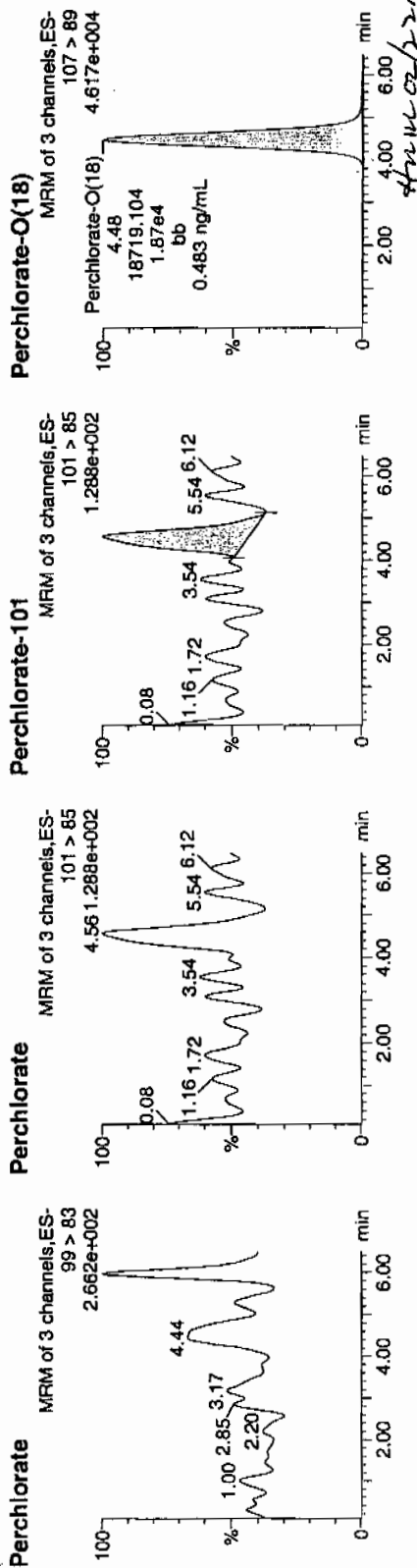
Date: 20-Feb-2010

Time: 15:15:43

ID: IPB005

Vial: 1:1,A

02-21-10



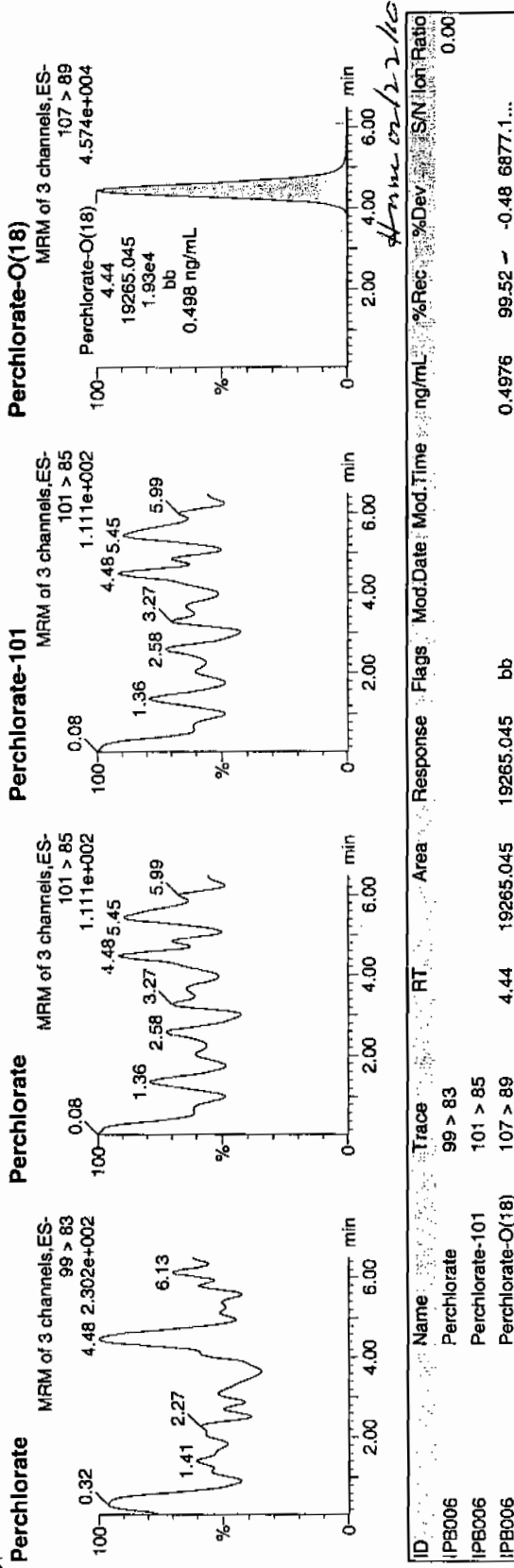
ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	4.56	34.937	34.937	bb			0.0024	96.70	-3.30	3565.0...	0.00
IPB005	Perchlorate-101	101 > 85	4.48	18719.104	18719.104	bb			0.4835				
IPB005	Perchlorate-O(18)	107 > 89											

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Page 36
Name: per0220036a
Date: 20-Feb-2010
Time: 17:19:52
ID: IPB006
Vial: 1:1,A



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

QUANTO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

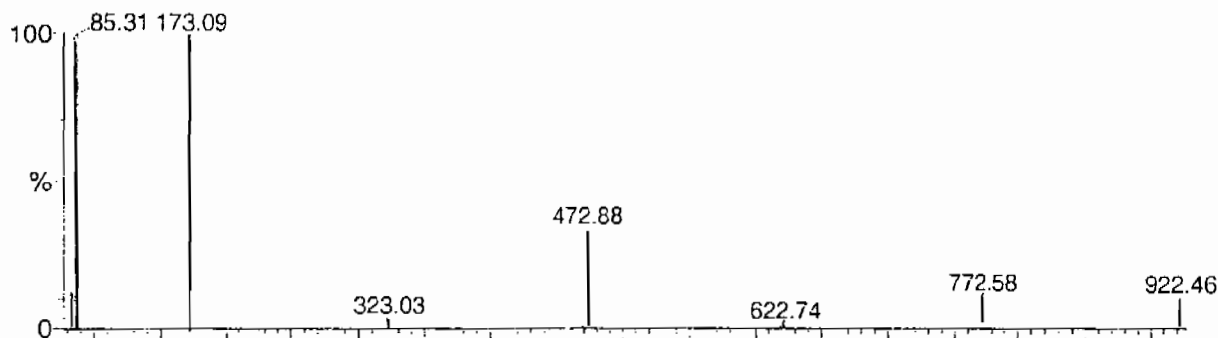
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

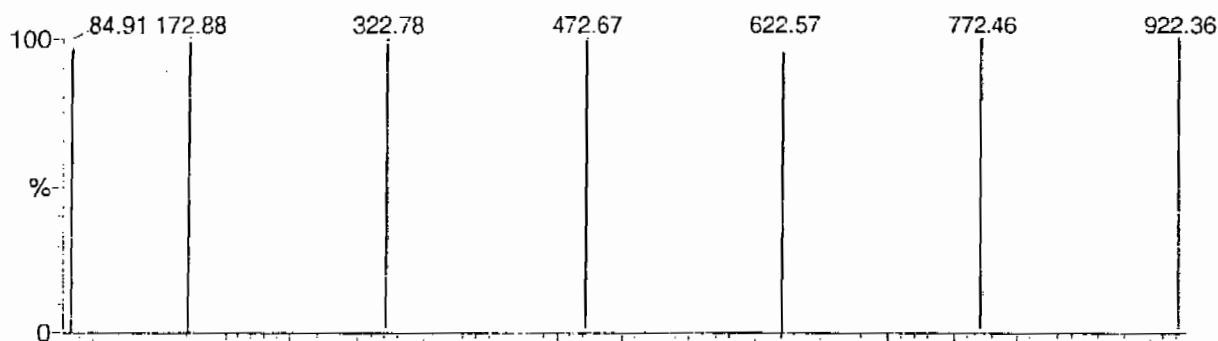
DATA HIGHLIGHTED BY CURVED LINE

Data file: STATMS1 - Uncalibrated

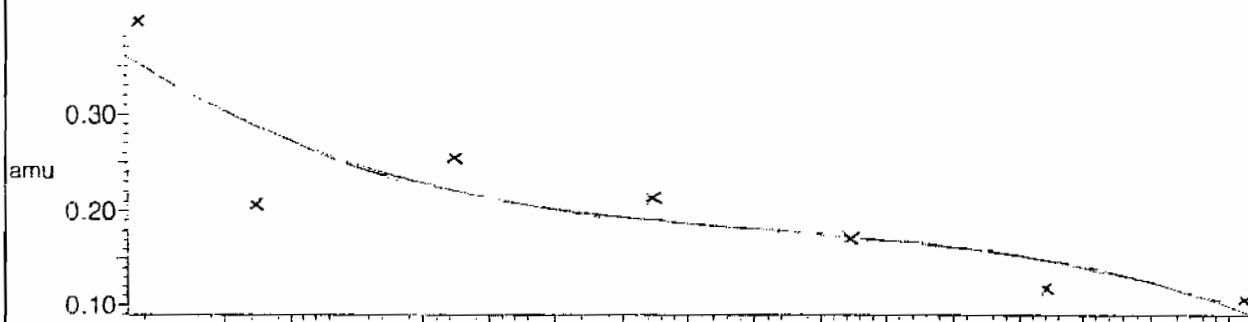
7 matches of 7 tested references



Reference file: Nairb

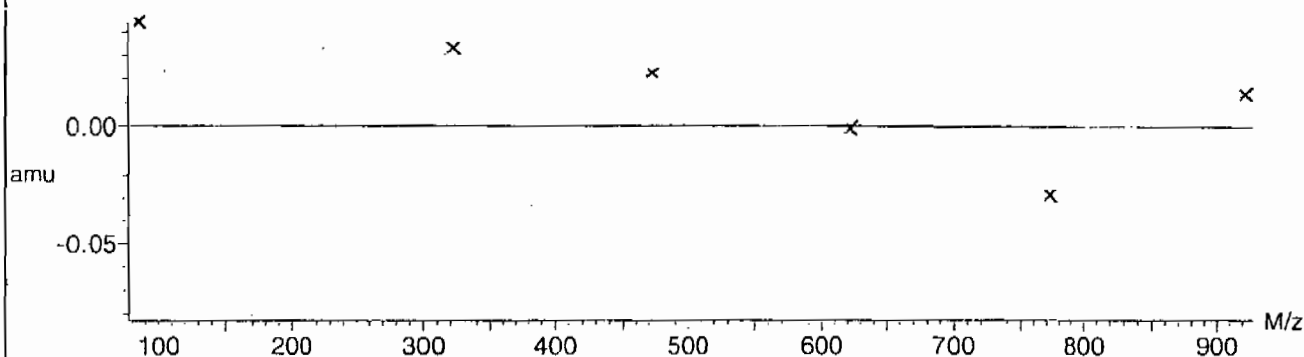


Mass difference (Raw - Ref mass)



Residuals

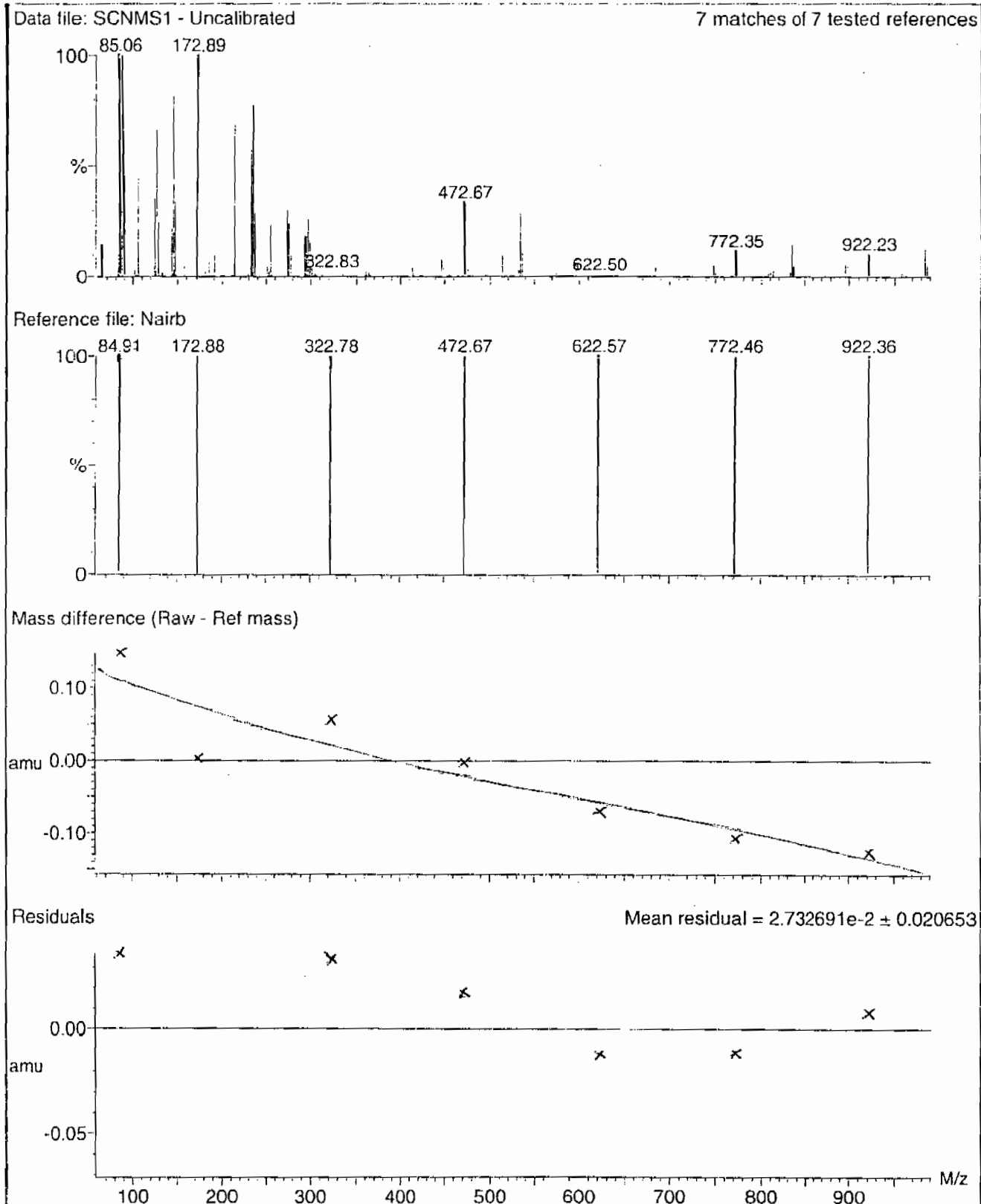
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:20:09 2008



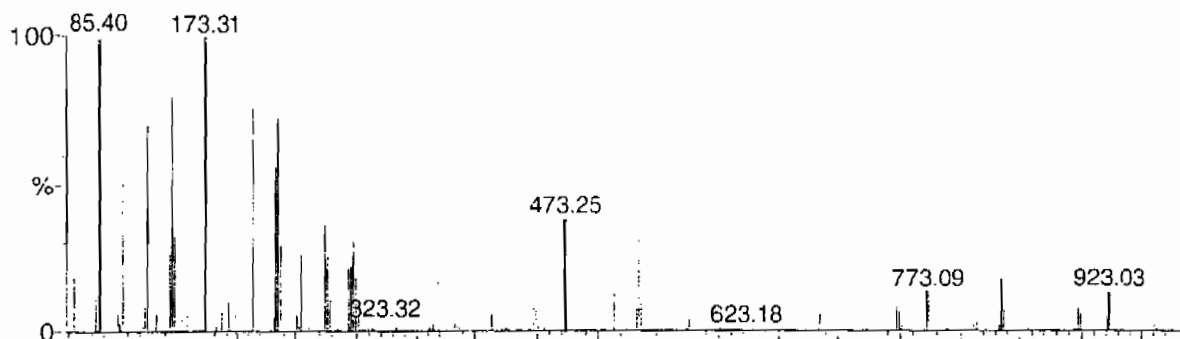
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

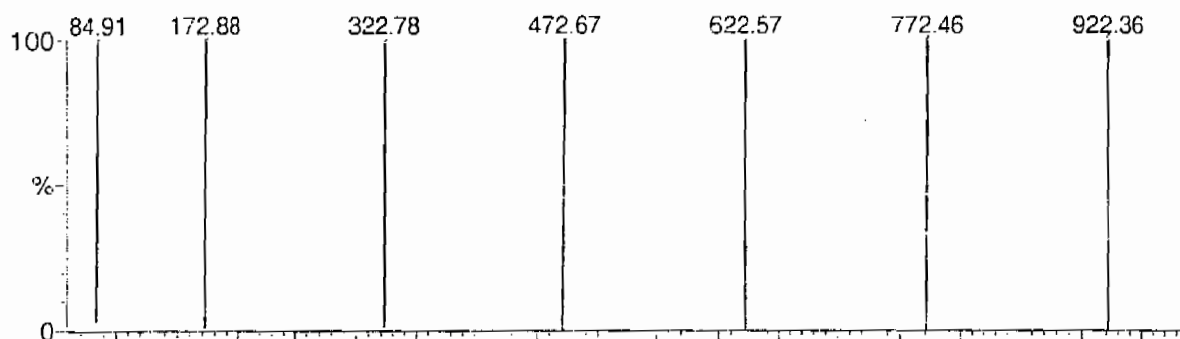
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

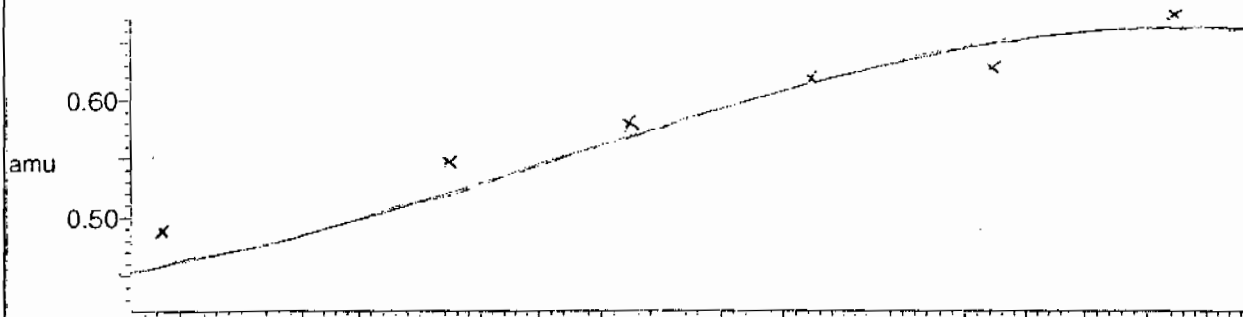
7 matches of 7 tested references



Reference file: Nairb

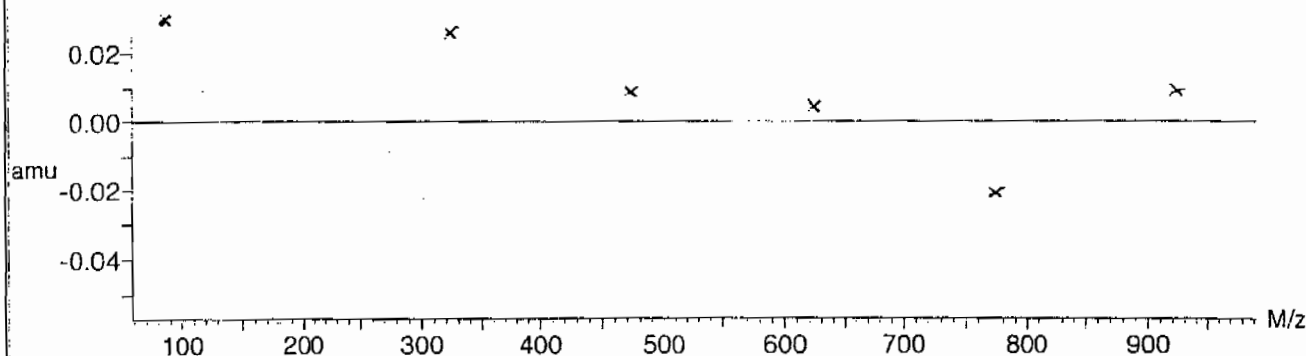


Mass difference (Raw - Ref mass)



Residuals

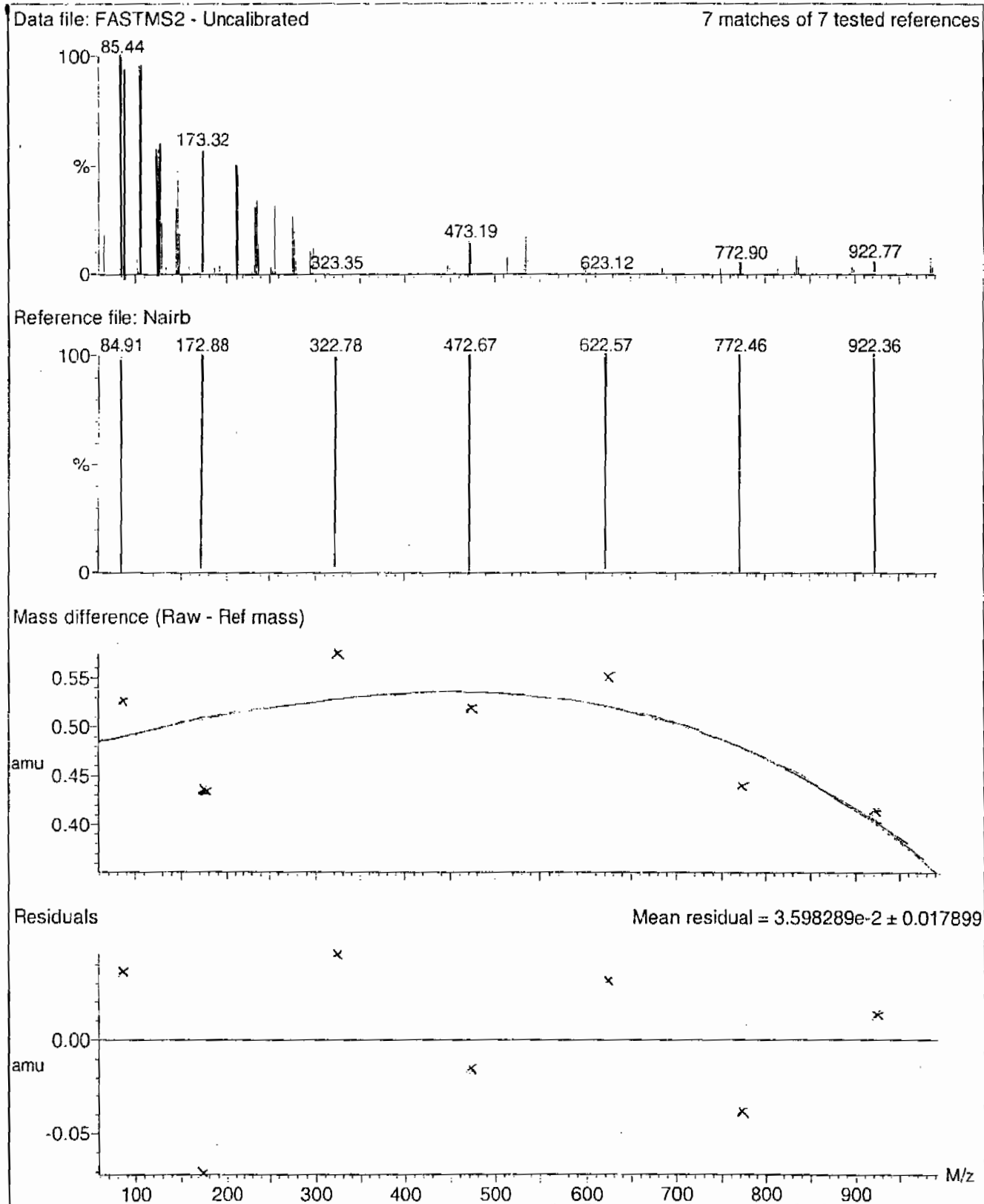
Mean residual = $2.224580 \times 10^{-2} \pm 0.016544$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



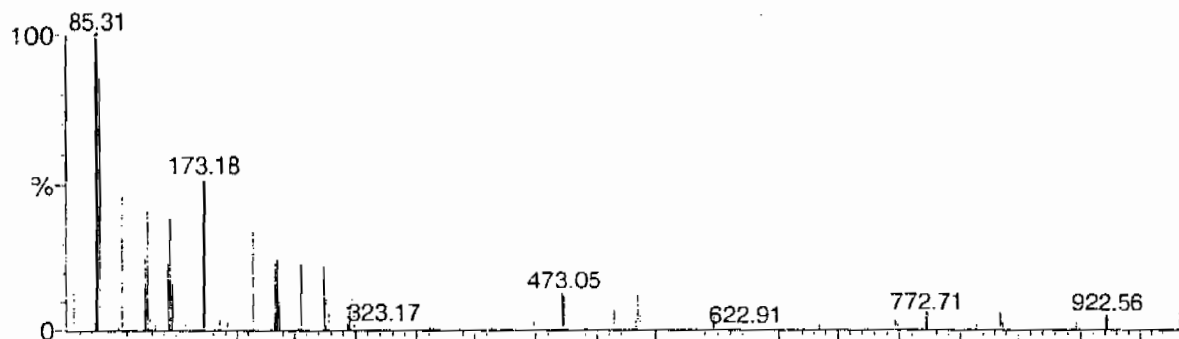
Calibration Report - MS2 Scanning

Page 1 of 1

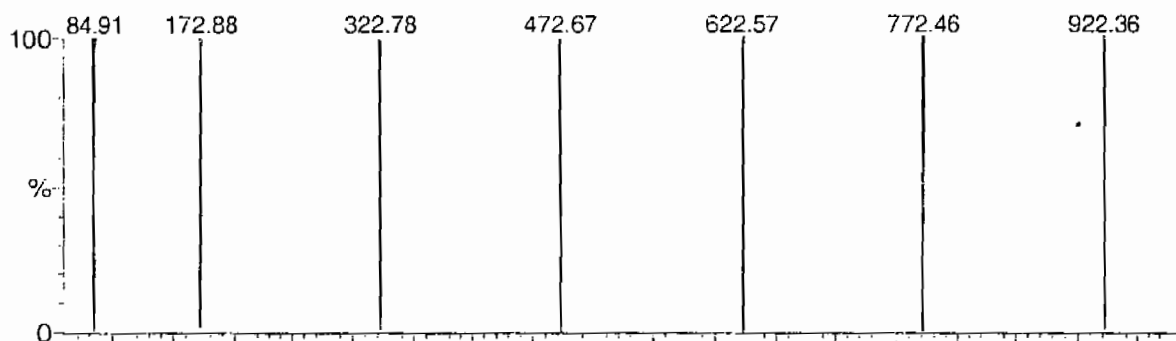
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

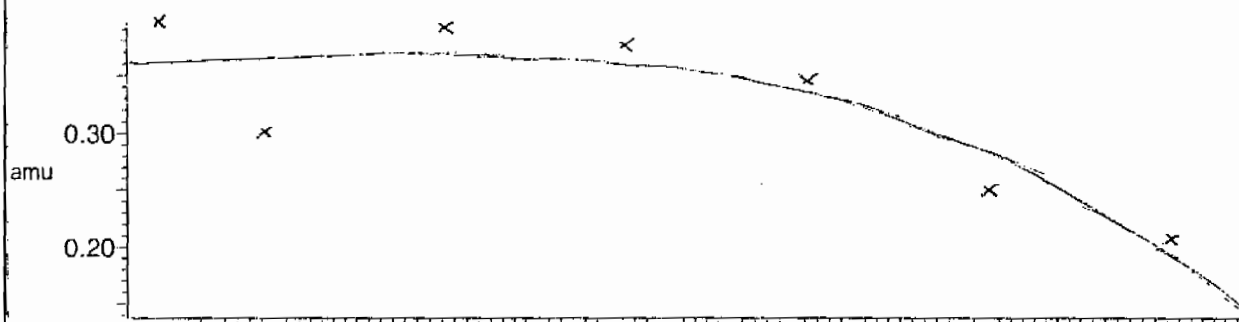
7 matches of 7 tested references



Reference file: Nairb

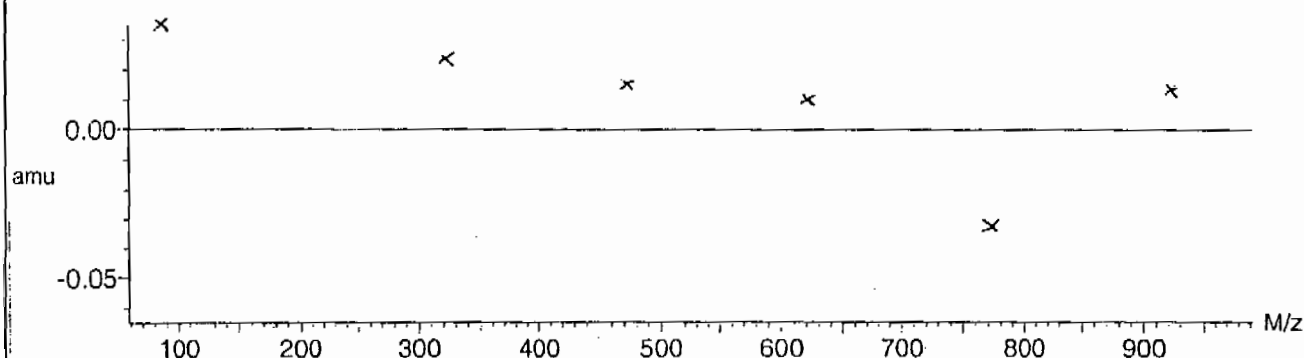


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $2.782494 \times 10^{-2} \pm 0.017442$



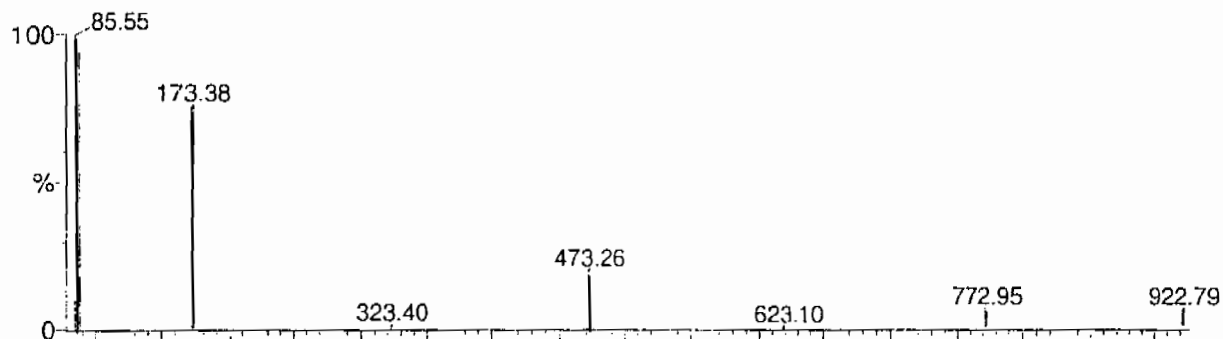
Calibration Report - MS2 Static

Page 1 of 1

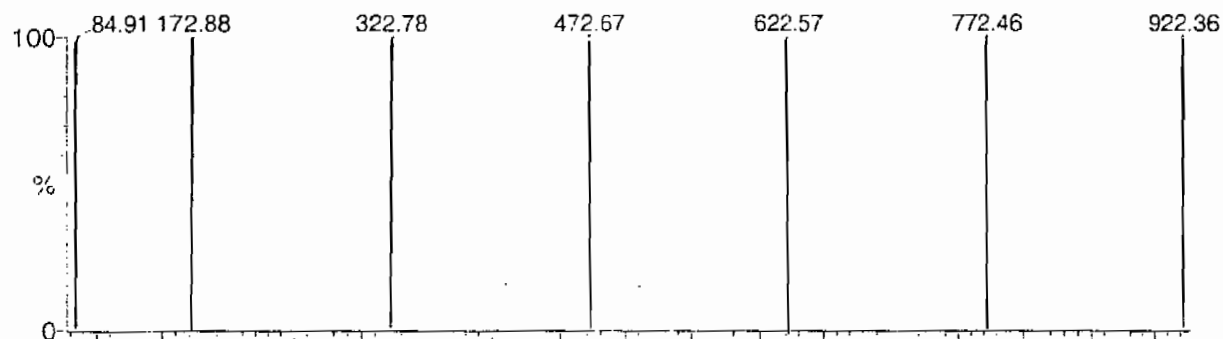
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

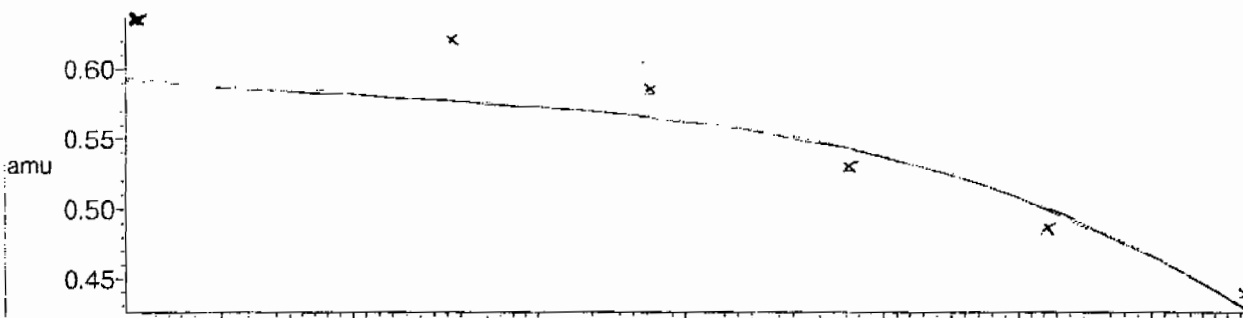
7 matches of 7 tested references



Reference file: Nairb

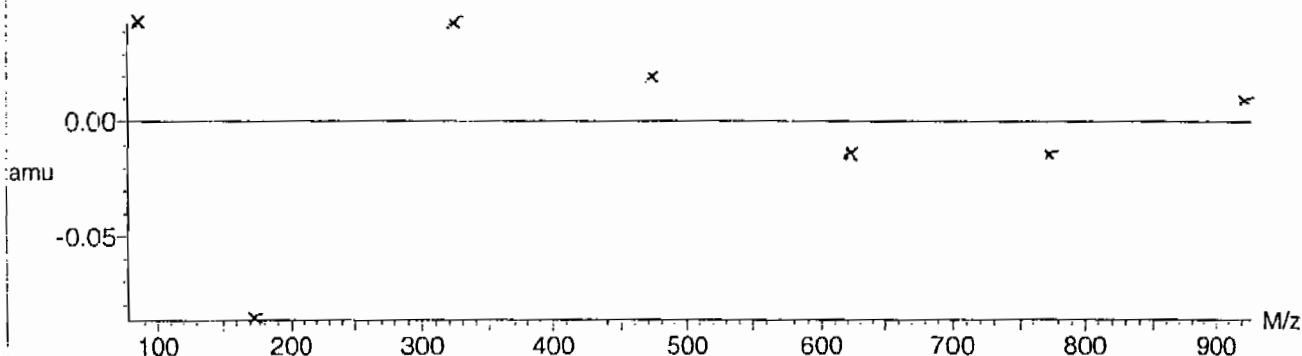


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $3.295980 \times 10^{-2} \pm 0.025603$



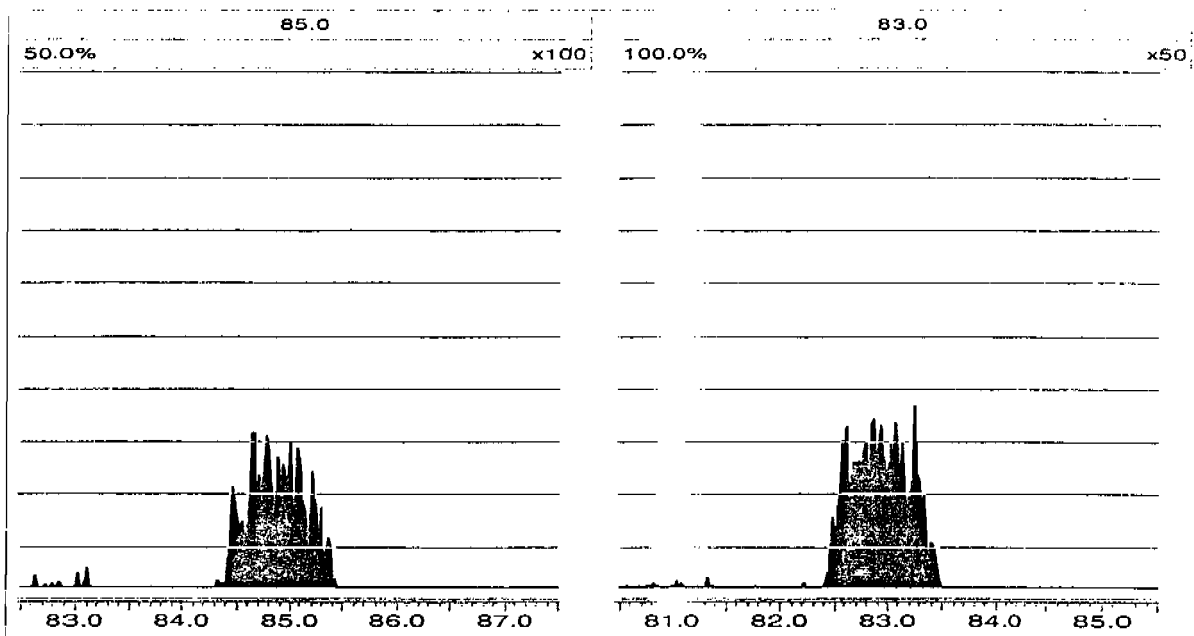
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PROVACQUDB\Perchlorate.IPR

Printed: Saturday, February 20, 2010 10:23:15 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1570

Lab Name: General Engineering Laboratories

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	per0220006a	20-FEB-10	18317.2				
Lower Area Limit			9158.6				
Upper Area Limit			36634.4				
1202041320	per0220016a	20-FEB-10 14:08	16924.1	4.54	4.57598	1.008	
1202041321	per0220017a	20-FEB-10 14:18	18598.3	4.53	4.55118	1.005	
1202041327	per0220018a	20-FEB-10 14:28	19068	4.69	4.70023	1.002	
246344001	per0220019a	20-FEB-10 14:37	18854.7	4.5	4.52622	1.006	
246344002	per0220020a	20-FEB-10 14:47	19683.3	4.48	4.51387	1.008	
246344003	per0220021a	20-FEB-10 14:56	19621.9	4.46	4.46415	1.001	
246344004	per0220025a	20-FEB-10 15:34	19750.3	4.49	4.50147	1.003	
246344005	per0220026a	20-FEB-10 15:44	20279.6	4.45	4.47663	1.006	

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: 252429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7981

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344001

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

% Solids: 75

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:37	per0220019a
14797-73-0	Perchlorate-101	.67	2.68	0.670	ug/kg	U	1	20-FEB-10 14:37	per0220019a
	Perchlorate-O(18)			6.53	ug/kg		1	20-FEB-10 14:37	per0220019a

[^] 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 =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

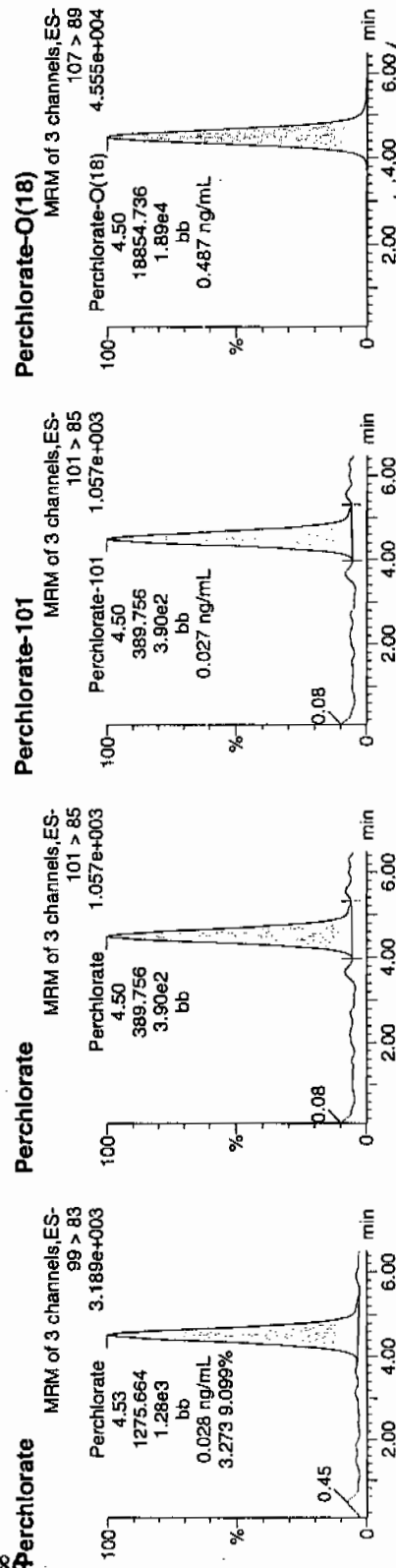
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220019a
Date: 20-Feb-2010
Time: 14:37:34
ID: 246344001
Vial: 1:4,D

02-21-10

1952433 | 3070 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246344001	Perchlorate	99 > 83	4.53	1275.664	1275.664	bb			0.0275	✓		315.585	3.27
246344001	Perchlorate-101	101 > 85	4.50	389.756	389.756	bb			0.0267			143.934	
246344001	Perchlorate-O(18)	107 > 89	4.50	1885.736	1885.736	bb			0.4870	97.40	-2.60	5185.7	

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: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7983

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344002

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 75

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:47	per0220020a
14797-73-0	Perchlorate-101	.667	2.67	0.667	ug/kg	U	1	20-FEB-10 14:47	per0220020a
	Perchlorate-O(18)			6.78	ug/kg		1	20-FEB-10 14:47	per0220020a

[^] 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 =

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

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220020a

Date: 20-Feb-2010

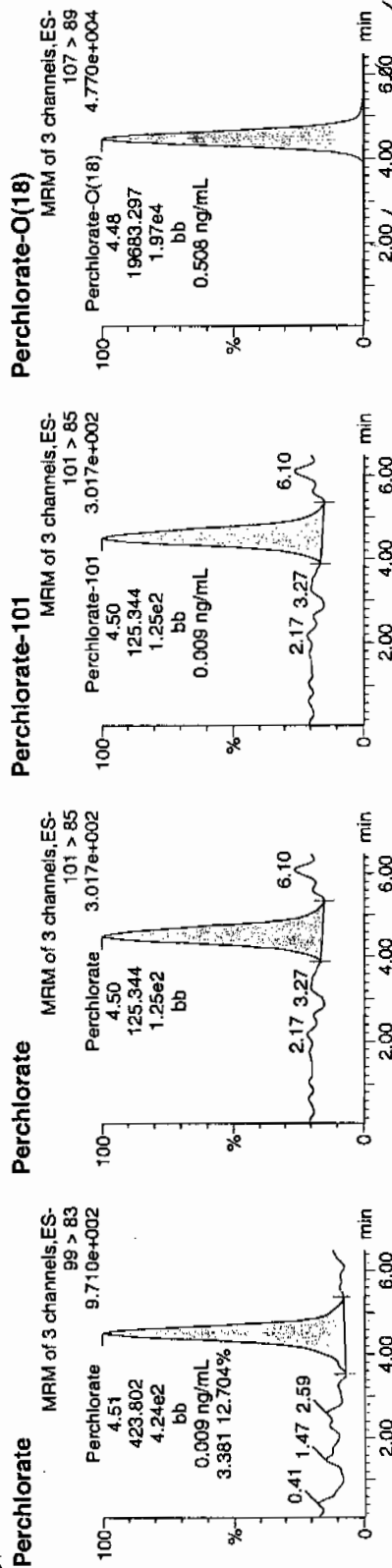
Time: 14:47:07

ID: 246344002

Vial: 1:4,E

02.21-10

11422-1952433 / 5020 / 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
246344002	Perchlorate	99 > 83	4.51	423.802	423.802	bb			0.0092			21.978		3.38
246344002	Perchlorate-101	101 > 85	4.50	125.344	125.344	bb			0.0086			46.242		
246344002	Perchlorate-O(18)	107 > 89	4.48	19683.297	19683.297	bb			0.5084	101.68	1.68	1347.8...		

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: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7984

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344003

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:56	per0220021a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	20-FEB-10 14:56	per0220021a
	Perchlorate-O(18)			5.35	ug/kg		1	20-FEB-10 14:56	per0220021a

[^] 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 =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

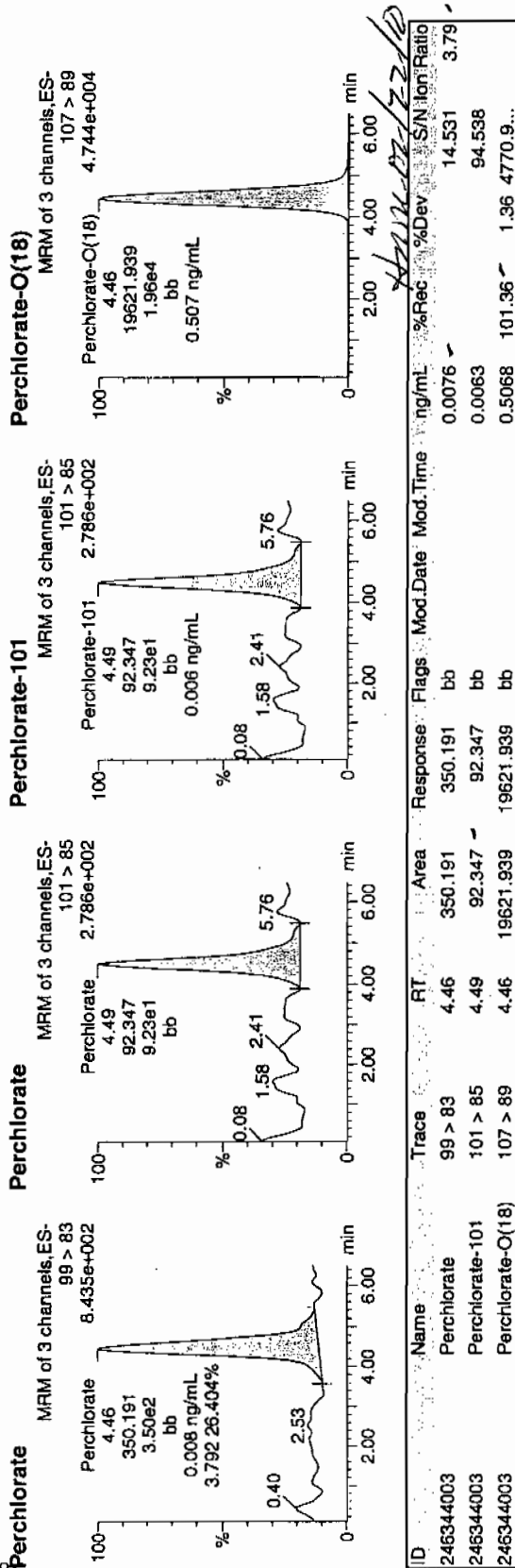
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.q1d

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Sample Name: per0220021a
Date: 20-Feb-2010
Time: 14:56:38
ID: 246344003
Vial: 1:4,F

02-21-10

114001952433 | 50725 | 11



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: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7982

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344004

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.593	2.37	0.859	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate Isotope Ratio			3.26			1	20-FEB-10 15:34	per0220025a
14797-73-0	Perchlorate-101	.593	2.37	0.837	ug/kg	J	1	20-FEB-10 15:34	per0220025a
	Perchlorate-O(18)			6.05	ug/kg		1	20-FEB-10 15:34	per0220025a

^a 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 =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220025a

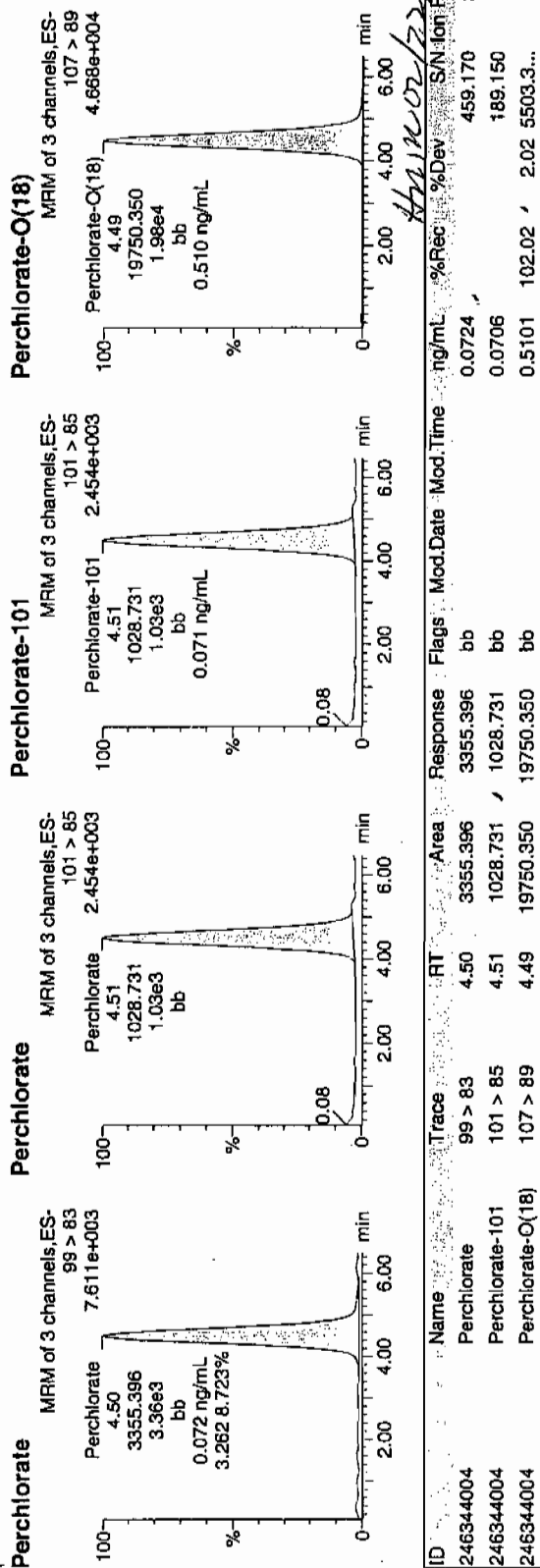
Date: 20-Feb-2010

Time: 15:34:48

ID: 246344004

Cal: 1:5, A

16700/952433 | 5070 | 11 |
02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246344004	Perchlorate	99 > 83	4.50	3355.396	3355.396	bb			0.0724			459.170	3.26
246344004	Perchlorate-101	101 > 85	4.51	1028.731	1028.731	bb			0.0706			189.150	
246344004	Perchlorate-O(18)	107 > 89	4.49	19750.350	19750.350	bb			0.5101	102.02	2.02	5503.3...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-7985

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 246344005

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 52

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate Isotope Ratio						1	20-FEB-10 15:44	per0220026a
14797-73-0	Perchlorate-101	.956	3.83	0.956	ug/kg	U	1	20-FEB-10 15:44	per0220026a
	Perchlorate-O(18)			10.0	ug/kg		1	20-FEB-10 15:44	per0220026a

[^] 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 =

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

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

File Name: per0220026a

Date: 20-Feb-2010

Time: 15:44:21

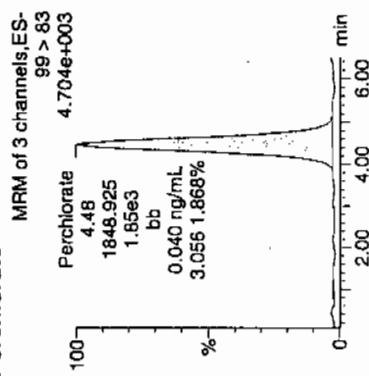
ID: 246344005

Vial: 1:5,B

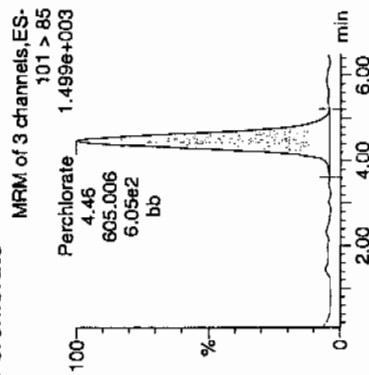
022110

152433 | 5000 | 11

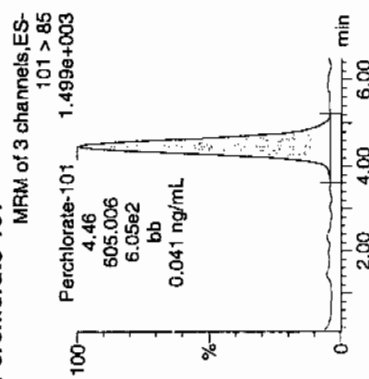
Perchlorate



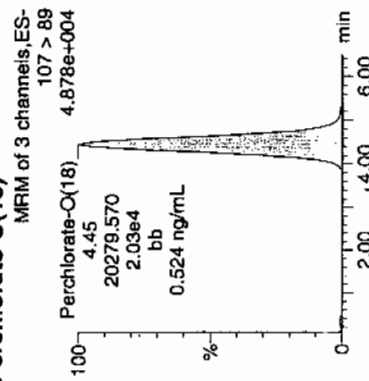
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
246344005	Perchlorate	99 > 83	4.48	1848.925	1848.925	bb			0.0399			105.262	3.06
246344005	Perchlorate-101	101 > 85	4.46	605.006	605.006	bb			0.0415			309.122	
246344005	Perchlorate-O(18)	107 > 89	4.45	20279.570	20279.570	bb			0.5238	104.76	4.76	4054.6...	

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1570

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 20-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 46315.98

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1570

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 20-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Paramname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 14579.96

Response Type: External Standard

Curve Type: RF

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022010a.mdb 21 Feb 2010 10:20:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

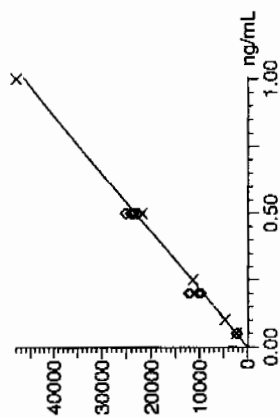
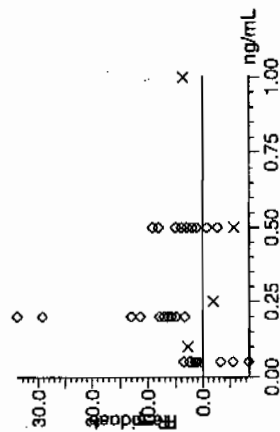
Compound name: Perchlorate

Response Factor: 46316

RRF SD: 1794.44, % Relative SD: 3.87435

Response type: External Std, Area

Curve type: RF



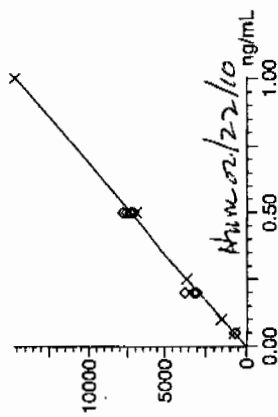
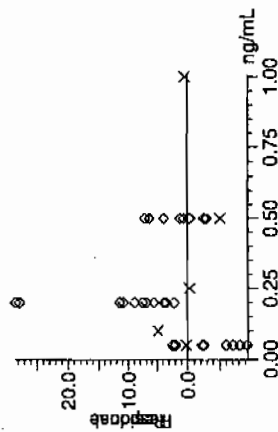
Compound name: Perchlorate-101

Response Factor: 14580

RRF SD: 514.022, % Relative SD: 3.52554

Response type: External Std, Area

Curve type: RF



Quantify Calibration Report MassLynx 4.0 SP4

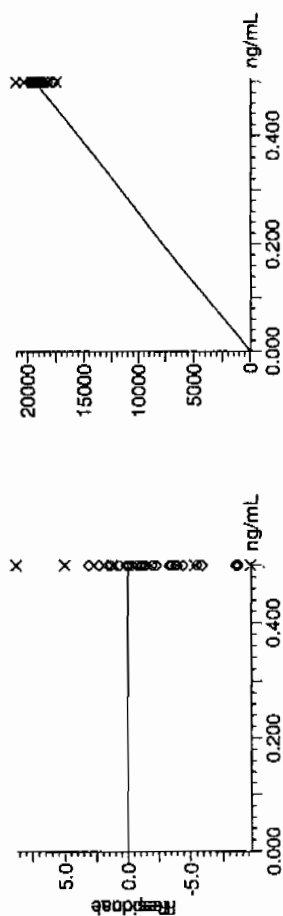
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
 Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Pa Compound name: Perchlorate-O(18)
 c Response Factor: 38717.3
 & RRF SD: 2911.99, % Relative SD: 7.52116 ✓
 o Response type: External Std, Area
 L Curve type: RF ✓

1886



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1570

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.55	109.17	20-FEB-10 13:02	per0220009a
Perchlorate Isotope Ratio		3.23		20-FEB-10 13:02	per0220009a
Perchlorate-101	.5	.54	107.23	20-FEB-10 13:02	per0220009a

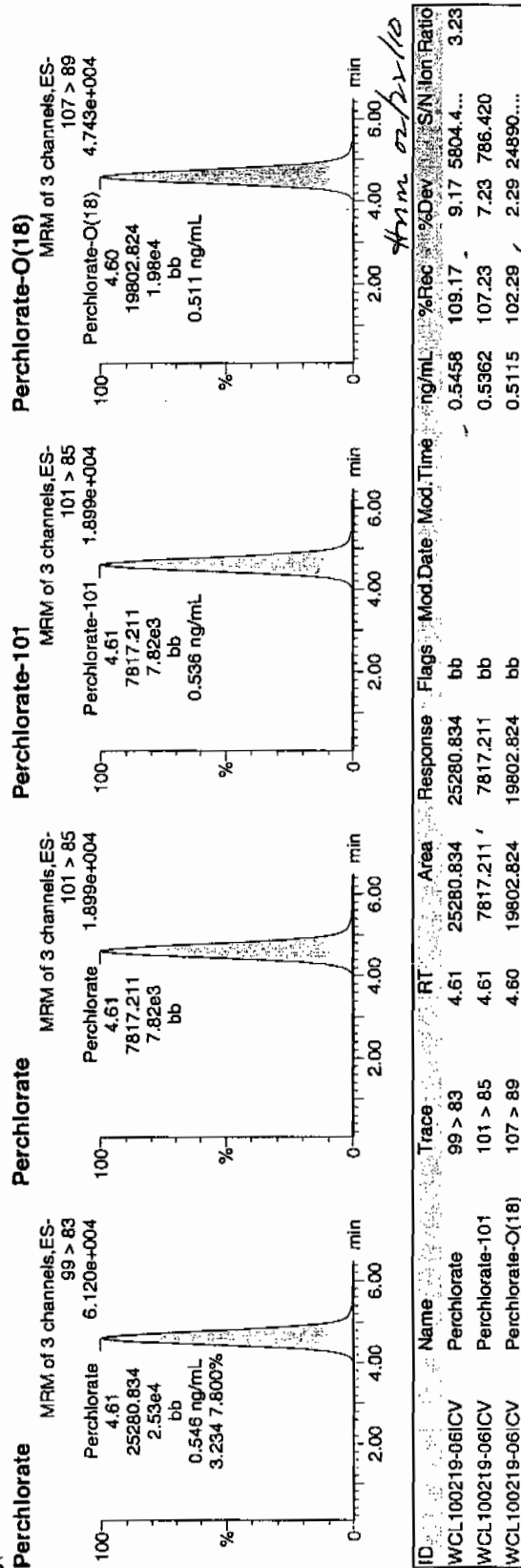
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220009a
Date: 20-Feb-2010
Time: 13:02:07
ID: WCL100219-06ICV
Vial: 1:2,A

Per
02-21-10



Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1570

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	102.91	20-FEB-10 15:06	per0220022a
Perchlorate Isotope Ratio		3.35		20-FEB-10 15:06	per0220022a
Perchlorate-101	.5	.49	97.45	20-FEB-10 15:06	per0220022a
Perchlorate	.5	.51	101.18	20-FEB-10 17:10	per0220035a
Perchlorate Isotope Ratio		3.22		20-FEB-10 17:10	per0220035a
Perchlorate-101	.5	.5	99.77	20-FEB-10 17:10	per0220035a

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Page 22 of 107

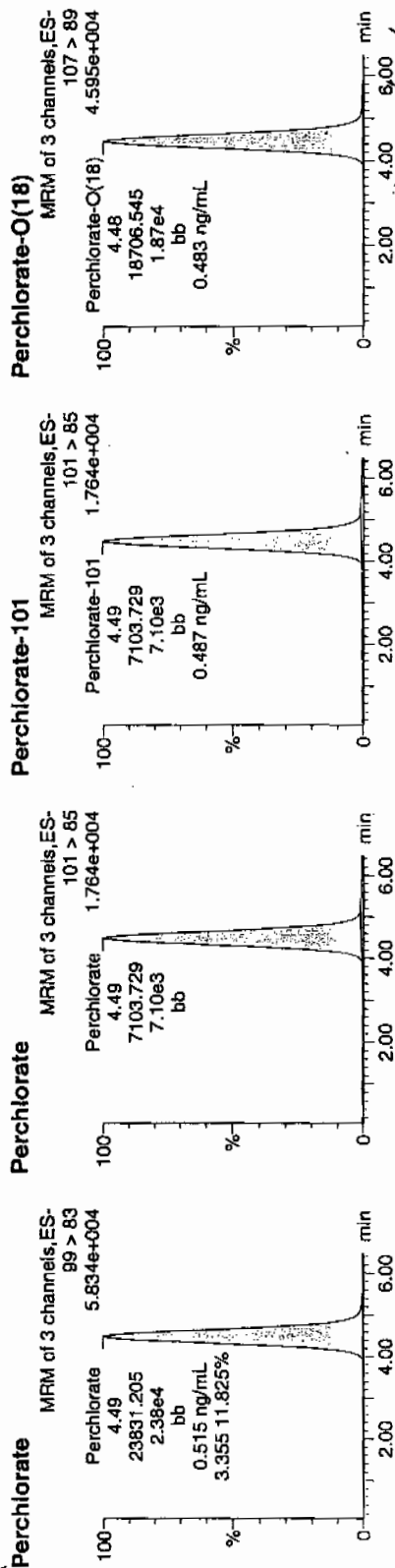
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Page 72 of 86

Name: per0220022a
Date: 20-Feb-2010
Time: 15:06:10
ID: WCL100219-06CCV
Vial: 1:2,A

Pure
and
02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	4.49	23831.205	23831.205	bb			0.5145	102.91	2.91	7443.4...	3.35
WCL100219-06CCV	Perchlorate-101	101 > 85	4.49	7103.729	7103.729	bb			0.4872	97.45	-2.55	2137.2...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	4.48	18706.545	18706.545	bb			0.4832	98.63	-3.37	1260.4...	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220035a

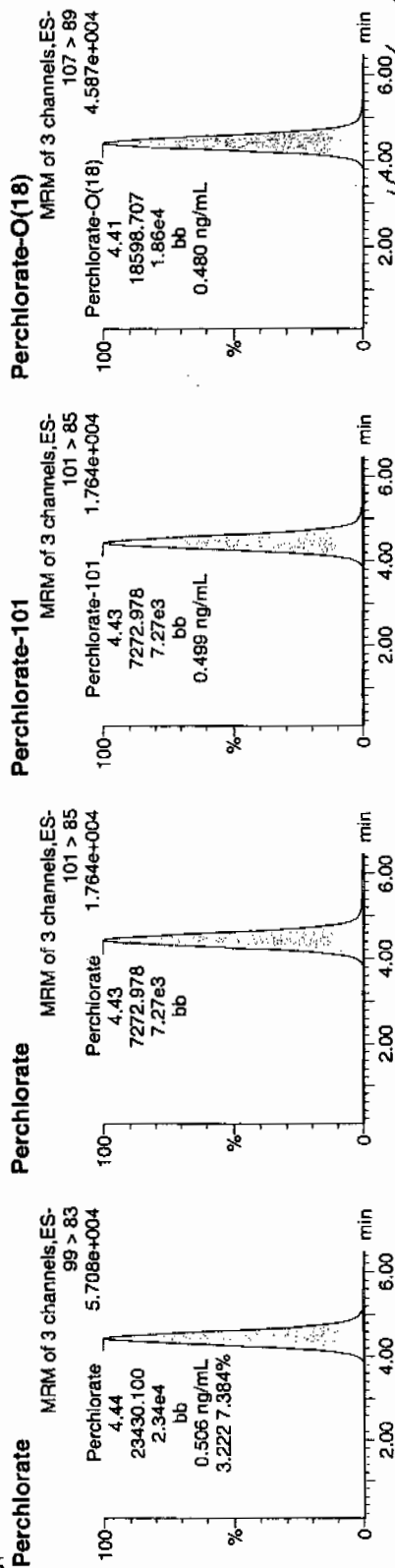
Date: 20-Feb-2010

Time: 17:10:20

ID: WCL100219-06CCV

Vial: 1:2,A

*Per
and
02-21-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	4.44	23430.100	23430.100	bb			0.5059	101.18	1.18	3471.1...	3.22
WCL100219-06CCV	Perchlorate-101	101 > 85	4.43	7272.978	7272.978	bb			0.4988	99.77	-0.23	2914.3...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	4.41	18598.707	18598.707	bb			0.4804	96.07	-3.93	4014.5...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1570

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.29	20-FEB-10 13:21	per0220011a
Perchlorate Isotope Ratio		3.3		20-FEB-10 13:21	per0220011a
Perchlorate-101	.05	.05	97.42	20-FEB-10 13:21	per0220011a
Perchlorate	.05	.05	103.64	20-FEB-10 15:25	per0220024a
Perchlorate Isotope Ratio		3.23		20-FEB-10 15:25	per0220024a
Perchlorate-101	.05	.05	101.96	20-FEB-10 15:25	per0220024a
Perchlorate	.05	.05	102.62	20-FEB-10 17:29	per0220037a
Perchlorate Isotope Ratio		3.18		20-FEB-10 17:29	per0220037a
Perchlorate-101	.05	.05	102.38	20-FEB-10 17:29	per0220037a

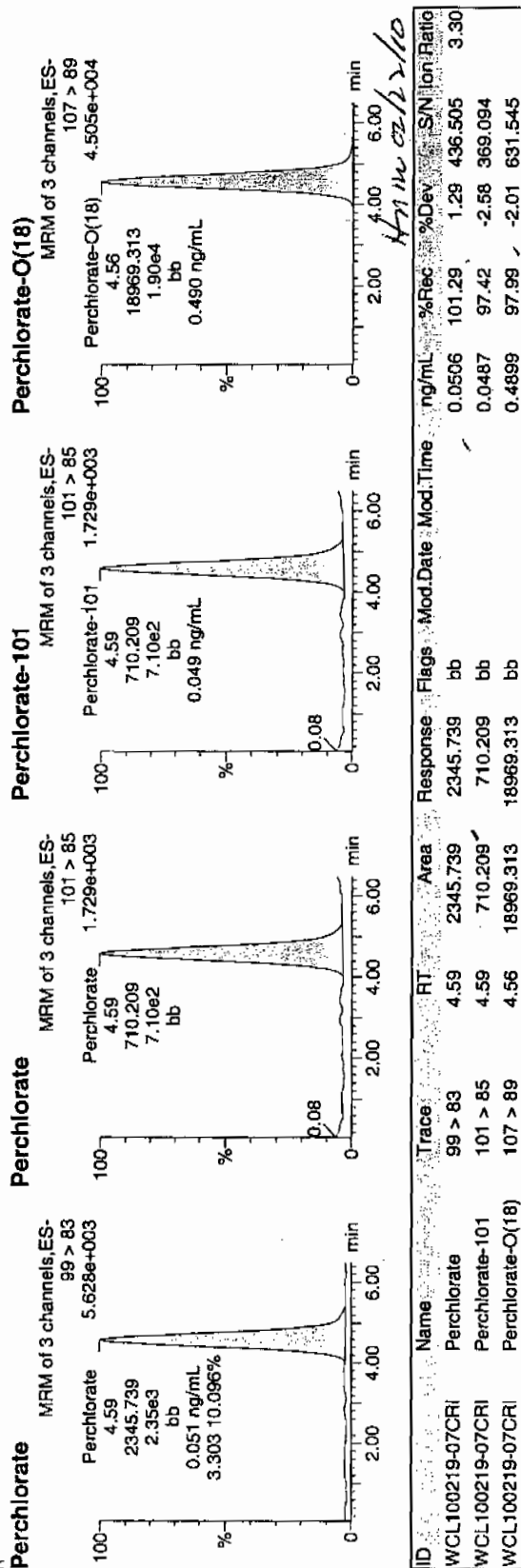
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220011a
Date: 20-Feb-2010
Time: 13:21:12
ID: WCL100219-07CRI
Vial: 1:2,B

Pure
02-21-10



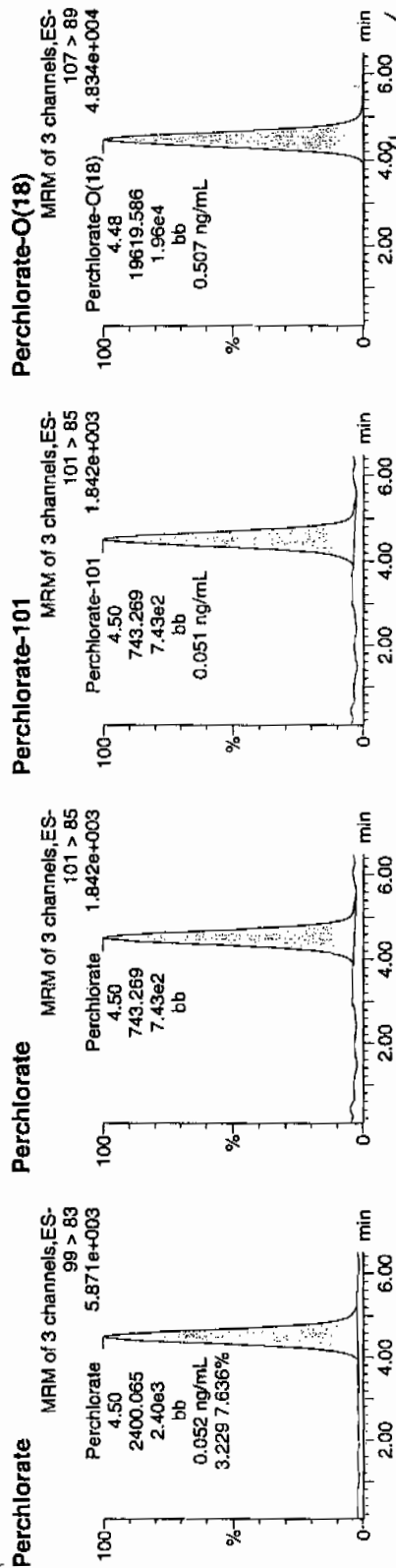
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220024a
Date: 20-Feb-2010
Time: 15:25:16
ID: WCL100219-07CRI
Vial: 1:2,B

*Purs
CWS
02-21-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.50	2400.065	2400.065	bb			0.0518	103.64	3.64	639.813	3.23
WCL100219-07CRI	Perchlorate-101	101 > 85	4.50	743.269	743.269	bb			0.0510	101.96	1.96	131.359	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.48	19619.586	19619.586	bb			0.5067	101.35	1.35	17963....	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Sample Name: per0220037a

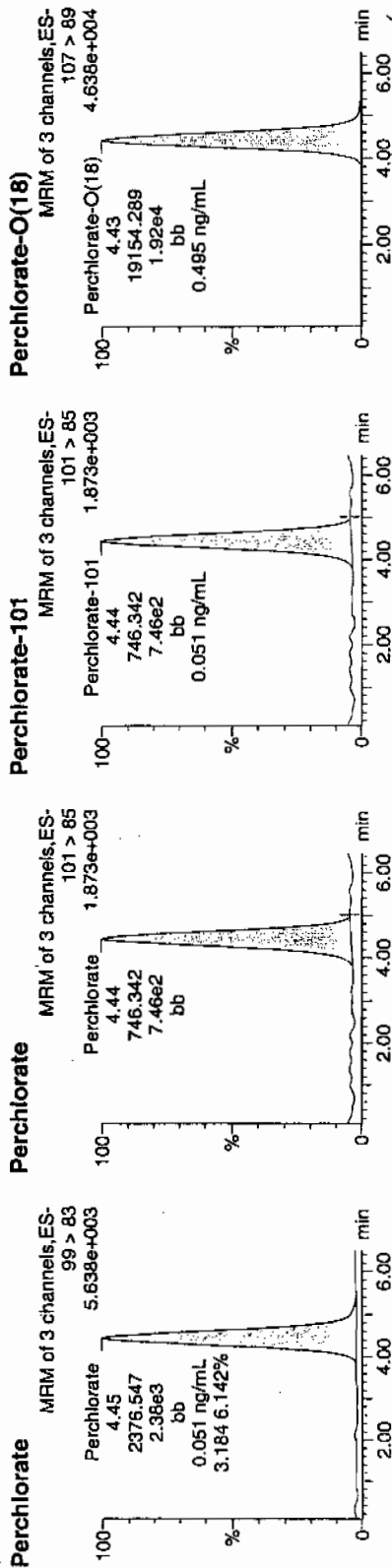
Date: 20-Feb-2010

Time: 17:29:25

ID: WCL100219-07CRI

Acq/Vial: 1:2,B

Pure
and
02-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.45	2376.547	2376.547	bb			0.0513	102.62	2.62	558.392	3.18
WCL100219-07CRI	Perchlorate-101	101 > 85	4.44	746.342	746.342	bb			0.0512	102.38	2.38	389.491	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.43	19154.289	19154.289	bb			0.4947	98.94	-1.06	5635.0...	

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: 252429

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 1202041320

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	20-FEB-10 14:08	per0220016a
	Perchlorate Isotope Ratio						1	20-FEB-10 14:08	per0220016a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	20-FEB-10 14:08	per0220016a
	Perchlorate-O(18)			4.37	ug/kg		1	20-FEB-10 14:08	per0220016a

[^] 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 =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220016a

Date: 20-Feb-2010

Time: 14:08:56

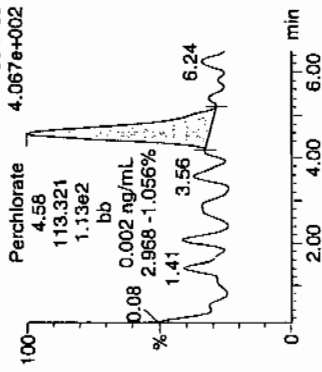
ID: 1202041320

Al: 1:4,A

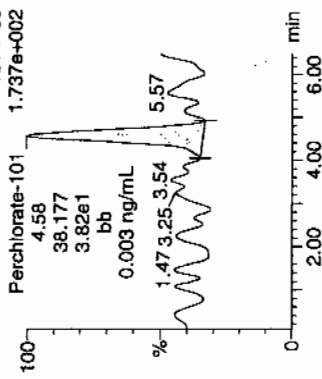
02-21-10

LANC 1952433 | 5070 | 19 | 11

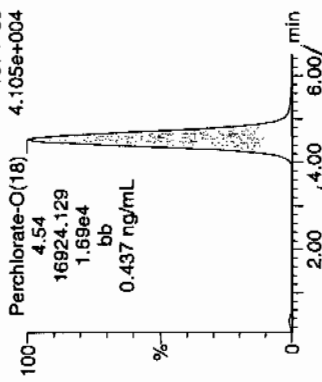
Perchlorate MRM of 3 channels, ES-99 > 83 4.067e+002



Perchlorate-101 MRM of 3 channels, ES-101 > 85 1.737e+002



Perchlorate-O(18) MRM of 3 channels, ES-107 > 89 4.105e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041320	Perchlorate	99 > 83	4.58	113.321	113.321	bb			0.0024			24.344	2.97
1202041320	Perchlorate-101	101 > 85	4.58	38.177	38.177	bb			0.0026			41.218	
1202041320	Perchlorate-O(18)	107 > 89	4.54	16924.129	16924.129	bb			0.4371	87.42	-12.58	7294.5...	

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: 952429

Extraction Type: Solid Prep

Client Sample No.

LCS

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1570

GEL Sample ID: 1202041321

Date Filtered: 16-FEB-10

Injection Volume (uL): 20

%Solids: 100

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.07	ug/kg		1	20-FEB-10 14:18	per0220017a
	Perchlorate Isotope Ratio			3.17			1	20-FEB-10 14:18	per0220017a
14797-73-0	Perchlorate-101	.5	2	2.07	ug/kg		1	20-FEB-10 14:18	per0220017a
	Perchlorate-O(18)			4.80	ug/kg		1	20-FEB-10 14:18	per0220017a

[^] 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 =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220017a

Date: 20-Feb-2010

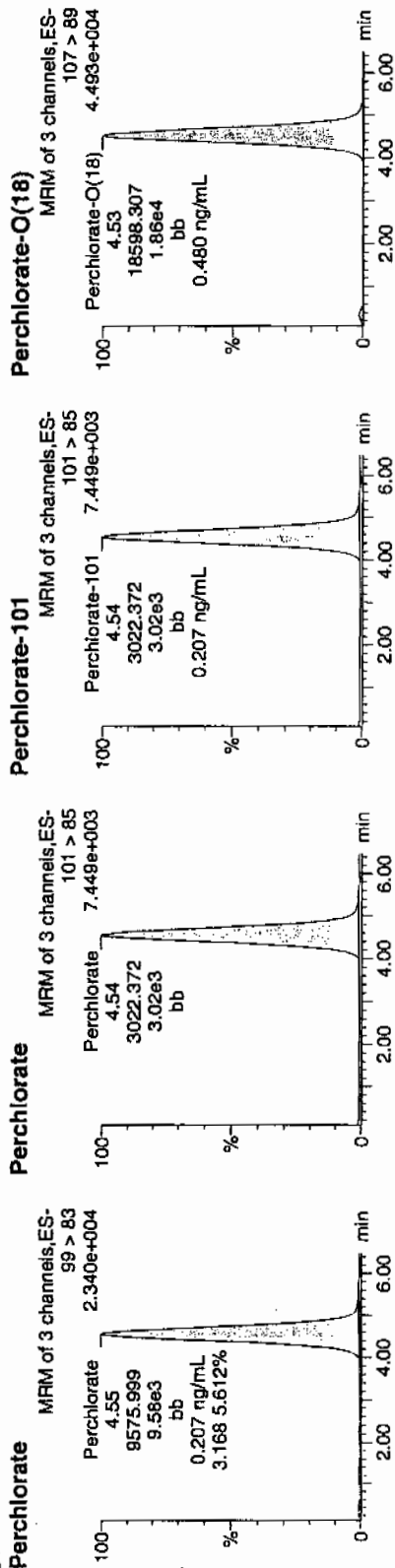
Time: 14:18:29

ID: 1202041321

Mix: 1:4,B

02-21-10

LDW 1952433 | 5020 | LLS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041321	Perchlorate	99 > 83	4.55	9575.999	9575.999	bb			0.2068	103.38	3.38	2274.3...	3.17
1202041321	Perchlorate-101	101 > 85	4.54	3022.372	3022.372	bb			0.2073	103.65	3.65	317.655	
1202041321	Perchlorate-O(18)	107 > 89	4.53	18598.307	18598.307	bb			0.4804	96.07	-3.93	6782.6...	

$$\frac{9575.999}{46316} = 0.2068$$

Handwritten: H11W 22/10

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: 952429 Verified by: _____
 Analyst: Charles Wilson
 Method: SW846 6850 Modified
 Lab SOP: GL-OA-E-067 REV# 6
 Instrument: MicroMass Quattro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202041320 MB	16-FEB-2010 14:42:00	2	20	10
1202041321 LCS	16-FEB-2010 14:42:00	2	20	10
246344001	16-FEB-2010 14:42:00	2	20	10
246344002	16-FEB-2010 14:42:00	2	20	10
246344003	16-FEB-2010 14:42:00	2	20	10
246344004	16-FEB-2010 14:42:00	2	20	10
246344005	16-FEB-2010 14:42:00	2	20	10
246354001	16-FEB-2010 14:42:00	2	20	10
1202041322 MS (246354001)	16-FEB-2010 14:42:00	2	20	10
1202041323 MSD (246354001)	16-FEB-2010 14:42:00	2	20	10
246354002	16-FEB-2010 14:42:00	2	20	10
246354003	16-FEB-2010 14:42:00	2	20	10
246354004	16-FEB-2010 14:42:00	2	20	10
246354005	16-FEB-2010 14:42:00	2	20	10
246354006	16-FEB-2010 14:42:00	2	20	10
246354007	16-FEB-2010 14:42:00	2	20	10
246354008	16-FEB-2010 14:42:00	2	20	10
246354009	16-FEB-2010 14:42:00	2	20	10
246354010	16-FEB-2010 14:42:00	2	20	10
246354011	16-FEB-2010 14:42:00	2	20	10
1202041327 ICS	16-FEB-2010 14:42:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
ICS	1202041327	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	Desalting cartridges used: 090810-1-Ba & 100112-1-H
LCS	1202041321	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	
MS	1202041322	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	
MSD	1202041323	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/20/10
 Extr. Injection Volume: 20uL
 Sequence Number: per022010a
 Initial Calibration Date: 02/20/10

Method: EPA 6850-Modified
 Int. Std.: UCL100122-01
 Mobile Phase Lot#: 1269535, 1261217
 Standard-Samp Reagent Lot#: 1261217

Reviewed BY: *Handwritten signature*
 Date: 02/22/10
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0220001a	IPB001	CWW	2/20/2010 11:45			1		USE	B
per0220002a	IPB001	CWW	2/20/2010 11:55			1		USE	B
per0220003a	WCLICAL-01	CWW	2/20/2010 12:04			1		USE	I
per0220004a	WCLICAL-02	CWW	2/20/2010 12:14			1		USE	I
per0220005a	WCLICAL-03	CWW	2/20/2010 12:24			1		USE	I
per0220006a	WCLICAL-04	CWW	2/20/2010 12:33			1		USE	I
per0220007a	WCLICAL-05	CWW	2/20/2010 12:43			1		USE	I
per0220008a	IPB002	CWW	2/20/2010 12:52			1		USE	B
per0220009a	WCLICV	CWW	2/20/2010 13:02			1		USE	C
per0220010a	IPB003	CWW	2/20/2010 13:11			1		USE	B
per0220011a	WCLCRI	CWW	2/20/2010 13:21			1		USE	C
per0220012a	246331001	CWW	2/20/2010 13:30	952441	10-1577	20	LANL	USE	S
per0220013a	246331002	CWW	2/20/2010 13:40	952441	10-1577	20	LANL	USE	S
per0220014a	246338001	CWW	2/20/2010 13:49	952441	10-1605	1	LANL	USE	S
per0220015a	IPB004	CWW	2/20/2010 13:59			1		USE	B
per0220016a	1202041320	CWW	2/20/2010 14:08	952433	VARIOUS	1	LANL	USE	S
per0220017a	1202041321	CWW	2/20/2010 14:18	952433	VARIOUS	1	LANL	USE	S
per0220018a	1202041327	CWW	2/20/2010 14:28	952433	VARIOUS	1	LANL	USE	S
per0220019a	246344001	CWW	2/20/2010 14:37	952433	10-1570	1	LANL	USE	S
per0220020a	246344002	CWW	2/20/2010 14:47	952433	10-1570	1	LANL	USE	S
per0220021a	246344003	CWW	2/20/2010 14:56	952433	10-1570	1	LANL	USE	S
per0220022a	WCLCCV	CWW	2/20/2010 15:06			1		USE	C
per0220023a	IPB005	CWW	2/20/2010 15:15			1		USE	B
per0220024a	WCLCRI	CWW	2/20/2010 15:25			1		USE	C
per0220025a	246344004	CWW	2/20/2010 15:34	952433	10-1570	1	LANL	USE	S
per0220026a	246344005	CWW	2/20/2010 15:44	952433	10-1570	1	LANL	USE	S
per0220027a	246354001	CWW	2/20/2010 15:53	952433	10-1572	1	LANL	USE	S
per0220028a	1202041322	CWW	2/20/2010 16:03	952433	10-1572	1	LANL	USE	S
per0220029a	1202041323	CWW	2/20/2010 16:13	952433	10-1572	1	LANL	USE	S

per0220030a	246354002	CWW	2/20/2010 16:22	952433	10-1572	1	LANL	USE	S
per0220031a	246354003	CWW	2/20/2010 16:32	952433	10-1572	1	LANL	USE	S
per0220032a	246354004	CWW	2/20/2010 16:41	952433	10-1572	1	LANL	USE	S
per0220033a	246354005	CWW	2/20/2010 16:51	952433	10-1572	1	LANL	USE	S
per0220034a	246354006	CWW	2/20/2010 17:00	952433	10-1572	1	LANL	USE	S
per0220035a	WCLCCV	CWW	2/20/2010 17:10			1		USE	C
per0220036a	IPB006	CWW	2/20/2010 17:19			1		USE	B
per0220037a	WCLCRI	CWW	2/20/2010 17:29			1		USE	C
per0220038a	246354007	CWW	2/20/2010 17:38	952433	10-1572	1	LANL	USE	S
per0220039a	246354008	CWW	2/20/2010 17:48	952433	10-1572	1	LANL	USE	S
per0220040a	246354009	CWW	2/20/2010 17:58	952433	10-1572	1	LANL	USE	S
per0220041a	246354010	CWW	2/20/2010 18:07	952433	10-1572	1	LANL	USE	S
per0220042a	246354011	CWW	2/20/2010 18:17	952433	10-1572	1	LANL	USE	S
per0220043a	IPB007	CWW	2/20/2010 18:26			1		USE	B
per0220044a	1202042230	CWW	2/20/2010 18:36	952823	VARIOUS	1	LANL	USE	S
per0220045a	1202042231	CWW	2/20/2010 18:45	952823	VARIOUS	1	LANL	USE	S
per0220046a	1202042235	CWW	2/20/2010 18:55	952823	VARIOUS	1	LANL	USE	S
per0220047a	246443001	CWW	2/20/2010 19:05	952823	10-1624	1	LANL	USE	S
per0220048a	WCLCCV	CWW	2/20/2010 19:14			1		USE	C
per0220049a	IPB008	CWW	2/20/2010 19:24			1		USE	B
per0220050a	WCLCRI	CWW	2/20/2010 19:33			1		USE	C
per0220051a	246443002	CWW	2/20/2010 19:43	952823	10-1624	1	LANL	USE	S
per0220052a	246443003	CWW	2/20/2010 19:53	952823	10-1624	1	LANL	USE	S
per0220053a	246443004	CWW	2/20/2010 20:02	952823	10-1624	1	LANL	USE	S
per0220054a	246443005	CWW	2/20/2010 20:12	952823	10-1624	1	LANL	USE	S
per0220055a	246447001	CWW	2/20/2010 20:21	952823	10-1627	1	LANL	USE	S
per0220056a	246447002	CWW	2/20/2010 20:31	952823	10-1627	1	LANL	USE	S
per0220057a	246447003	CWW	2/20/2010 20:40	952823	10-1627	1	LANL	USE	S
per0220058a	246452001	CWW	2/20/2010 20:50	952823	10-1629-1	1	LANL	USE	S
per0220059a	1202042232	CWW	2/20/2010 20:59	952823	10-1629-1	1	LANL	USE	S
per0220060a	1202042233	CWW	2/20/2010 21:09	952823	10-1629-1	1	LANL	USE	S
per0220061a	WCLCCV	CWW	2/20/2010 21:18			1		USE	C
per0220062a	IPB009	CWW	2/20/2010 21:28			1		USE	B
per0220063a	WCLCRI	CWW	2/20/2010 21:38			1		USE	C
per0220064a	246452002	CWW	2/20/2010 21:47	952823	10-1629-1	1	LANL	USE	S
per0220065a	246452003	CWW	2/20/2010 21:57	952823	10-1629-1	1	LANL	USE	S
per0220066a	246452004	CWW	2/20/2010 22:06	952823	10-1629-1	1	LANL	USE	S

per0220067a	246452005	CWW	2/20/2010 22:16	952823	10-1629-1	1	LANL	USE	S
per0220068a	246452006	CWW	2/20/2010 22:26	952823	10-1629-1	1	LANL	USE	S
per0220069a	246452007	CWW	2/20/2010 22:35	952823	10-1629-1	1	LANL	USE	S
per0220070a	246452008	CWW	2/20/2010 22:45	952823	10-1629-1	1	LANL	USE	S
per0220071a	246452009	CWW	2/20/2010 22:54	952823	10-1629-1	1	LANL	USE	S
per0220072a	WCLCCV	CWW	2/20/2010 23:04			1		USE	C
per0220073a	IPB010	CWW	2/20/2010 23:13			1		USE	B
per0220074a	WCLCRI	CWW	2/20/2010 23:23			1		USE	C
per0220075a	1202035631	CWW	2/20/2010 23:33	950054	VARIOUS	1	LANL	USE	S
per0220076a	1202035632	CWW	2/20/2010 23:42	950054	VARIOUS	1	LANL	USE	S
per0220077a	1202035635	CWW	2/20/2010 23:52	950054	VARIOUS	1	LANL	USE	S
per0220078a	245938001	CWW	2/21/2010 0:01	950054	10-1506	1	LANL	USE	S
per0220079a	245938002	CWW	2/21/2010 0:11	950054	10-1506	1	LANL	USE	S
per0220080a	1202035633	CWW	2/21/2010 0:20	950054	10-1506	1	LANL	USE	S
per0220081a	1202035634	CWW	2/21/2010 0:30	950054	10-1506	1	LANL	USE	S
per0220082a	245938003	CWW	2/21/2010 0:40	950054	10-1506	1	LANL	USE	S
per0220083a	WCLCCV	CWW	2/21/2010 0:49			1		USE	C
per0220084a	IPB011	CWW	2/21/2010 0:59			1		USE	B
per0220085a	WCLCRI	CWW	2/21/2010 1:08			1		USE	C
per0220086a	245938004	CWW	2/21/2010 1:18	950054	10-1506	1	LANL	USE	S
per0220087a	245938005	CWW	2/21/2010 1:28	950054	10-1506	1	LANL	USE	S
per0220088a	245938006	CWW	2/21/2010 1:37	950054	10-1506	1	LANL	USE	S
per0220089a	245938007	CWW	2/21/2010 1:47	950054	10-1506	1	LANL	USE	S
per0220090a	245938008	CWW	2/21/2010 1:56	950054	10-1506	1	LANL	USE	S
per0220091a	245960001	CWW	2/21/2010 2:06	950054	10-1511	1	LANL	USE	S
per0220092a	245960002	CWW	2/21/2010 2:16	950054	10-1511	1	LANL	USE	S
per0220093a	245960003	CWW	2/21/2010 2:25	950054	10-1511	1	LANL	USE	S
per0220094a	WCLCCV	CWW	2/21/2010 2:35			1		USE	C
per0220095a	IPB012	CWW	2/21/2010 2:44			1		USE	B
per0220096a	WCLCRI	CWW	2/21/2010 2:54			1		USE	C
per0220097a	245960004	CWW	2/21/2010 3:03	950054	10-1511	1	LANL	USE	S
per0220098a	245960005	CWW	2/21/2010 3:13	950054	10-1511	1	LANL	USE	S
per0220099a	245960006	CWW	2/21/2010 3:23	950054	10-1511	1	LANL	USE	S
per0220100a	245960007	CWW	2/21/2010 3:32	950054	10-1511	1	LANL	USE	S
per0220101a	245960008	CWW	2/21/2010 3:42	950054	10-1511	1	LANL	USE	S
per0220102a	245960009	CWW	2/21/2010 3:51	950054	10-1511	1	LANL	USE	S
per0220103a	245960010	CWW	2/21/2010 4:01	950054	10-1511	1	LANL	USE	S

per0220104a	245960011	CWW	2/21/2010 4:11	950054	10-1511	1	LANL	USE	S
per0220105a	WCLCCV	CWW	2/21/2010 4:20			1		USE	C
per0220106a	IPB013	CWW	2/21/2010 4:30			1		USE	B
per0220107a	WCLCRI	CWW	2/21/2010 4:39			1		USE	C

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220028a

Date: 20-Feb-2010

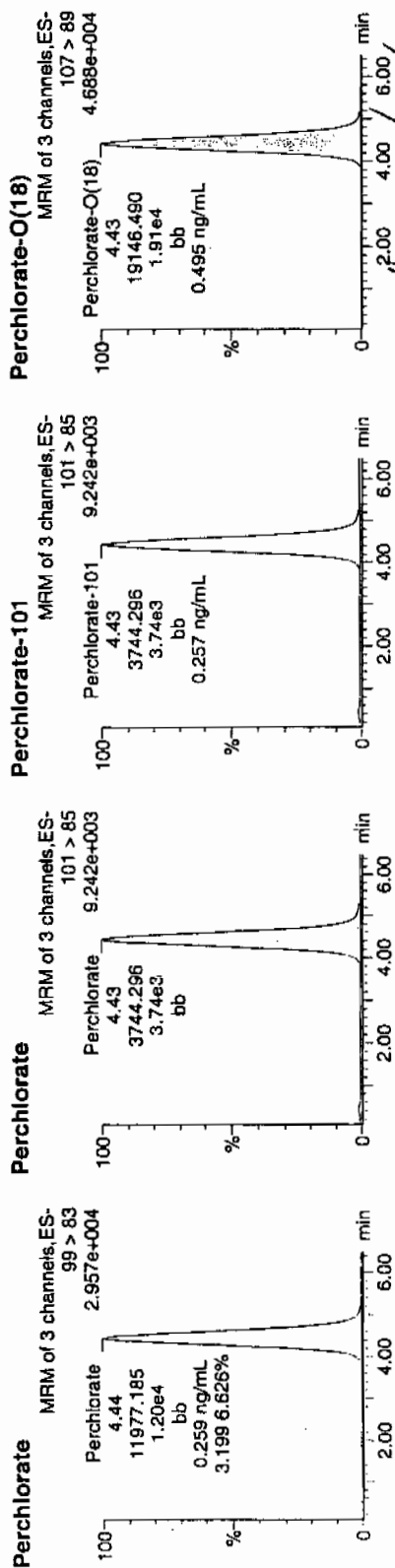
Time: 16:03:28

ID: 1202041322

Vial: 1:5,D

WWD
02-21-10

WWD | 952433 | 5020 | 175 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041322	Perchlorate	99 > 83	4.44	11977.185	11977.185	bb			0.2586	129.30	29.30	2499.8...	3.20
1202041322	Perchlorate-101	101 > 85	4.43	3744.296	3744.296	bb			0.2568	128.41	28.41	95.285	
1202041322	Perchlorate-O(18)	107 > 89	4.43	19146.490	19146.490	bb			0.4945	98.90	-1.10	3996.5...	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

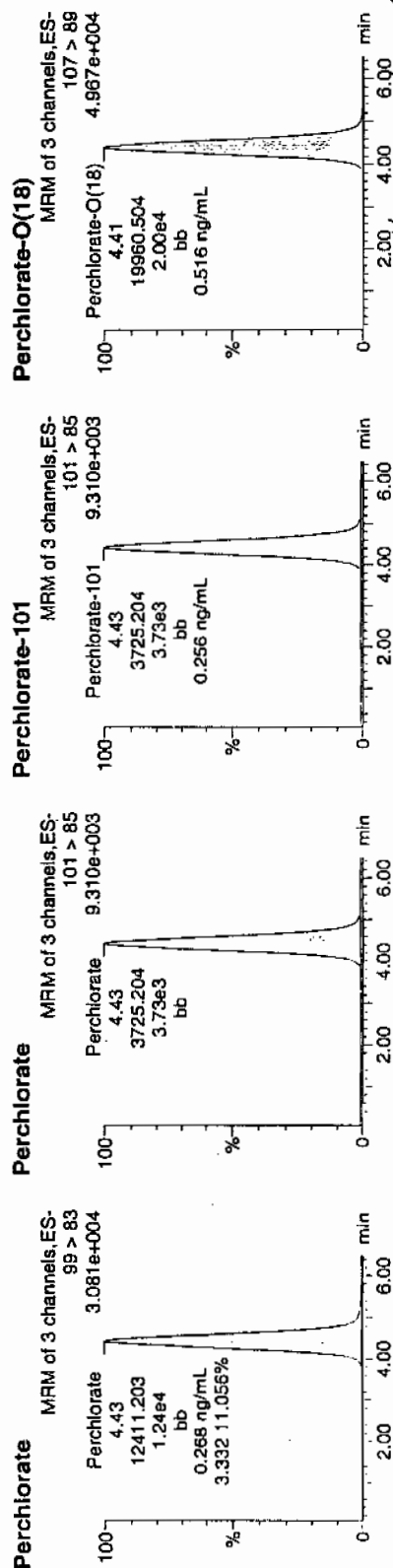
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220029a
Date: 20-Feb-2010
Time: 16:13:01
ID: 1202041323
Vial: 1:5,E

02-21-10

1202041323 | 5020 | MSQ.1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041323	Perchlorate	99 > 83	4.43	12411.203	12411.203	bb			0.2680	133.98	33.98	3987.3...	3.33
1202041323	Perchlorate-101	101 > 85	4.43	3725.204	3725.204	bb			0.2555	127.75	27.75	1454.5...	
1202041323	Perchlorate-O(18)	107 > 89	4.41	19960.504	19960.504	bb			0.5155	103.11	3.11	12556...	

Isotope Ratio Criteria

Isotope Ratio $^{35}\text{Cl}/^{37}\text{Cl}$

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.

LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1570**

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: 950083

Prep Batch Number: 950082

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202035682	Method Blank (MB)
1202035683	Laboratory Control Sample (LCS)
1202035684	246344001(RE15-10-7981) Matrix Spike (MS)
1202035685	246344001(RE15-10-7981) 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.

10-1570-EXPLCMS

Page 1 of 5

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

Sample 246344001 (RE15-10-7981) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement

The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recovered PETN at 141%. The recovery limits are 60-140%. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 796126.

MS/MSD Relative Percent Difference (RPD) Statement

The MS/MSD RPD for PETN was 32.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 796126.

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

Sample 246344005(RE15-10-7985) was re-analyzed due to a bracketing CCV that did not meet acceptance criteria. The re-analysis passed acceptance criteria and is reported.

The following samples were reanalyzed due to a bracketing CCV that did not meet acceptance criteria: 246344005(RE15-10-7985), 246350002, 246350003, 246350004, 246350005, 246350006, 246350007, 246350008, 246350009, 246350010, 246350011 and 246350012. QC

Sample 1202035684 (RE15-10-7981MS) failed ISTD acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration

All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements

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

Calibration Blank Requirements

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation

Sample 246344001 (RE15-10-7981) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement

The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance

The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation

Data exception report 796126 was generated for this SDG.

The MSD recovered PETN at 141%. The recovery limits are 60-140%. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported.

The MS/MSD RPD for PETN was 32.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported.

Manual Integrations

Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention

The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments

Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

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

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

Reviewer: Deborah M. Mauer Date: 02/26/10

SAMPLE DATA SUMMARY

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216284a

Date Analyzed: 22-FEB-10 13:22

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200018.wiff

Date Analyzed: 20-FEB-10 14:04

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216287a

Date Analyzed: 22-FEB-10 14:51

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200021.wiff

Date Analyzed: 20-FEB-10 14:51

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 =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216288a

Date Analyzed: 22-FEB-10 15:20

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200022.wiff

Date Analyzed: 20-FEB-10 15:06

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216289a

Date Analyzed: 22-FEB-10 15:50

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200023.wiff

Date Analyzed: 20-FEB-10 15:22

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0225014a

Date Analyzed: 25-FEB-10 16:26

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200027.wiff

Date Analyzed: 20-FEB-10 16:25

Units: ug/kg

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

*Concentration =

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

QUALITY CONTROL SUMMARY

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246344001	RE15-10-7981	131	70 - 144	
246344001	RE15-10-7981	123	70 - 144	
246344002	RE15-10-7983	109	70 - 144	
246344002	RE15-10-7983	132	70 - 144	
246344003	RE15-10-7984	121	70 - 144	
246344003	RE15-10-7984	122	70 - 144	
246344004	RE15-10-7982	106	70 - 144	
246344004	RE15-10-7982	127	70 - 144	
246344005	RE15-10-7985	91.9	70 - 144	
246344005	RE15-10-7985	127	70 - 144	
1202035682	MB for batch 950082	94	70 - 144	
1202035682	MB for batch 950082	117	70 - 144	
1202035683	LCS for batch 950082	137	70 - 144	
1202035683	LCS for batch 950082	114	70 - 144	
1202035684	RE15-10-7981(246344001MS)	92.3	70 - 144	
1202035684	RE15-10-7981(246344001MS)	126	70 - 144	
1202035685	RE15-10-7981(246344001MSD)	107	70 - 144	
1202035685	RE15-10-7981(246344001MSD)	123	70 - 144	

DNT = 3,4-Dinitrotoluene

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1570

Extract Batch Code: 950082

Date Extracted: 11-FEB-10

GEL LCS ID: 1202035683

GEL LCSDUP ID:

Analysis Date/Time: 22-FEB-10 11:53

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
2,6-Dinitrotoluene	5000	5250	105					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5980	120					90 – 130
4-Amino-2,6-dinitrotoluene	5000	5580	112					84 – 130
HMX	5000	4420	88.4					58 – 138
Nitrobenzene	5000	4500	90.1					71 – 122
2,4-Dinitrotoluene	5000	5520	110					87 – 137
2,4,6-Trinitrotoluene	5000	5740	115					73 – 149
1,3,5-Trinitrobenzene	5000	3590	71.7					69 – 126
PETN	5000	5430	109					64 – 137
RDX	5000	4960	99.3					81 – 137
Tetryl	5000	2730	54.5					51 – 112
m-Dinitrobenzene	5000	5410	108					83 – 122
m-Nitrotoluene	5000	4950	99					73 – 118
o-Nitrotoluene	5000	4960	99.3					72 – 119
p-Nitrotoluene	5000	5480	110					67 – 131

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

* Values outside of QC limits

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1570

Extract Batch Code: 950082

Date Extracted: 11-FEB-10

GEL LCS ID: 1202035683

GEL LCSDUP ID:

Analysis Date/Time: 20-FEB-10 13:16

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	4930	98.6					52 - 114
2,6-Diamino-4-nitrotoluene	5000	5790	116					64 - 122
TATB	5000	5820	116					28 - 162
tris(o-cresyl) phosphate	5000	5080	102					84 - 119
3,5-Dinitroaniline	5000	5490	110					70 - 127

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

* Values outside of QC limits

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Extract Batch Code: 950082

Date Extracted: 11-FEB-10

GEL Spike ID: 1202035684

GEL SpikeDup ID: 1202035685

Analysis Date/Time: 25-FEB-10 15:57

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
PETN	5000	0	5080	102	7030	141 *	32.2 *	30	60 - 140
RDX	5000	0	4540	90.9	5140	103	12.3	30	59 - 152
2,4,6-Trinitrotoluene	5000	0	4520	90.4	5010	100	10.2	30	76 - 144
2,6-Dinitrotoluene	5000	0	4900	98.1	5190	104	5.65	30	90 - 118
Nitrobenzene	5000	0	4820	96.4	4450	89.1	7.97	30	70 - 122
HMX	5000	0	4670	93.3	4460	89.2	4.54	30	51 - 144
4-Amino-2,6-dinitrotoluene	5000	0	4300	85.9	4700	93.9	8.89	30	72 - 143
2-Amino-4,6-dinitrotoluene	5000	0	4600	92	5240	105	13	30	85 - 137
2,4-Dinitrotoluene	5000	0	5030	101	5470	109	8.29	30	86 - 135
1,3,5-Trinitrobenzene	5000	0	4640	92.8	4530	90.7	2.38	30	50 - 140
Tetryl	5000	0	4070	81.5	3420	68.4	17.5	30	36 - 124
m-Dinitrobenzene	5000	0	4600	92	5020	100	8.68	30	85 - 118
m-Nitrotoluene	5000	0	4530	90.5	4600	91.9	1.5	30	70 - 120
o-Nitrotoluene	5000	0	3930	78.5	4690	93.8	17.8	30	69 - 123
p-Nitrotoluene	5000	0	4390	87.8	4730	94.6	7.5	30	65 - 133

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

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Extract Batch Code: 950082

Date Extracted: 11-FEB-10

GEL Spike ID: 1202035684

GEL SpikeDup ID: 1202035685

Analysis Date/Time: 20-FEB-10 14:19

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	5440	109	5210	104	4.32	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5380	108	4790	95.8	11.6	30	55 - 130
3,5-Dinitroaniline	5000	0	5600	112	5620	112	.357	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5070	101	5020	100	.991	30	72 - 127
TATB	5000	0	6040	121	5650	113	6.67	30	29 - 155

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

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:07

GEL Data File: EXP0216001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.816
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Unfiled, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216001a

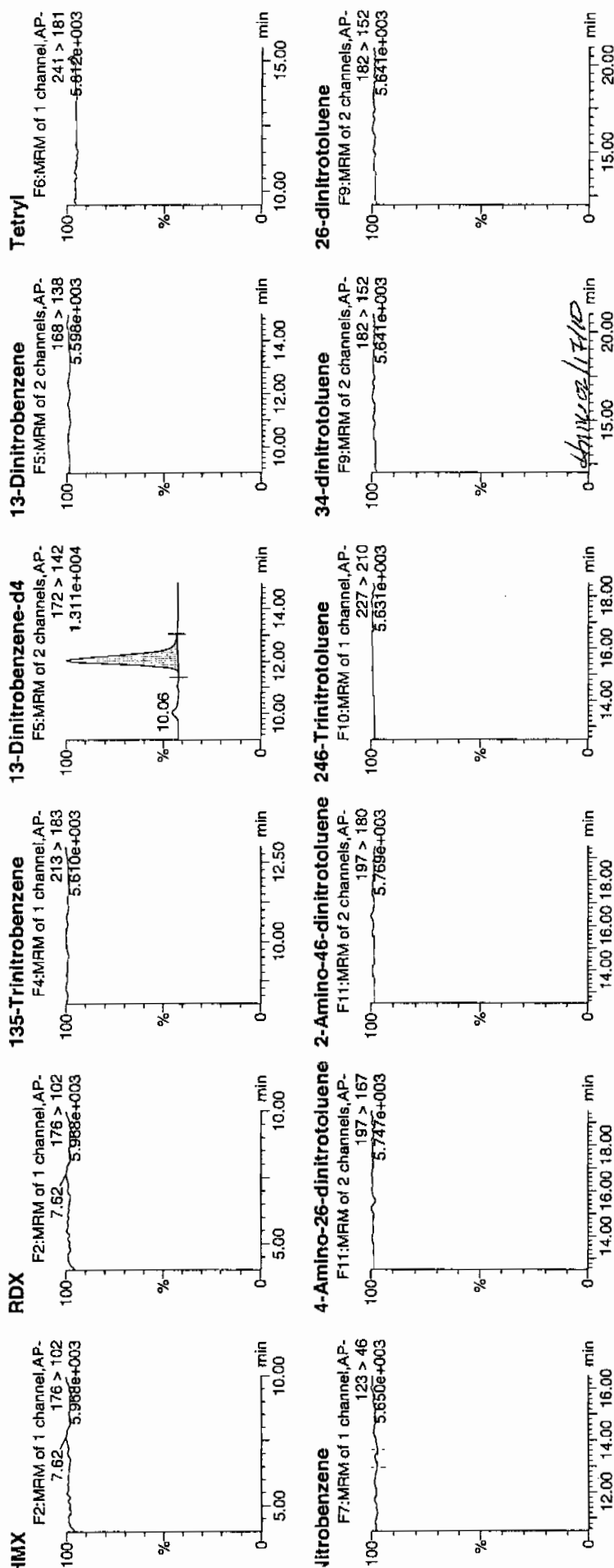
Date: 16-Feb-2010

Time: 17:07:38

D: XIBLK01

/ial: 1:1,A

Page 116 of 1886

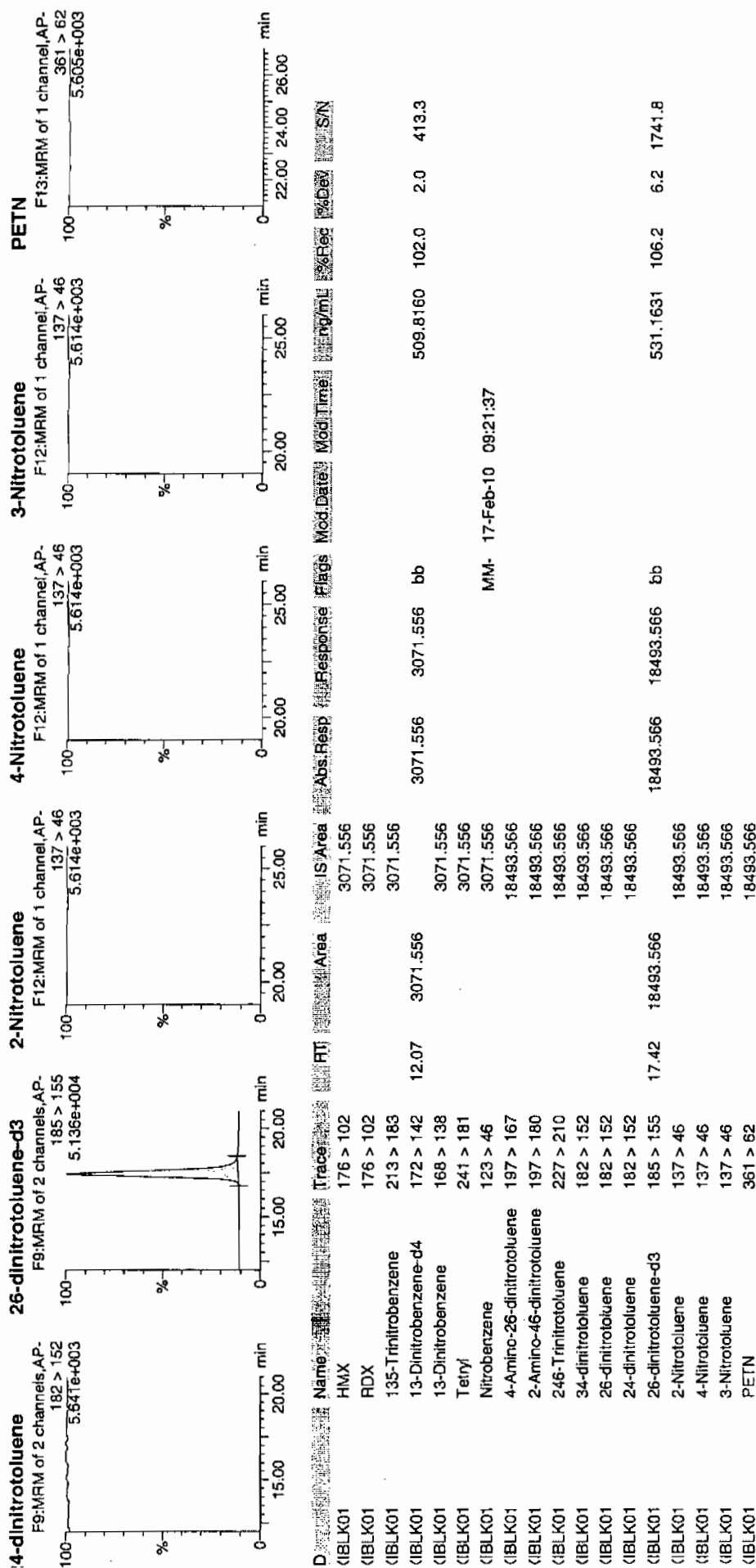


Quantify Sample Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 2 of 59

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:37

GEL Data File: EXP0216002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	540.968
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.887

Quantify Sample Report
 3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216002a

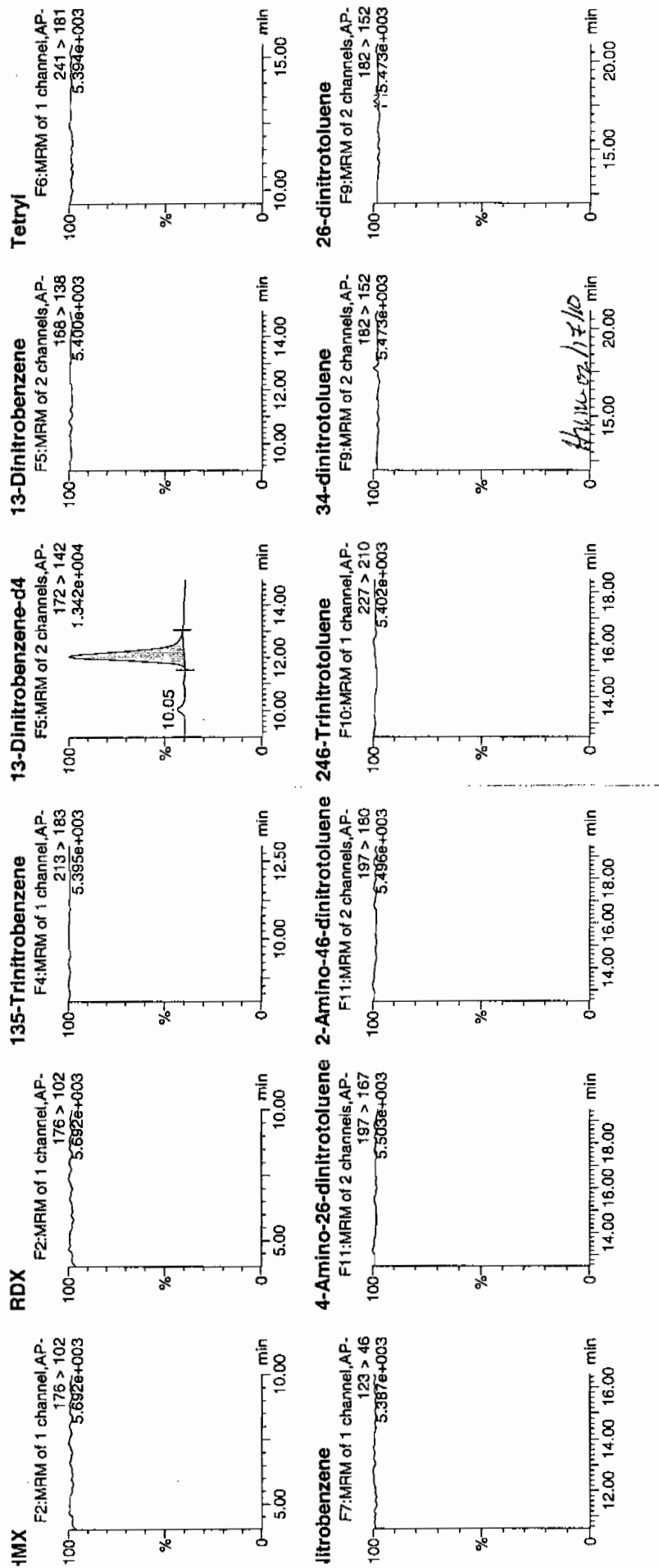
Date: 16-Feb-2010

Time: 17:37:26

D: XIBLK01

/ial: 1:1,A

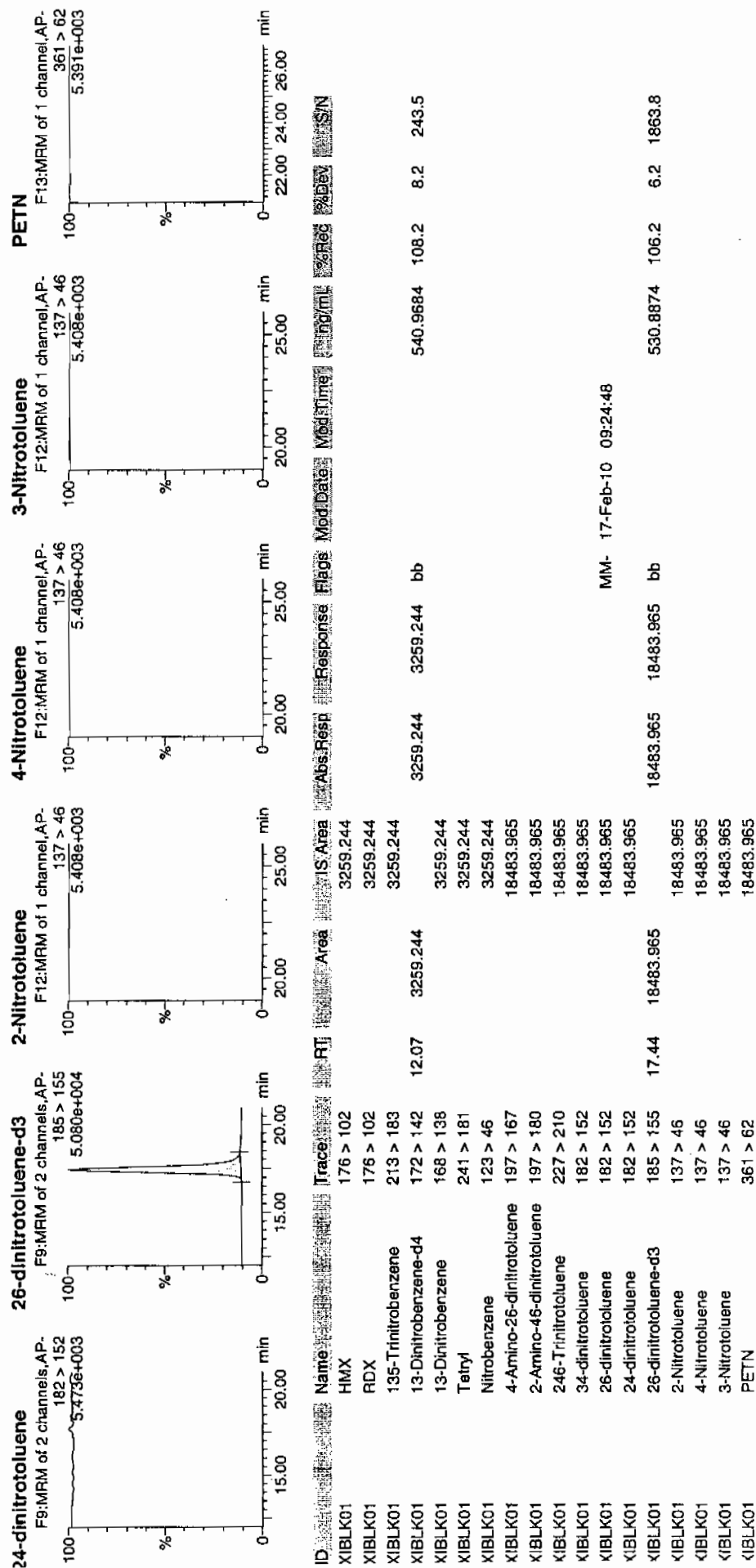
WAT
 2/17/10



Printed: Wed Feb 17 10:00:54 2010, Page 4 of 59

Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 25-FEB-10 10:03

GEL Data File: EXP0225001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	460.349
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	512.775
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

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

ethod: C:\MASSLYNX\New_Exp.PRO\MethDB\022510expa.mdb, Time: Thu Feb 25 15:54:02 2010
alibration: Untitled, Time: Fri Feb 26 09:15:37 2010

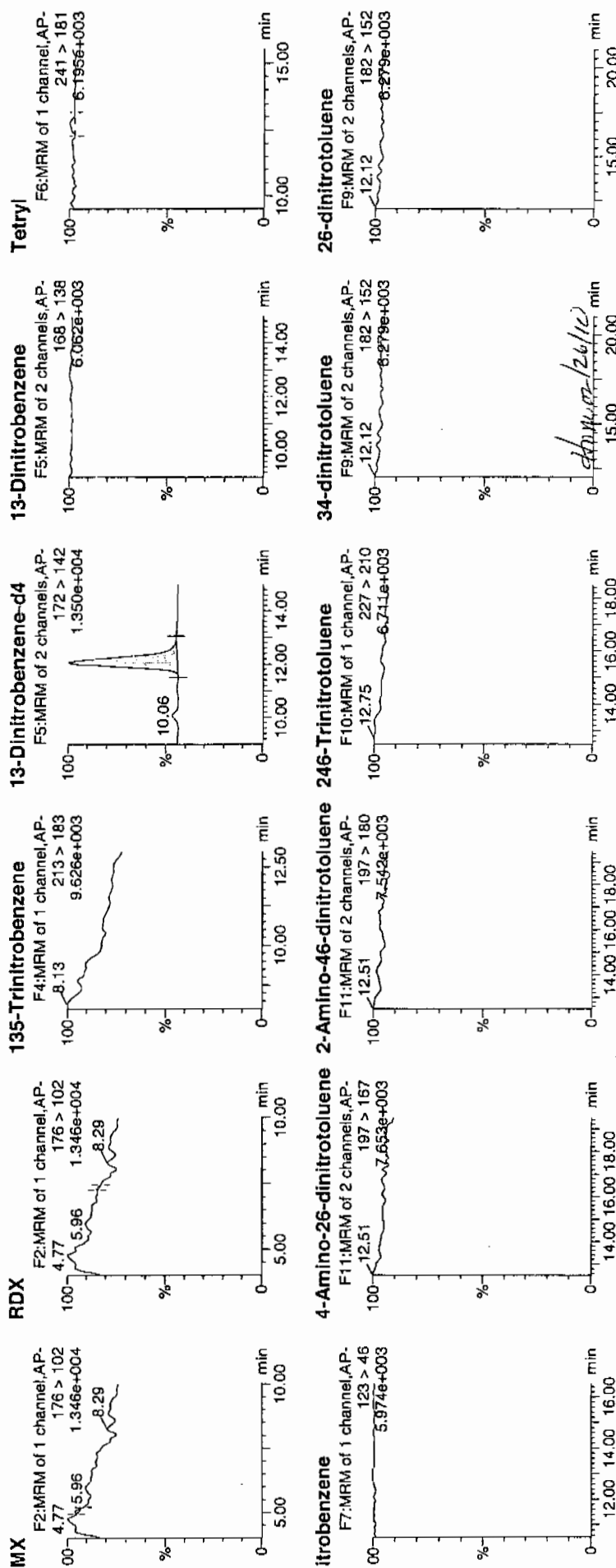
ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225001a

ate: 25-Feb-2010

ime: 10:03:05

Y: XIBLK01

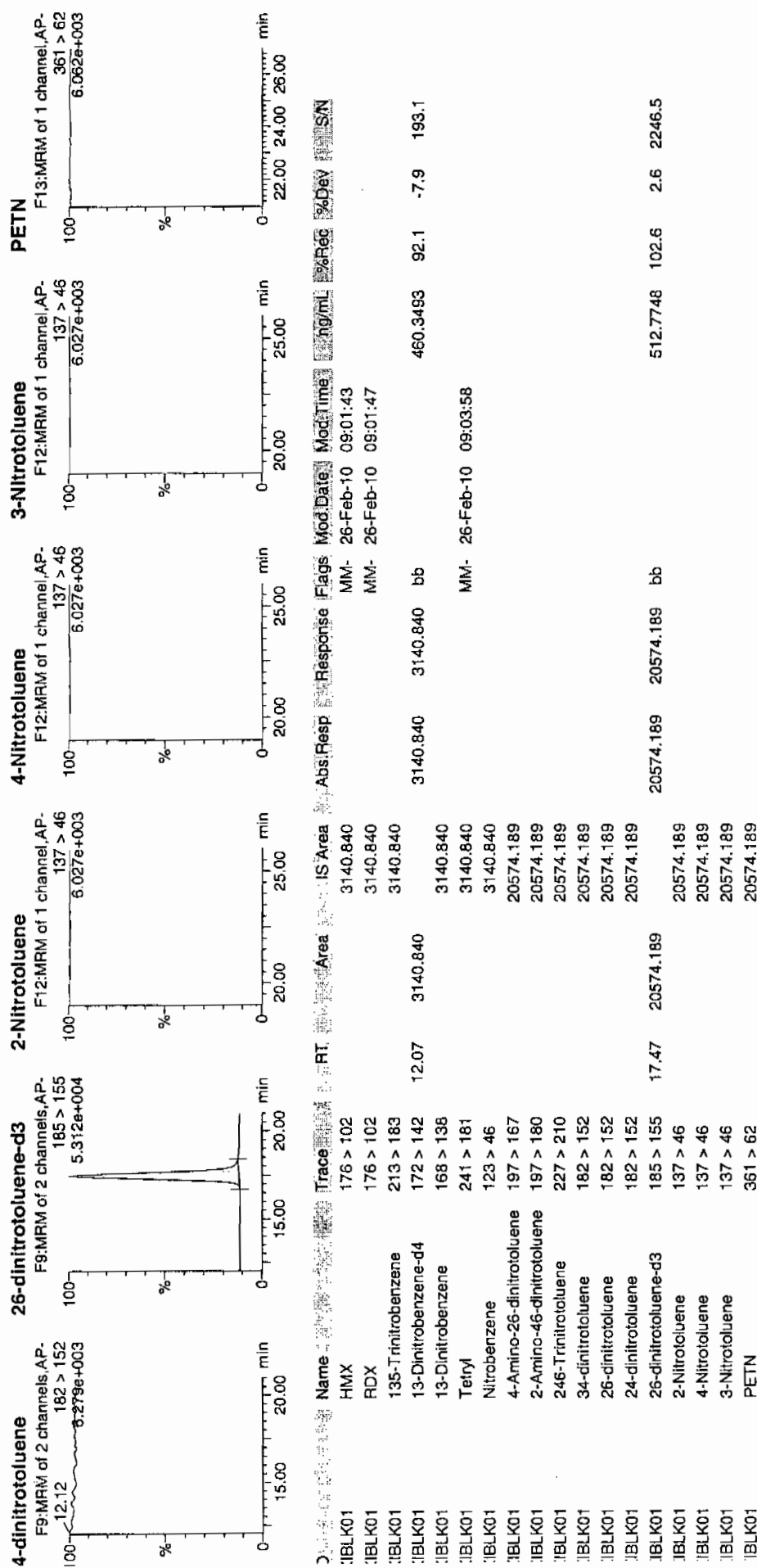
ial: 1:1,A



Quantify Sample Report

AMEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 25-FEB-10 10:32

GEL Data File: EXP0225002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	412.454
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	477.321
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Identify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO1022510expA.qtd, Time: Fri Feb 26 09:15:44 2010

Sample Name: C:\MASSLYNX\NEW_EXP\PRO1Data\EXP0225002a

Date: 25-Feb-2010

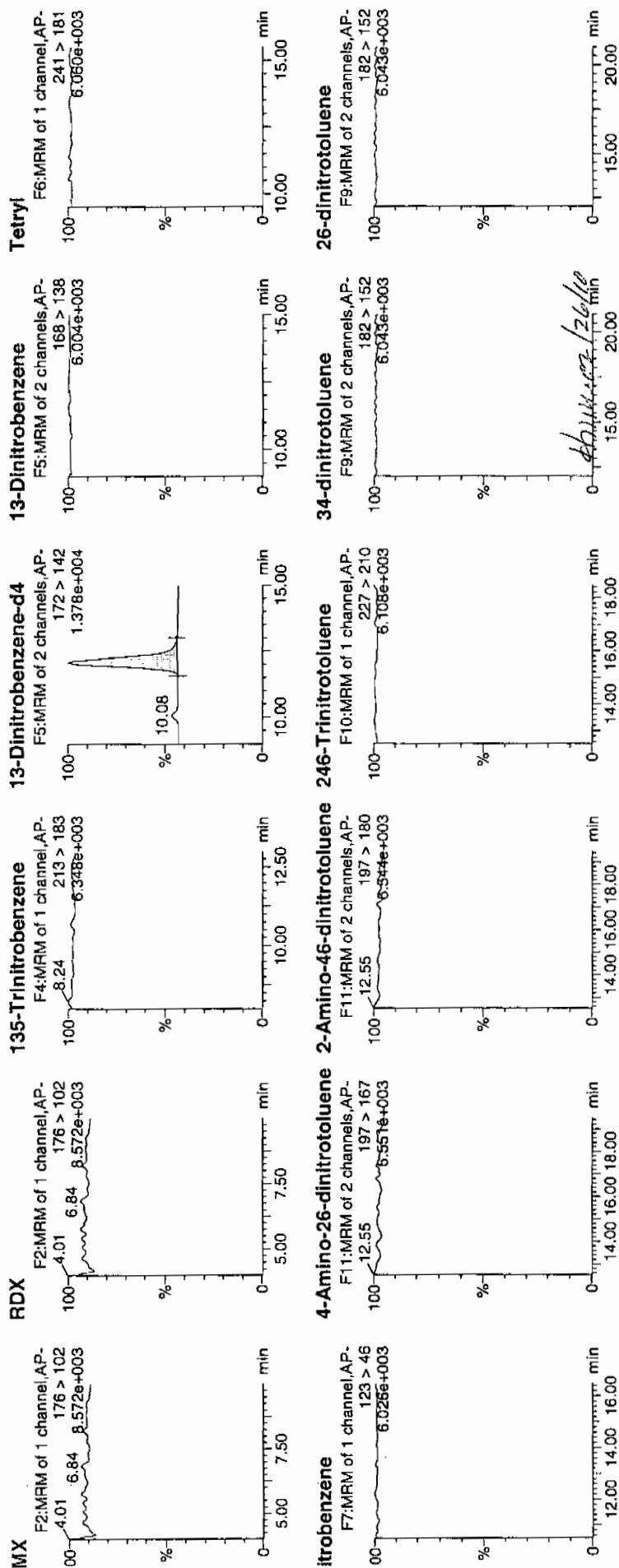
Time: 10:32:37

File: XIBLK01

Label: 1:1,A

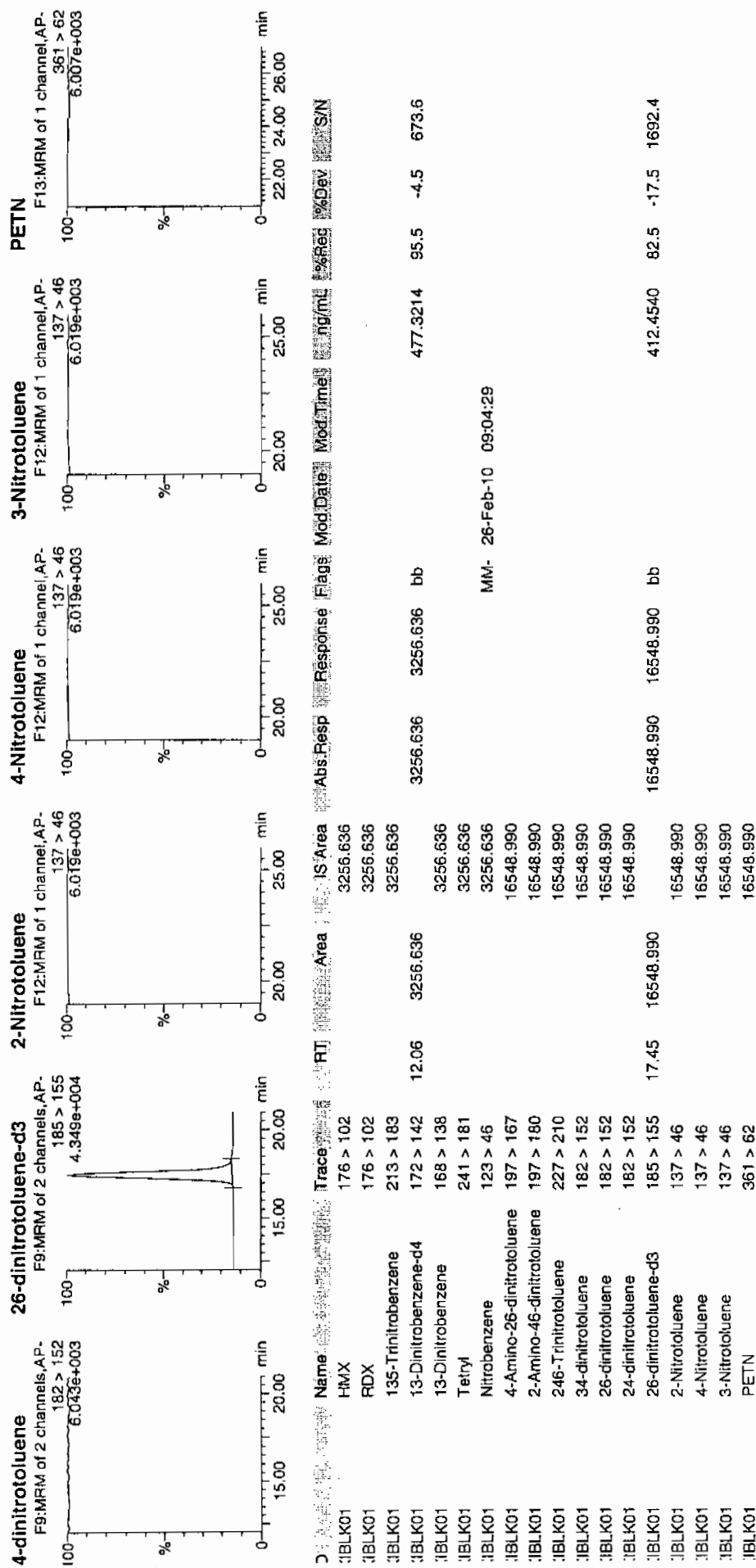
10/16/10
M.A.P.

Page 125 of 186



Quantify Sample Report
IEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-FEB-10 09:37

GEL Data File: EXS02200001.wiff

Instrument ID: LCMSMS

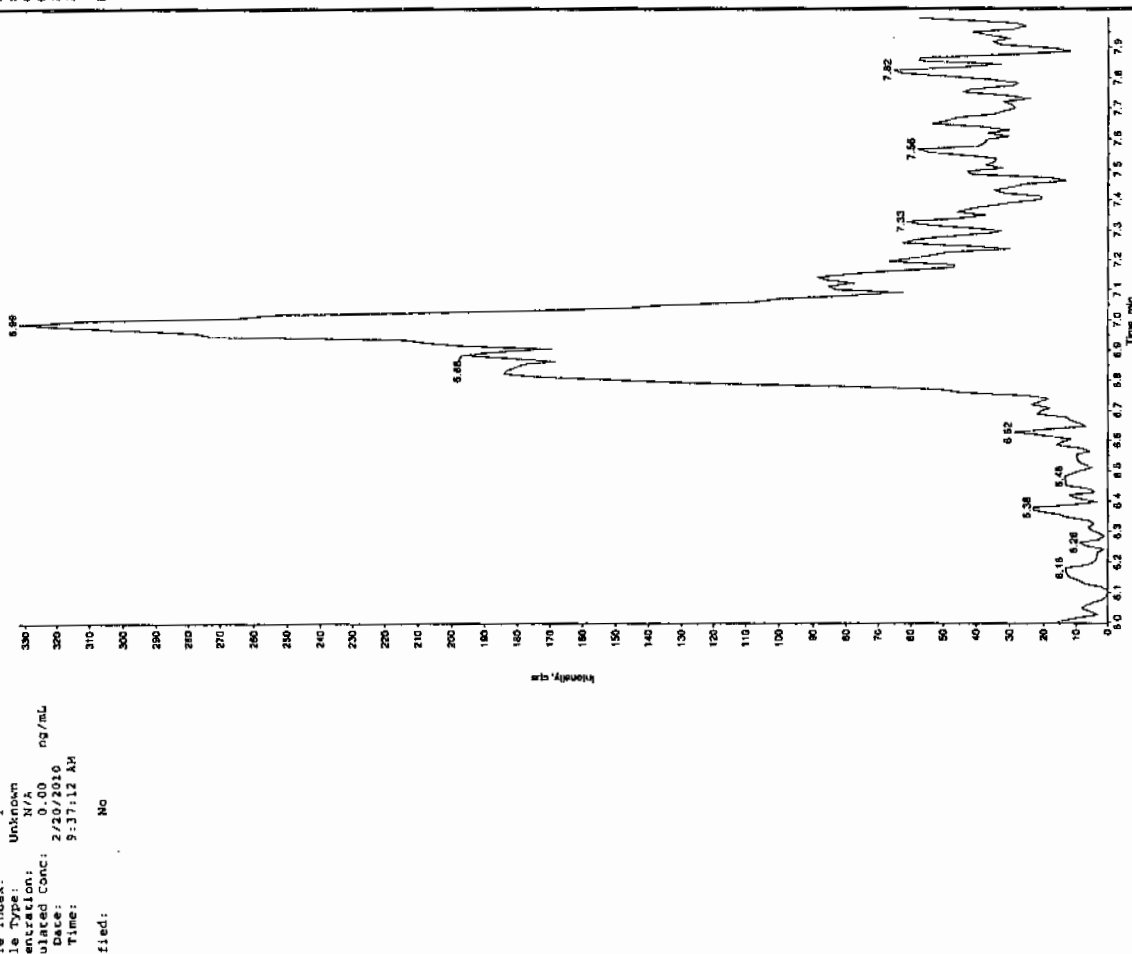
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.64
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 2/22/10

Sample Name: "XIBLX01" Sample ID: "JILER" File: "EX502200001.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 9:37:12 AM
 Modified: No

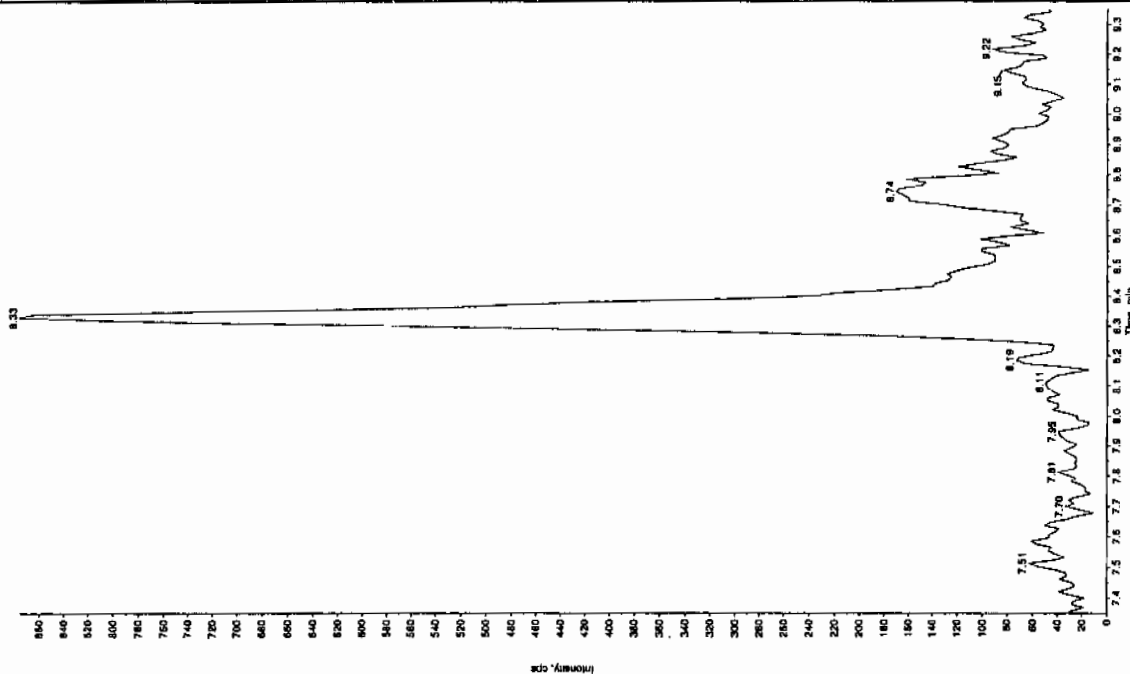


See 2/22/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

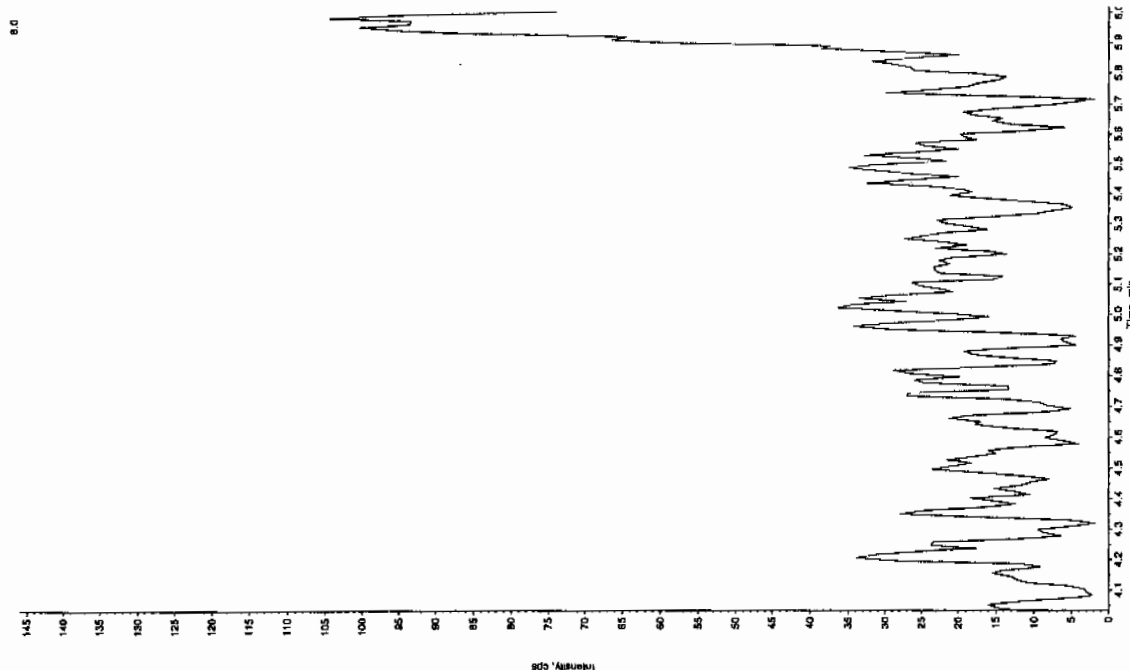
Sample Name: "XIBLK01" Sample ID: "11111" File: "EXS02200001.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/20/2010
 Time: 9:37:12 AM
 Filled: No



Sample Name: "XIBLK01" Sample ID: "11111" File: "EXS02200001.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0/166.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/20/2010
 Time: 9:37:12 AM
 Filled: No

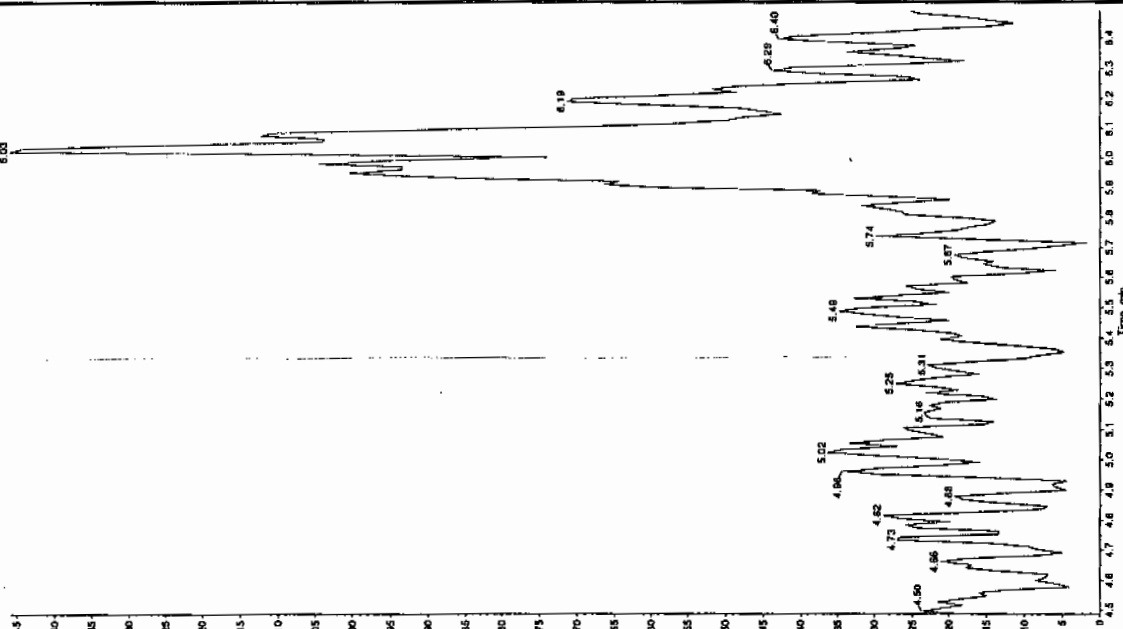


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XBLK01" Sample ID: "11LER" File: "EX052200001.wif"
 Peak Name: "24-Diamino-6-Hitroindane" Mass(es): "155.046.0 amu"
 Comment: "LCMS-EXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/20/2010
 Date: 9:37:12 AM
 Time: 9:37:12 AM
 Filed: No

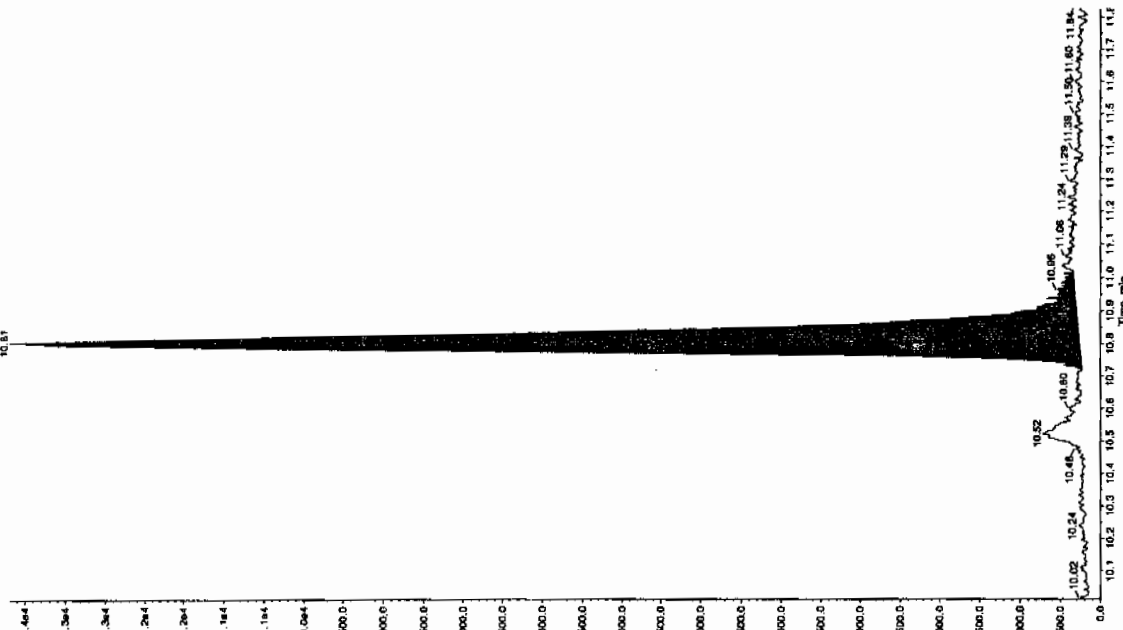
Intensity, cps



Sample Name: "XBLK01" Sample ID: "11LER" File: "EX052200001.wif"
 Peak Name: "10-(p-cresyl) phosphatase" Mass(es): "369.191.0 amu"
 Comment: "LCMS-EXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: 2.54 ng/mL
 Calculated Conc: 2/20/2010
 Date: 9:37:12 AM
 Time: 9:37:12 AM
 Filed: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 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
 XHeight: 5.64e06 cps
 Height: 13438.064 cps
 Start Time: 10.7 min
 End Time: 11.0 min

Intensity, cps



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-FEB-10 09:52

GEL Data File: EXS02200002.wiff

Instrument ID: LCMSMS

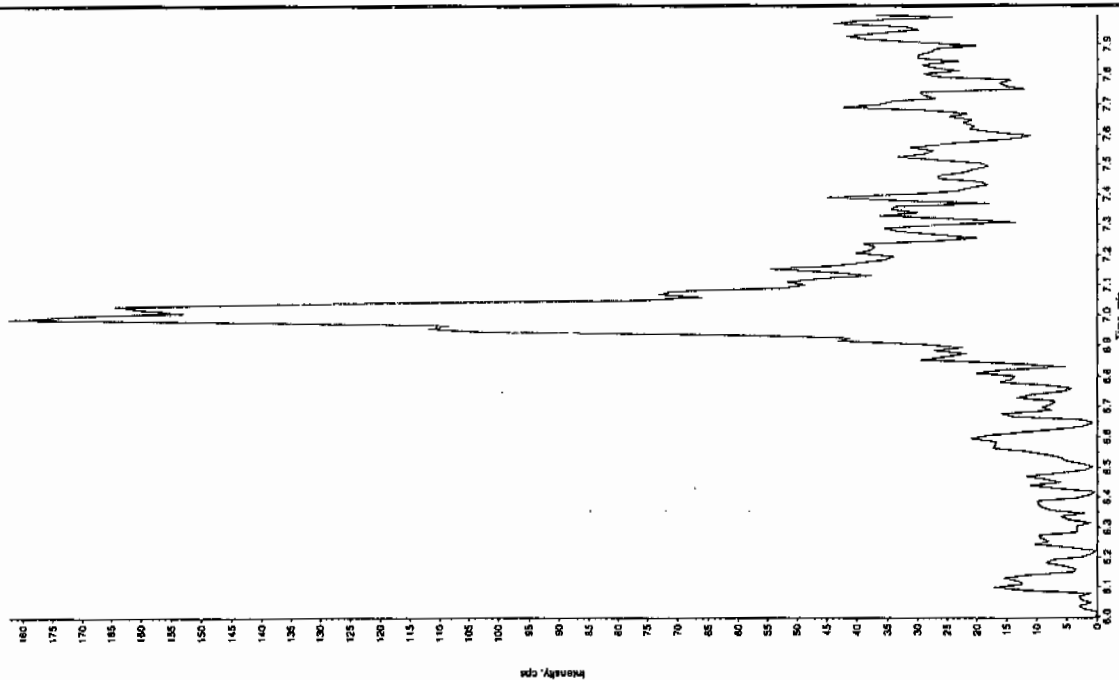
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

for 2/20/10

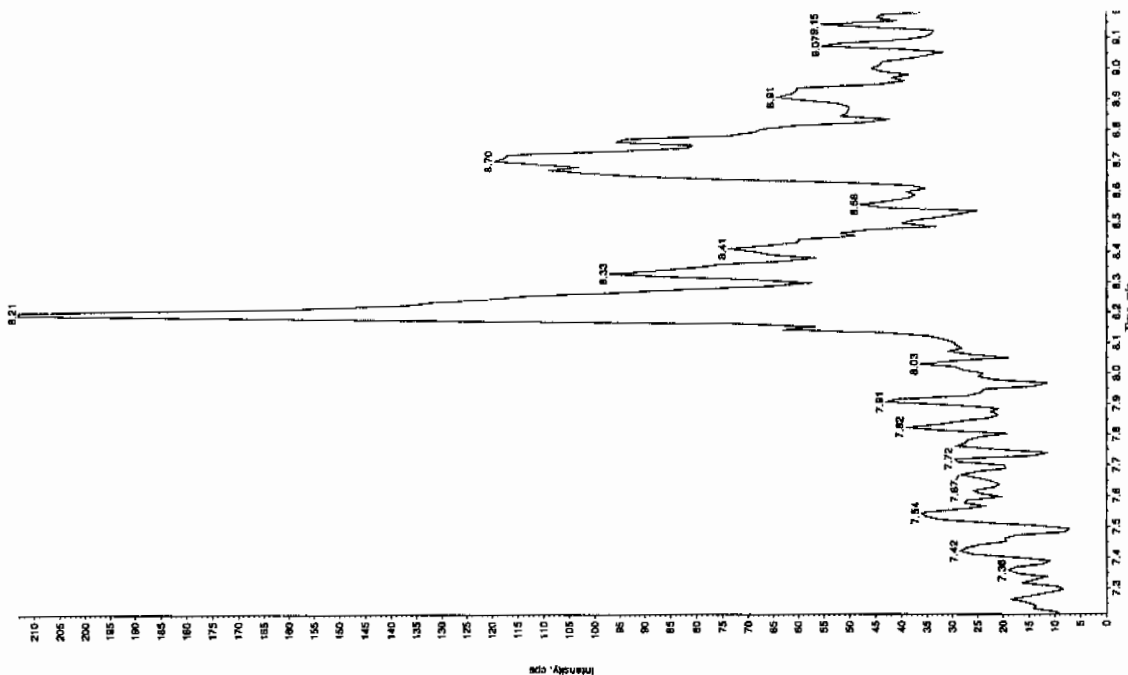
Sample Name: "XBLUC1" Sample ID: "TILER" File: "EX02200002.will"
 Peak Name: "YATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSEXP_B" Annotation: "

1e Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Date: 2/20/2010
 Time: 9:52:55 AM
 Filed: NO



Sample Name: "XBLUC1" Sample ID: "TILER" File: "EX02200002.will"
 Peak Name: "35-Oxotriptamine" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: "

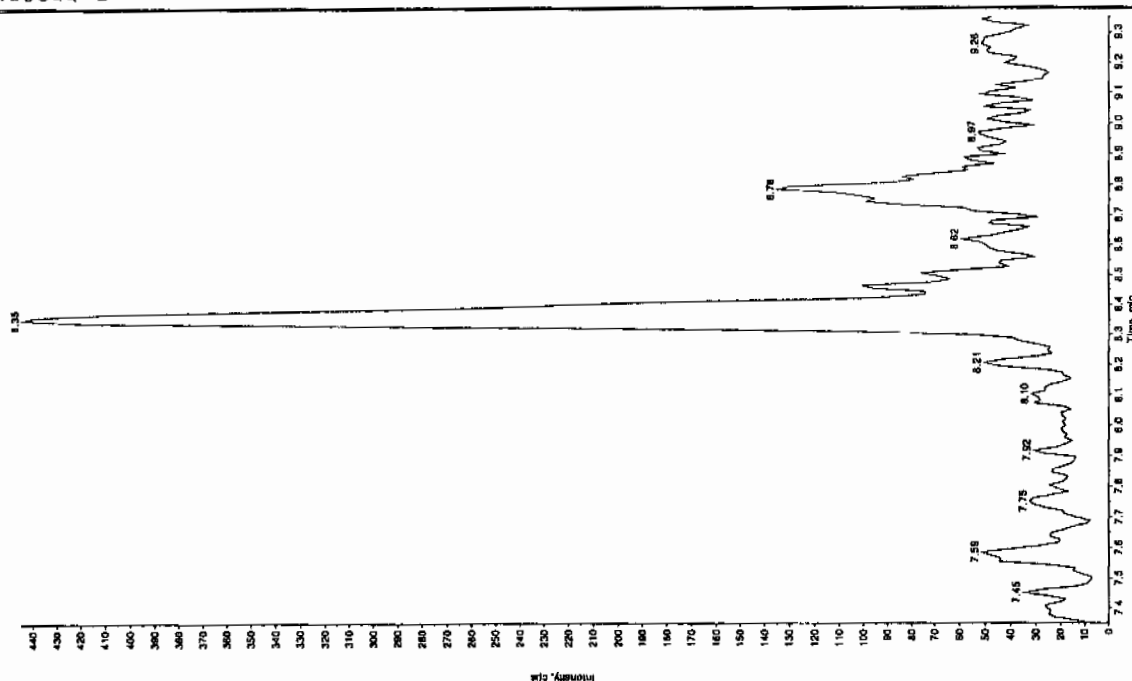
1e Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Date: 2/20/2010
 Time: 9:52:55 AM
 Filed: NO



for 2/20/10

Sample Name: "XIBLK01" Sample ID: "11LER" File: "EXS02200002.wif"
 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
 Date: 2/23/01
 Acq. Time: 9:52:55 AM
 Modified: No



Sample Name: "XIBLK01" Sample ID: "11LER" File: "EXS02200002.wif"
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: "

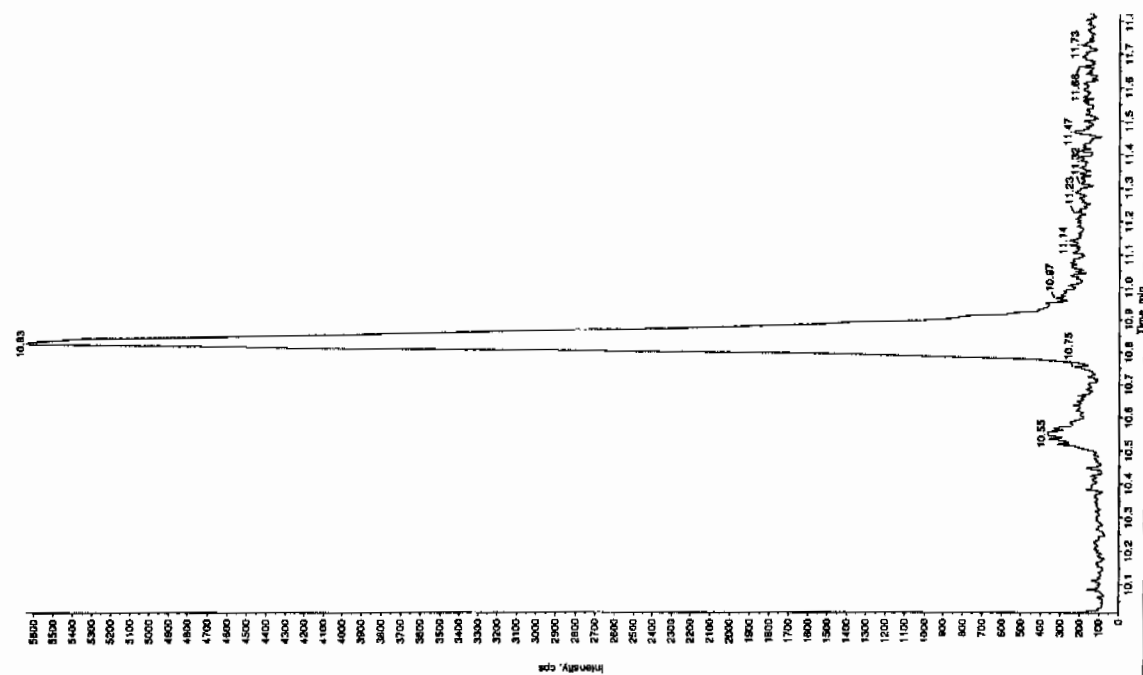
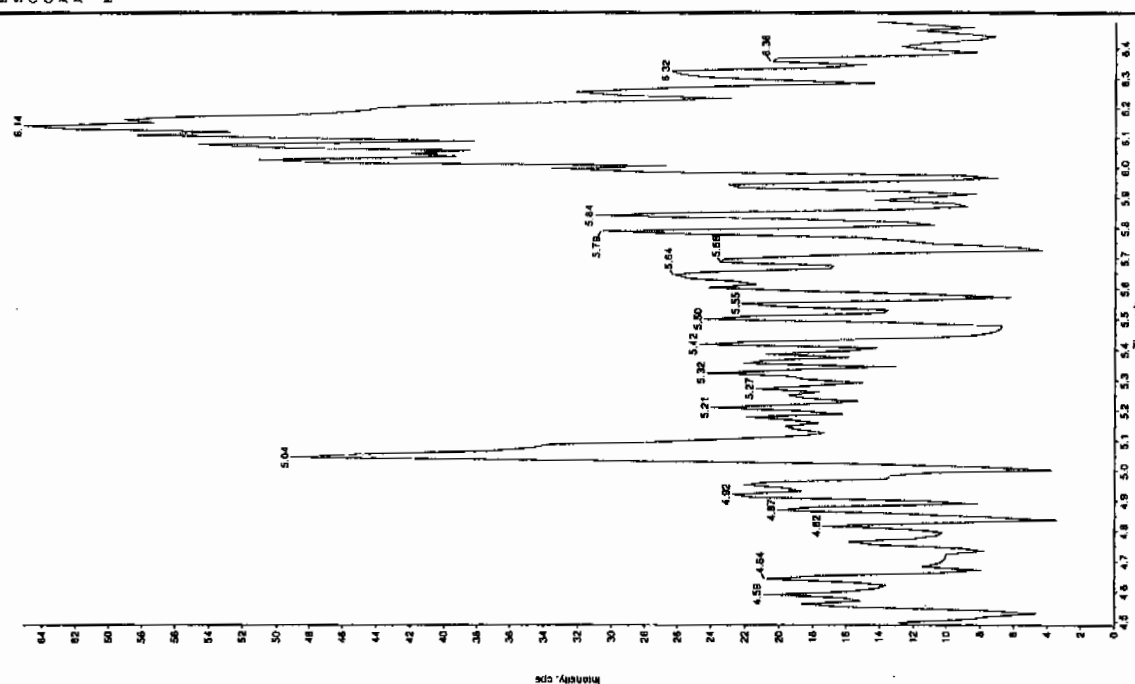
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/23/01
 Acq. Time: 9:52:55 AM
 Modified: No



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBUK01" Sample ID: "JILR" File: "EXSD2200002.wiff"
Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

File Index:	1
File Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Date:	2/20/2010
Time:	9:52:55 AM
ified:	No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-FEB-10 21:04

GEL Data File: EXP0216009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	570.463
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.232
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216009a

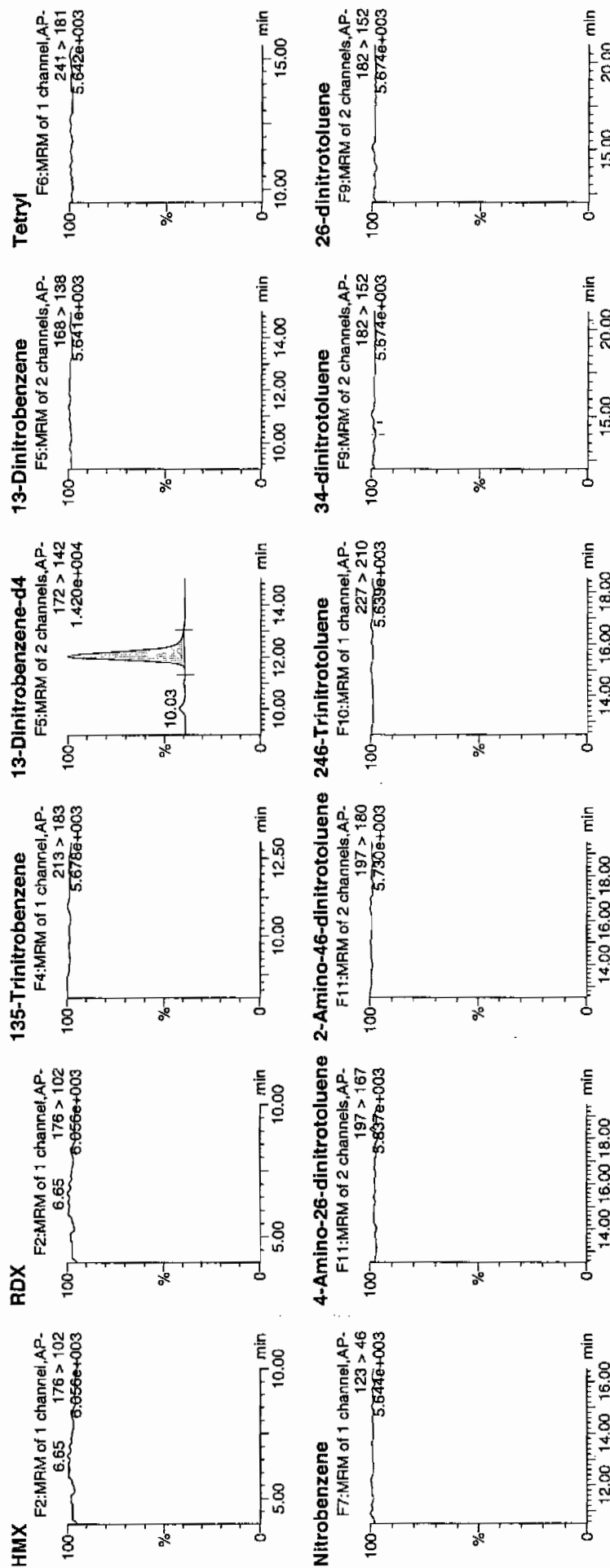
Date: 16-Feb-2010

Time: 21:04:59

ID: XIBLK02

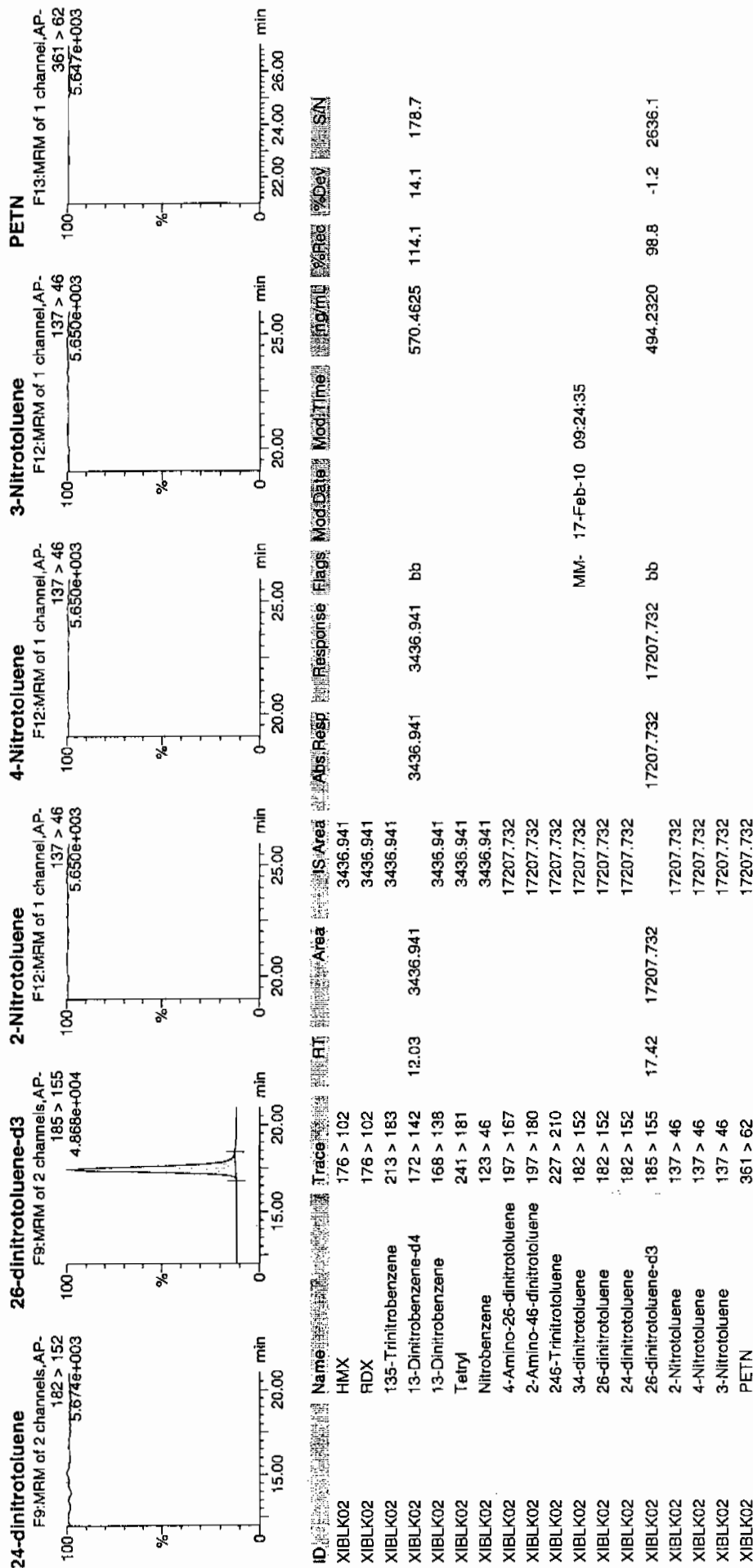
Vial: 1:1,A

100%
2/17/10



q1111102/17110

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16-FEB-10 22:04

GEL Data File: EXP0216011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	445.165
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	575.243
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216011a

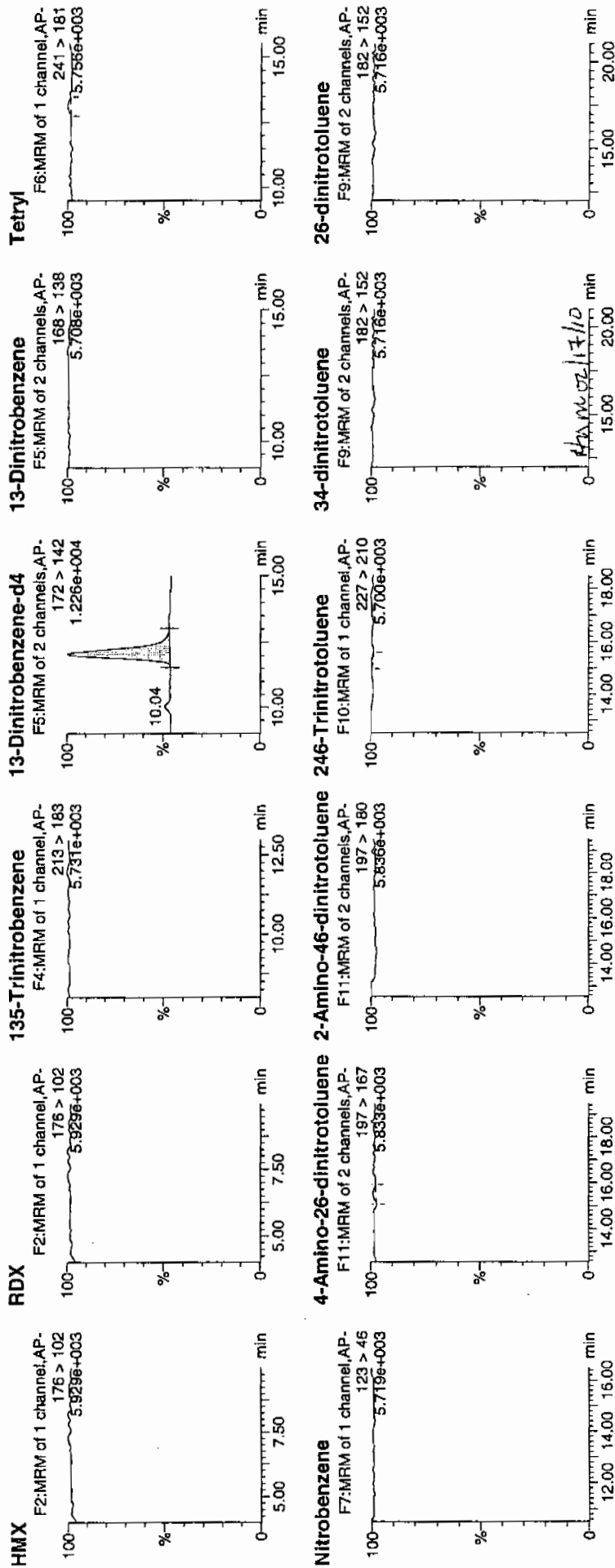
Date: 16-Feb-2010

Time: 22:04:12

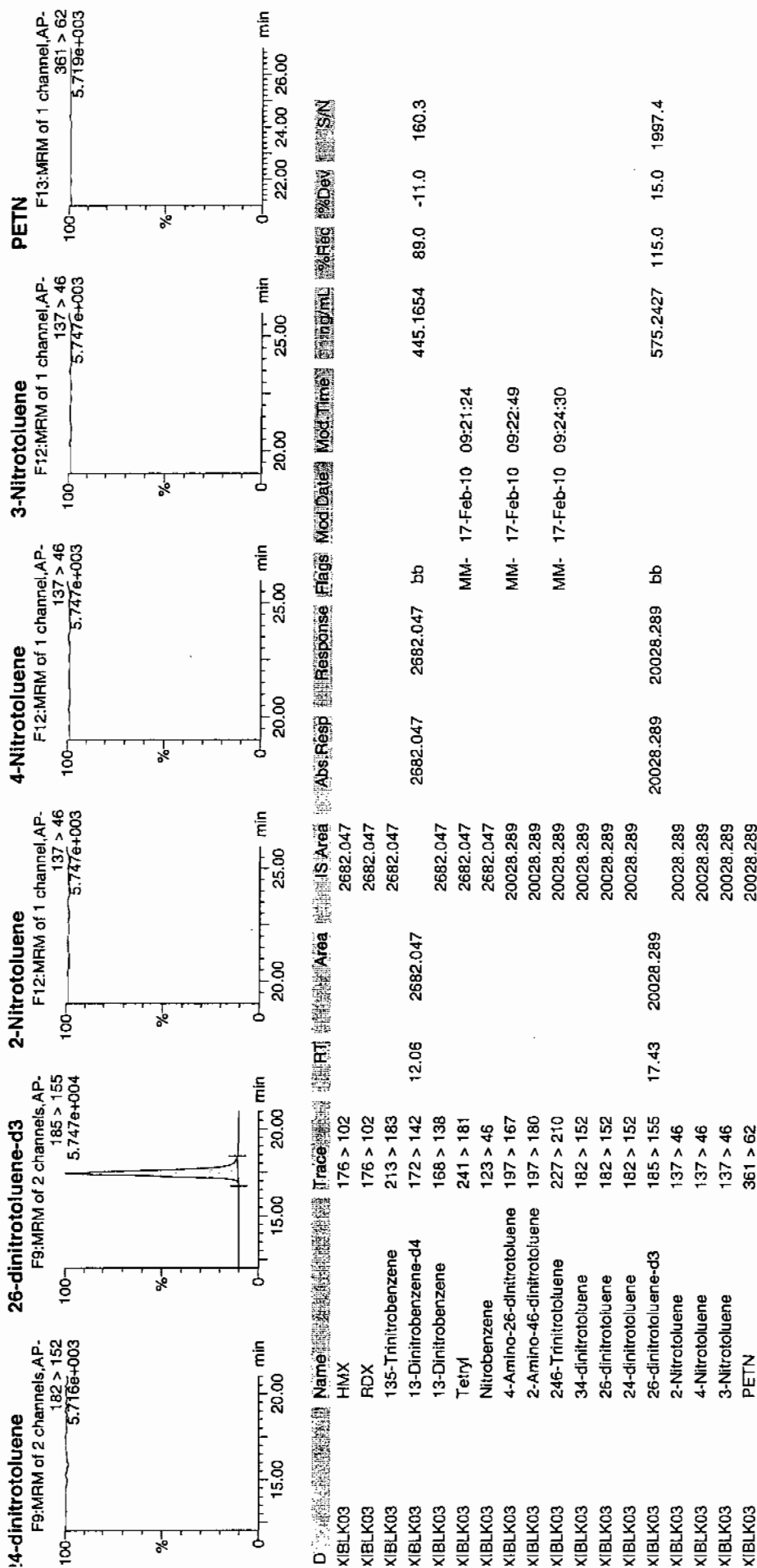
ID: XIBLK03

Vial: 1:1,A

1617
2/17/10



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 17-FEB-10 03:30

GEL Data File: EXP0216022a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	470.843
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.456
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA.qtd, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216022a

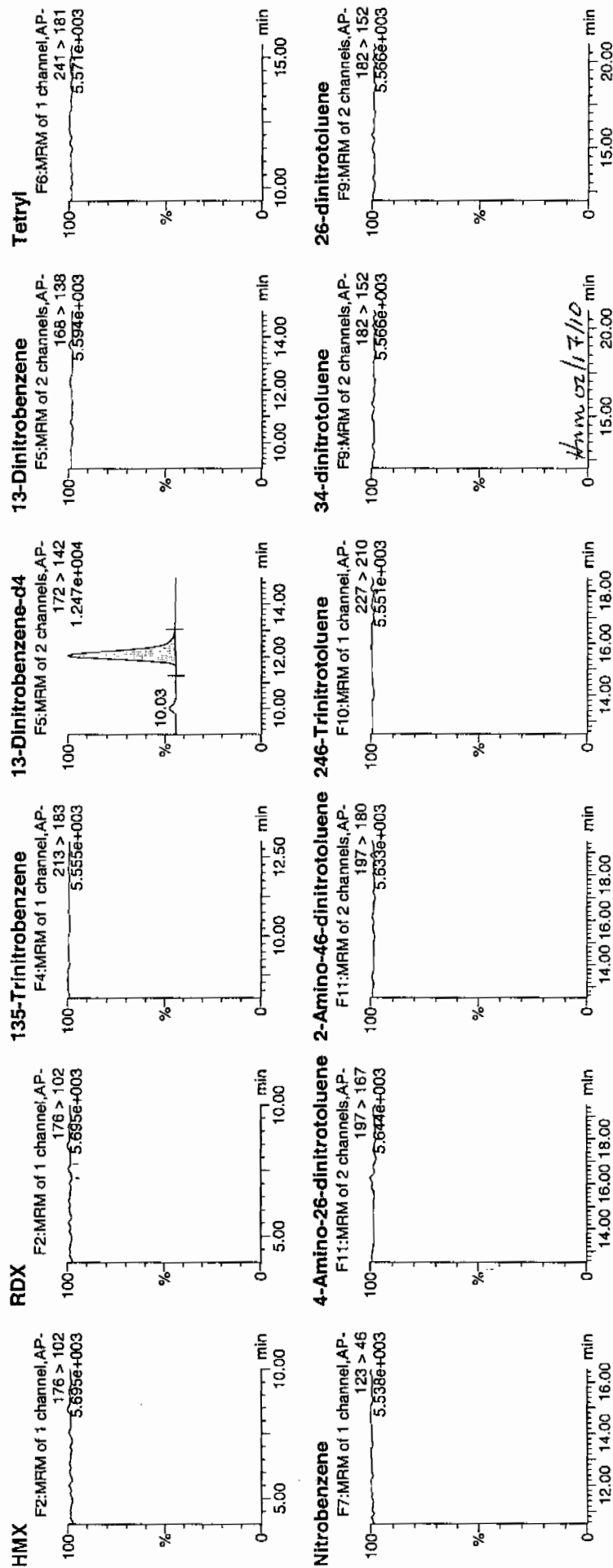
Date: 17-Feb-2010

Time: 03:30:28

ID: XIBLK04

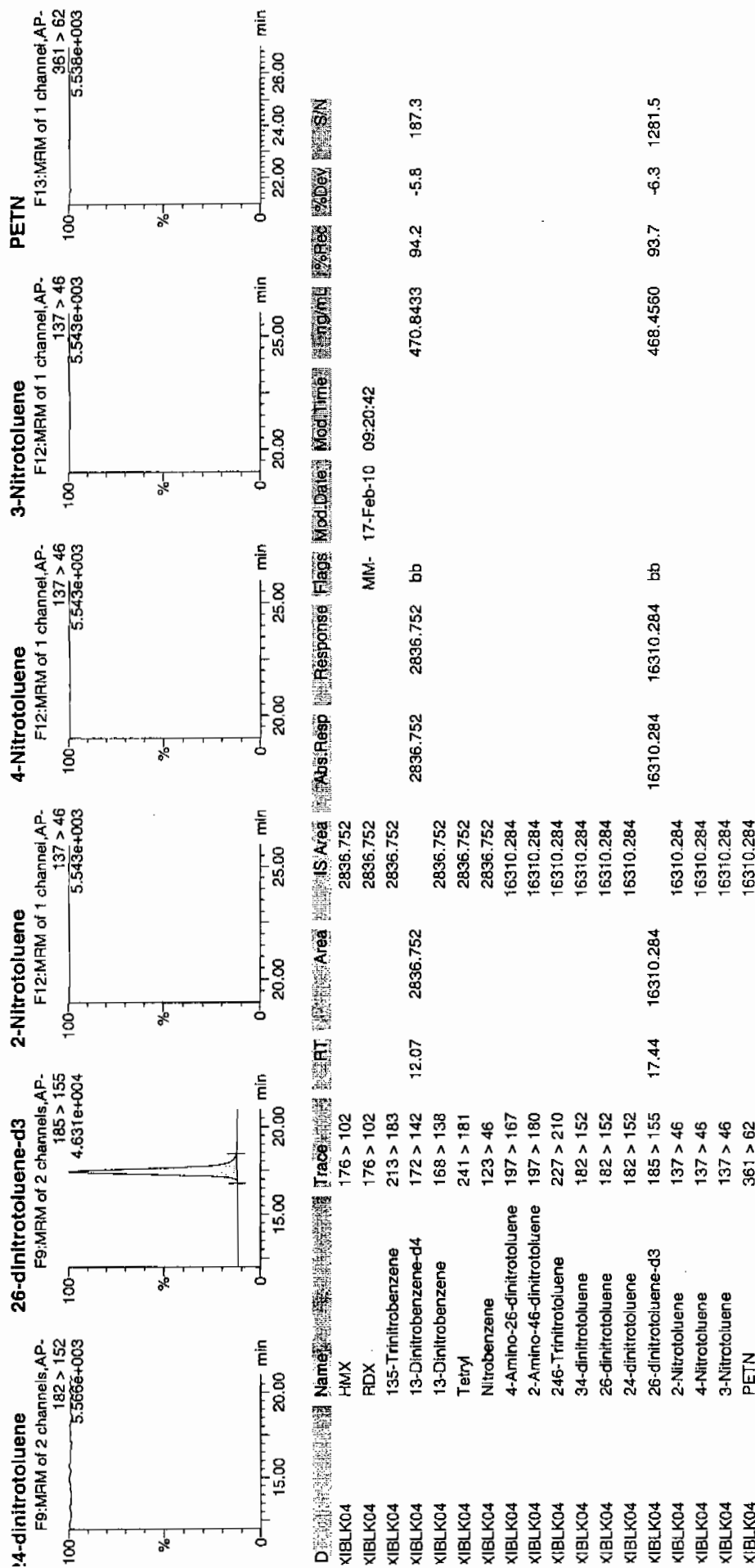
Vial: 1:1,A

Not
2/17/10



Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 06:28

GEL Data File: EXP0216028a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	440.83
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	443.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216028a

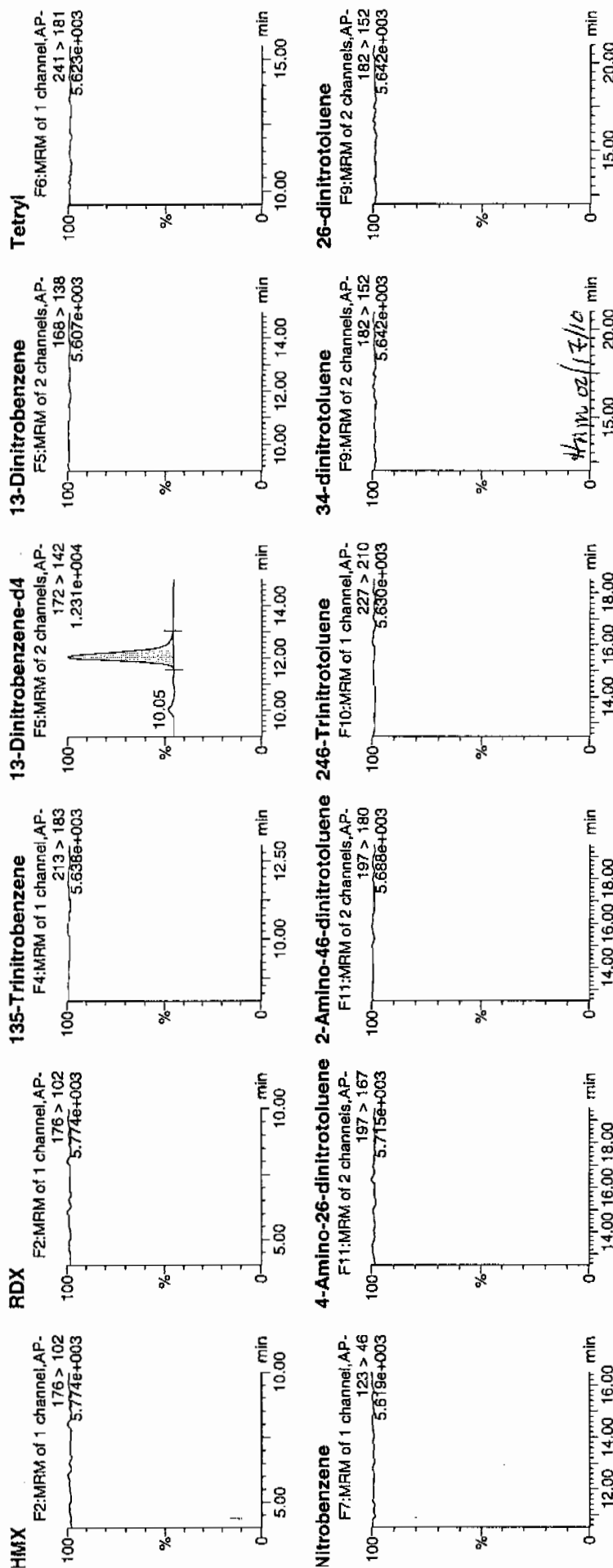
Date: 17-Feb-2010

Time: 06:28:06

ID: XIBLK05

Vial: 1:1,A

2/17/10

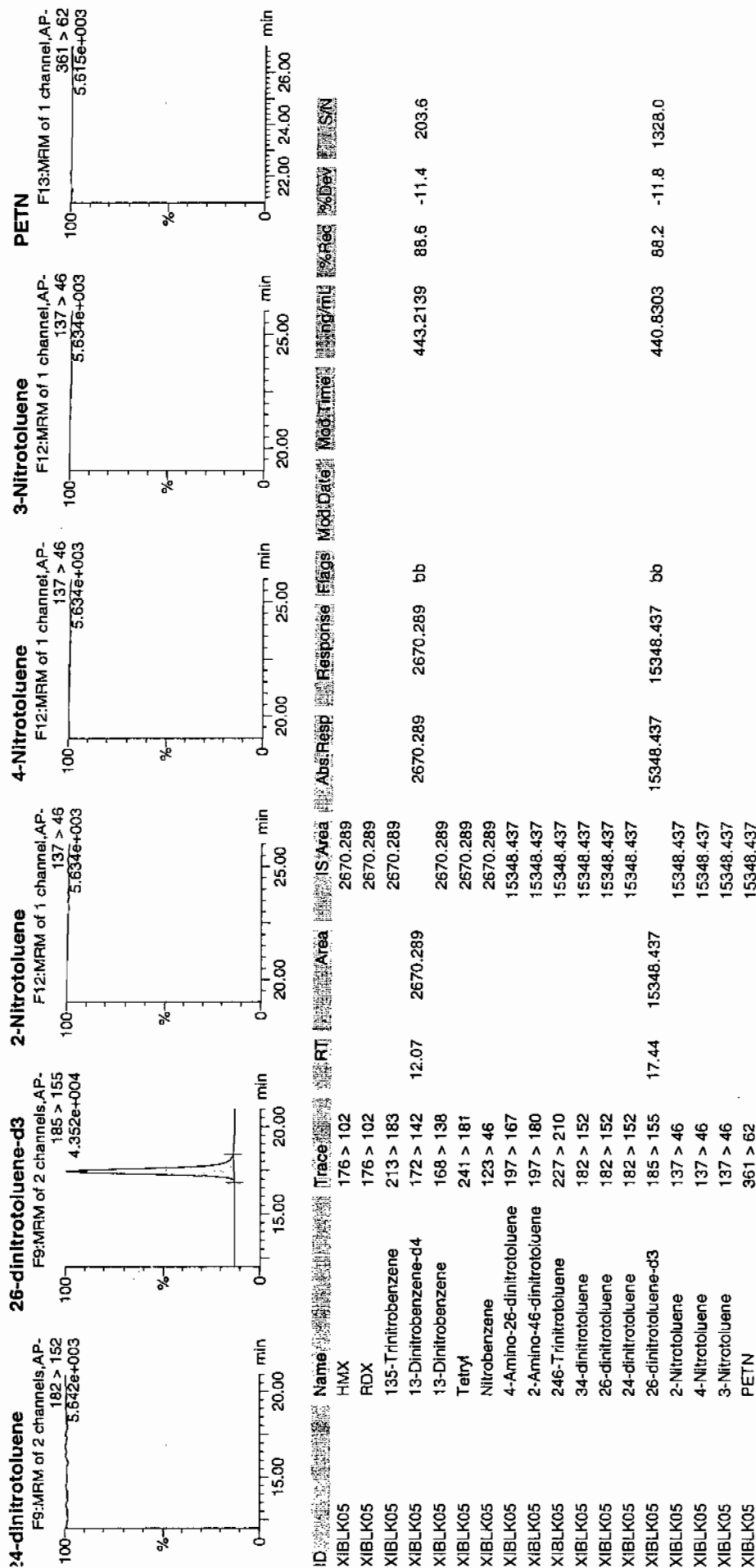


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 56 of 59

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA.qld, Time: Wed Feb 17 10:00:06 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17-FEB-10 12:24

GEL Data File: EXP0216040a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	431.007
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	413.713
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Feb 18 08:53:51 2010, Page 21 of 103

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216040a

Date: 17-Feb-2010

Time: 12:24:42

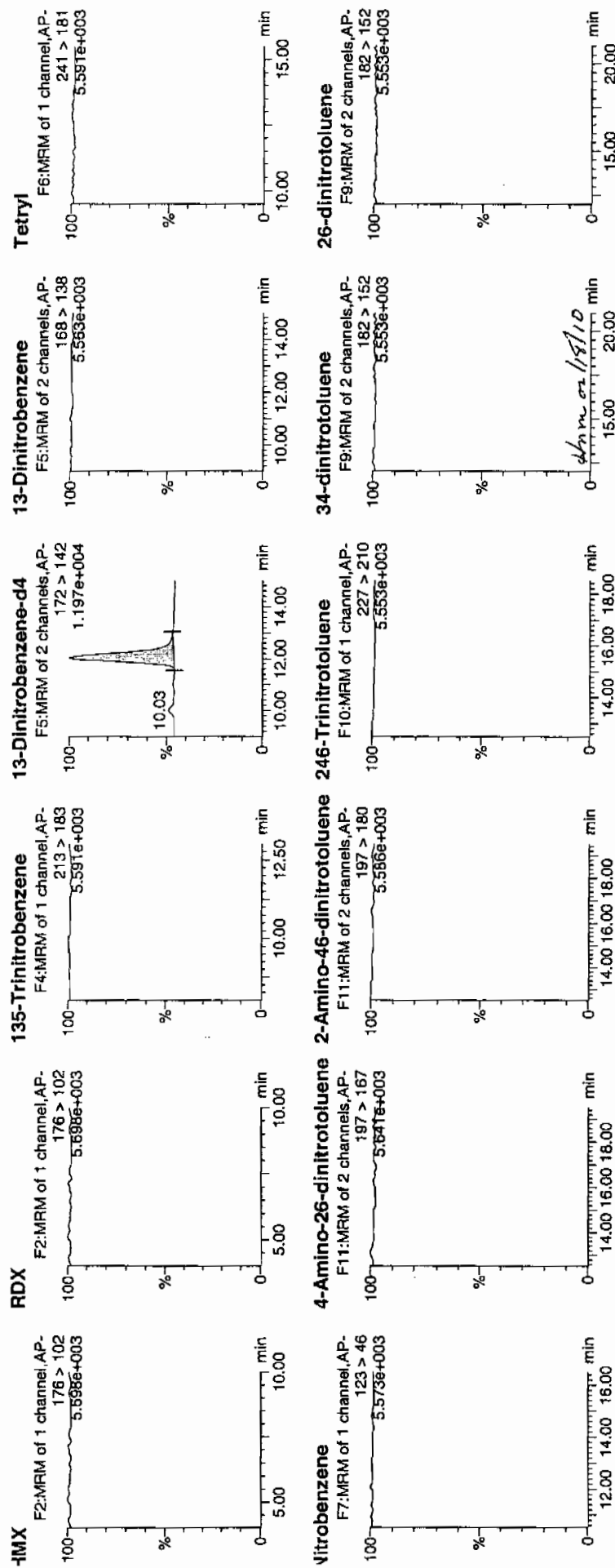
D: XIBLK06

Vial: 1:1,A

2/18/10

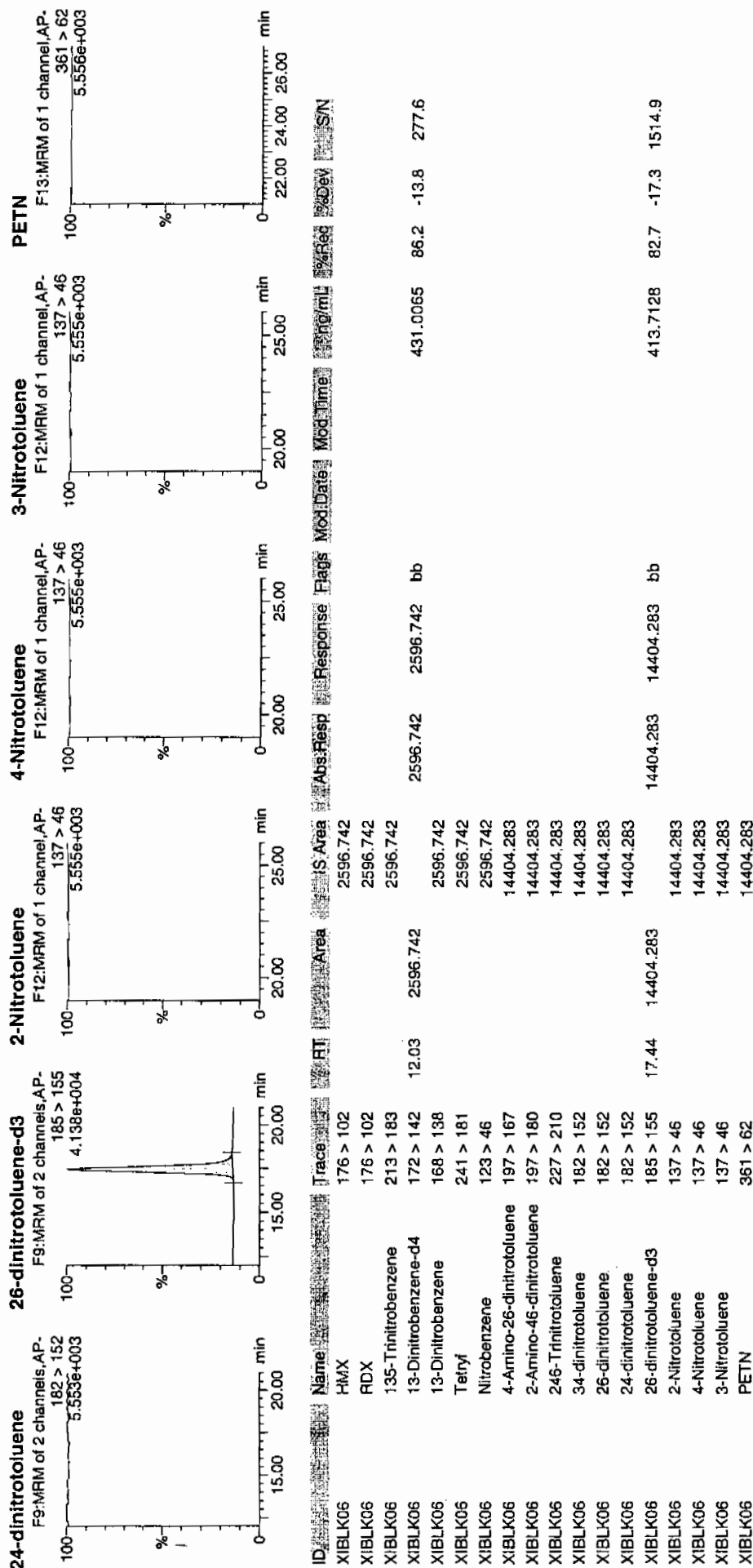
Page 148 of 188

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



3EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qtd, Time: Thu Feb 18 08:53:07 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 17-FEB-10 18:50

GEL Data File: EXP0216053a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.203
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	500.527
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Quantify Sample Report
IEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216053a

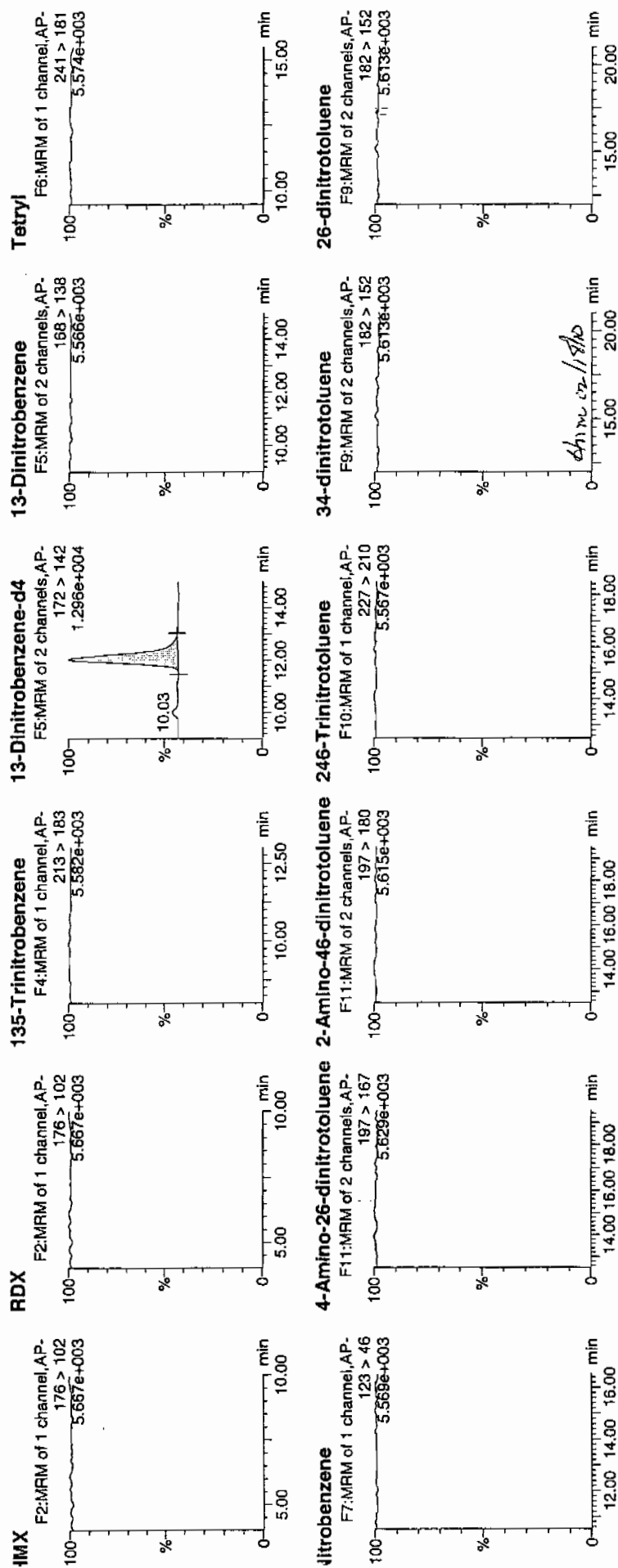
Date: 17-Feb-2010

Time: 18:50:03

Page D: XIBLK07

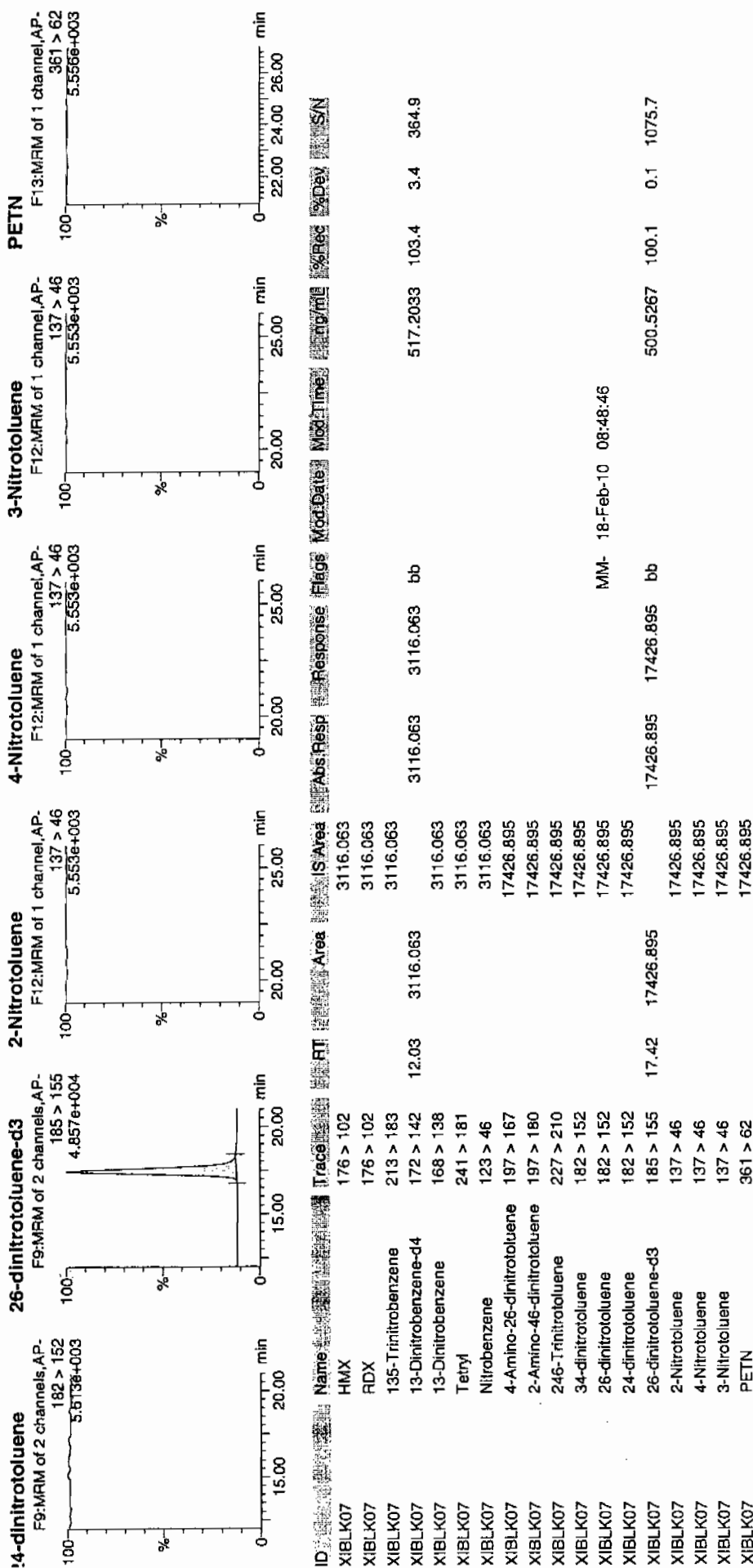
File: 1:1,A

AP-
2/18/10



Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 18-FEB-10 01:14

GEL Data File: EXP0216066a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.508
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216066a

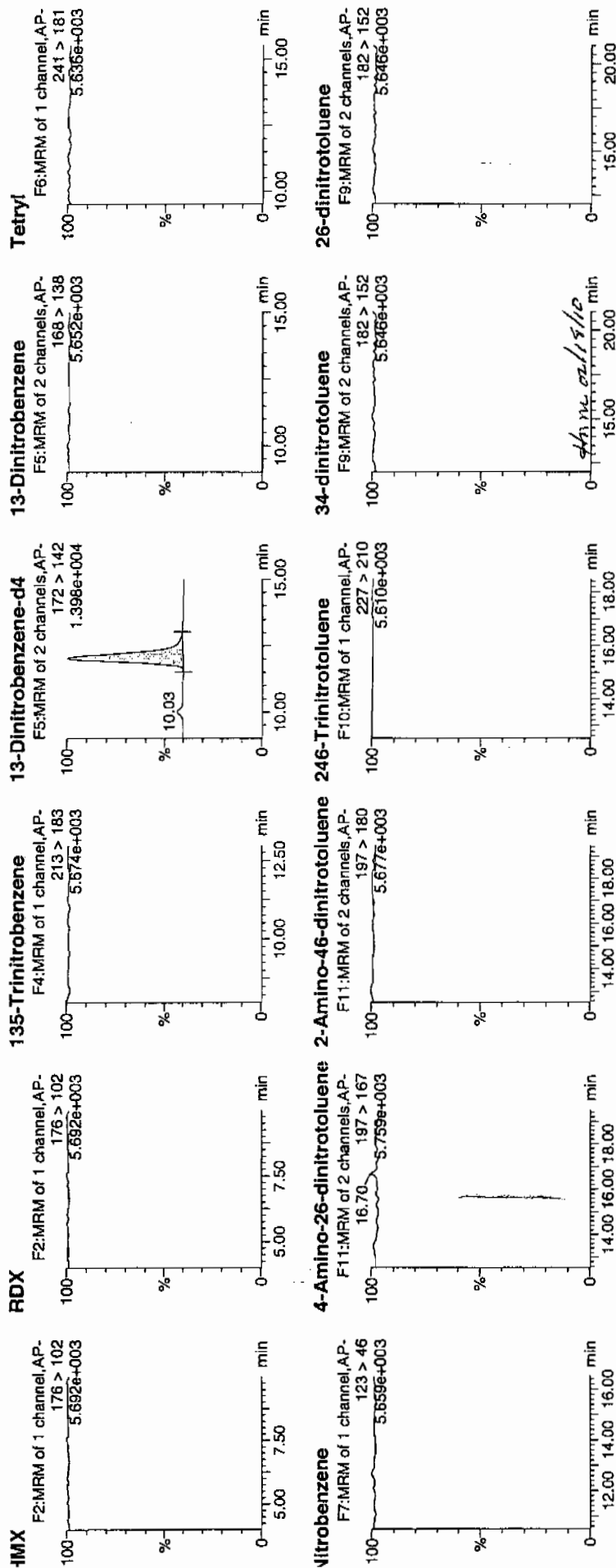
Date: 18-Feb-2010

Time: 01:14:55

D: XIBLK08

File: 1:1,A

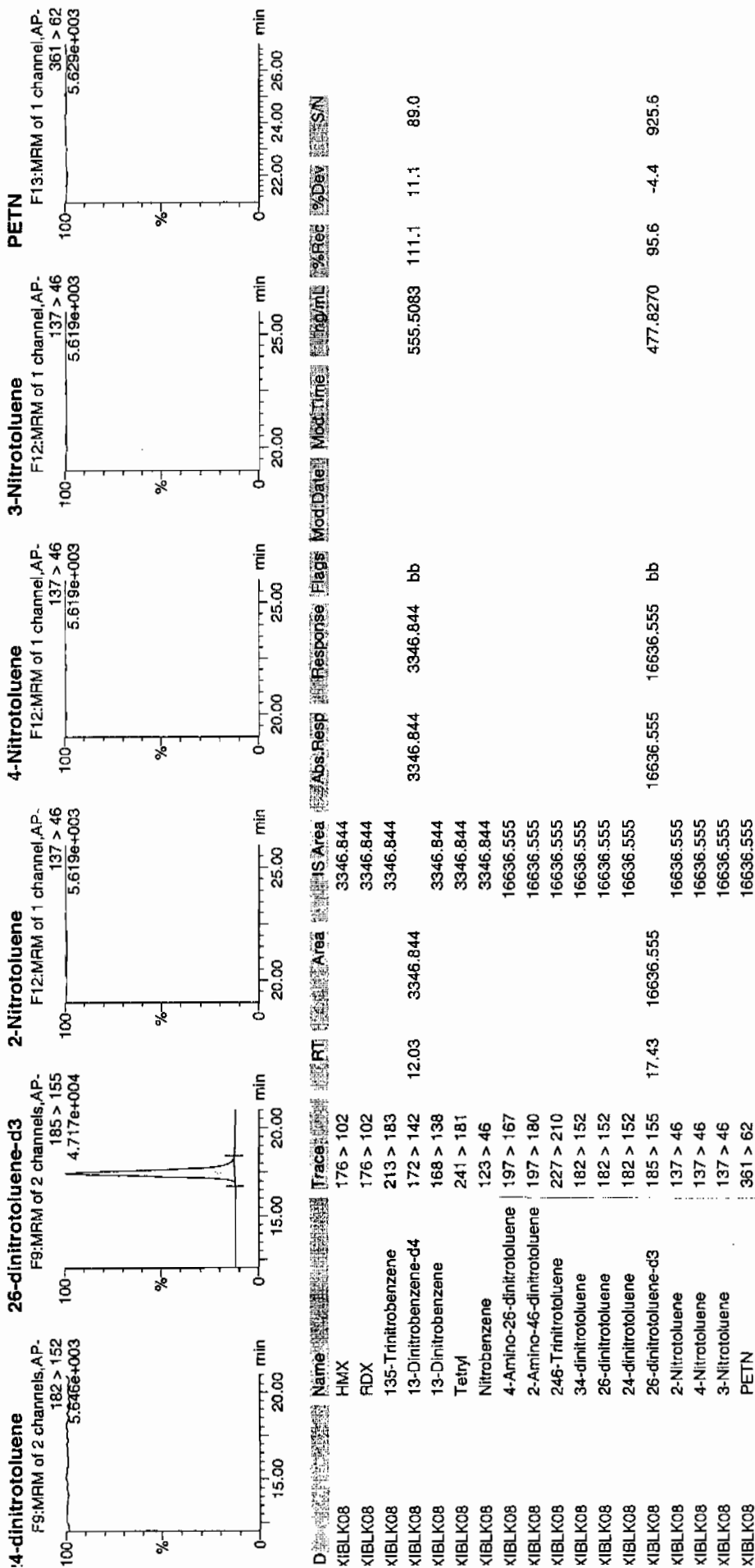
1/18/10



Printed: Thu Feb 18 08:53:51 2010, Page 74 of 103

Quantify Sample Report
JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18-FEB-10 02:43

GEL Data File: EXP0216069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	533.187
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.45
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
SEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216069a

Date: 18-Feb-2010

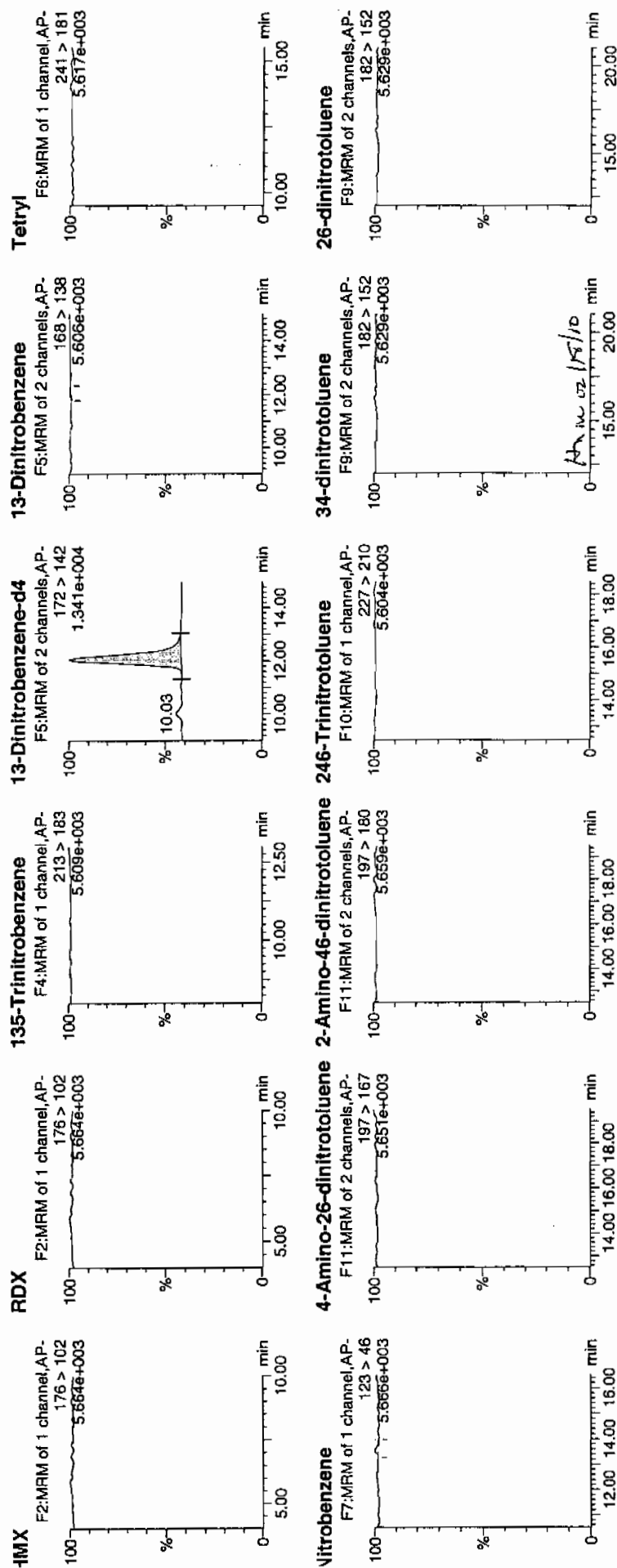
Time: 02:43:41

D: XIBLK09

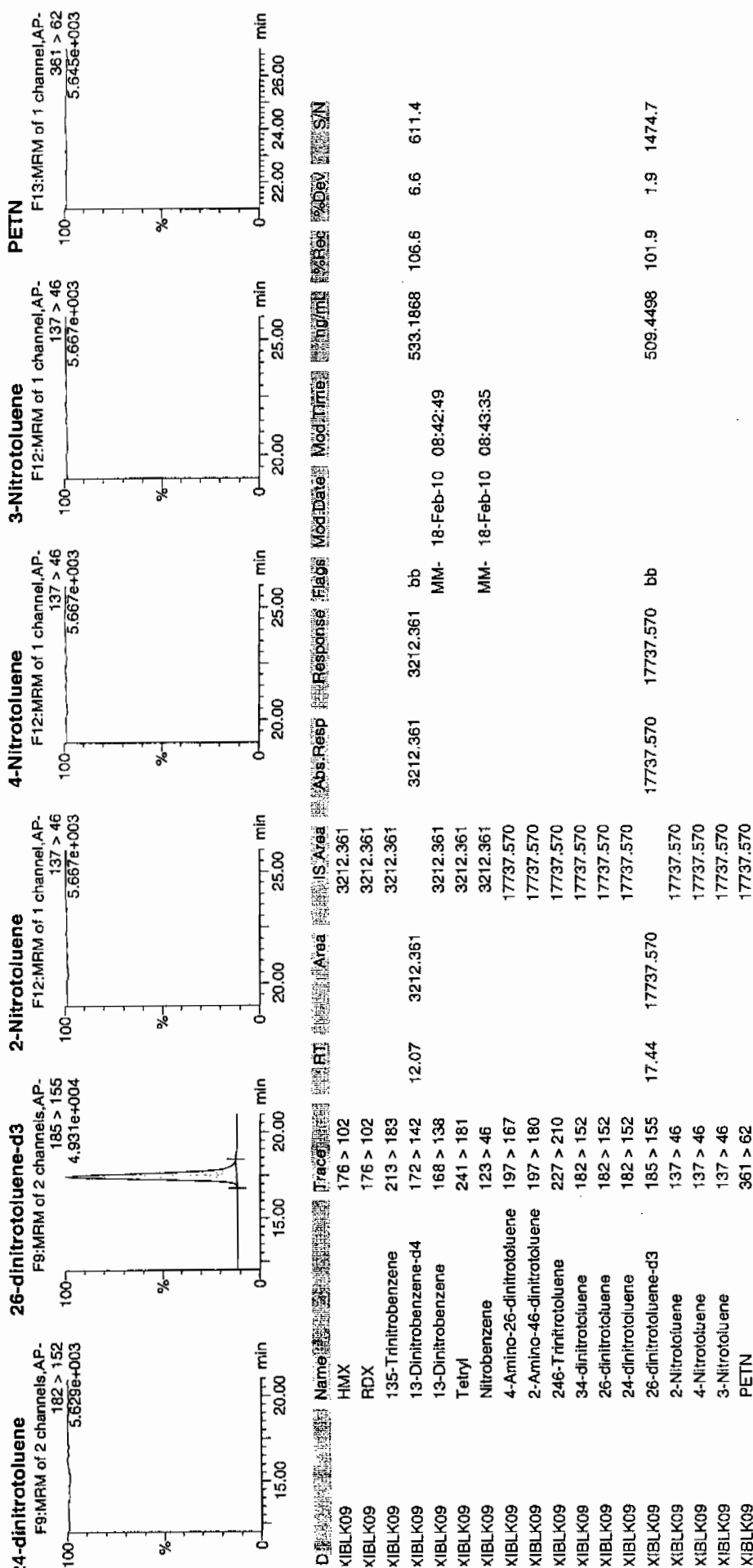
/ial: 1:1,F

100%
100%
100%

157 of 186



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 18-FEB-10 07:40

GEL Data File: EXP0216079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.33
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.446

Printed: Thu Feb 18 08:53:51 2010, Page 99 of 103

Quantify Sample Report
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216079a

Date: 18-Feb-2010

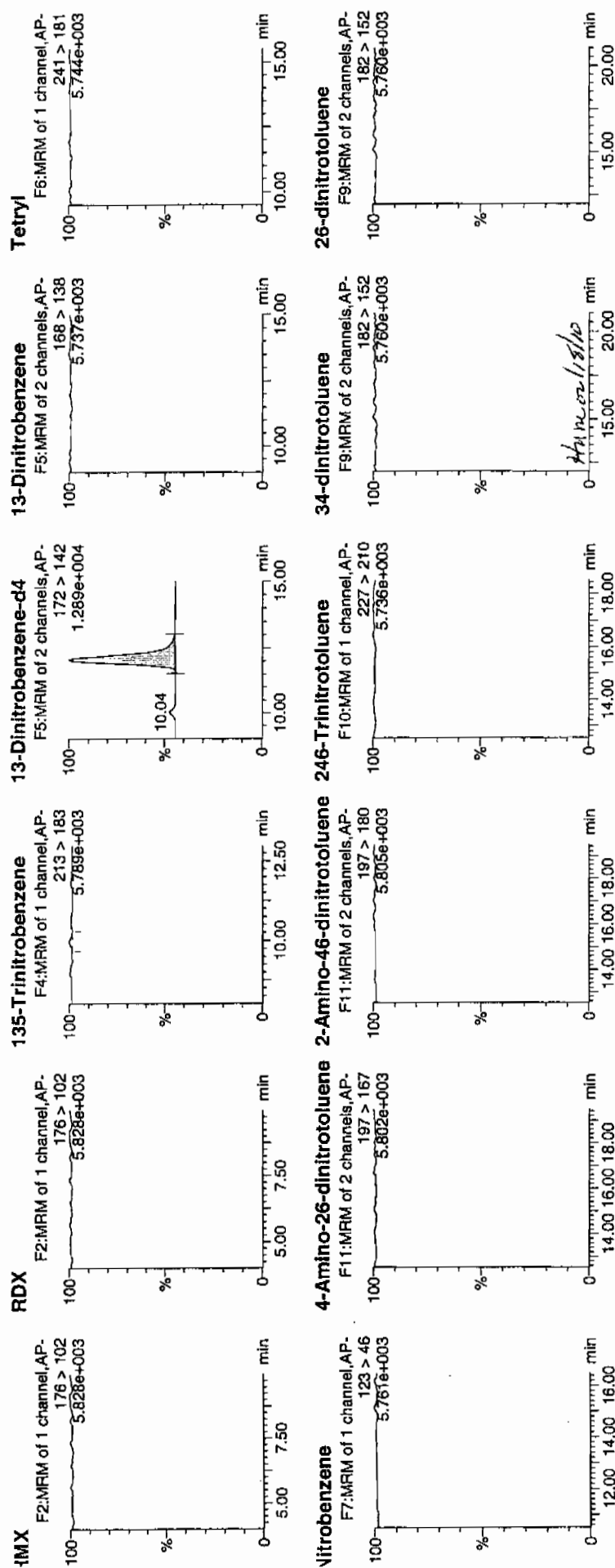
Time: 07:40:00

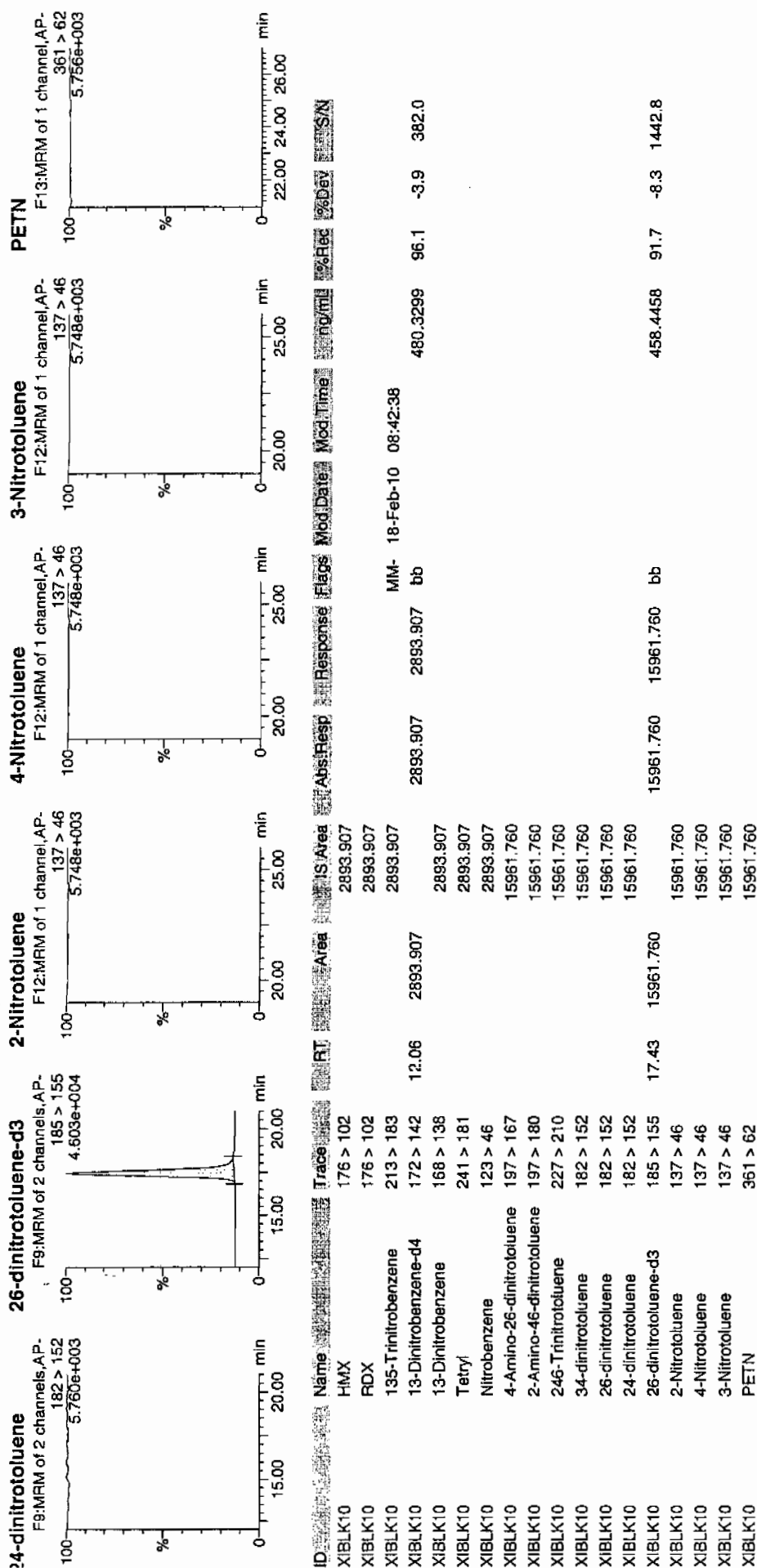
ID: XIBLK10

Ratio: 1:1,A

1/10/10

Page 160 of 1886





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 18-FEB-10 13:05

GEL Data File: EXP0216090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.405
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.95
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 19 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qtd, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216090a

Date: 18-Feb-2010

Time: 13:05:54

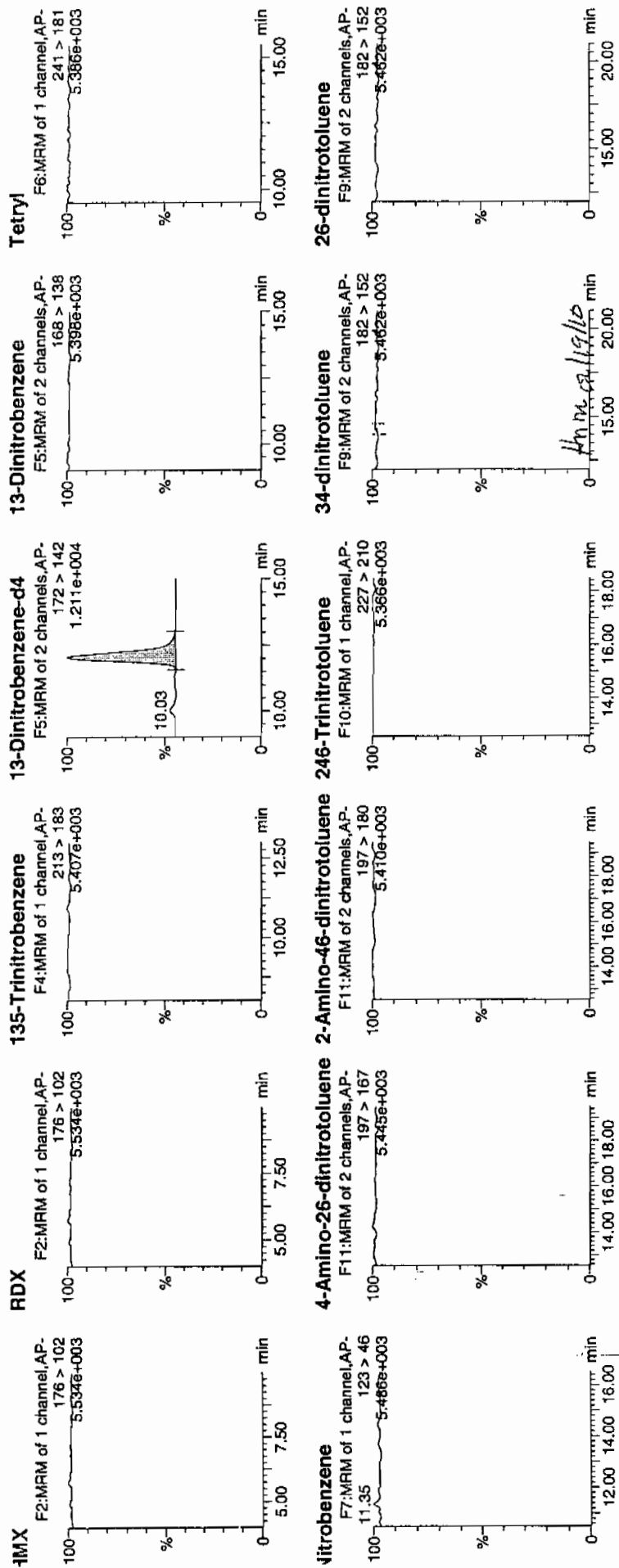
D: XIBLK11

File: 1:1,A

1/19/10

Page 163 of 1886

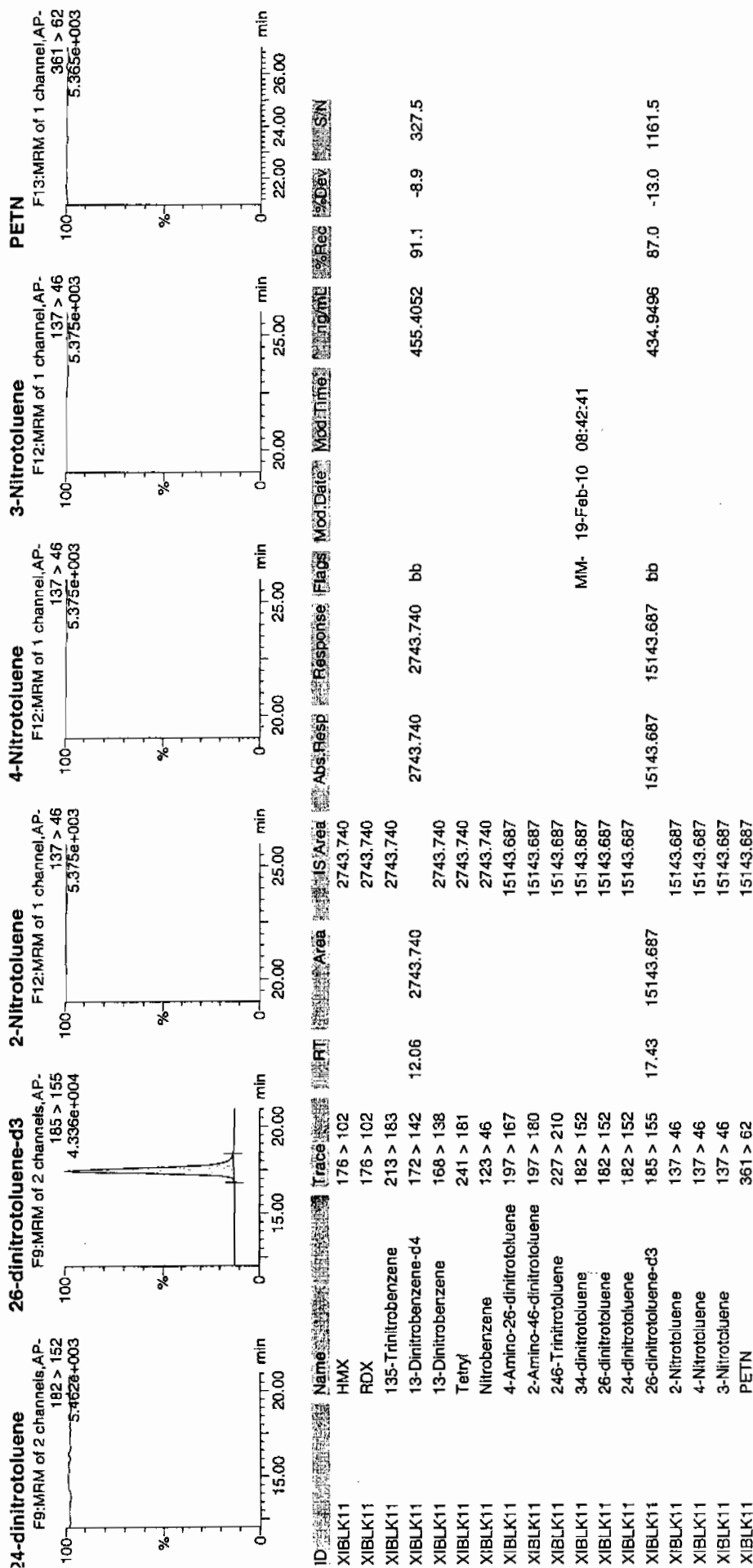
PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



SEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18-FEB-10 19:00

GEL Data File: EXP0216102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	463.109
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.854
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216102a

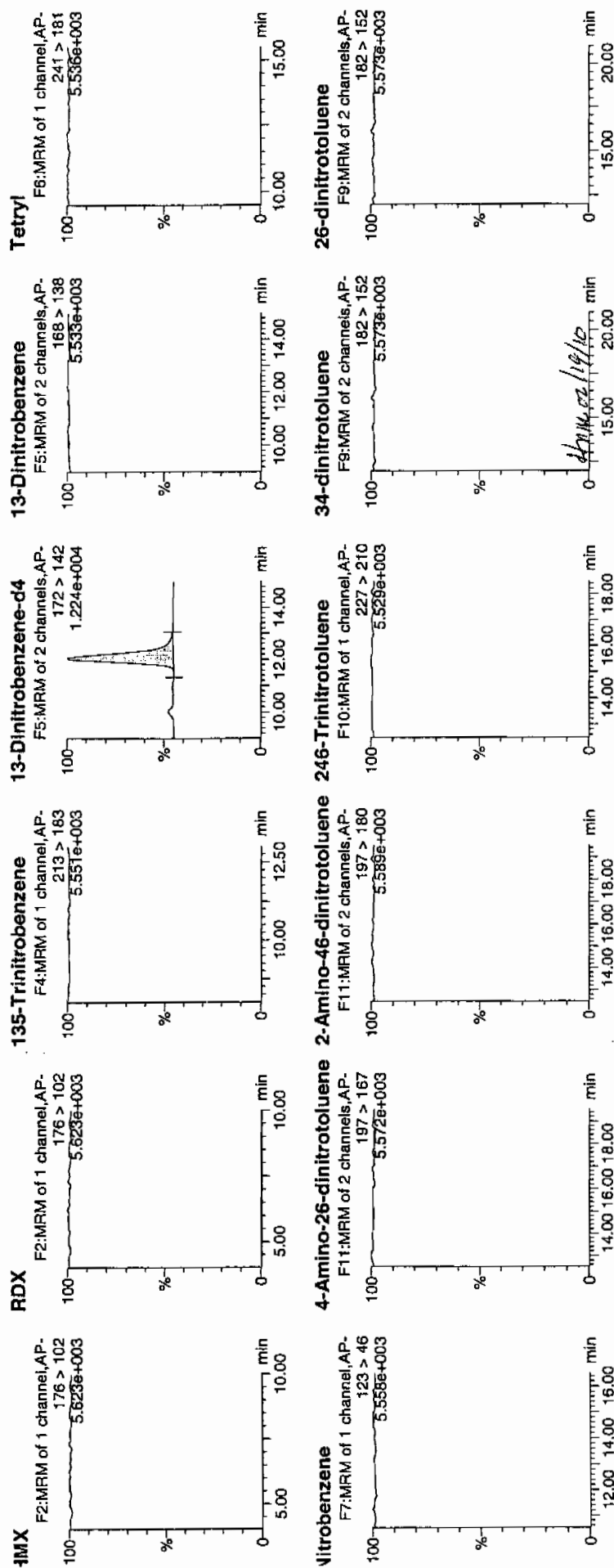
Date: 18-Feb-2010

Time: 19:00:50

D: XIBLK12

File: 1:1,A

1/19/10

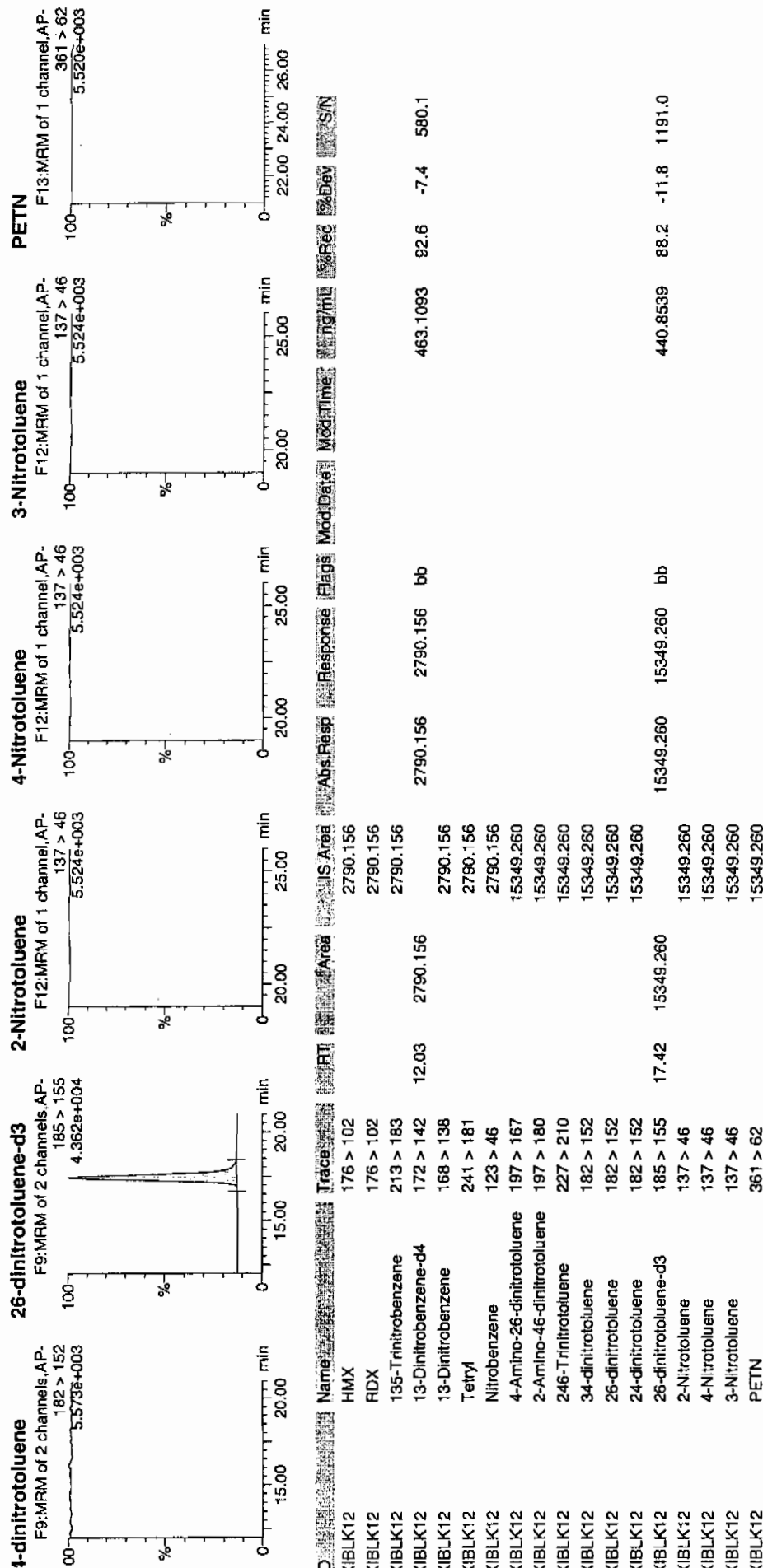


uantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 44 of 97

atset: C:\MASSL\YXXNew_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 19-FEB-10 01:24

GEL Data File: EXP0216115a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	480.924
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.557
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

Printed: Fri Feb 19 08:50:21 2010, Page 69 of 97

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216115a

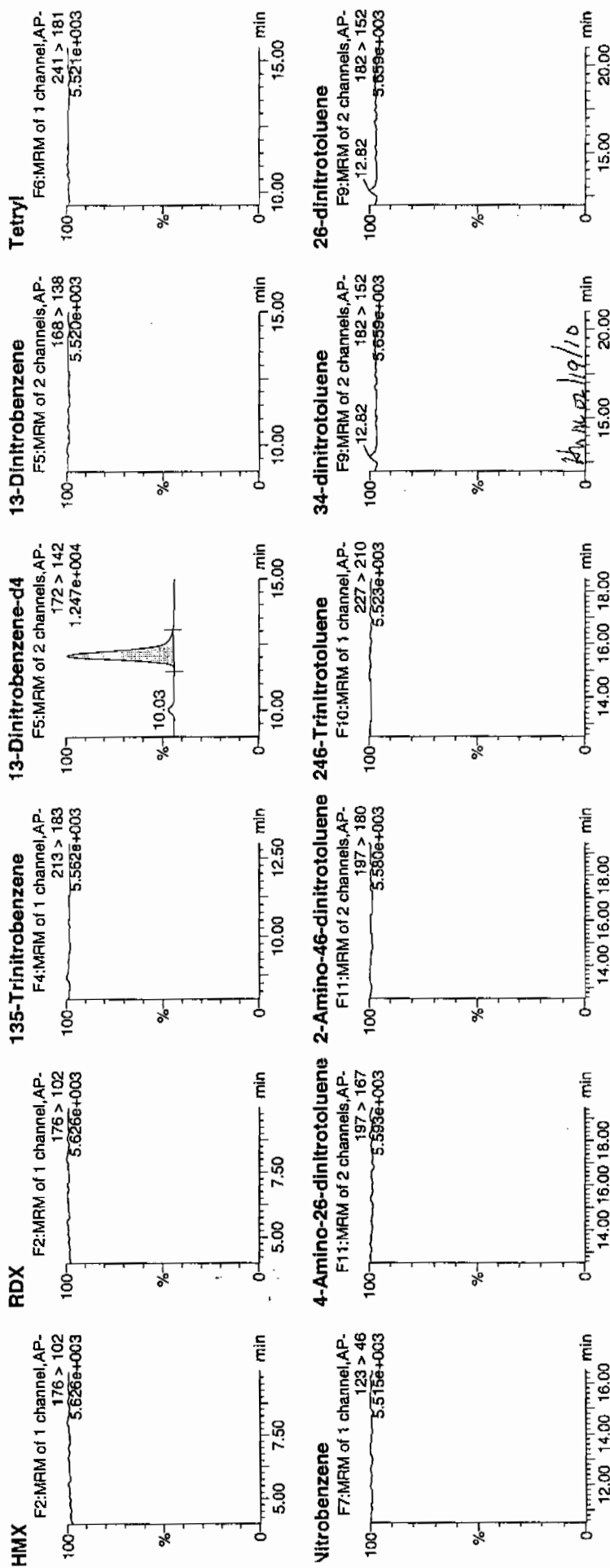
Date: 19-Feb-2010

Time: 01:24:51

ID: XIBLK13

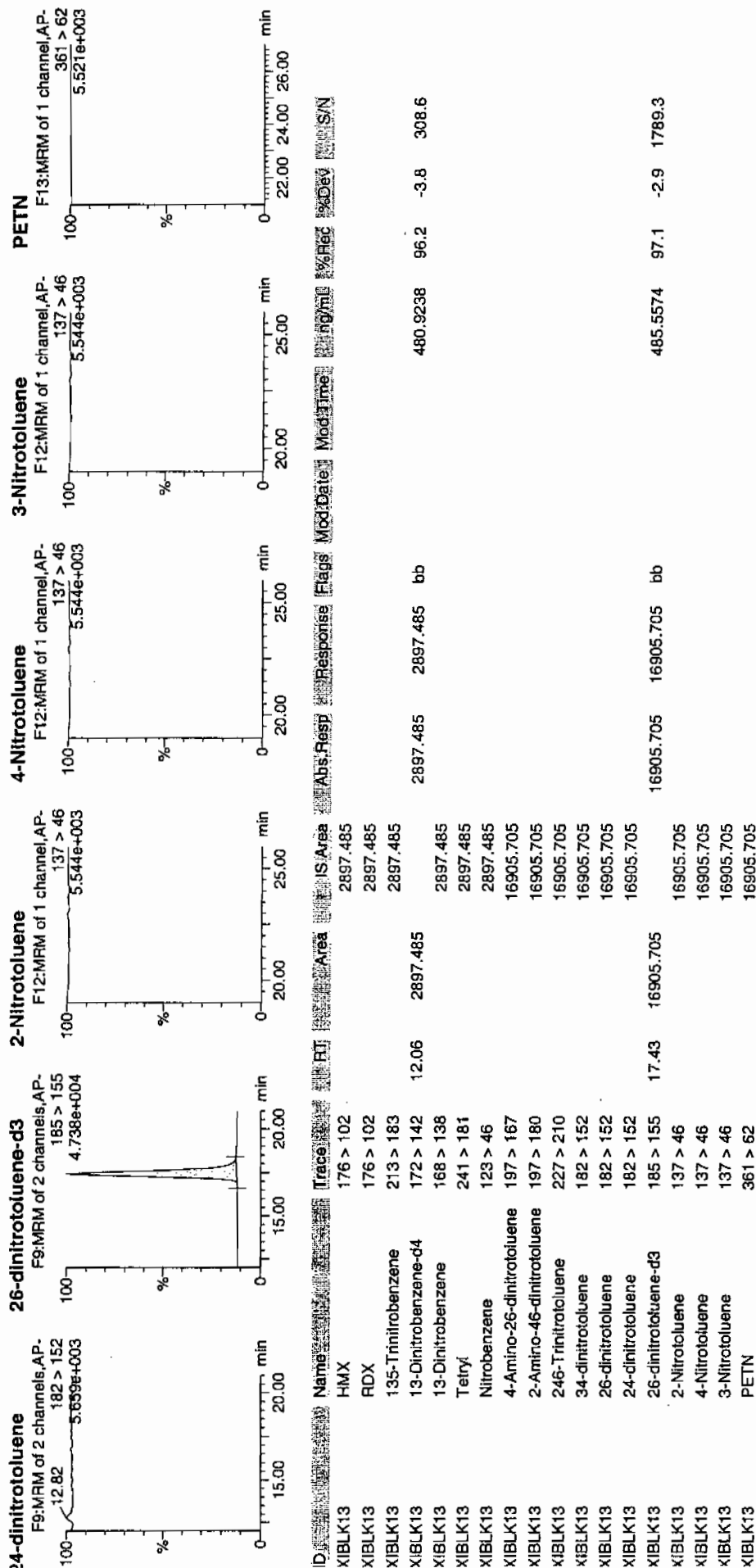
Vial: 1:1,A

WAT
2/19/10



Quantify Sample Report
 3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSL\YXX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 19-FEB-10 07:21

GEL Data File: EXP0216127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.668
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	437.697
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 93 of 97

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216127a

Date: 19-Feb-2010

Time: 07:21:28

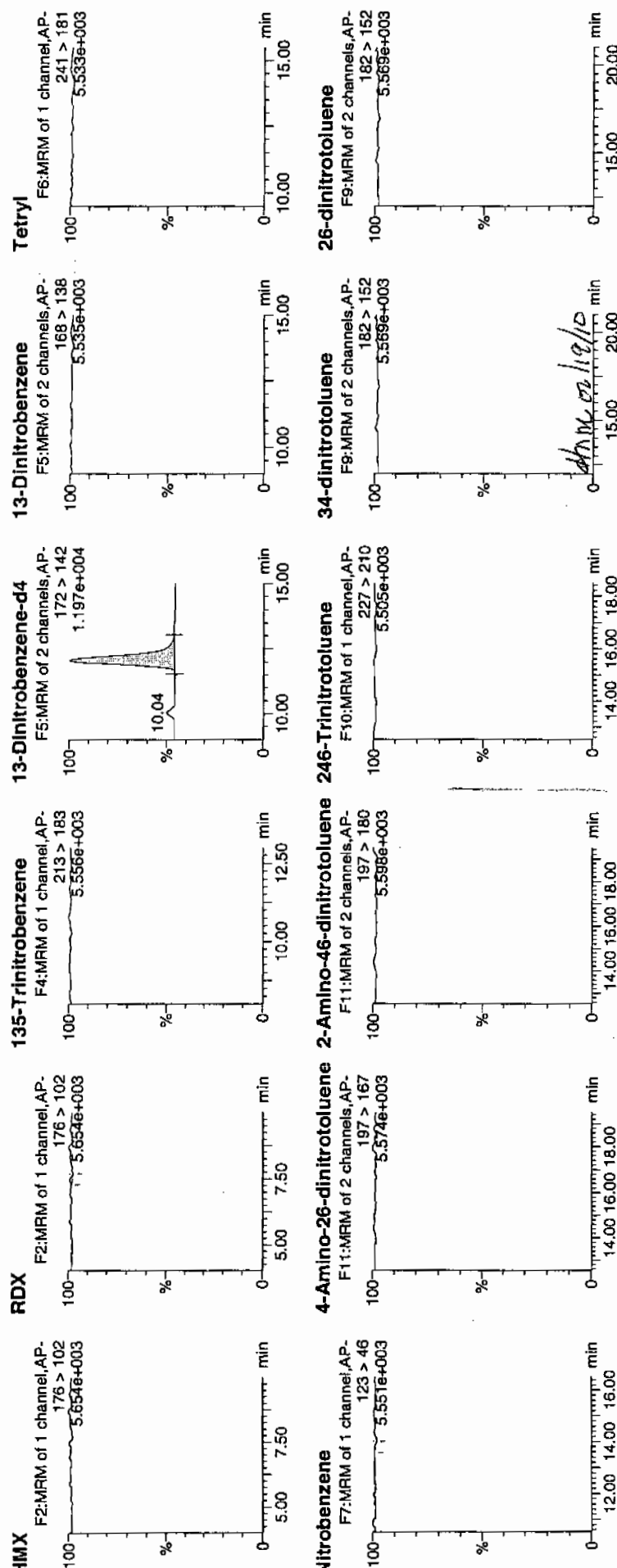
D: XIBLK14

/al: 1:1,A

1/1/10

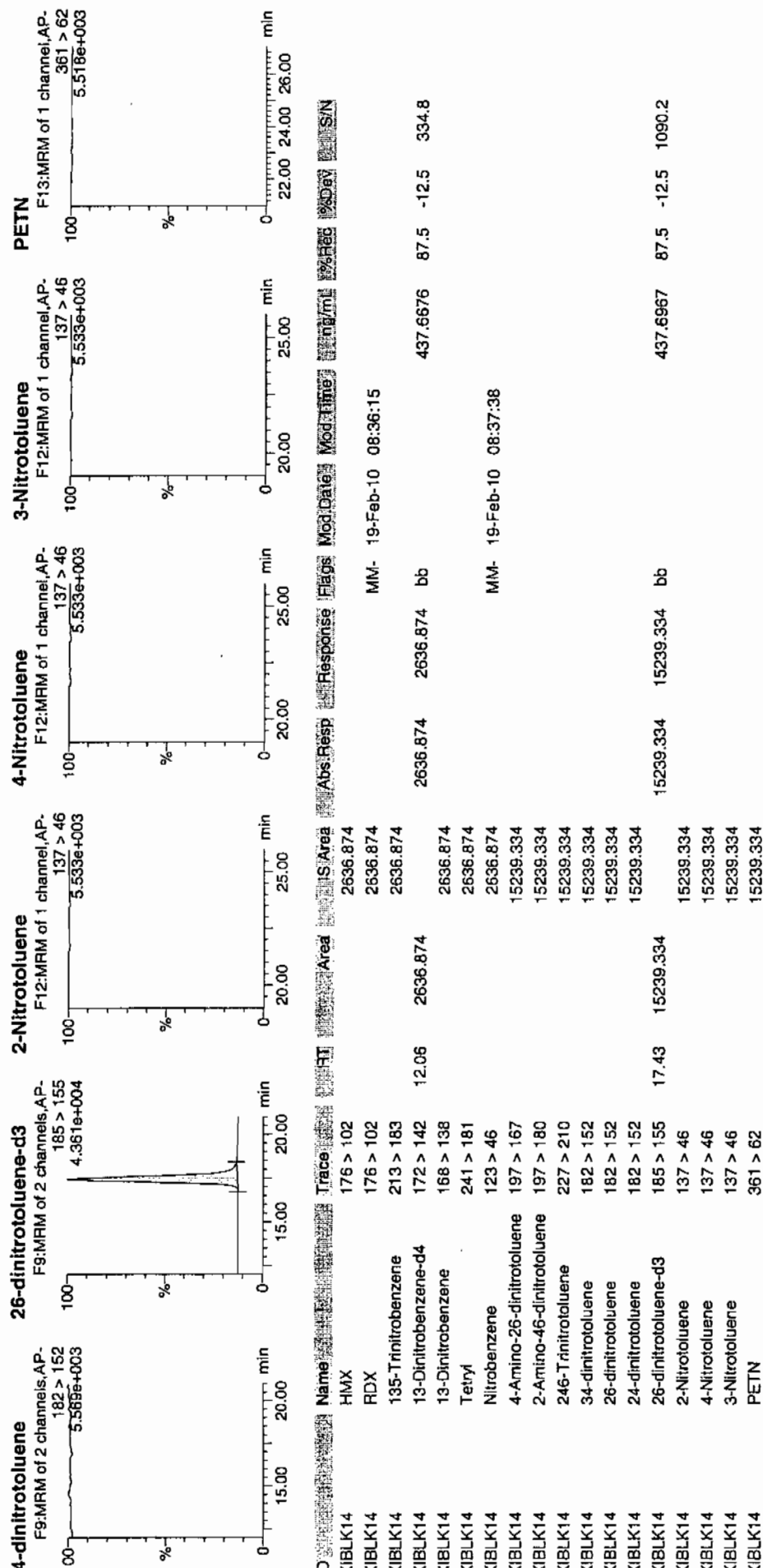
Page 172 of 1886

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 19-FEB-10 13:46

GEL Data File: EXP0216140a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	506.457
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	507.824
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

Quantify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216140a

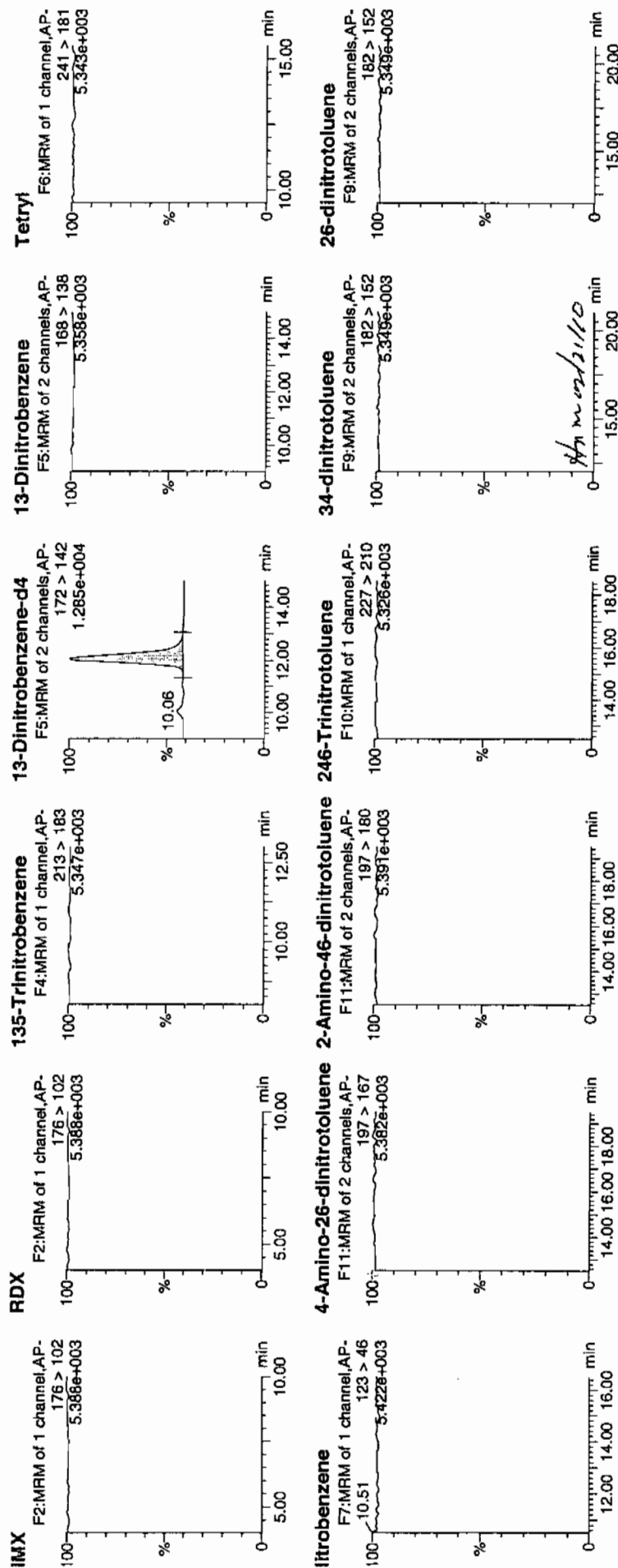
Plate: 19-Feb-2010

Time: 13:46:31

Job: XIBLK15

File: 1:1,A

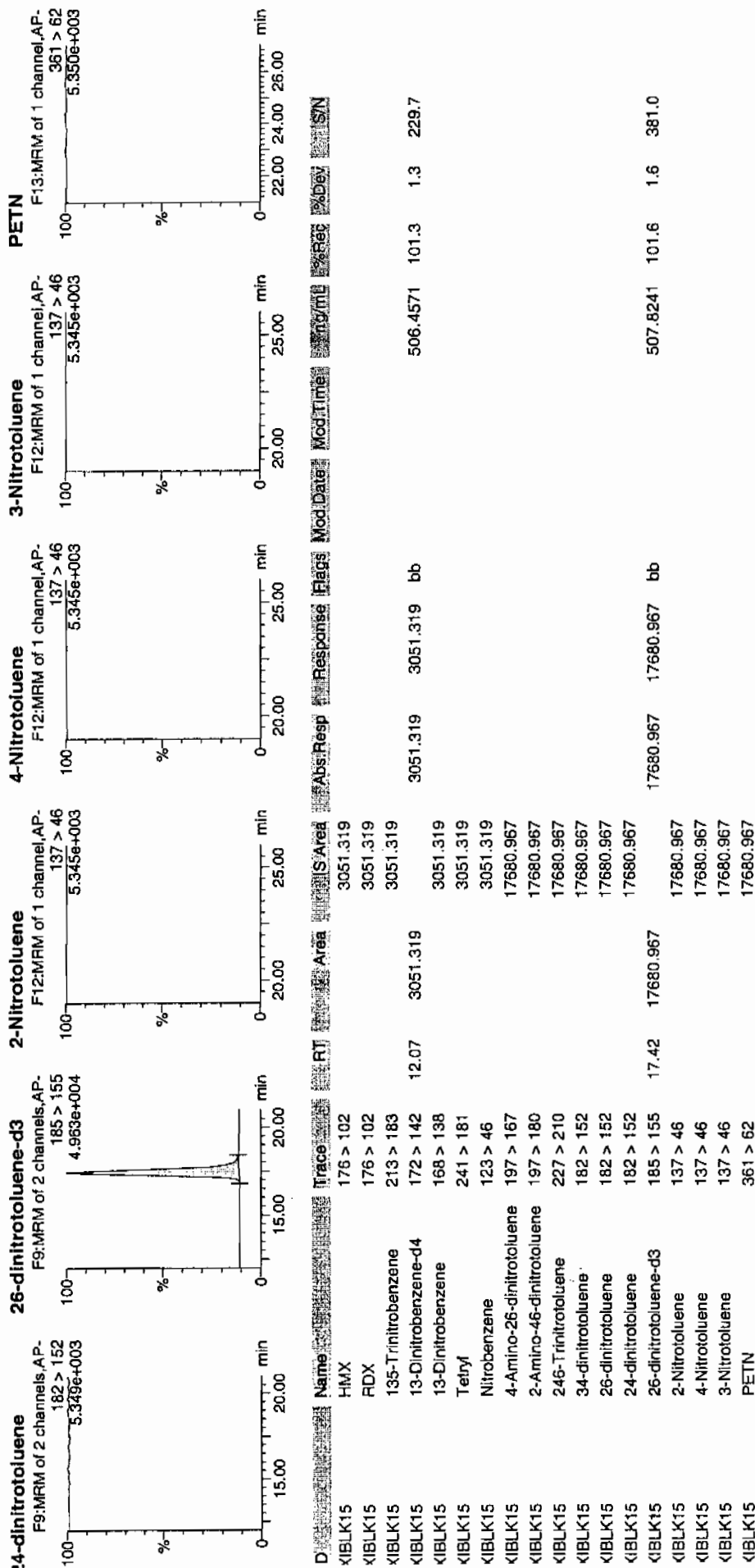
107
2/20/10



Printed: Sat Feb 20 10:19:24 2010, Page 24 of 103

Quantify Sample Report
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 19-FEB-10 20:34

GEL Data File: EXP0216153a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	483.443
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	427.583
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Feb 20 10:19:24 2010, Page 49 of 103

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216153a

Date: 19-Feb-2010

Time: 20:34:41

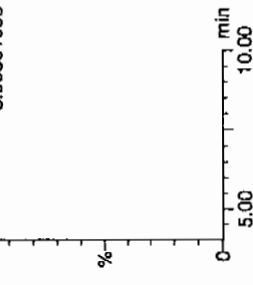
D: XIBLK16

File: 1:1,A

100%
2/20/10

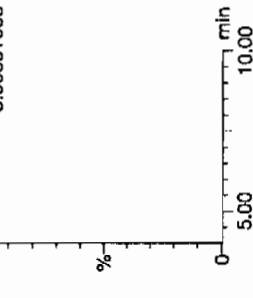
IMX

F2:MRM of 1 channel,AP-
176 > 102
5.906e+003



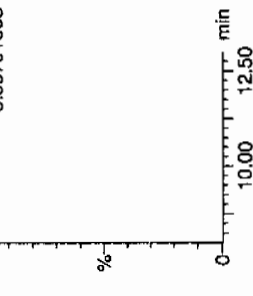
RDX

F2:MRM of 1 channel,AP-
176 > 102
5.906e+003



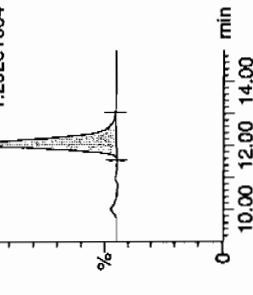
135-Trinitrobenzene

F4:MRM of 1 channel,AP-
213 > 183
5.837e+003



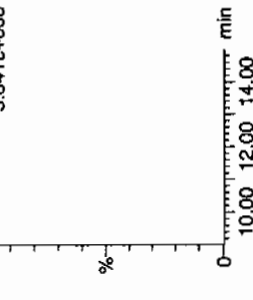
13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-
172 > 142
1.292e+004



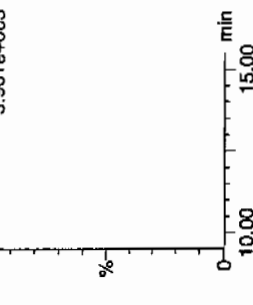
13-Dinitrobenzene

F5:MRM of 2 channels,AP-
168 > 138
5.841e+003



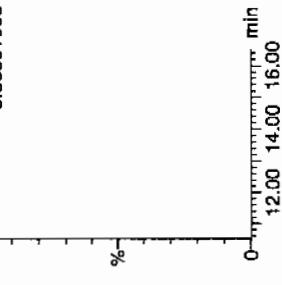
Tetryl

F6:MRM of 1 channel,AP-
241 > 181
5.907e+003



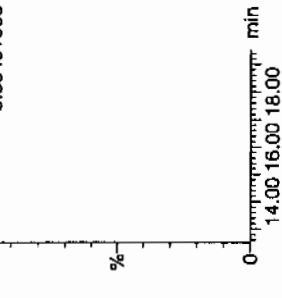
litrobenzene

F7:MRM of 1 channel,AP-
123 > 46
5.865e+003



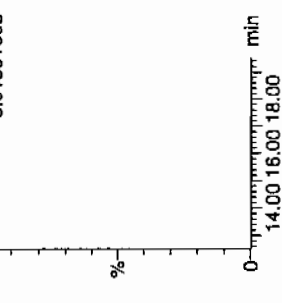
4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 167
5.884e+003



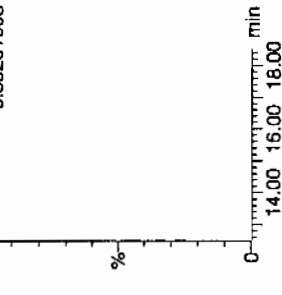
2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 180
5.915e+003



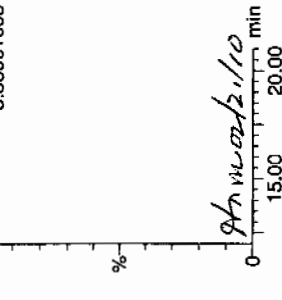
246-Trinitrotoluene

F10:MRM of 1 channel,AP-
227 > 210
5.852e+003



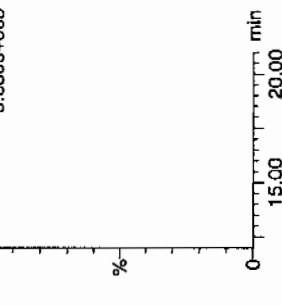
34-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
5.880e+003



26-dinitrotoluene

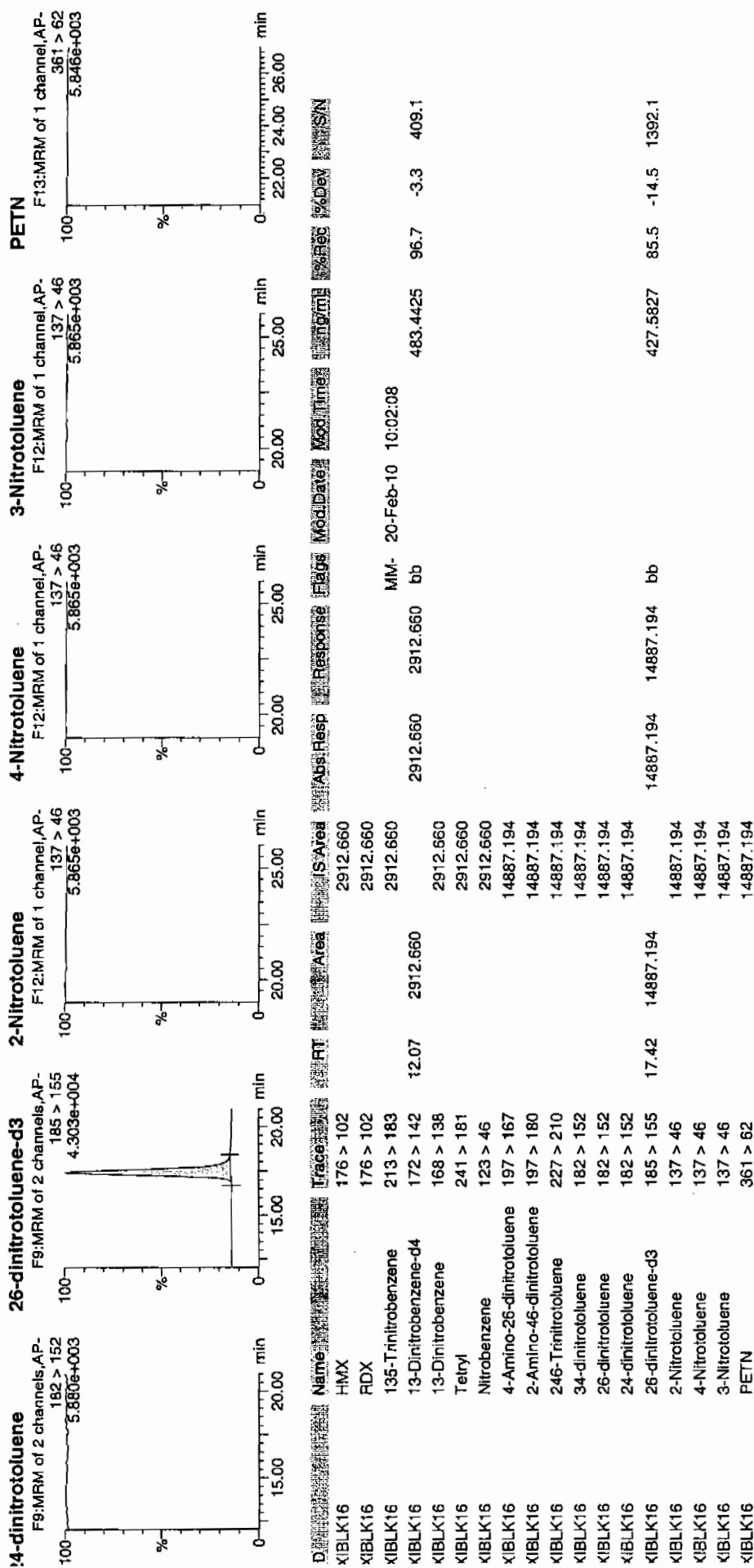
F9:MRM of 2 channels,AP-
182 > 152
5.880e+003



Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 19-FEB-10 23:03

GEL Data File: EXP0216158a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	510.46
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.442
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216158a

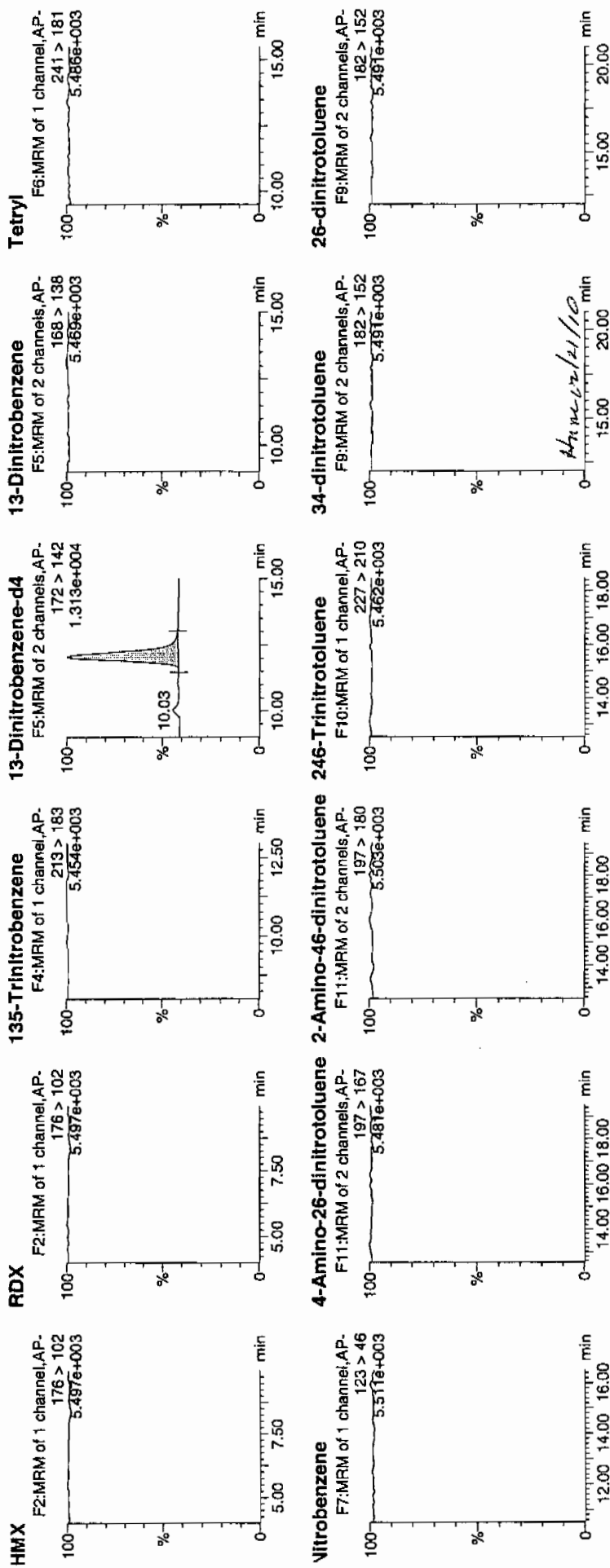
Date: 19-Feb-2010

Time: 23:03:44

ID: XIBLK17

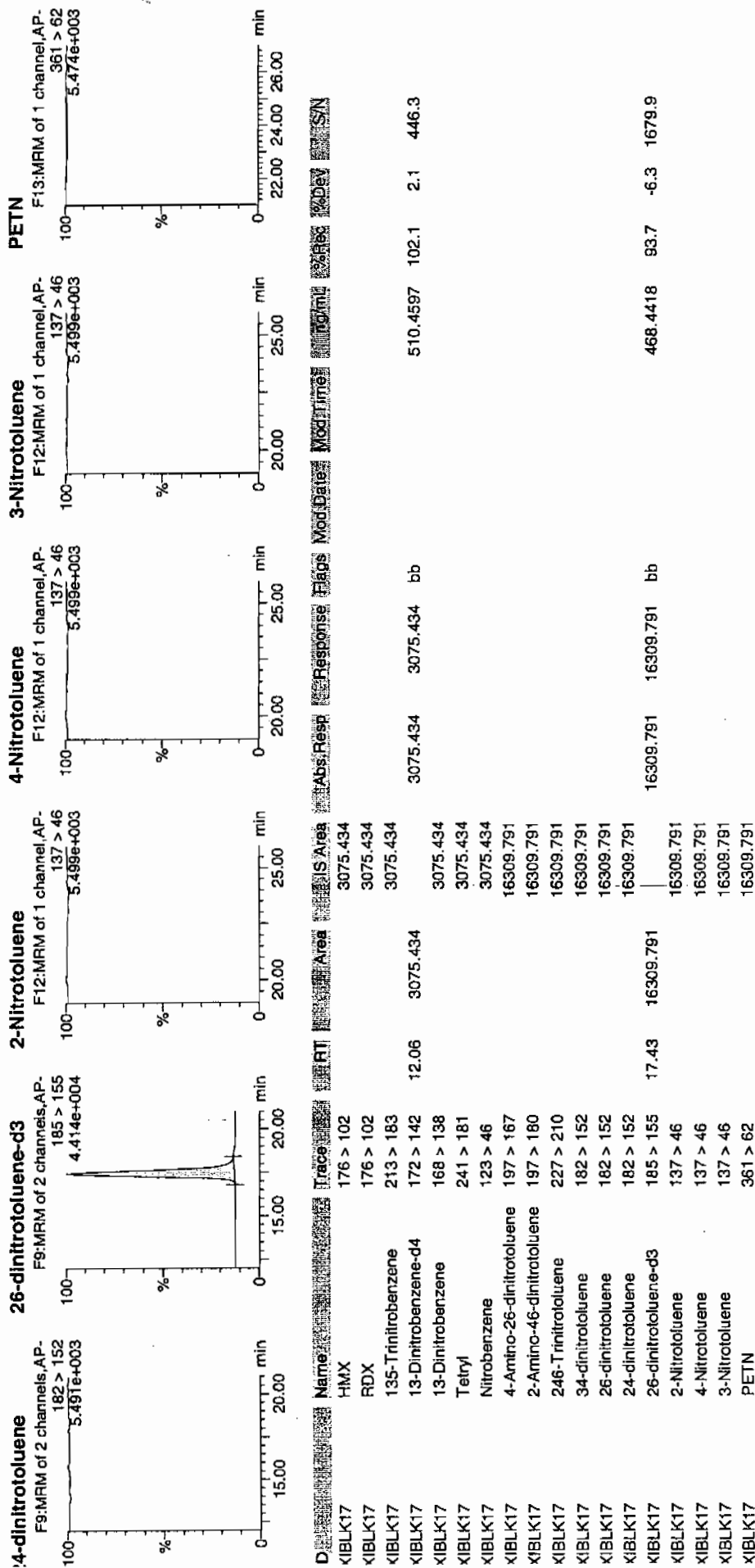
Vial: 1:1,F

10/17
2/20/10



Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 20-FEB-10 03:00

GEL Data File: EXP0216166a

Instrument ID: LCMSMS

Column: Phenomenex Ultra[®]carb 5u ODS(20)

Compound	True	Found (ug/L)
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
HMX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	483.953
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	451.867
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

Printed: Sat Feb 20 10:19:24 2010, Page 75 of 103

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216166a

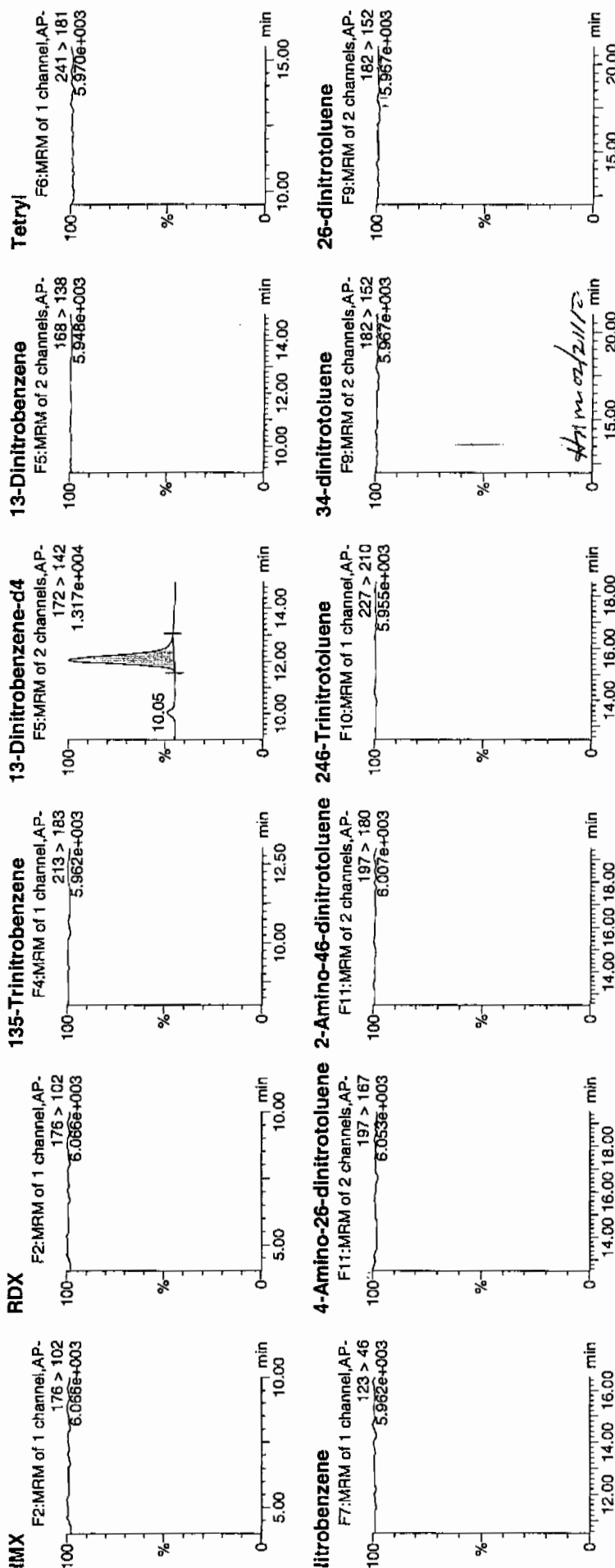
Date: 20-Feb-2010

Time: 03:00:21

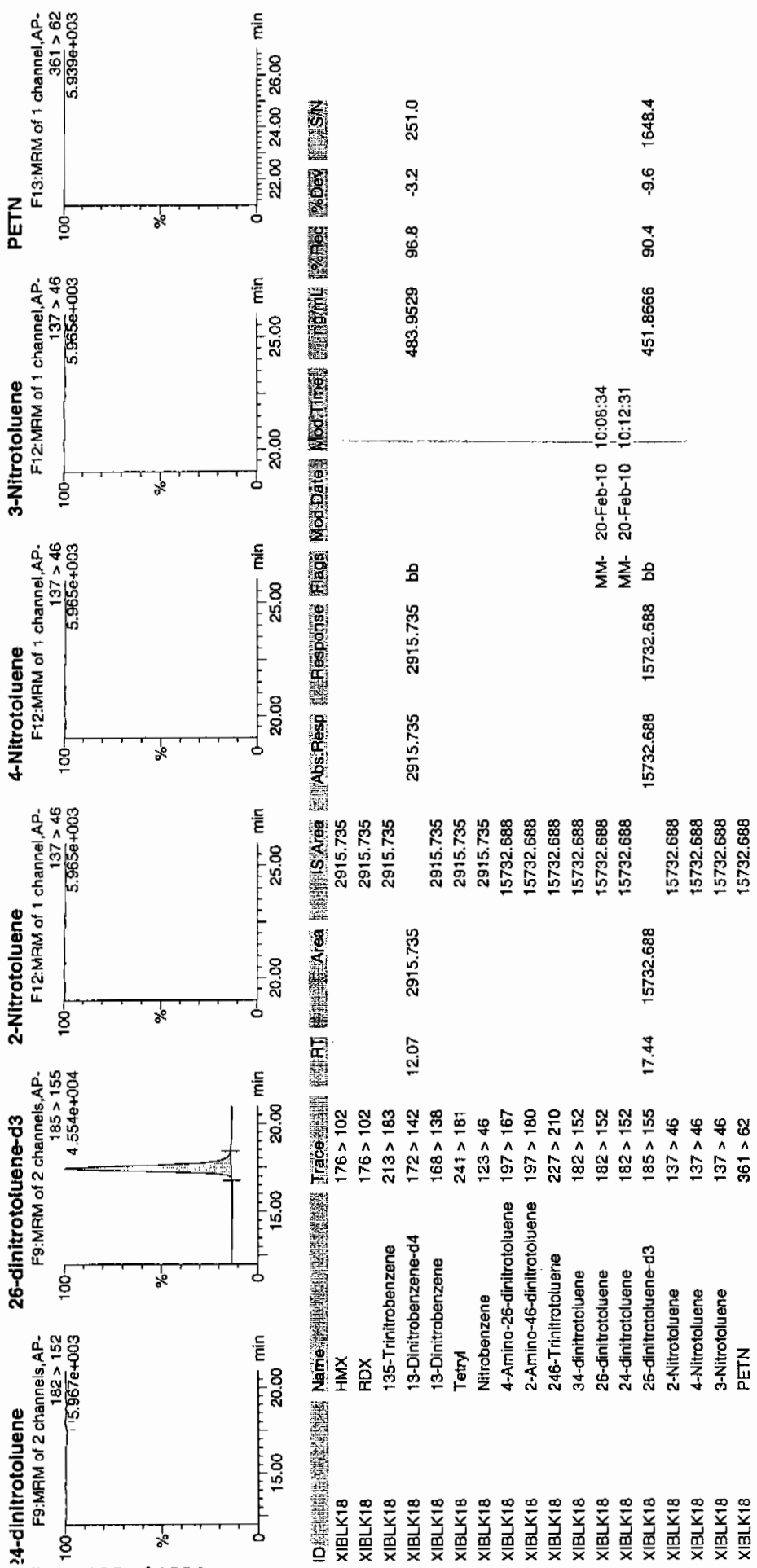
ID: XIBLK18

Ratio: 1:1,A

Page 184 of 186



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 20-FEB-10 08:56

GEL Data File: EXP0216178a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.883
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	498.072
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216178a

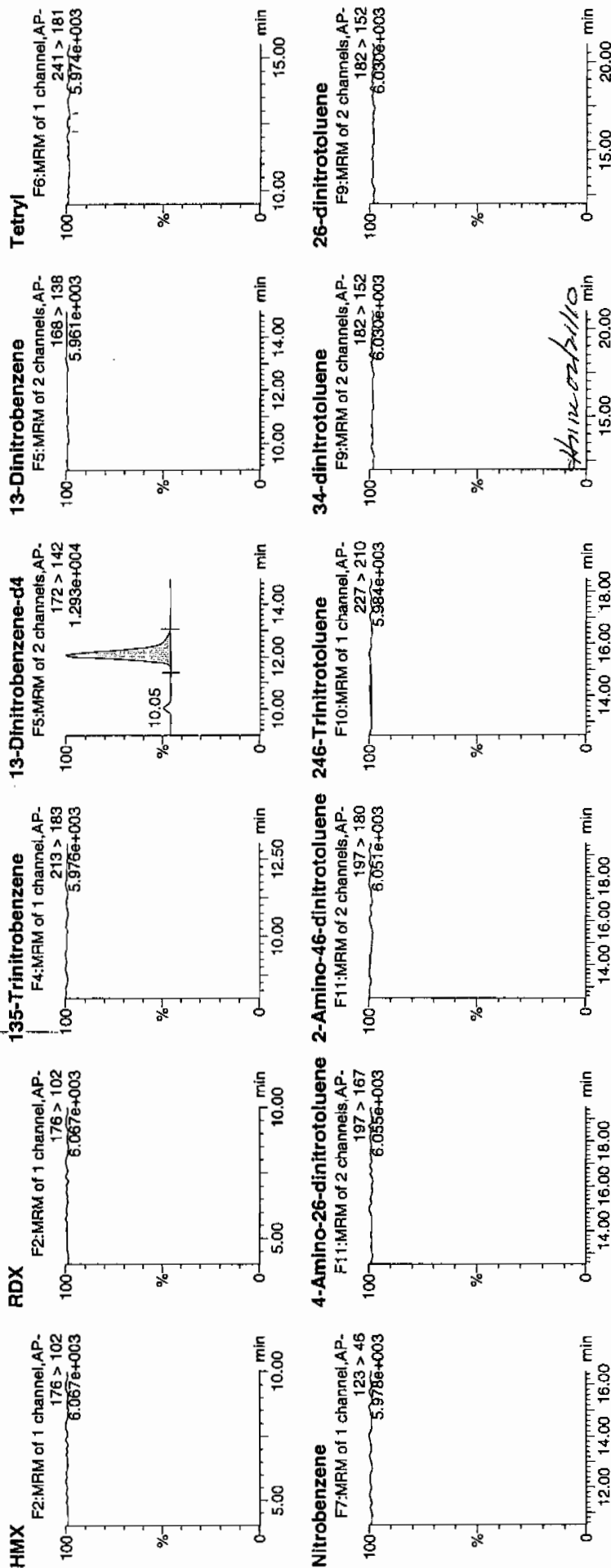
Date: 20-Feb-2010

Time: 08:56:12

ID: XIBLK19

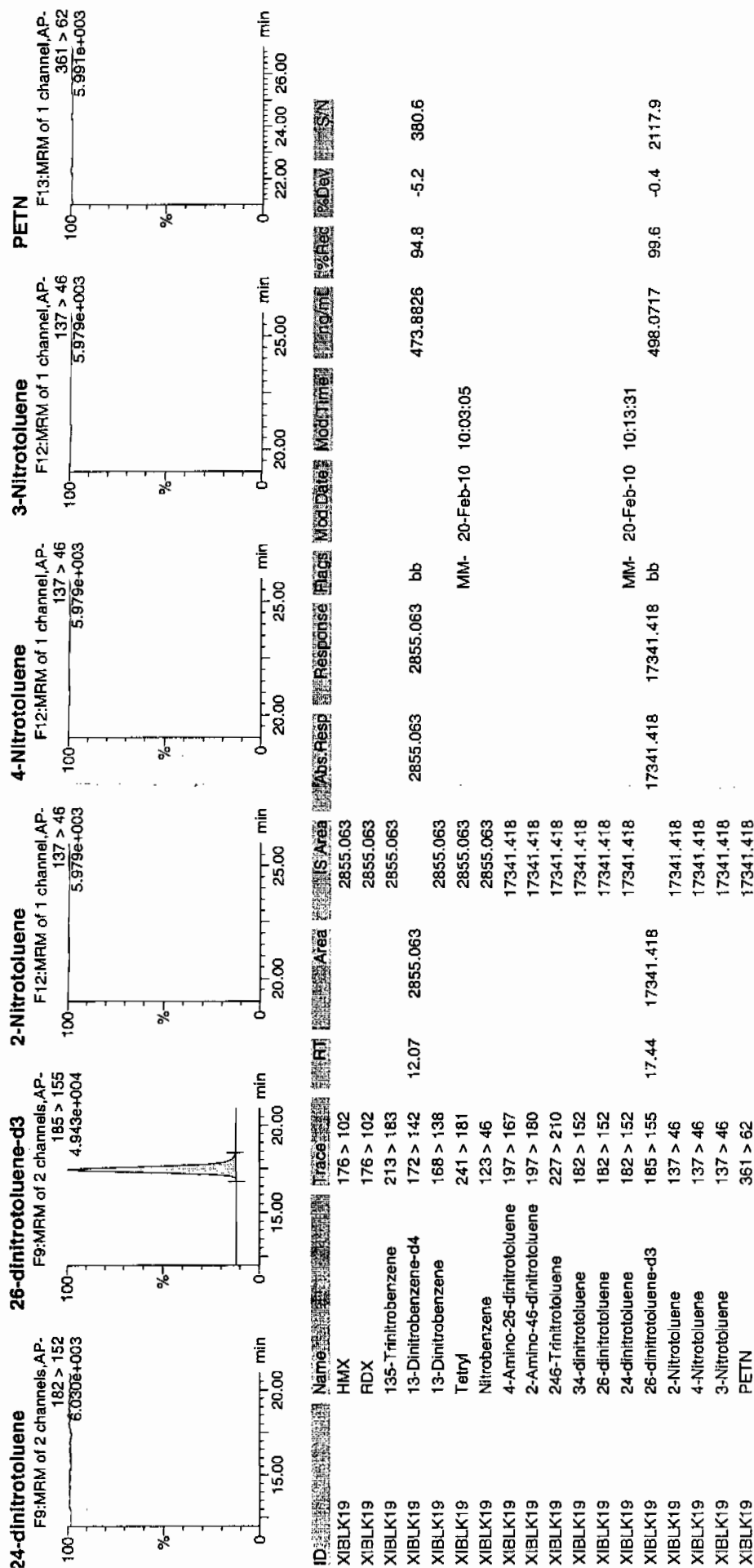
Vial: 1:1,A

Page 187 of 1886



Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK20

Analysis Date: 20-FEB-10 15:22

GEL Data File: EXP0216191a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	471.06
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	488.604
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sun Feb 21 12:01:24 2010, Page 23 of 105

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216191a

Date: 20-Feb-2010

Time: 15:22:35

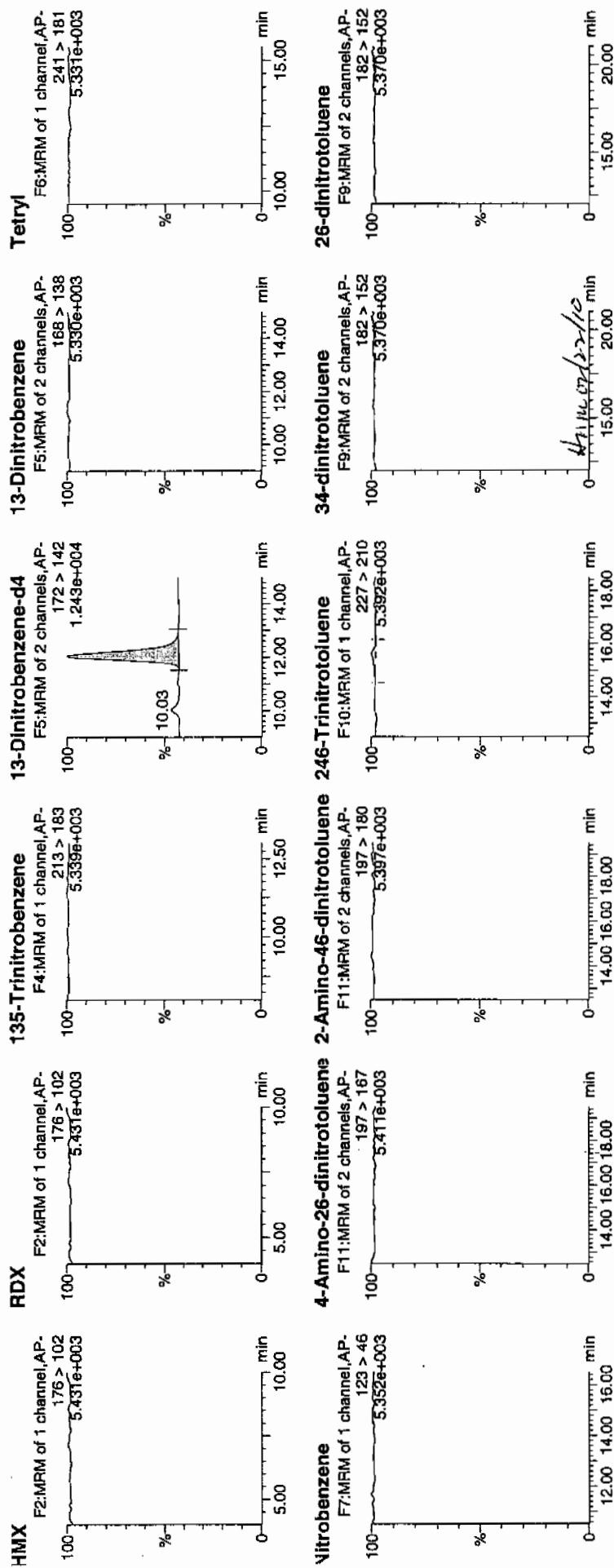
ID: XIBLK20

Vial: 1:1,A

MP
1/1/10

Page 190 of 186

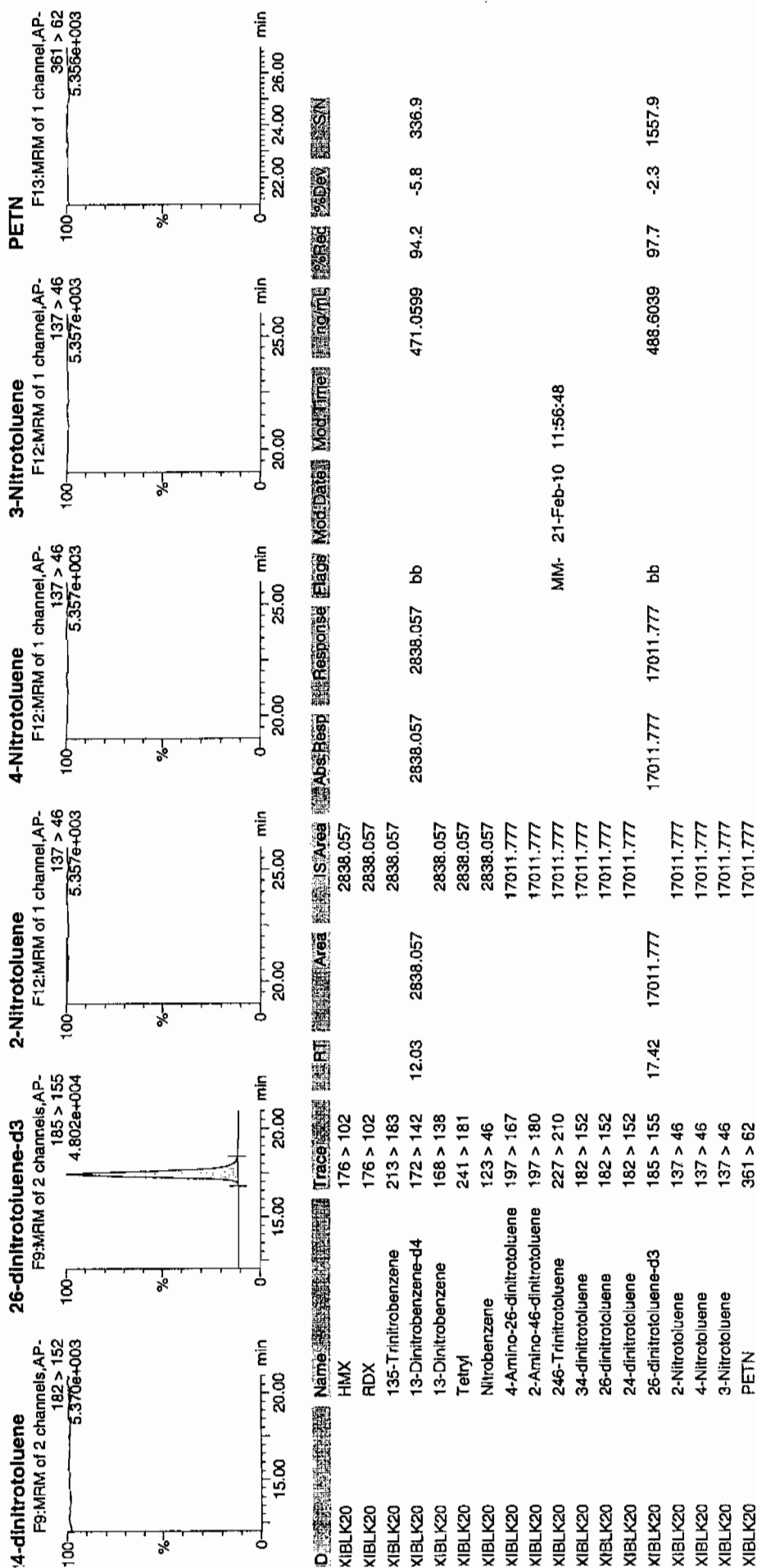
PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



Printed: Sun Feb 21 12:01:24 2010, Page 24 of 105

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK21

Analysis Date: 20-FEB-10 21:47

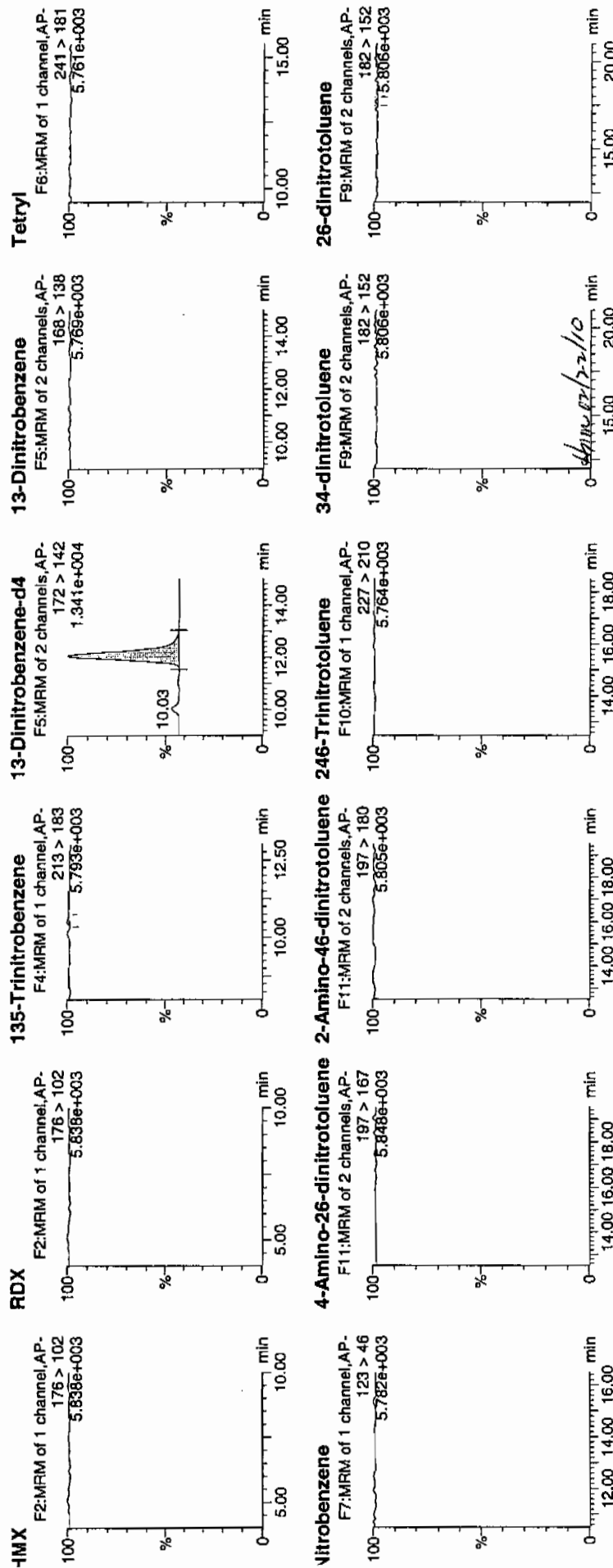
GEL Data File: EXP0216204a

Instrument ID: LCMSMS

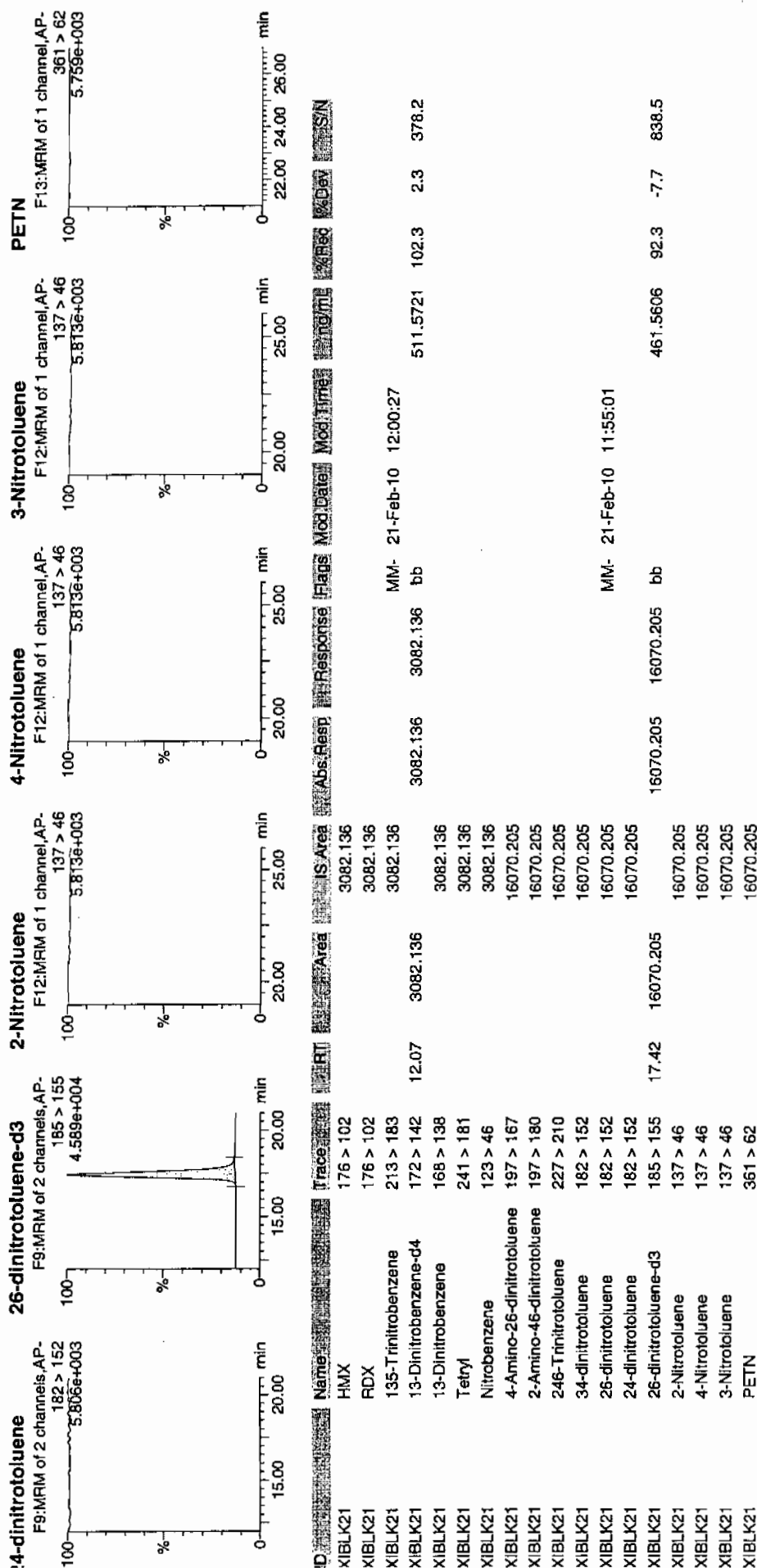
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	461.561
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	511.572
2,4,6-Trinitrotoluene	0	0

10/10



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK22

Analysis Date: 21-FEB-10 00:15

GEL Data File: EXP0216209a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	508.776
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	489.453
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216209a

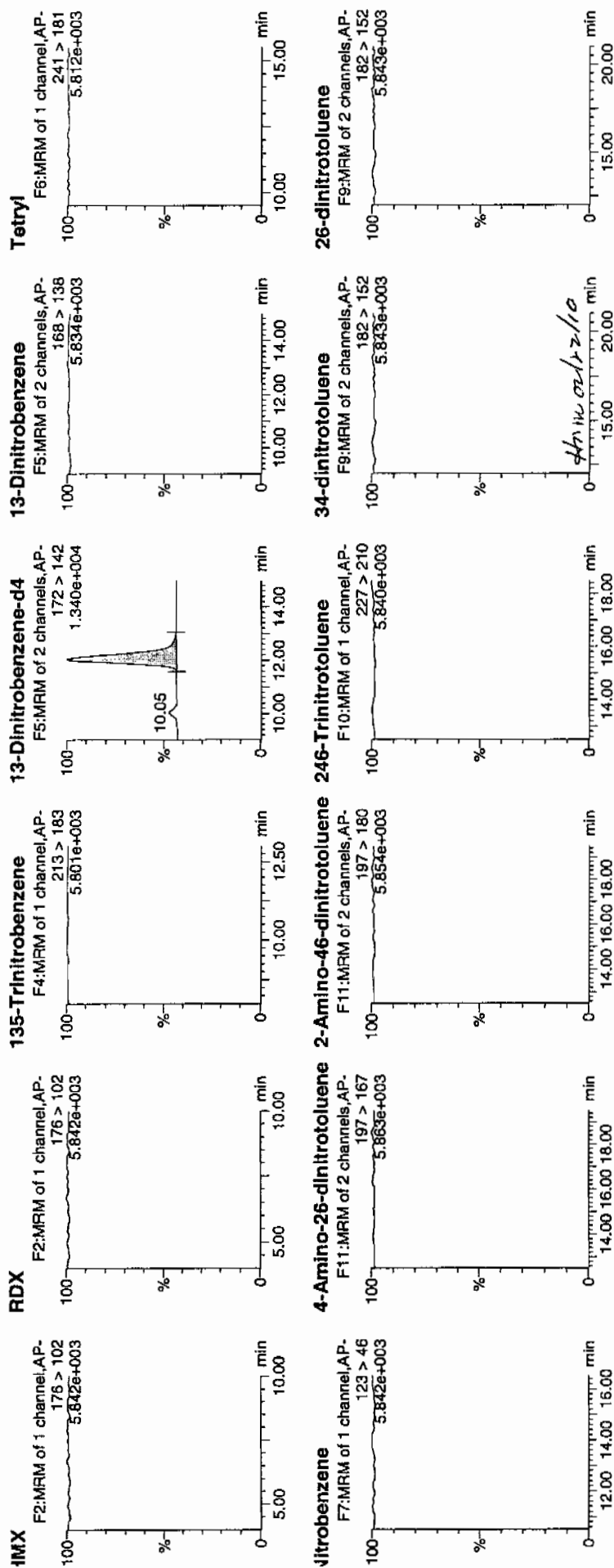
Date: 21-Feb-2010

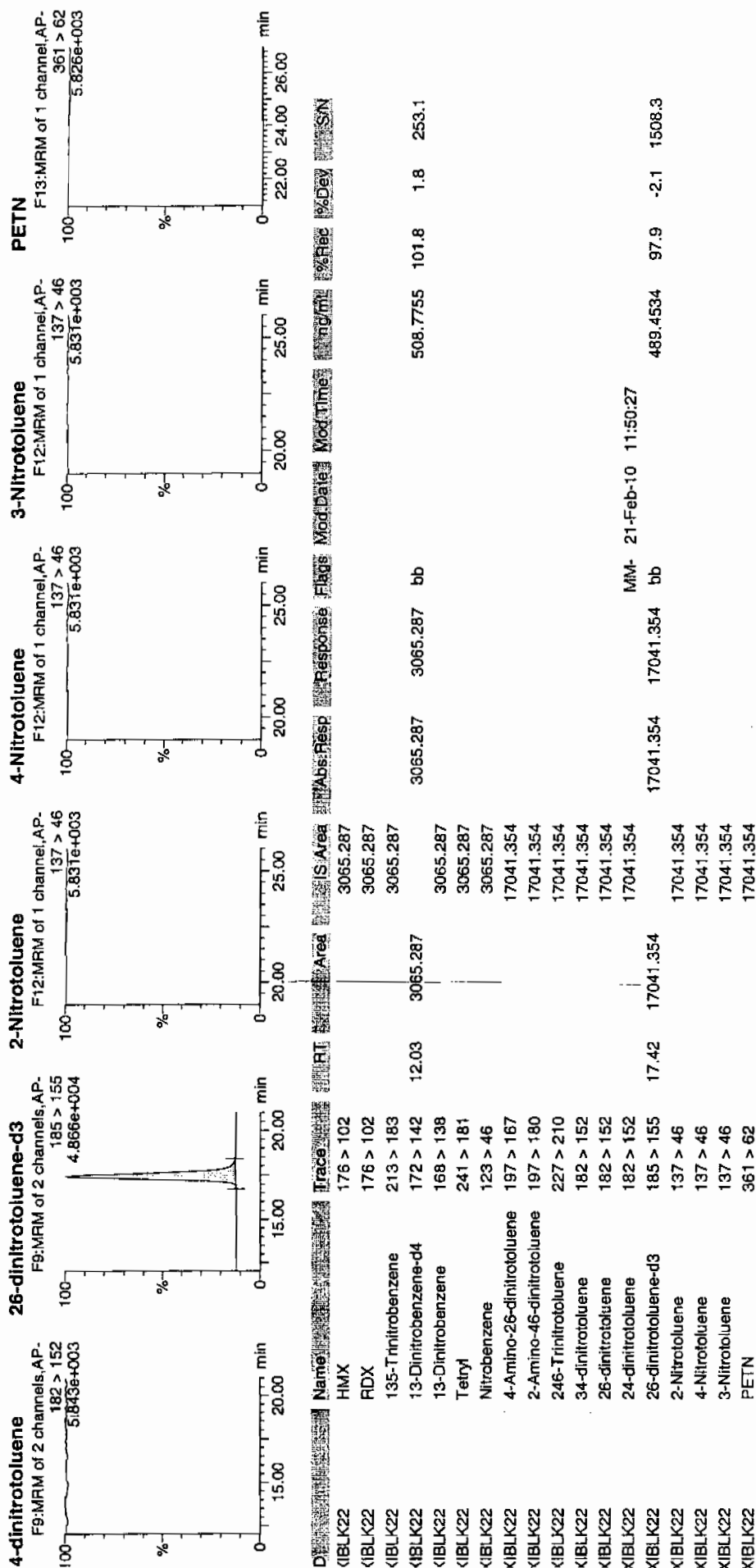
Time: 00:15:40

D: XIBLK22

File: 1:1,A

1/21/10
 MPT





4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK23

Analysis Date: 21-FEB-10 04:13

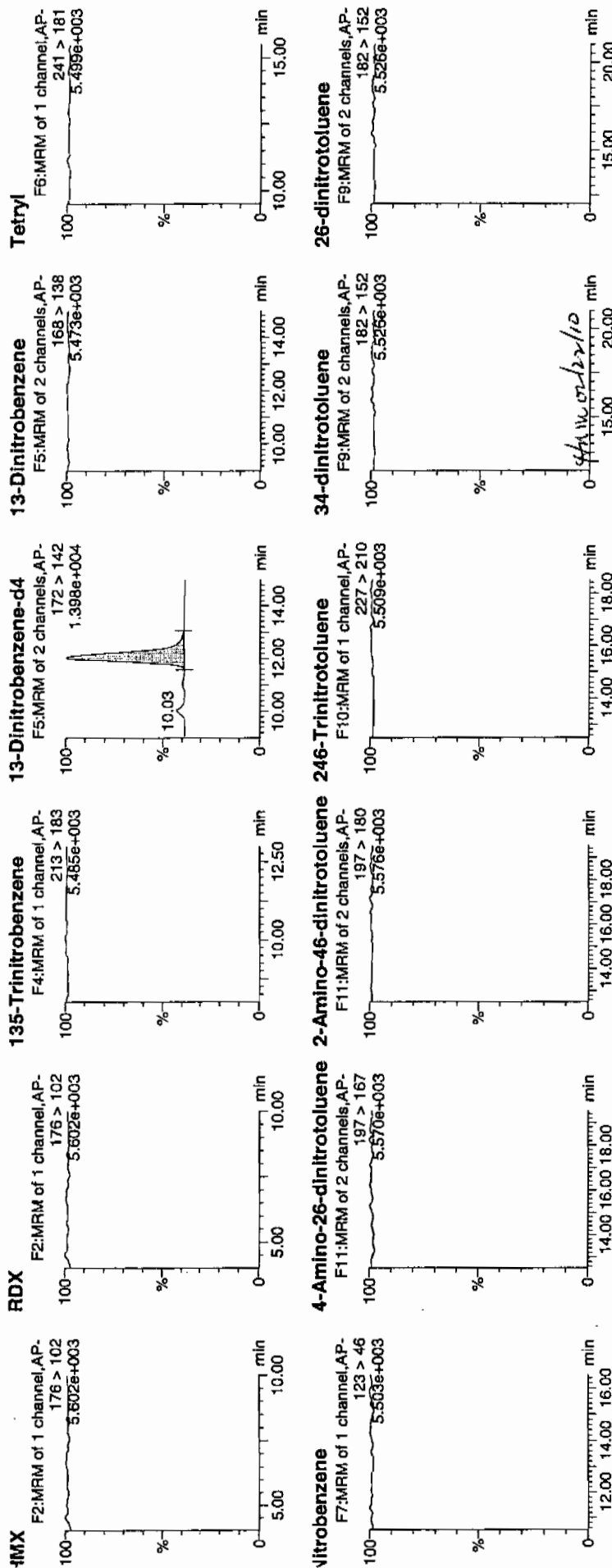
GEL Data File: EXP0216217a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	579.112
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	541.911
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

100%
 12/10

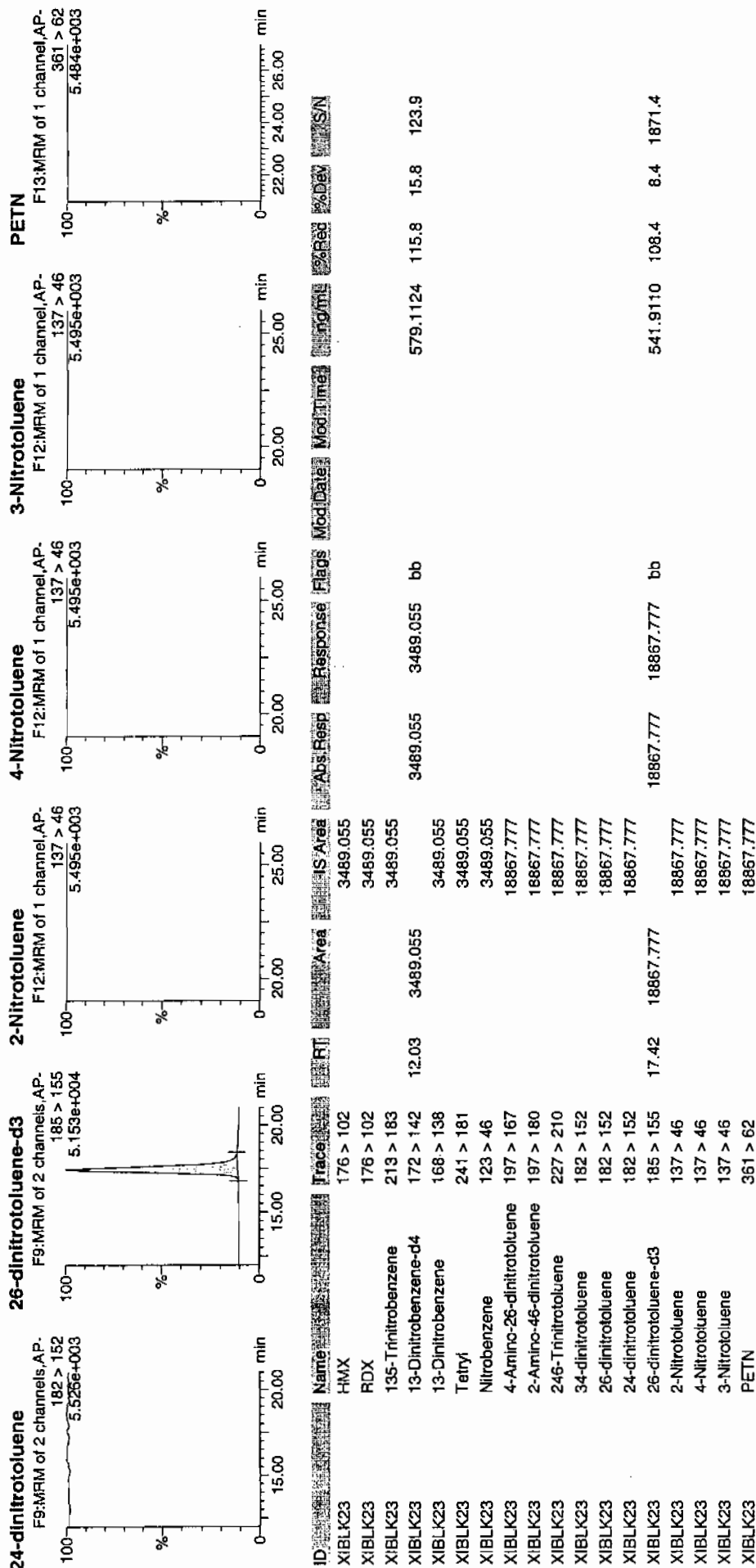


Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Feb 21 12:01:24 2010, Page 76 of 105

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK24

Analysis Date: 21-FEB-10 10:39

GEL Data File: EXP0216230a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	514.322
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	470.391
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216230a

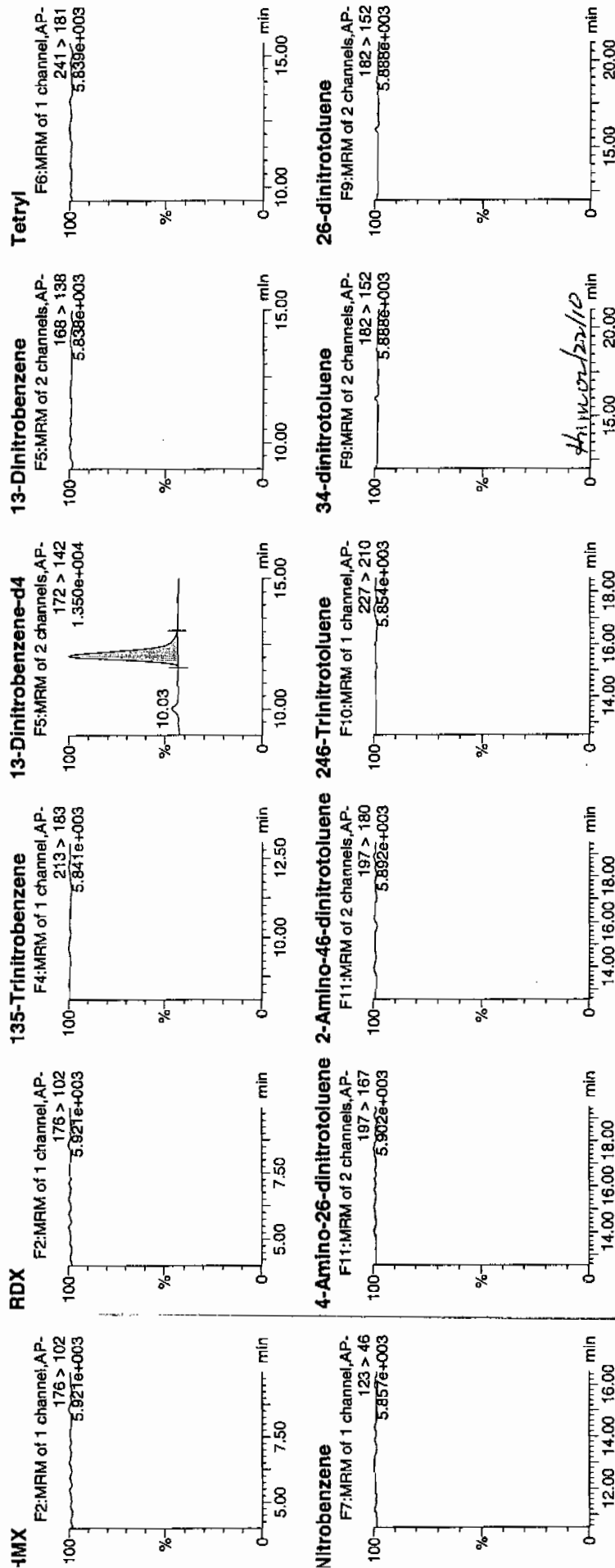
Date: 21-Feb-2010

Time: 10:39:44

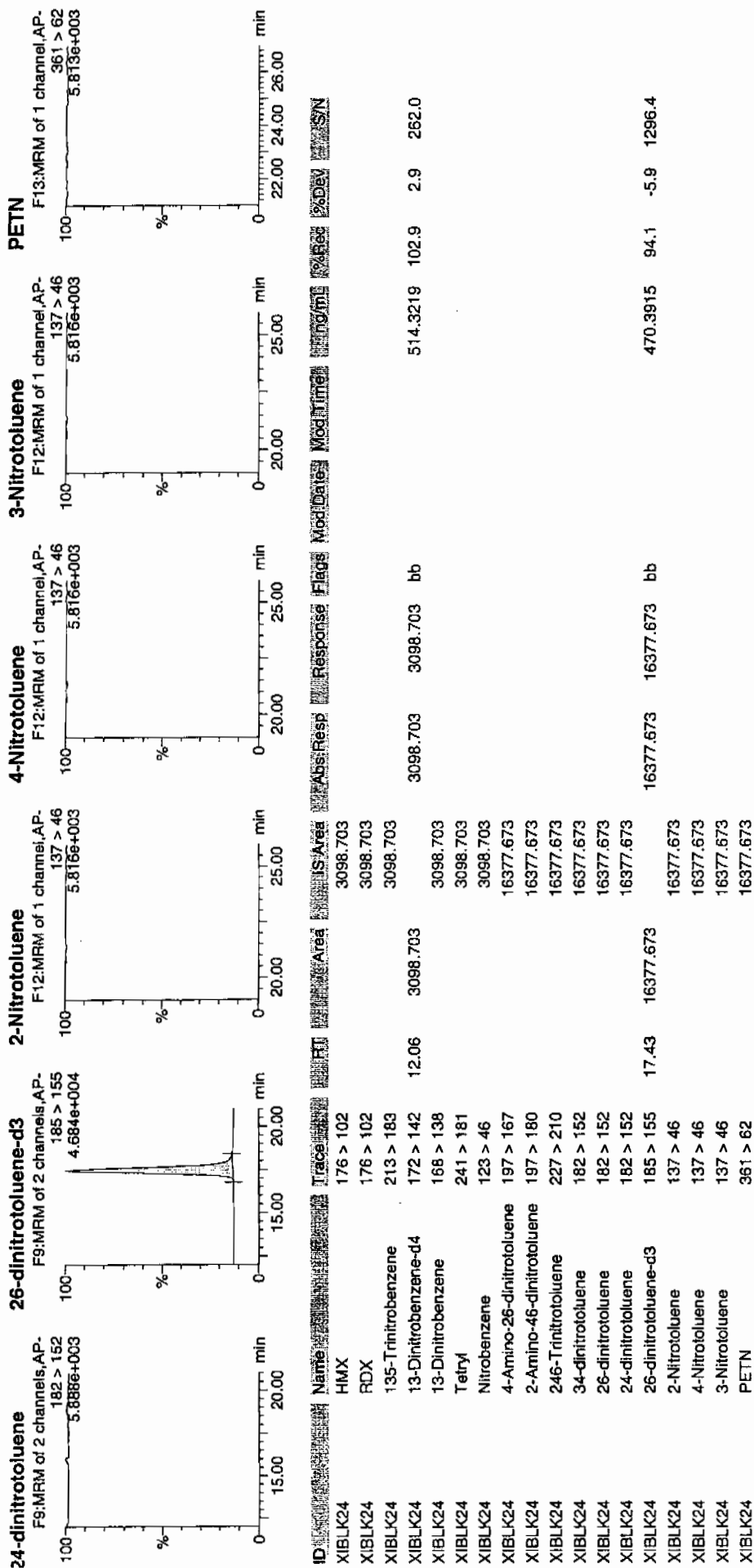
D: XIBLK24

Vial: 1:1,A

2/21/10
M.A.P.



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK25

Analysis Date: 21-FEB-10 14:07

GEL Data File: EXP0216237a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	461.545
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.482
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216237a

Date: 21-Feb-2010

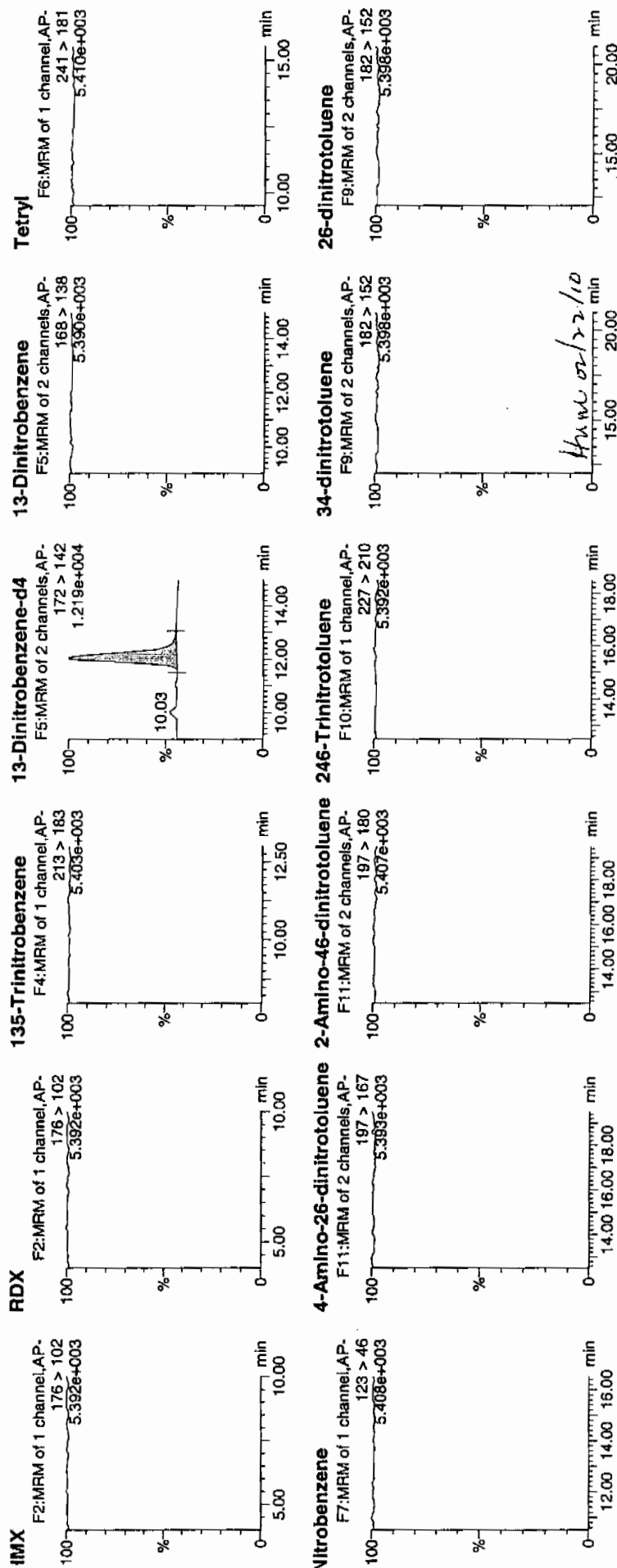
Time: 14:07:18

D: XIBLK25

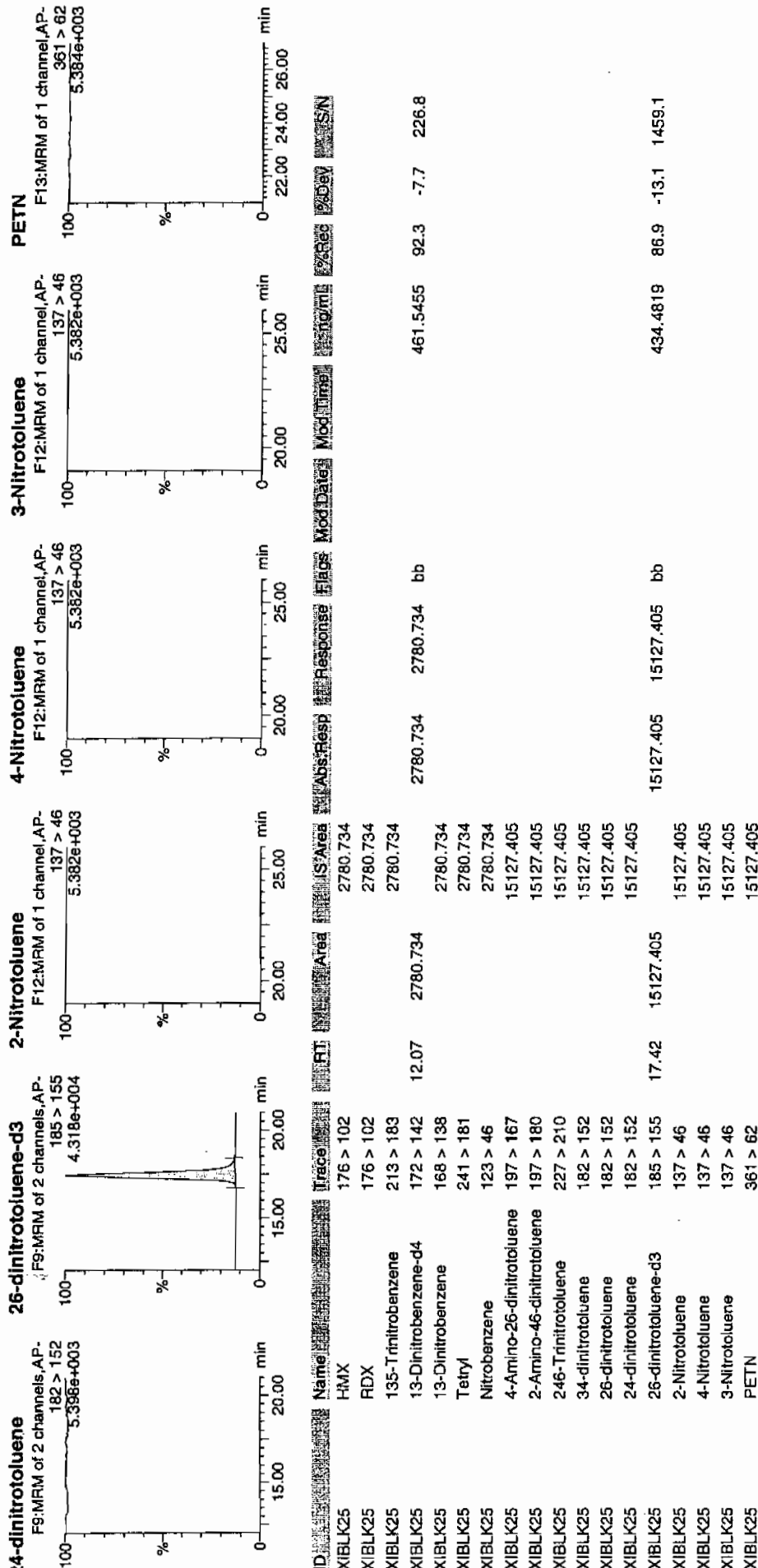
Ratio: 1:1,A

1/21/10

Page 205 of 1886



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK26

Analysis Date: 21-FEB-10 17:06

GEL Data File: EXP0216243a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
PETN	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	474.468
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	479.473
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

Printed: Mon Feb 22 09:28:24 2010, Page 23 of 73

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216243a

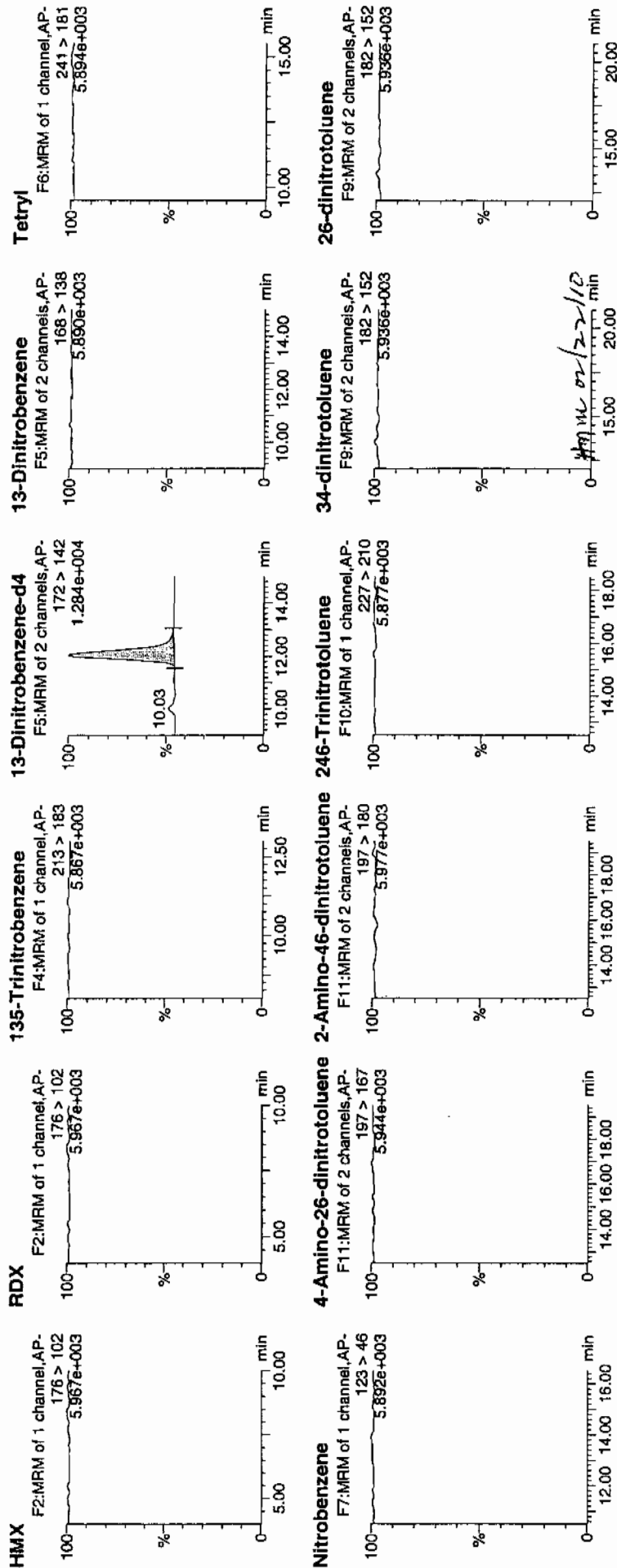
Date: 21-Feb-2010

Time: 17:06:31

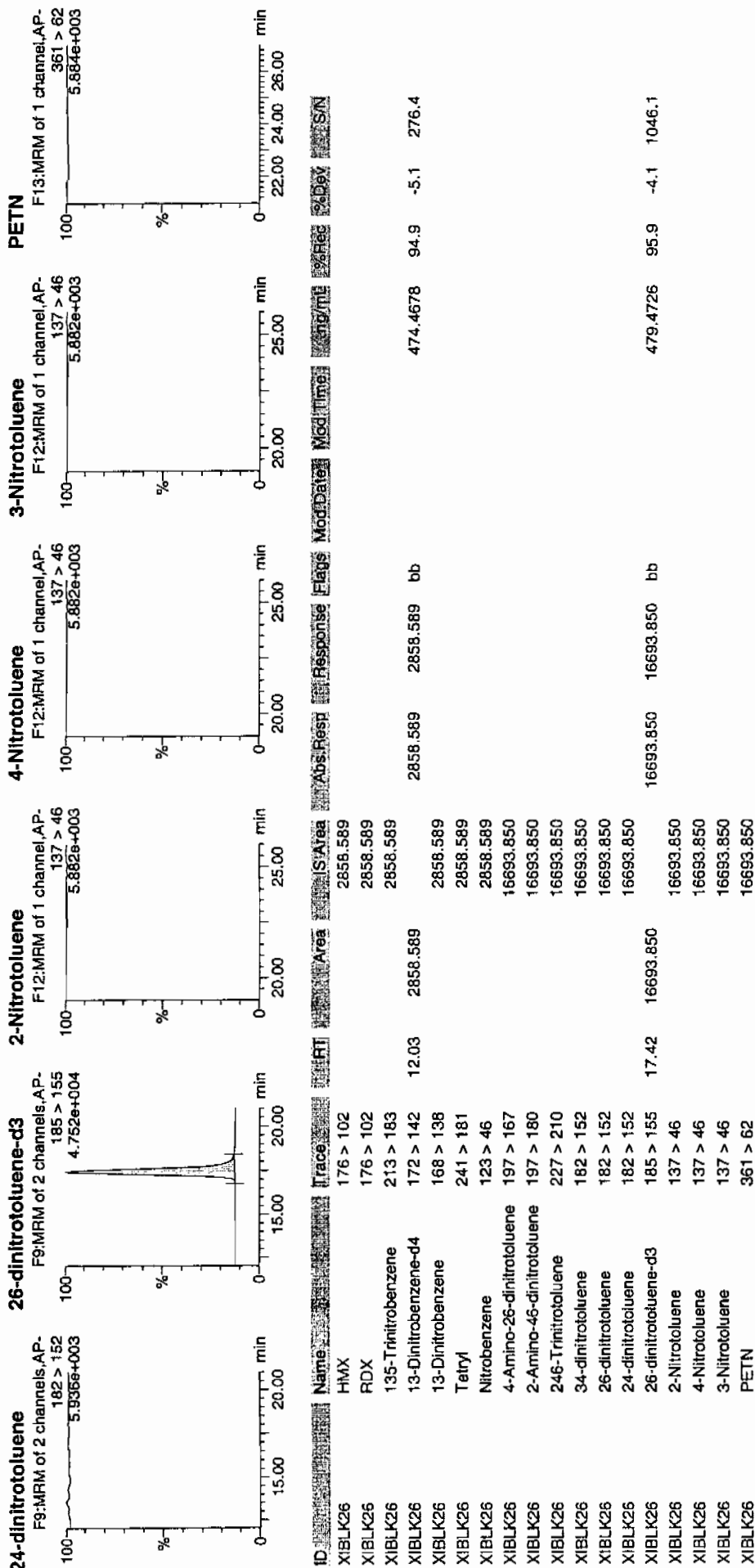
ID: XIBLK26

Vial: 1:1,A

10/2/10
M.A.P.



Dataset: C:\MASSLYNX\New_Exp\PRO021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK27

Analysis Date: 21-FEB-10 23:03

GEL Data File: EXP0216255a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	564.251
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	524.639
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Mon Feb 22 09:28:24 2010, Page 47 of 73

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216255a

Date: 21-Feb-2010

Time: 23:03:04

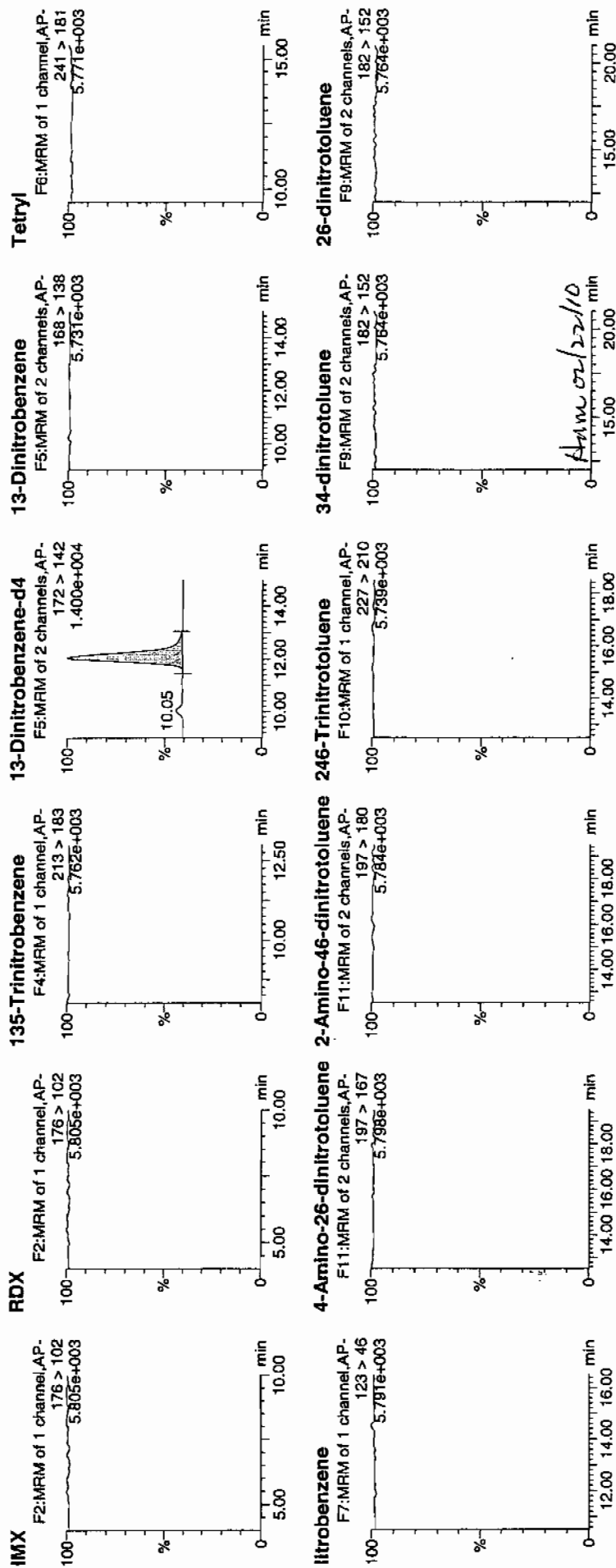
File: D:\XIBLK27

File: 1:1,A

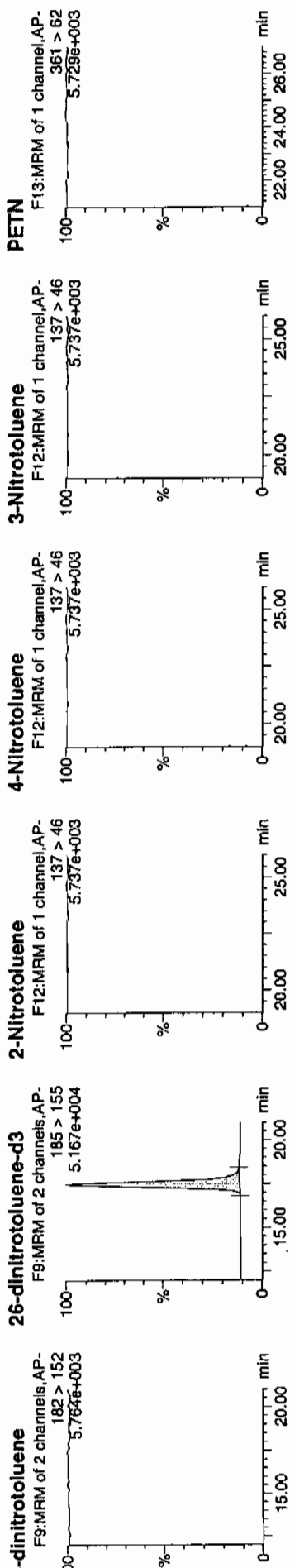
2/22/10

Page 211 of 1886

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



Name	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Mod User	Mod Dev	Mod Sys
BLK27											
BMX	176 > 102		3399.518								
BLK27											
RDX	176 > 102		3399.518								
BLK27											
135-Trinitrobenzene	213 > 183		3399.518								
BLK27											
13-Dinitrobenzene-d4	172 > 142	12.07	3399.518								
BLK27											
13-Dinitrobenzene	168 > 138		3399.518								
BLK27											
Tetryl	241 > 181		3399.518								
BLK27											
Nitrobenzene	123 > 46		3399.518								
BLK27											
4-Amino-26-dinitrotoluene	197 > 167		18266.416								
BLK27											
2-Amino-46-dinitrotoluene	197 > 180		18266.416								
BLK27											
246-Trinitrotoluene	227 > 210		18266.416								
BLK27											
34-dinitrotoluene	182 > 152		18266.416								
BLK27											
26-dinitrotoluene	182 > 152		18266.416								
BLK27											
24-dinitrotoluene	182 > 152		18266.416								
BLK27											
26-dinitrotoluene-d3	185 > 155	17.47	18266.416								
BLK27											
2-Nitrotoluene	137 > 46		18266.416								
BLK27											
4-Nitrotoluene	137 > 46		18266.416								
BLK27											
3-Nitrotoluene	137 > 46		18266.416								
BLK27											
PETN	361 > 52										
BLK27											

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK28

Analysis Date: 22-FEB-10 04:28

GEL Data File: EXP0216266a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	495.977
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	466.39
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

uantify Sample Report
EL Laboratories, LLC / Analyst: Michael A. Penny

atset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0216266a

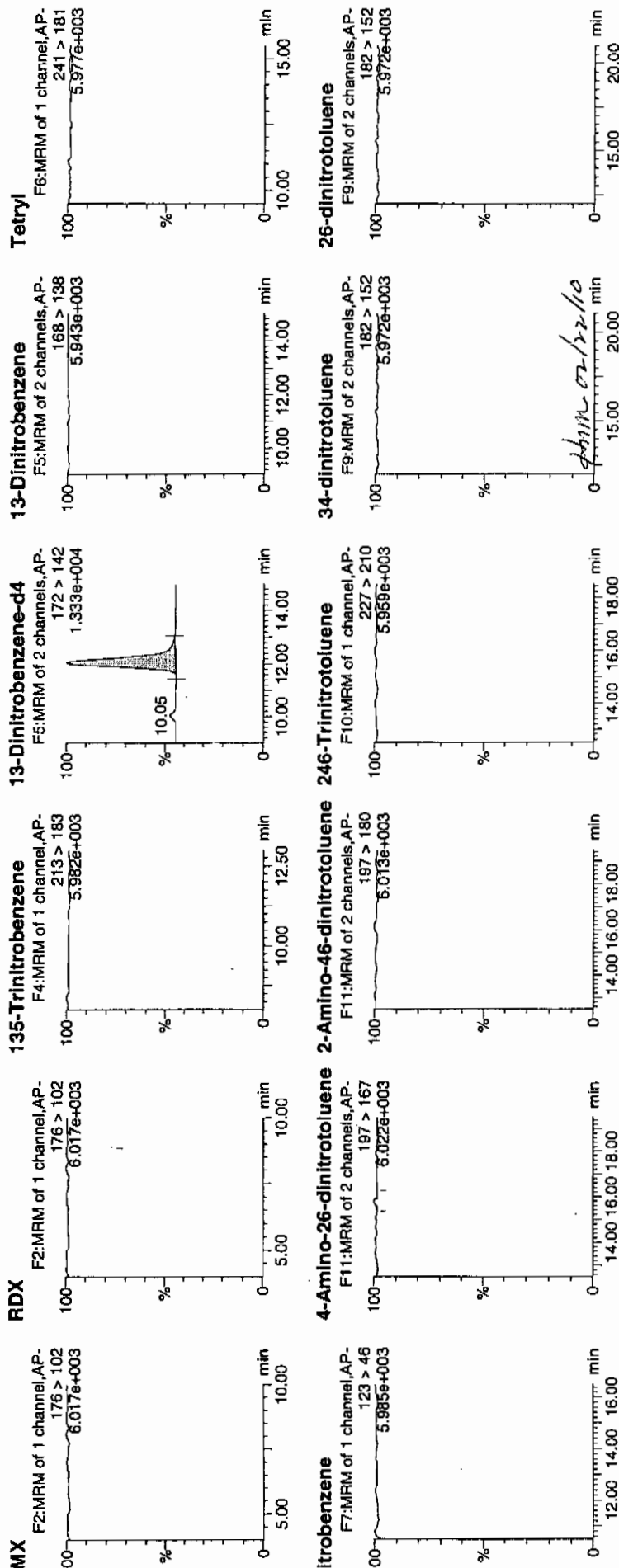
ate: 22-Feb-2010

me: 04:28:44

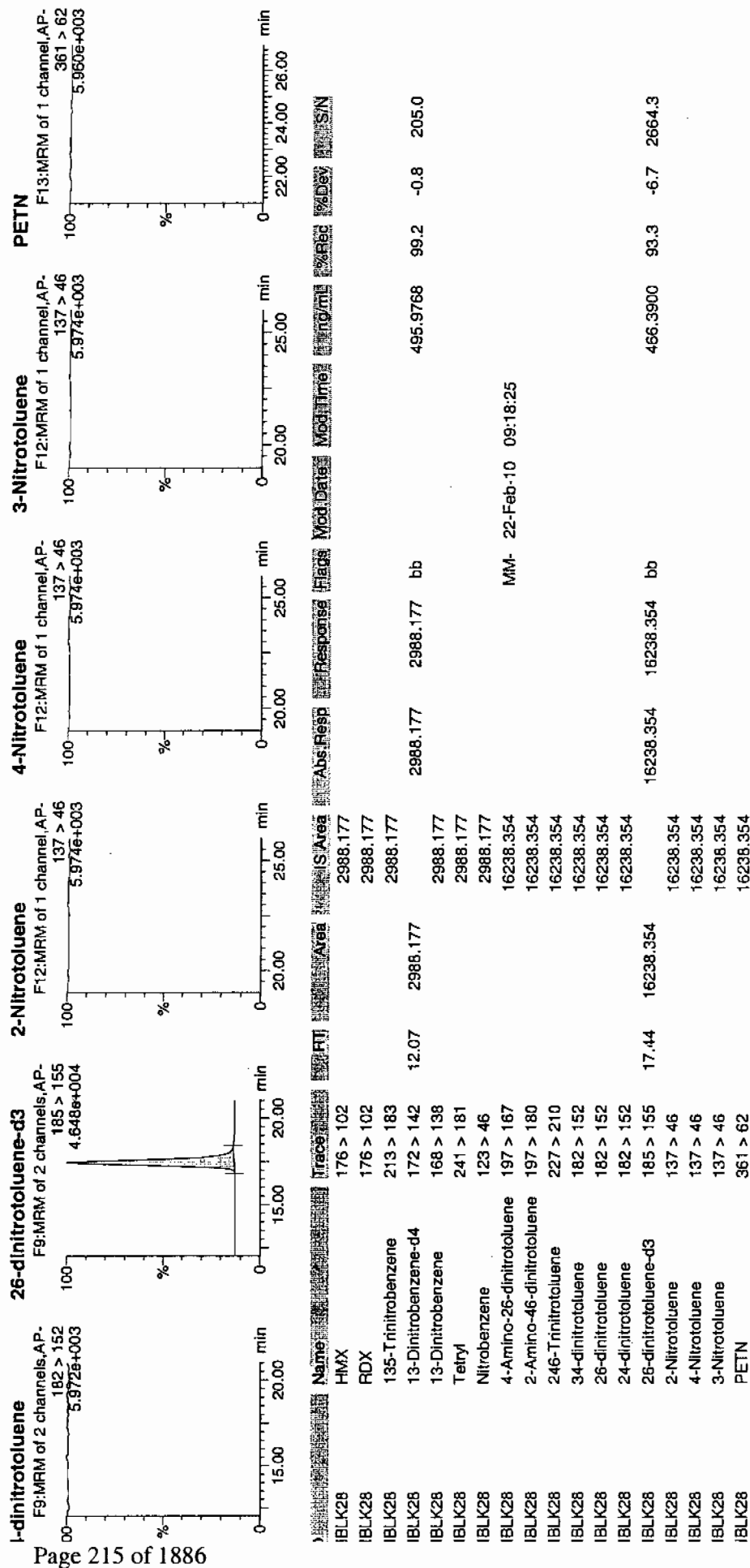
i: XIBLK28

al: 1:1,A

2/22/10
MAY



ataset: C:\MASSLYN\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK29

Analysis Date: 22-FEB-10 10:24

GEL Data File: EXP0216278a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	506.786
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	563.862
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

atset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216278a

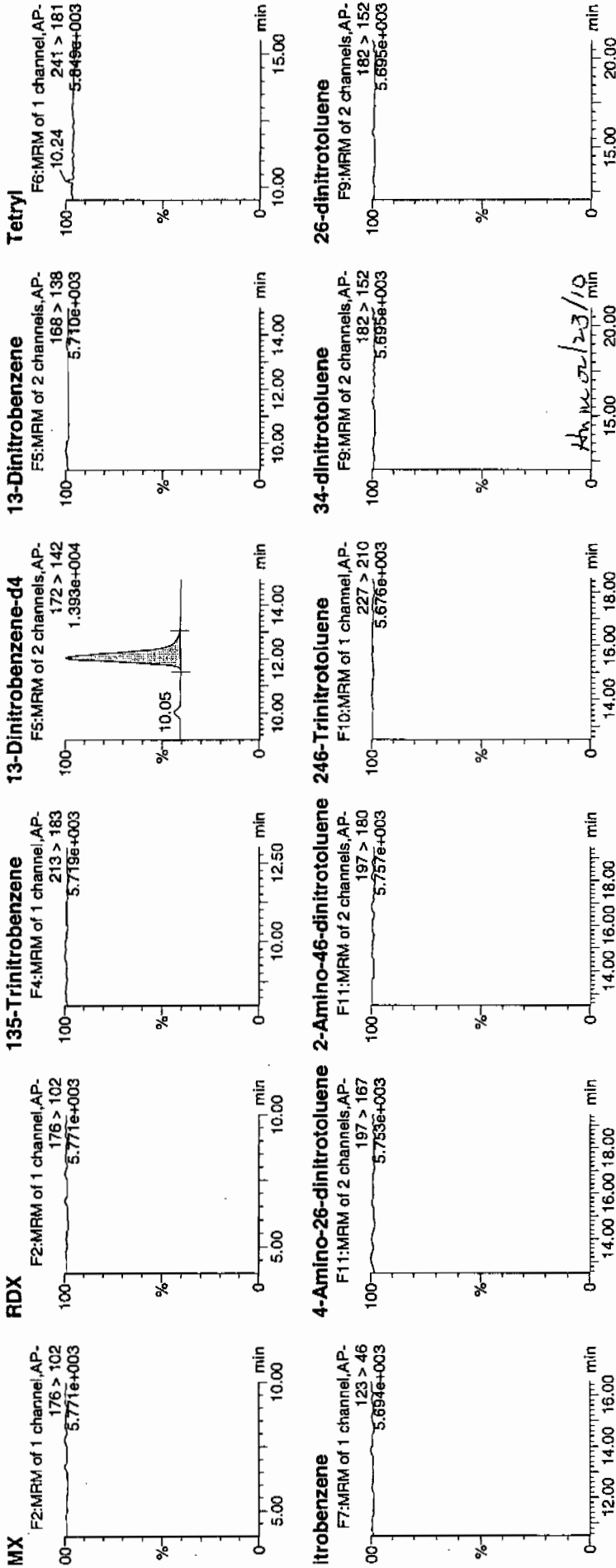
ate: 22-Feb-2010

me: 10:24:42

l: XIBLK29

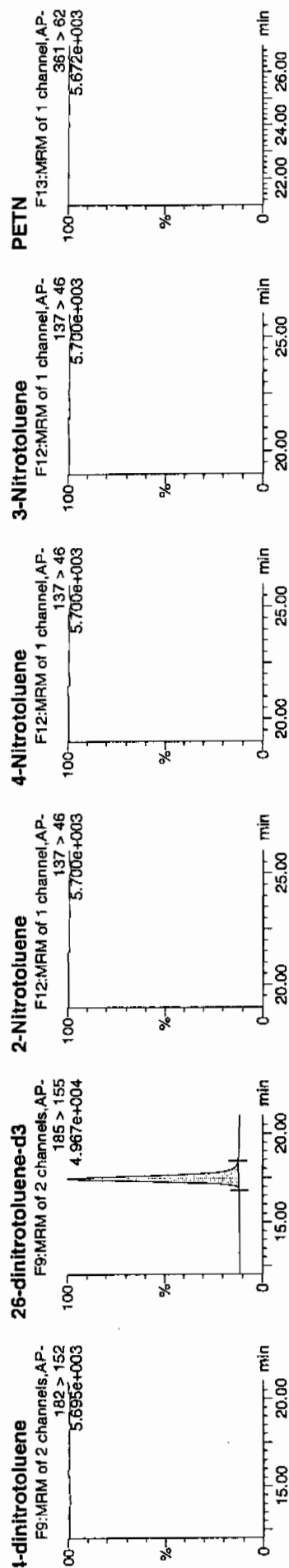
al: 1:1,A

4/13/10



uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



Name	Trace	Area	IS Area	Response	Flags	Mod Date	Mod Time	Mod User	SN
IBLK29	HMX	176 > 102	3397.173						
IBLK29	RDX	176 > 102	3397.173						
IBLK29	135-Trinitrobenzene	213 > 183	3397.173						
IBLK29	13-Dinitrobenzene-d4	172 > 142	12.07	3397.173					
IBLK29	13-Dinitrobenzene	168 > 138	3397.173						
IBLK29	Tetryl	241 > 181	3397.173						
IBLK29	Nitrobenzene	123 > 46	3397.173						
IBLK29	4-Amino-26-dinitrotoluene	197 > 167	17644.824						
IBLK29	2-Amino-46-dinitrotoluene	197 > 180	17644.824						
IBLK29	246-Trinitrotoluene	227 > 210	17644.824						
IBLK29	34-dinitrotoluene	182 > 152	17644.824						
IBLK29	26-dinitrotoluene	182 > 152	17644.824						
IBLK29	24-dinitrotoluene	182 > 152	17644.824						
IBLK29	26-dinitrotoluene-d3	185 > 155	17.44	17644.824					
IBLK29	2-Nitrotoluene	137 > 46	17644.824						
IBLK29	4-Nitrotoluene	137 > 46	17644.824						
IBLK29	3-Nitrotoluene	137 > 46	17644.824						
IBLK29	PETN	361 > 62							

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK30

Analysis Date: 22-FEB-10 16:49

GEL Data File: EXP0216291a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.607
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	431.561
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216291a

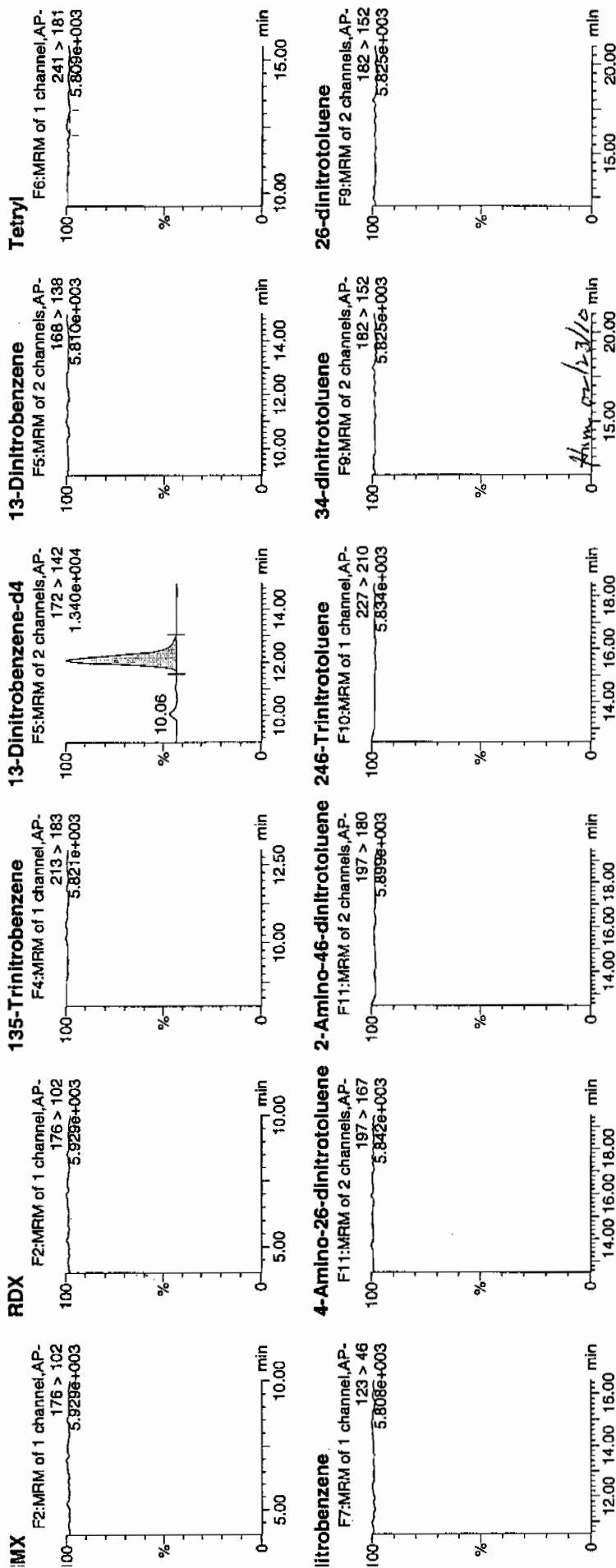
Date: 22-Feb-2010

Time: 16:49:13

Operator: XIBLK30

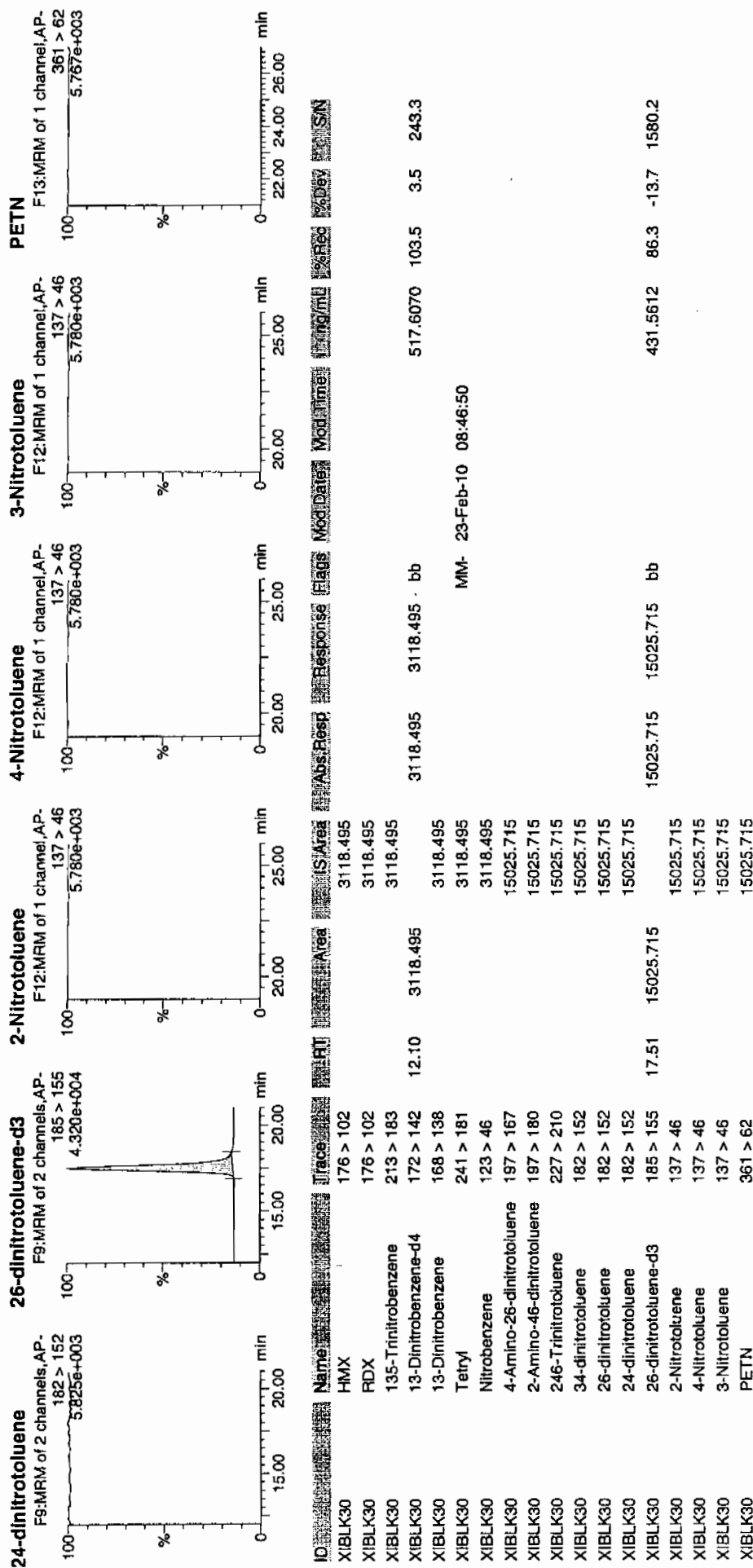
Label: 1:1,A

Copy
 1/2



Quantify Sample Report
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 25-FEB-10 13:58

GEL Data File: EXP0225009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	456.08
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	498.406
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Identify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qtd, Time: Fri Feb 26 09:15:44 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225009a

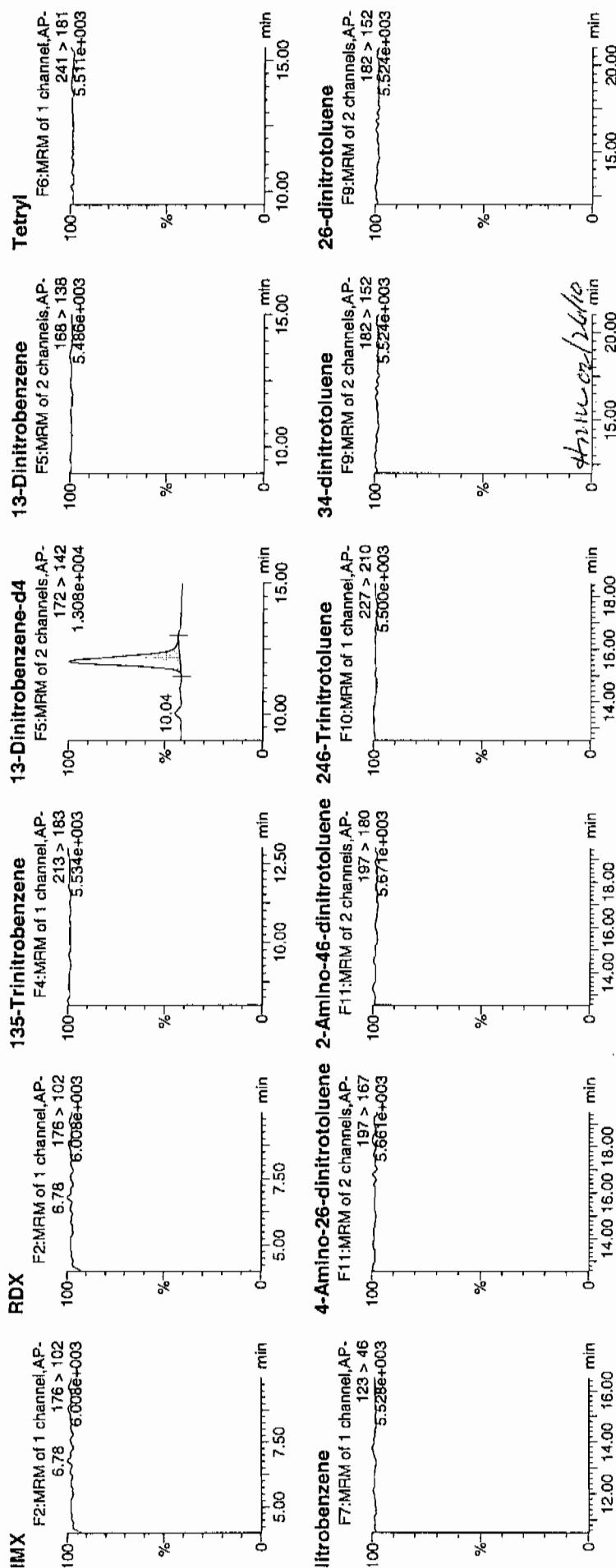
Date: 25-Feb-2010

Time: 13:58:55

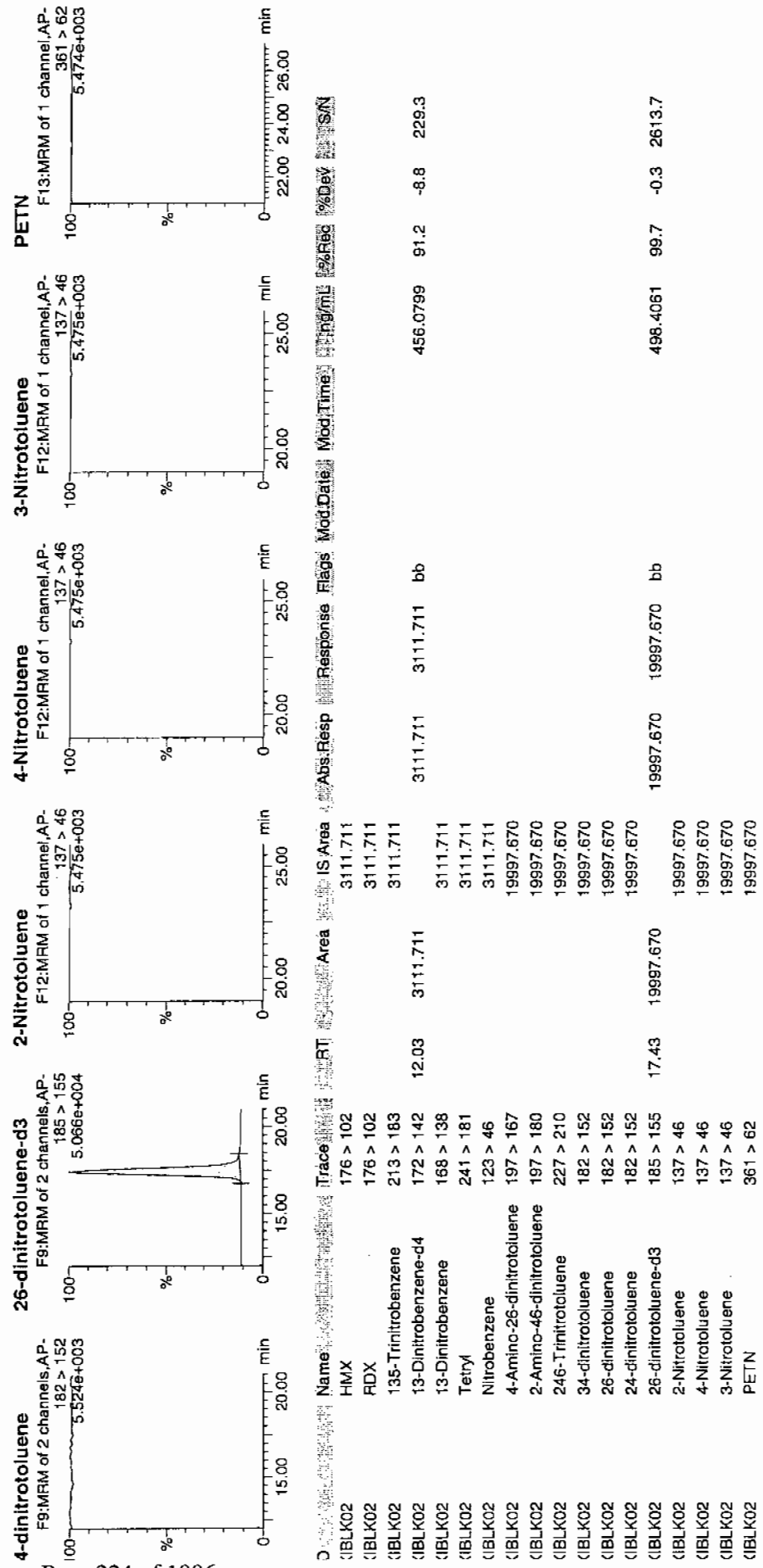
ID: XIBLK02

Label: 1:1,A

100%
100%
100%



atasset: C:\MASSLYNX\New_Exp\PROV022510expA.qld, Time: Fri Feb 26 09:15:44 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 25-FEB-10 14:57

GEL Data File: EXP0225011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	502.204
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.733
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

Identify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225011a

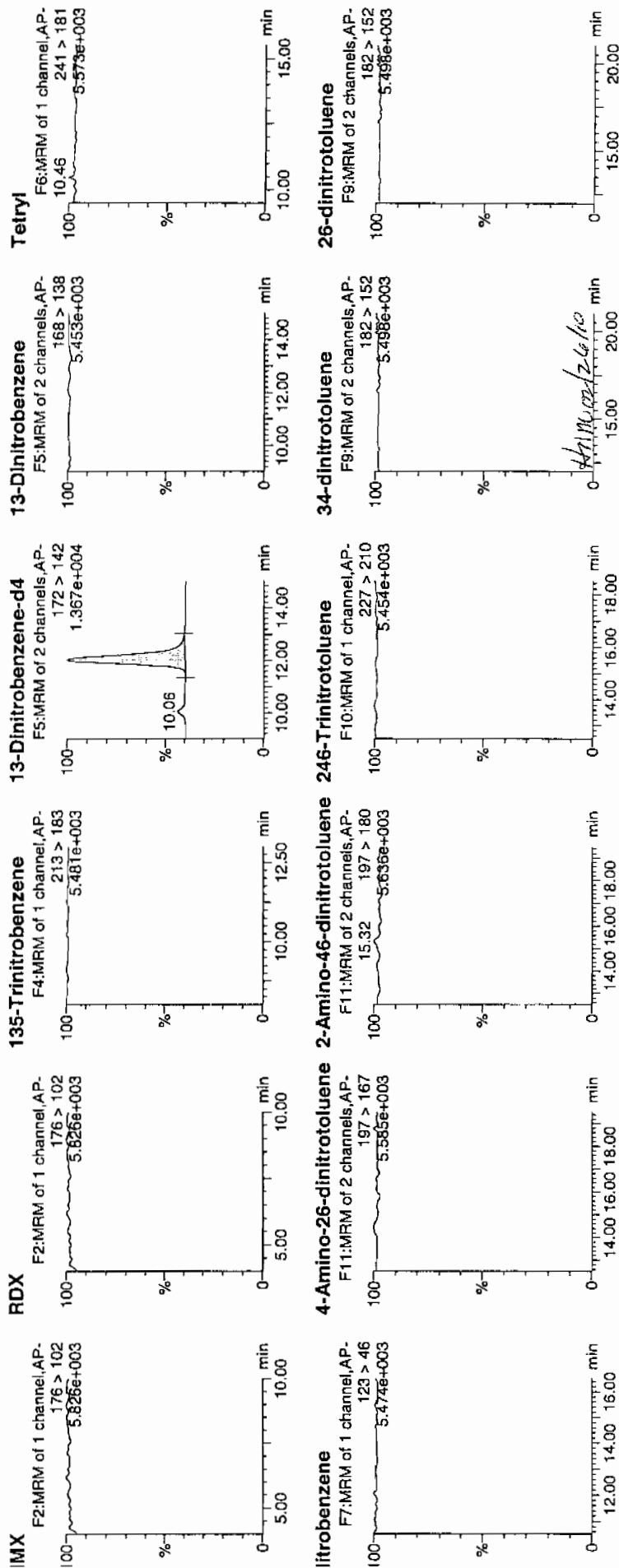
Date: 25-Feb-2010

Time: 14:57:52

Sample ID: XIBLK03

Label: 1:1,A

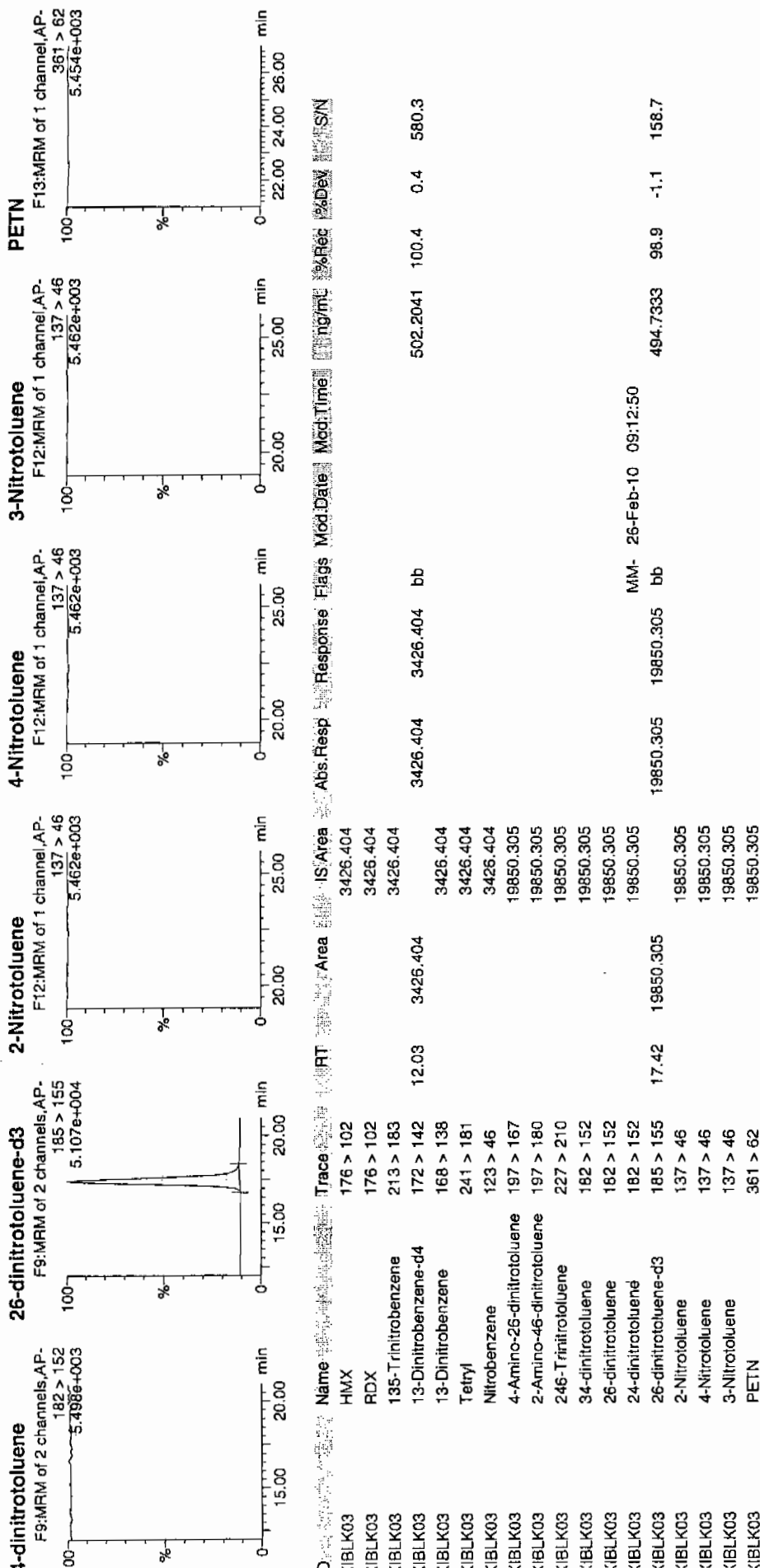
WFF
1/16/10



Printed: Fri Feb 26 09:17:09 2010, Page 22 of 77

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYN\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 25-FEB-10 21:21

GEL Data File: EXP0225024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	475.401
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	470.036
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225024a

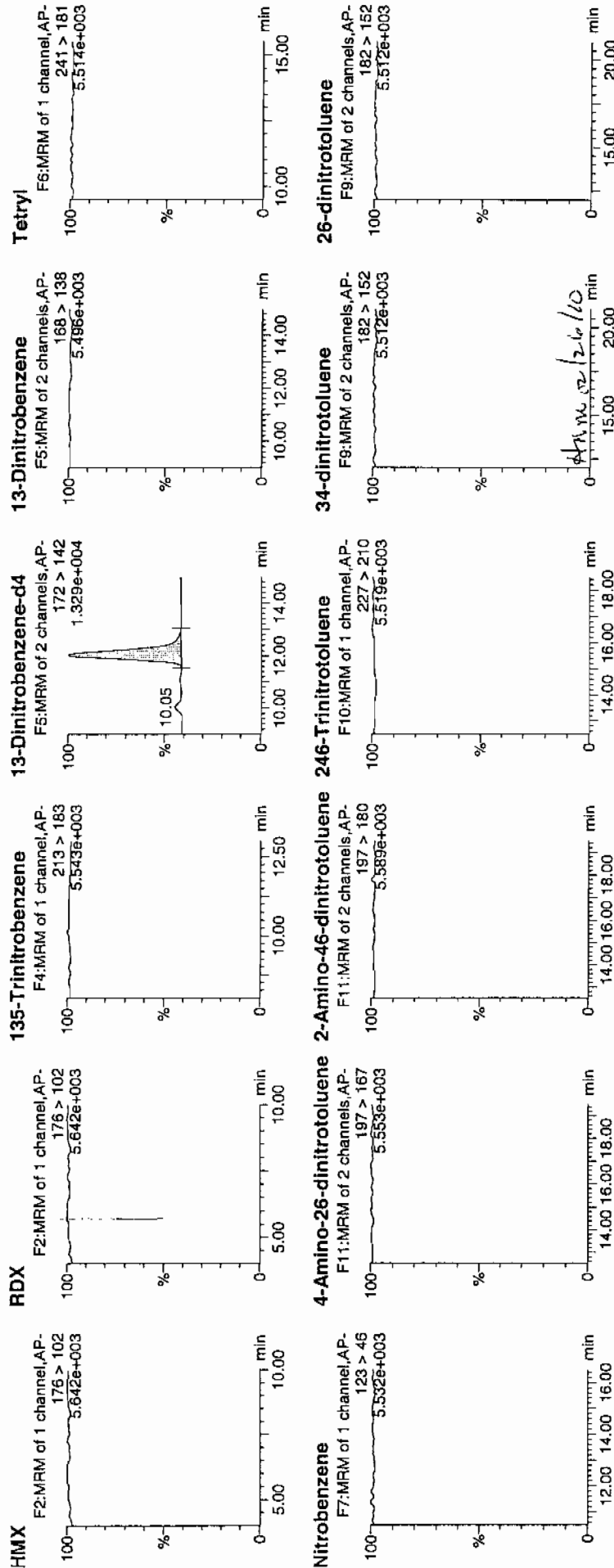
Date: 25-Feb-2010

Time: 21:21:38

ID: XIBLK04

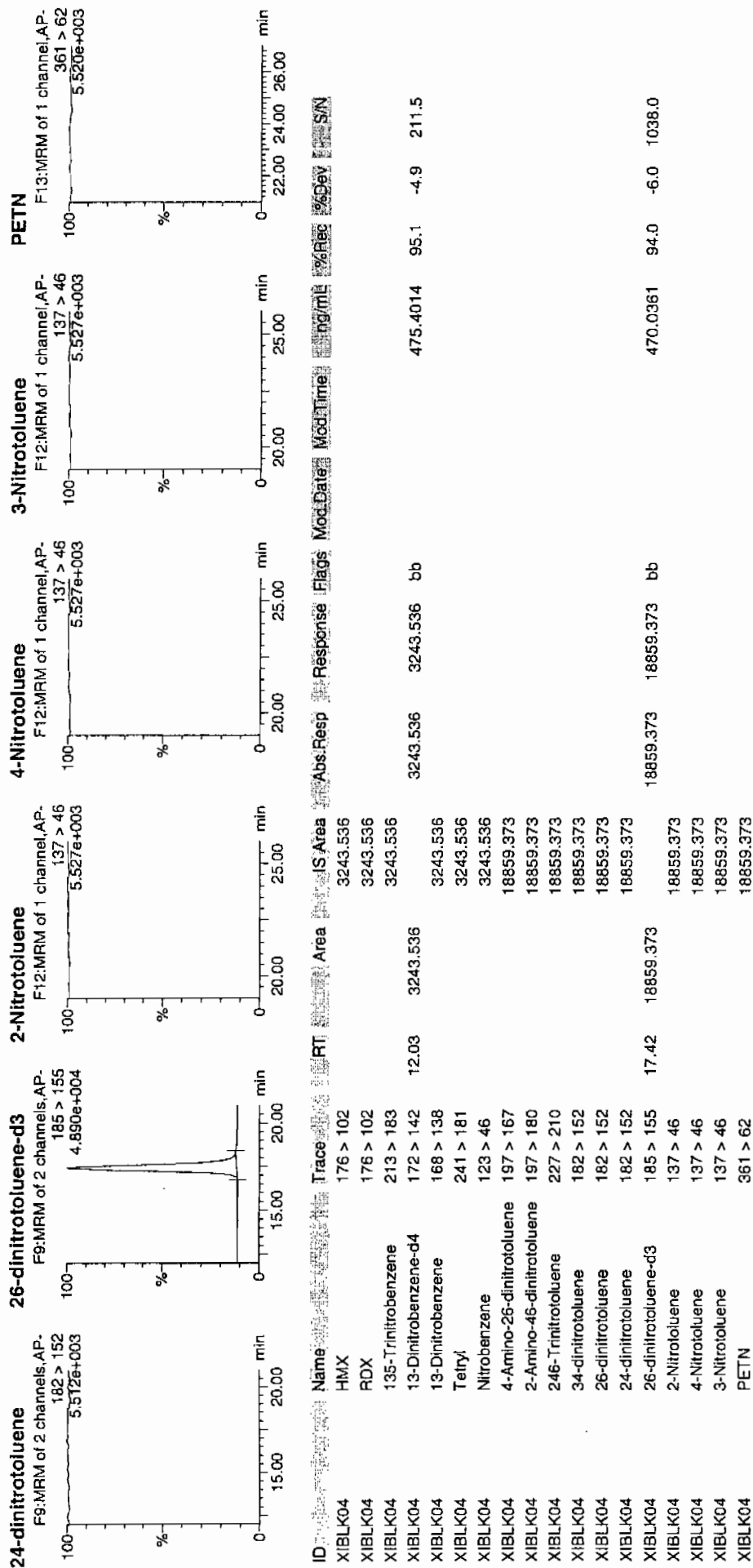
Vial: 1:1,A

Handwritten: 100%
100%



Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 20-FEB-10 11:58

GEL Data File: EXS02200010.wiff

Instrument ID: LCMSMS

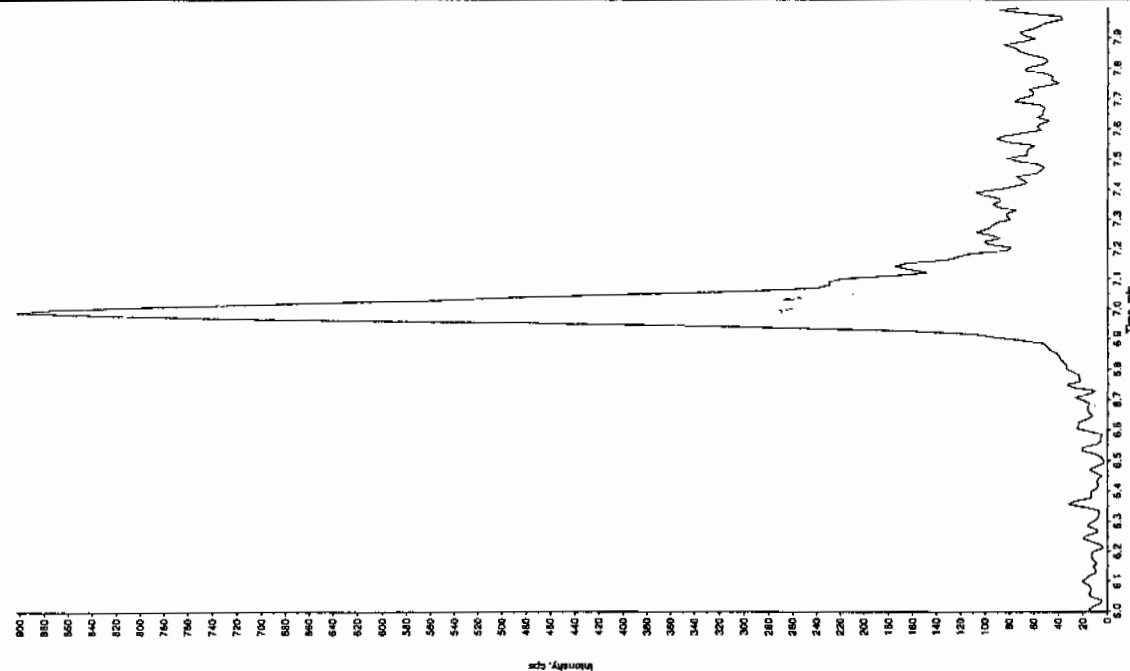
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	.592
tris(o-cresyl) phosphate	0	11
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

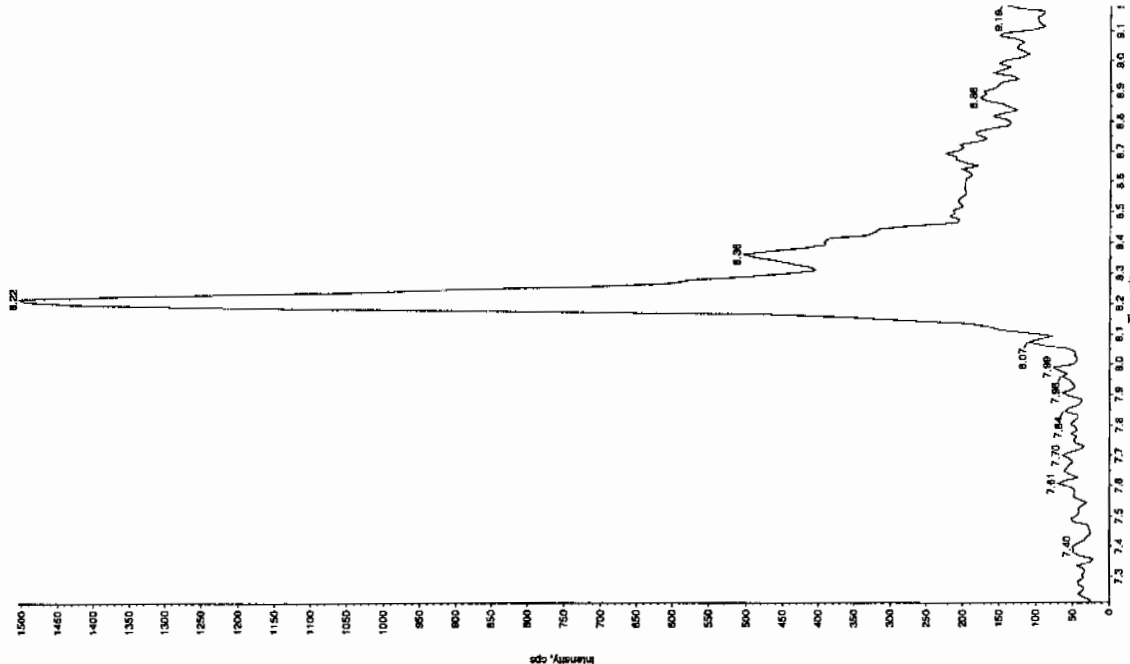
Jan 21/2010

Sample Name: "XIBUK02" Sample ID: "TILER" File: "EXS02200010.will"
 Peak Name: "TATB" Mass(es): "257.22049 amu"
 Comment: "LCMSEXP_B" Annotation: ""

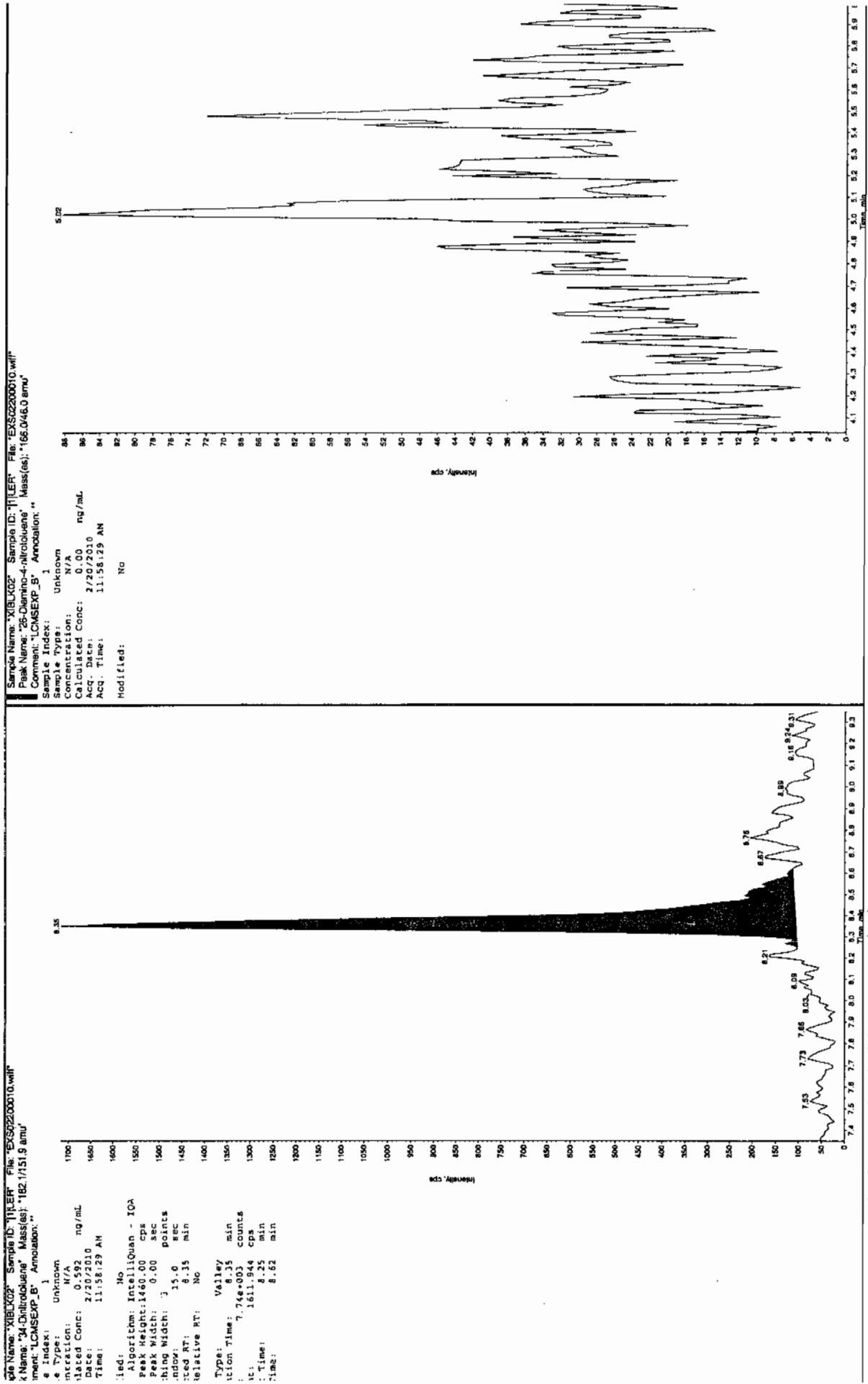
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/20/2010
 Time: 11:56:29 AM
 Modified: No

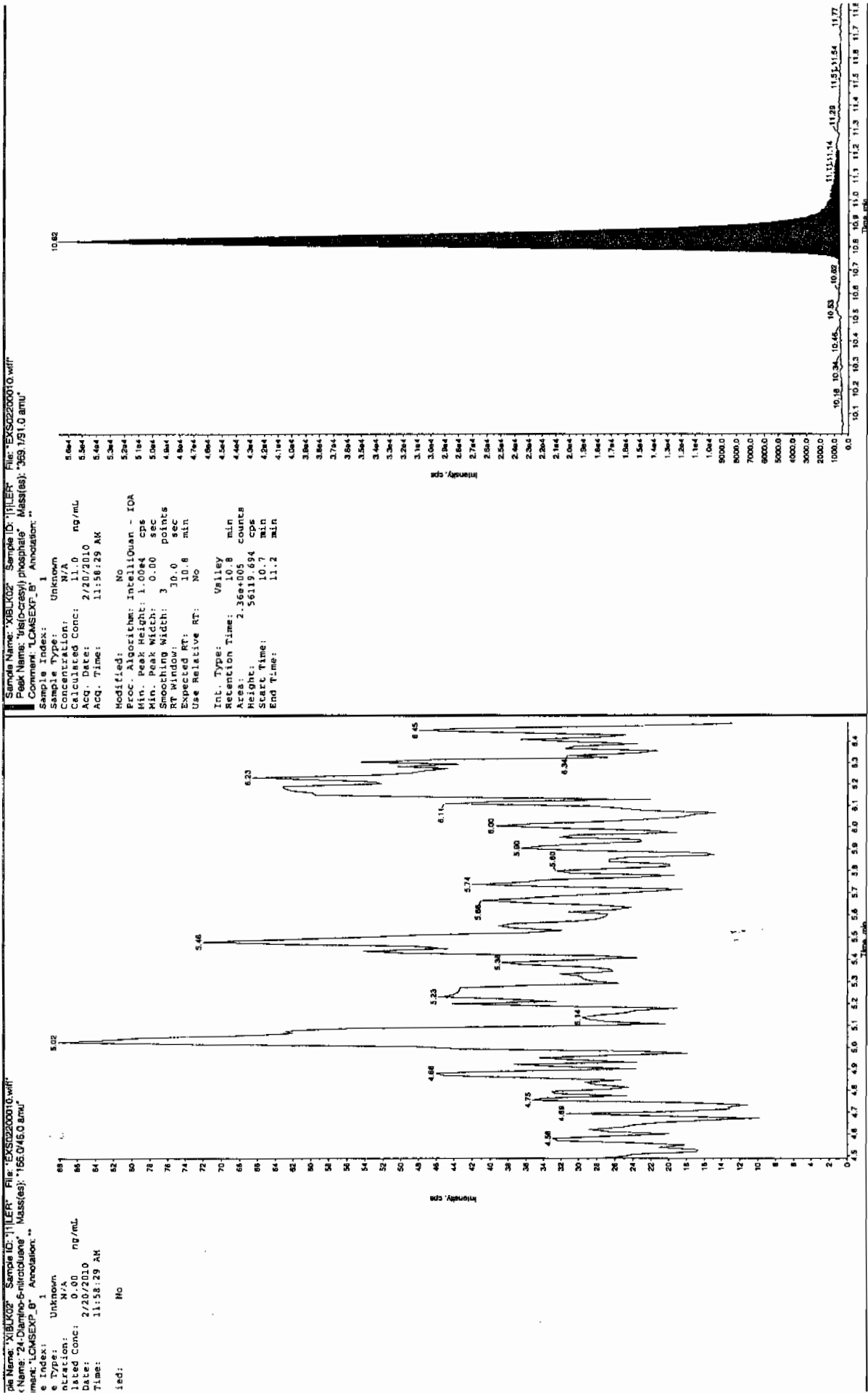


Jan 21/2010



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 20-FEB-10 12:29

GEL Data File: EXS02200012.wiff

Instrument ID: LCMSMS

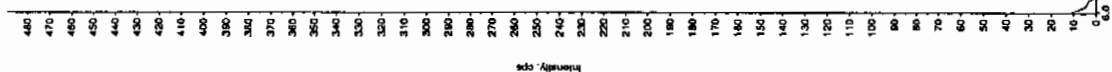
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	9.47
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

for ratio

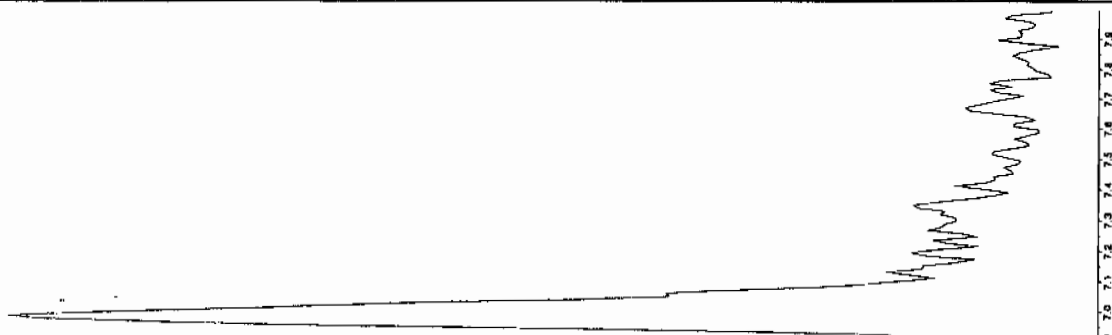
Sample Name: "XIBL003" Sample ID: "TILER" File: "EXSD200012.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.045.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Calibration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 12:29:51 PM
 Modified: No



Intensity, cps

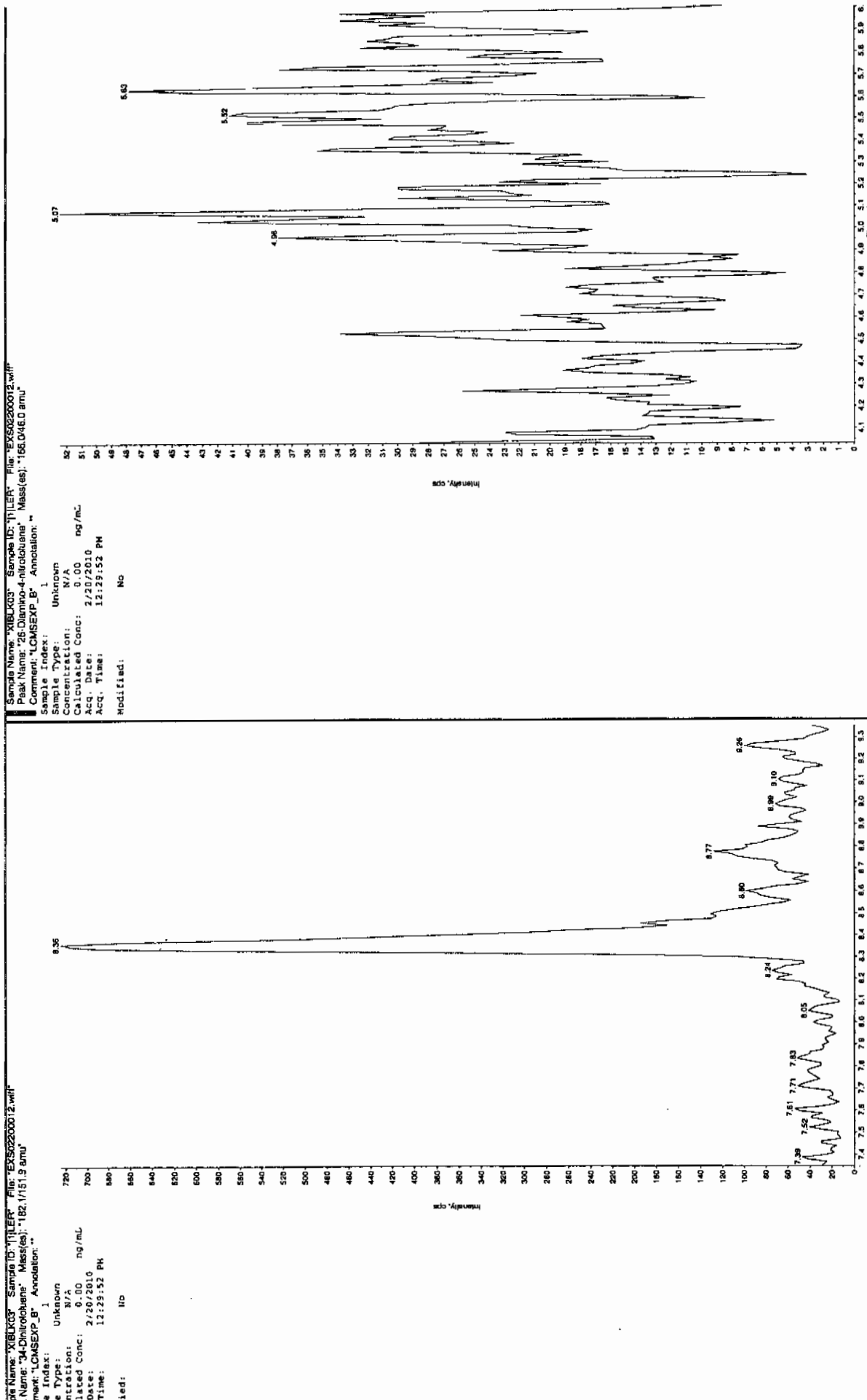
Sample Index: 1
 Sample Type: Unknown
 Calibration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 12:29:52 PM
 Modified: No



Intensity, cps

Time 02/22/10

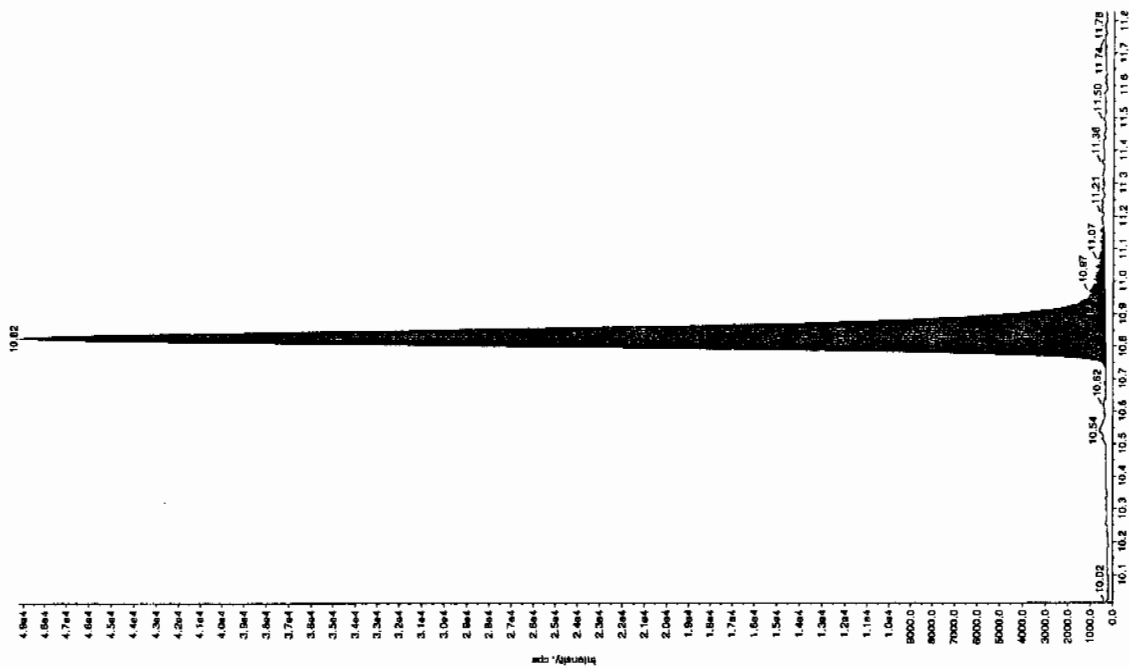
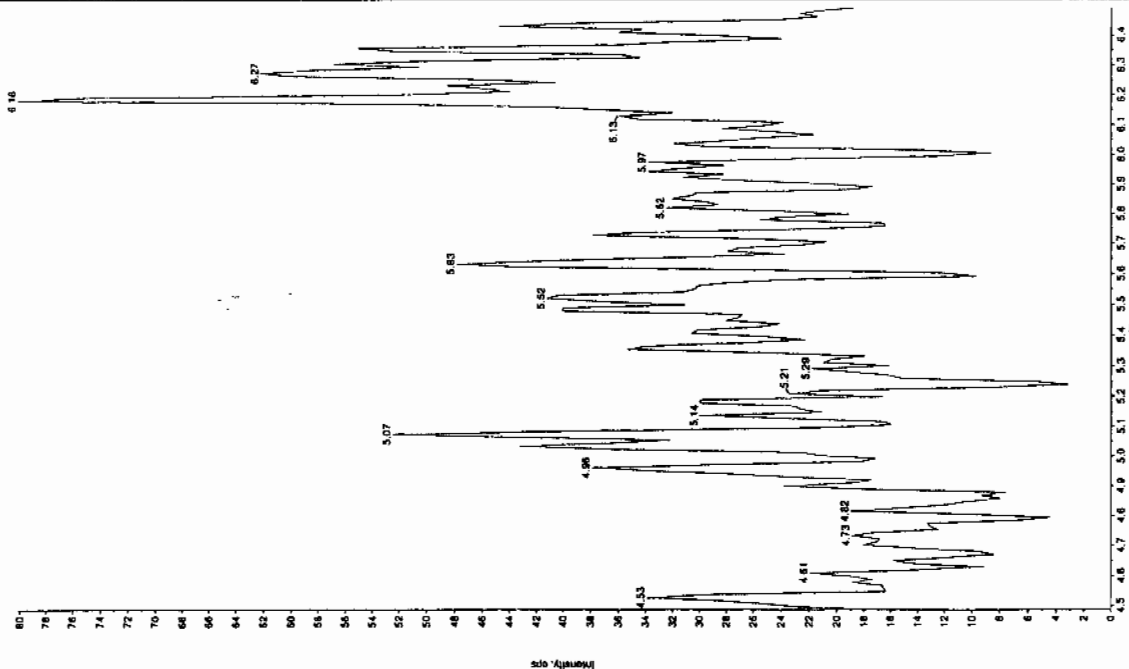
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XBL003" Sample ID: "11LER" File: "EX00200012.wif"
 Peak Name: "24-Dinitro-6-nitrofluorene" Mass(es): "186.046 0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 12:29:52 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 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
 Peak Height: 48890.705 cps
 Start Time: 10.7 min
 End Time: 11.2 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 20-FEB-10 15:53

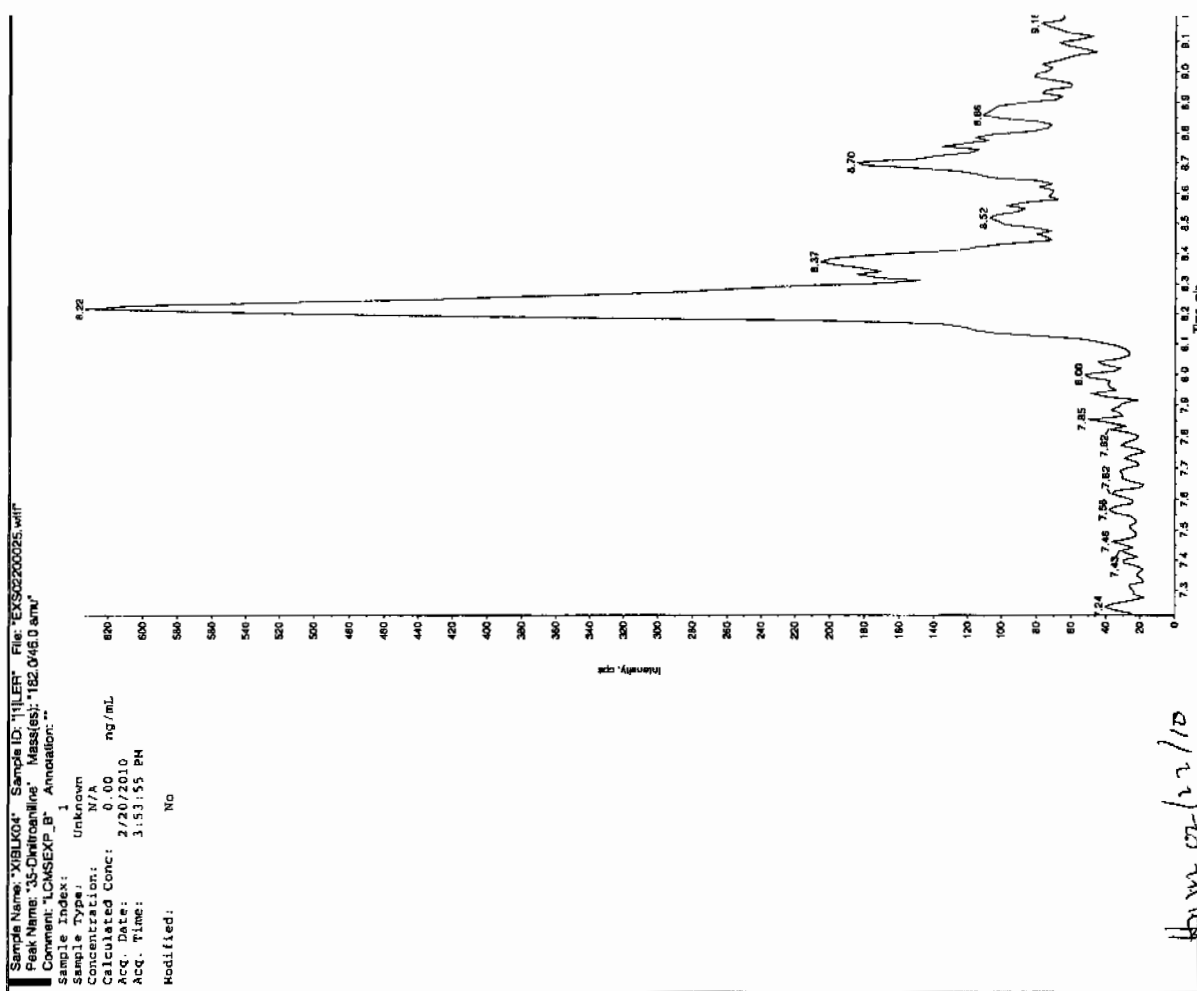
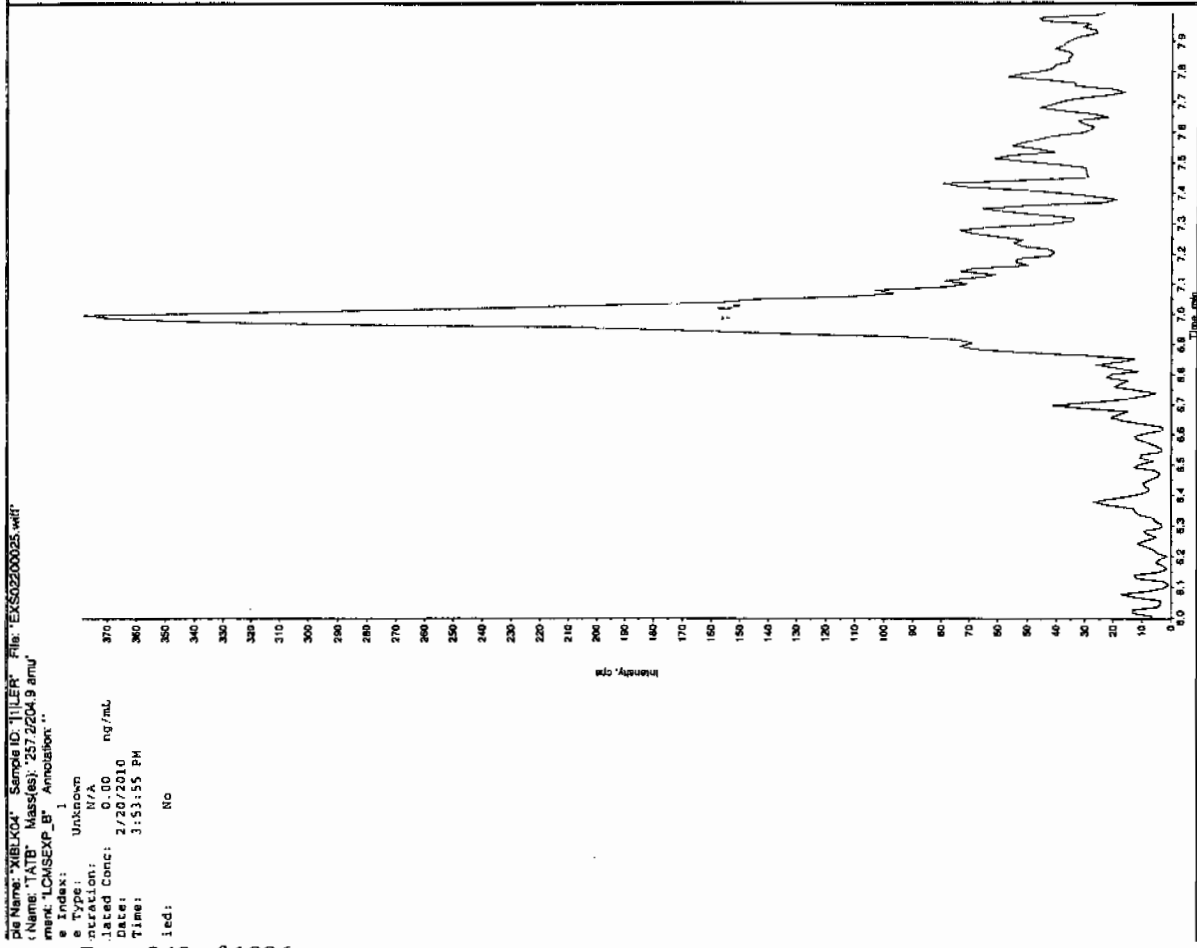
GEL Data File: EXS02200025.wiff

Instrument ID: LCMSMS

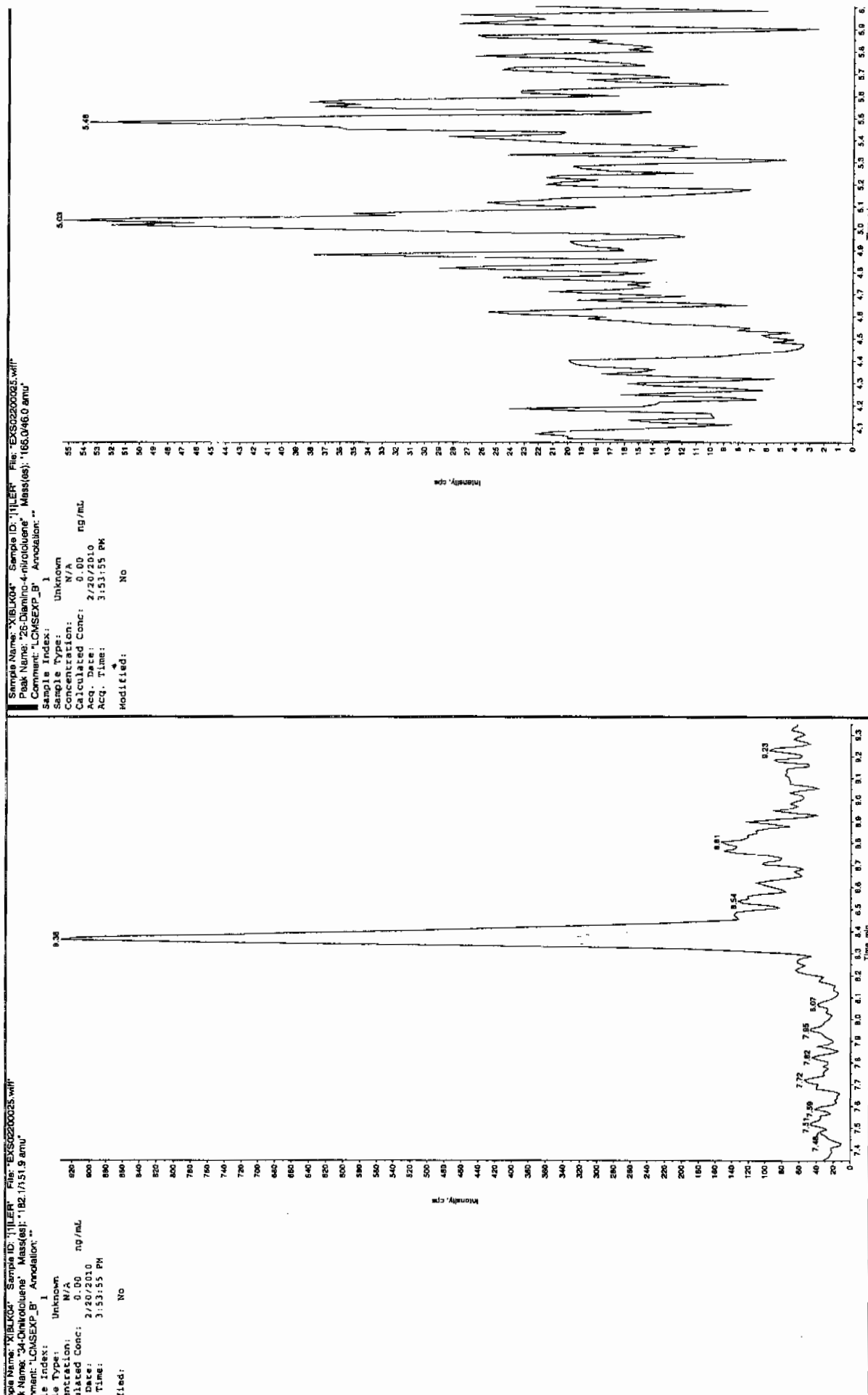
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.74
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

for vial



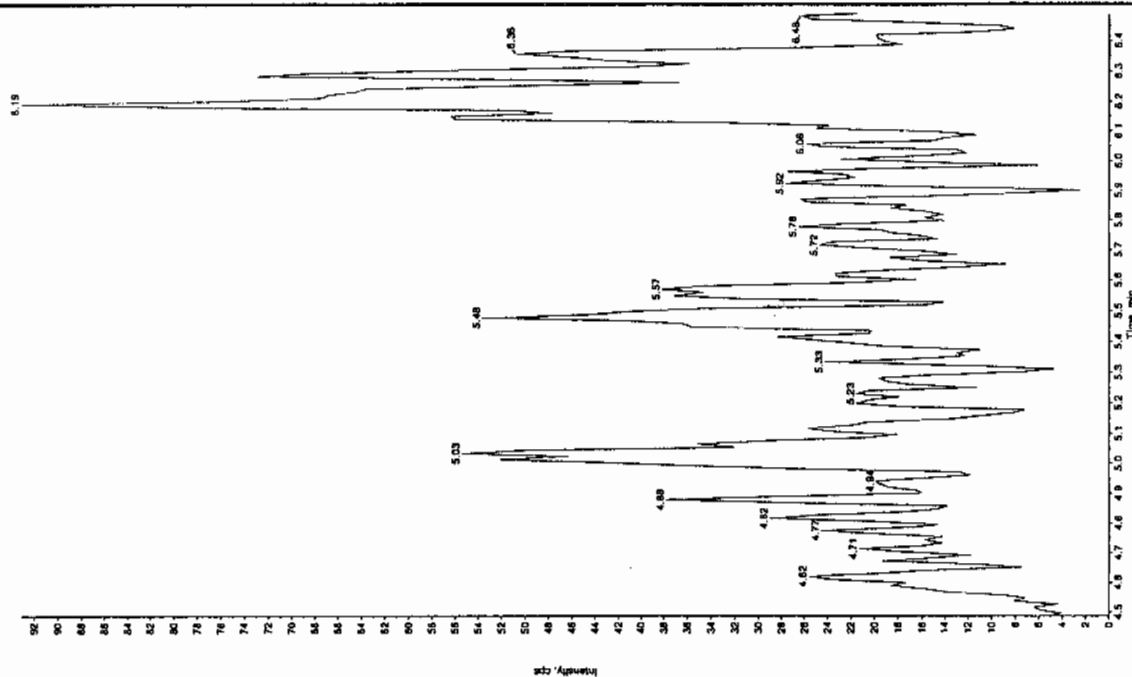
Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XBLX04" Sample ID: "J1LER" File: "EXS0200025.wif"
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
 Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 4.74 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 3:53:55 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 1.00e4 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: 1.01e+005 counts
 Height: 24089.092 cps
 Start Time: 10.8 min
 End Time: 11.2 min



Sample Name: "XBLX04" Sample ID: "J1LER" File: "EXS0200025.wif"
 Peak Name: "24-Diamino-5-nitrothiophene" Mass(es): "186.0/46.0 amu"
 Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 3:53:55 PM
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1570

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 20-FEB-10 19:18

GEL Data File: EXS02200038.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	3.63
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

San 2/20/10

Sample Name: "XIBLK05" Sample ID: "T1LER" File: "EXS02200038.wiff"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

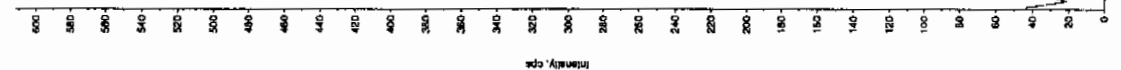
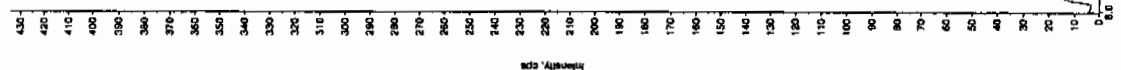
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 2/20/2010

Acq. Time: 7:18:06 PM

Modified: No

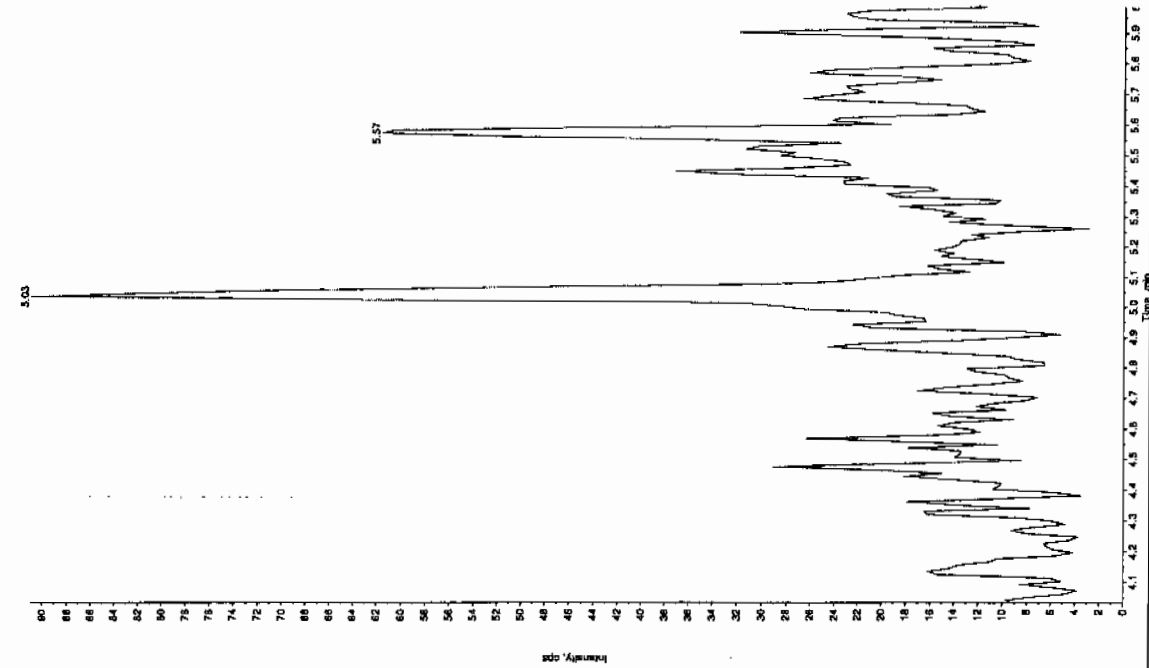
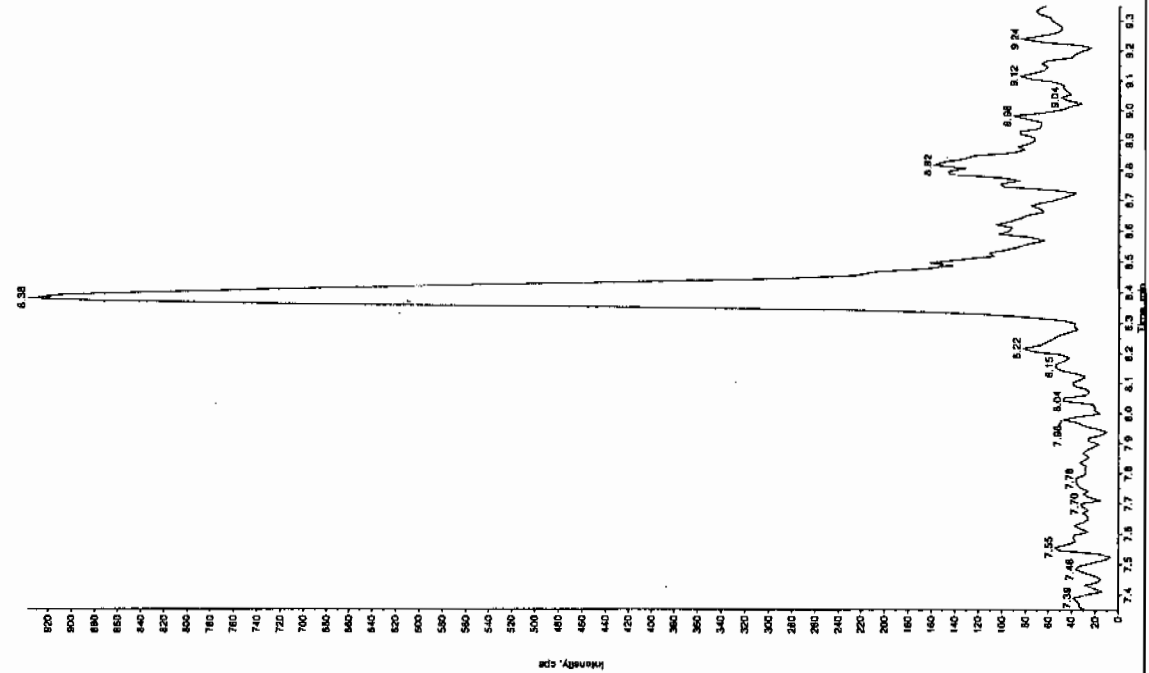


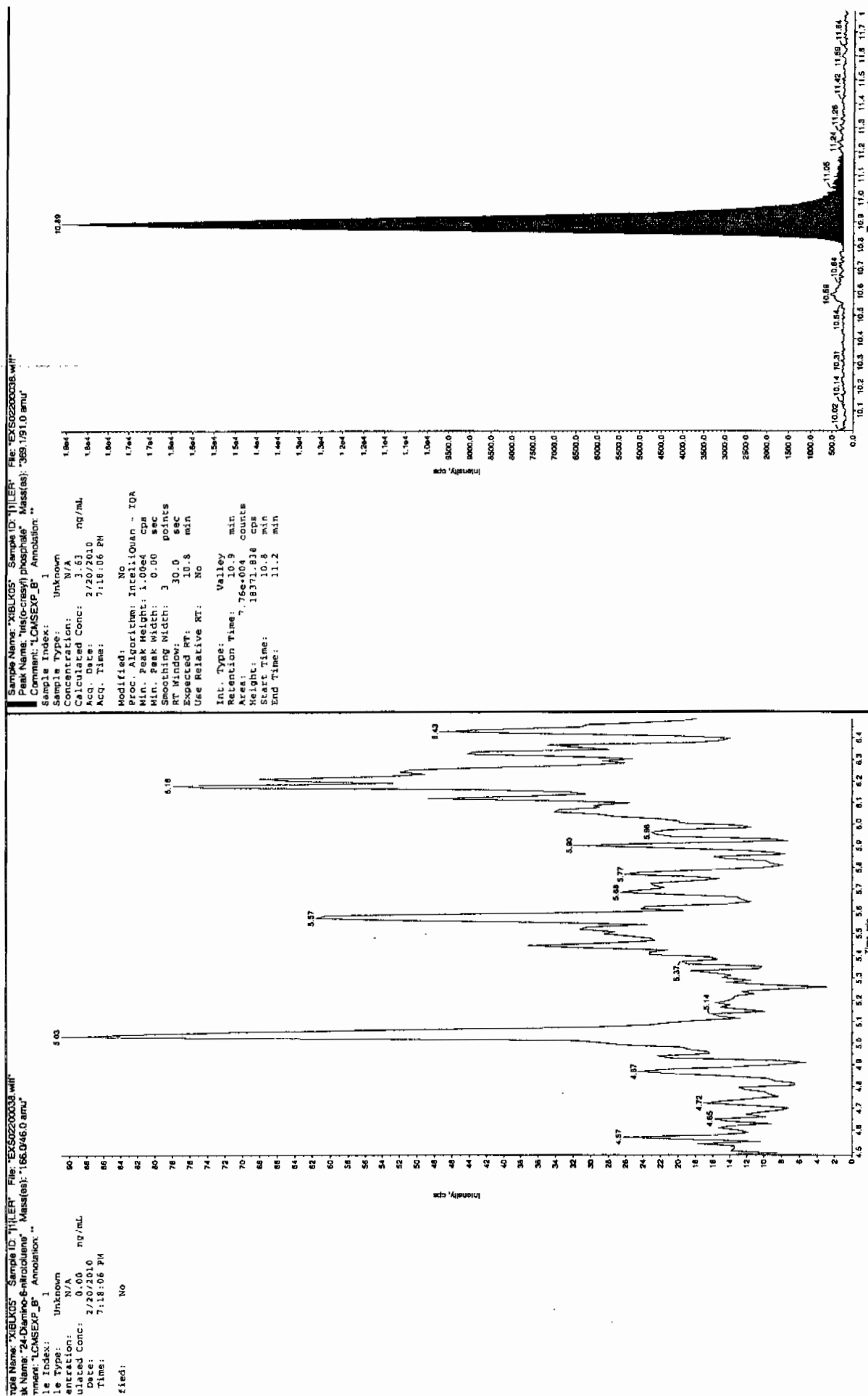
IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

San 2/22/10

File Name: "XBLX05" Sample ID: "11LEF" File: "EX502200038.wif"
 Peak Name: "25-Diamino-4-nitrobenzene" Mass(es): "182.1151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""
 Sample Index: 1
 Sample Name: "XBLX05" Sample ID: "11LEF" File: "EX502200038.wif"
 Peak Name: "25-Diamino-4-nitrobenzene" Mass(es): "182.1151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""
 Sample Index: 1
 Sample Name: "XBLX05" Sample ID: "11LEF" File: "EX502200038.wif"

e Type: Unknown
 Concentration: 0.00 ng/mL
 Date: 2/20/2010
 Time: 7:18:05 PM
 Led: No





EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

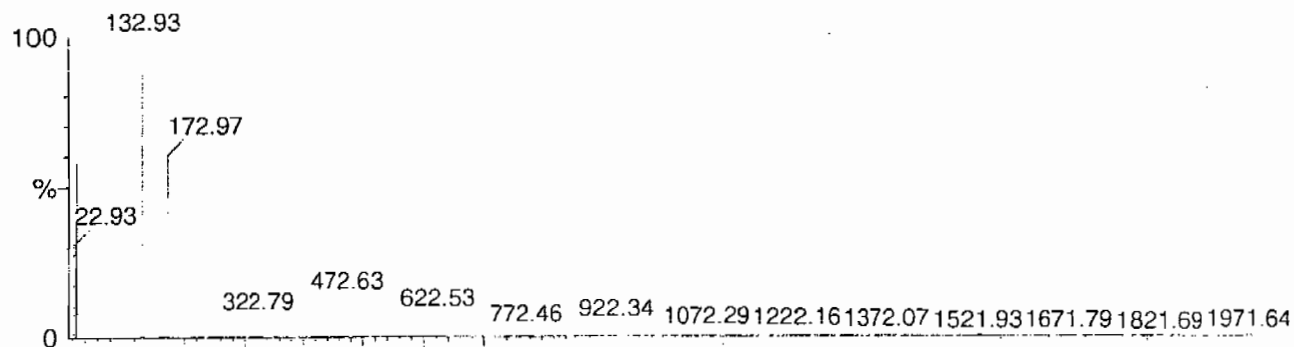
Calibration Report - MS1 Static

Page 1 of 1

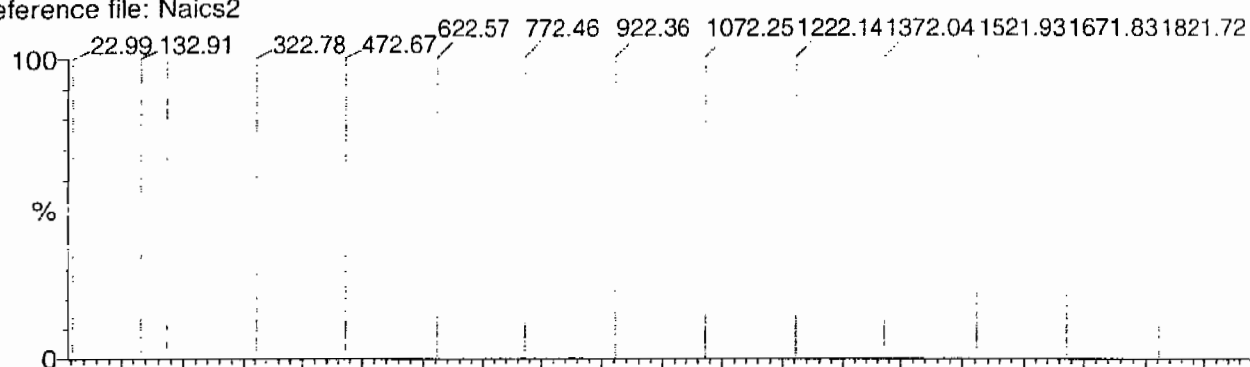
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

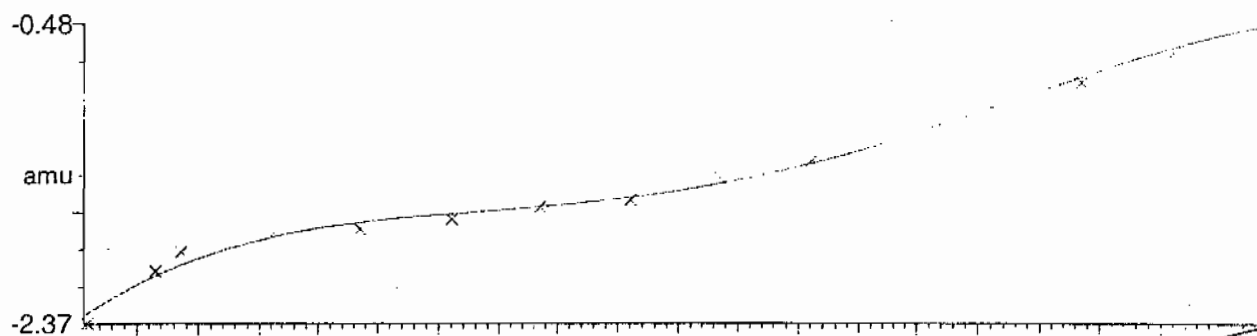
15 matches of 15 tested references



Reference file: Naics2

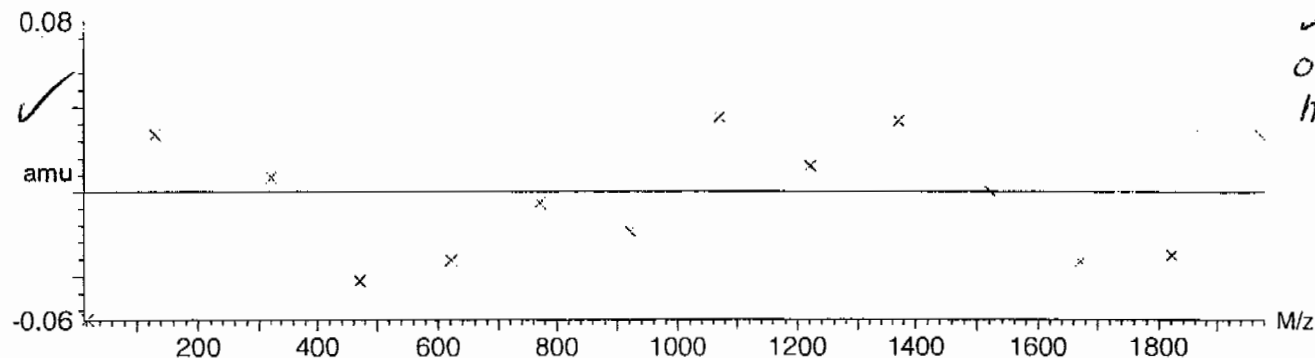


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-1.673470 \times 10^{-9} \pm 0.036953$

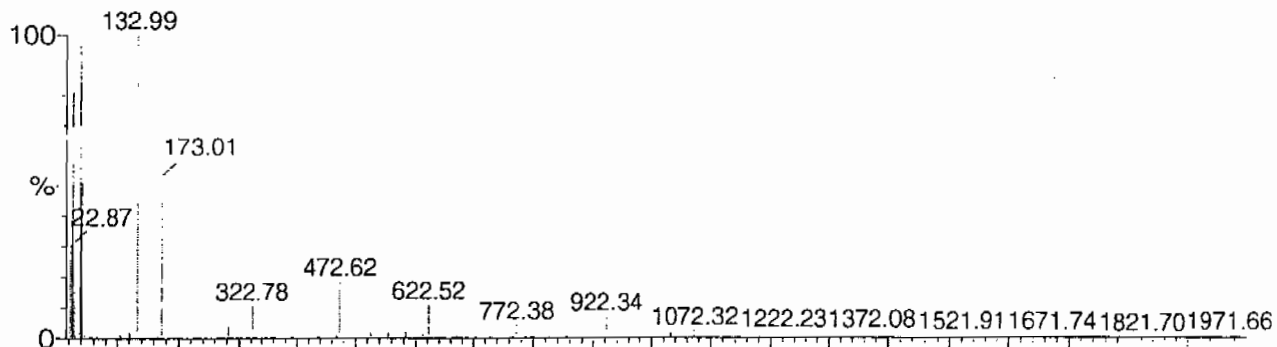


Calibration Report - MS1 Scanning

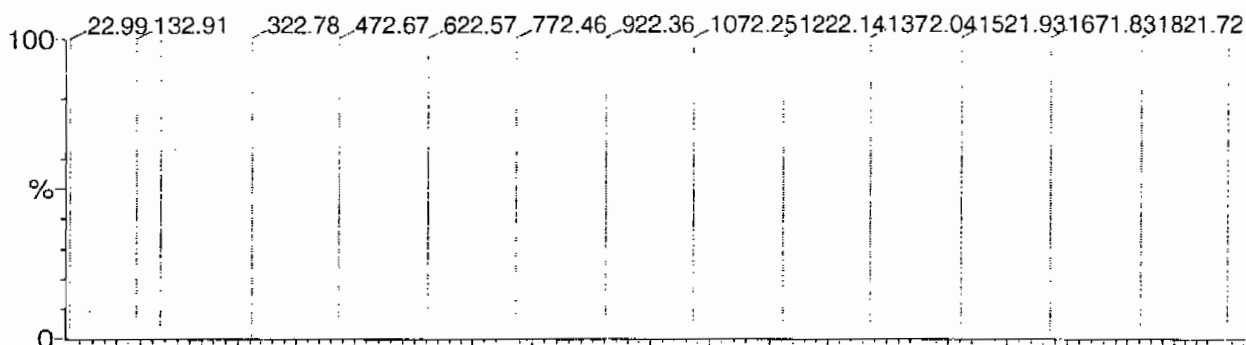
Page 1 of 1

Printed: Fri Aug 25 10:51:06 2006

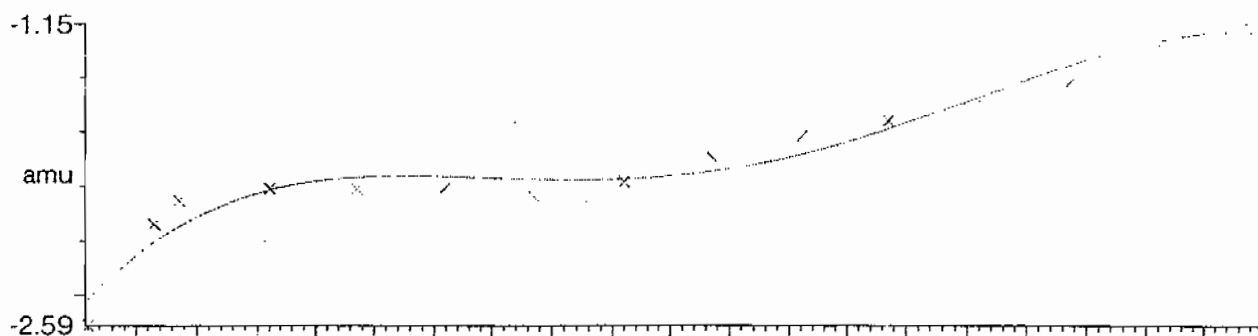
Data file: SCNMS1 - Calibrated 15 matches of 15 tested references



Reference file: Naics2

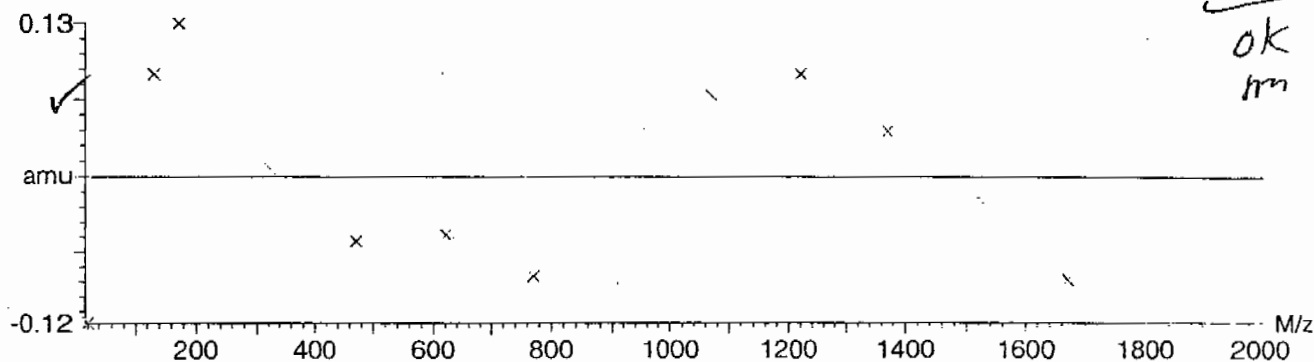


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-5.432715 \times 10^{-9} \pm 0.069858$



ok
hm

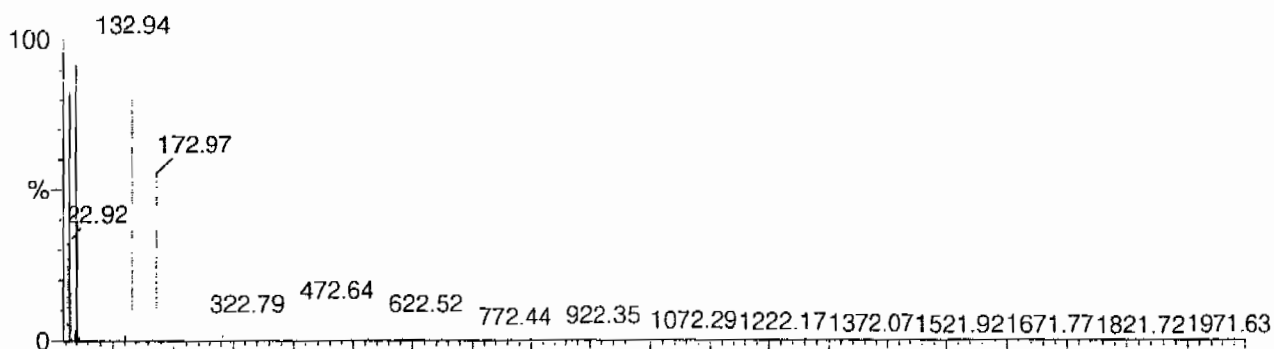
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

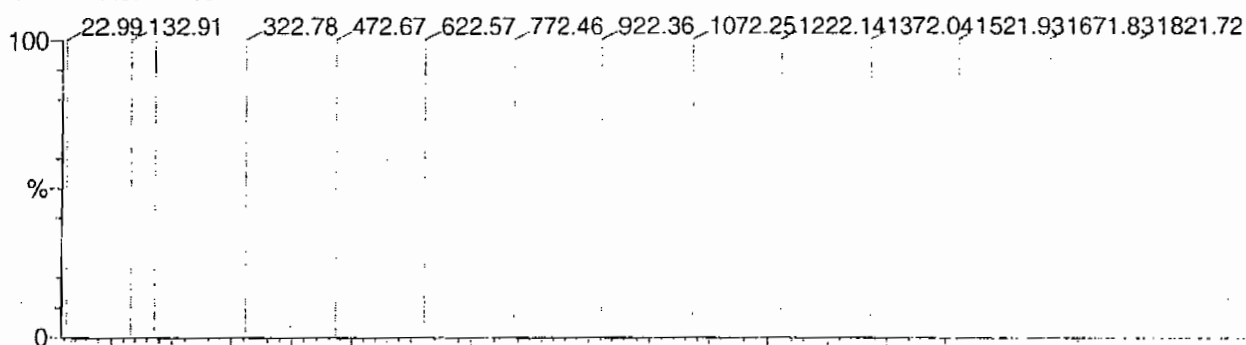
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

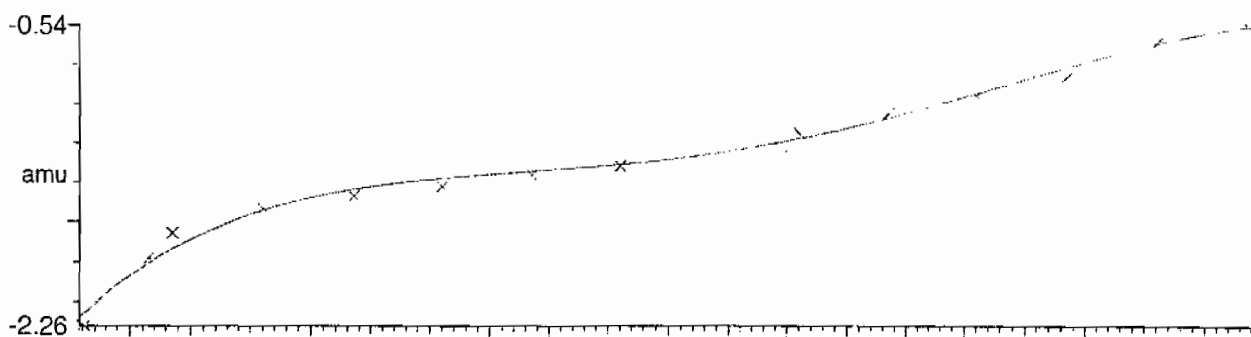
15 matches of 15 tested references



Reference file: Naics2

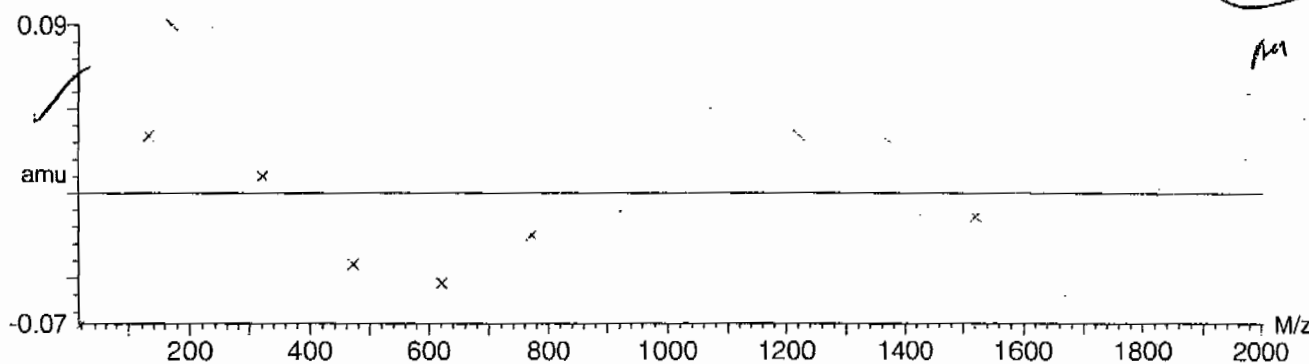


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $3.486639 \times 10^{-9} \pm 0.040487$



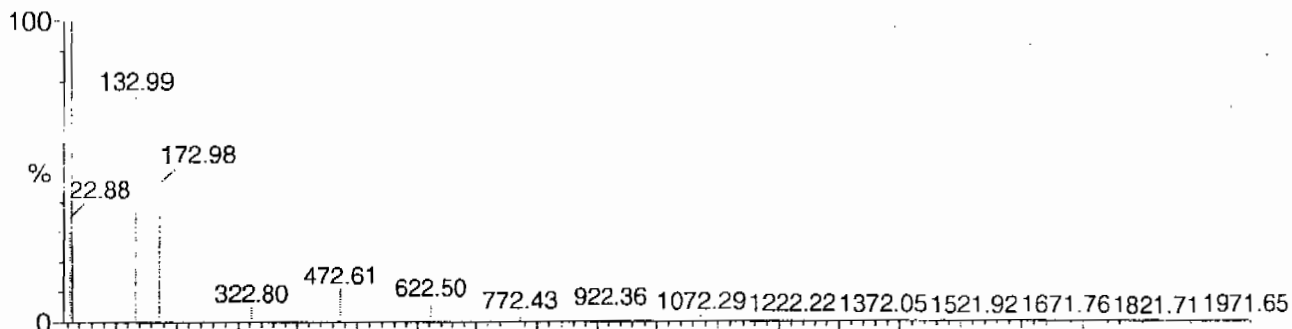
Calibration Report - MS2 Static

Page 1 of 1

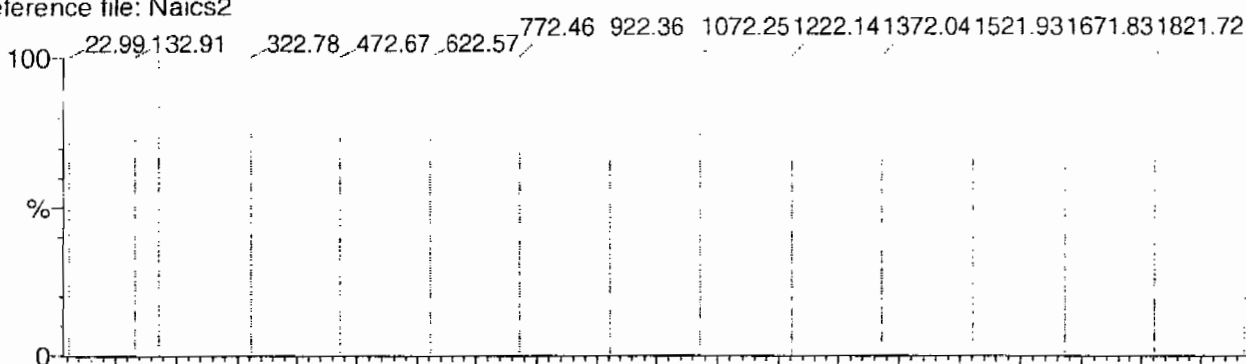
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

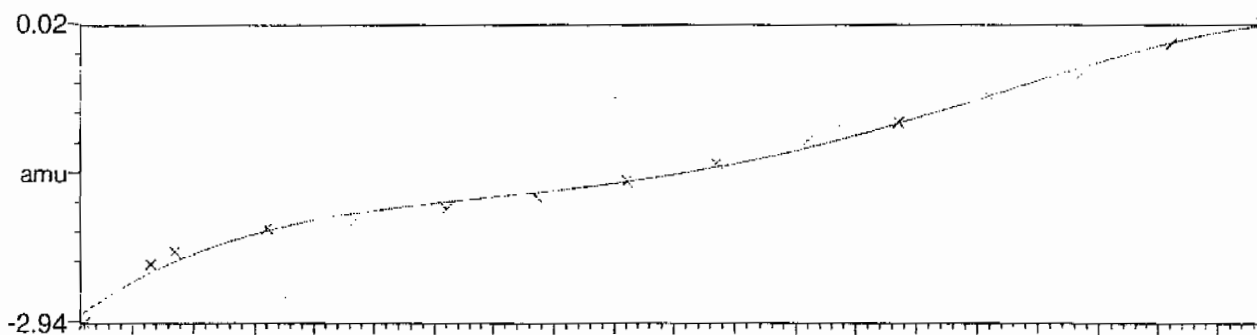
15 matches of 15 tested references



Reference file: Naics2

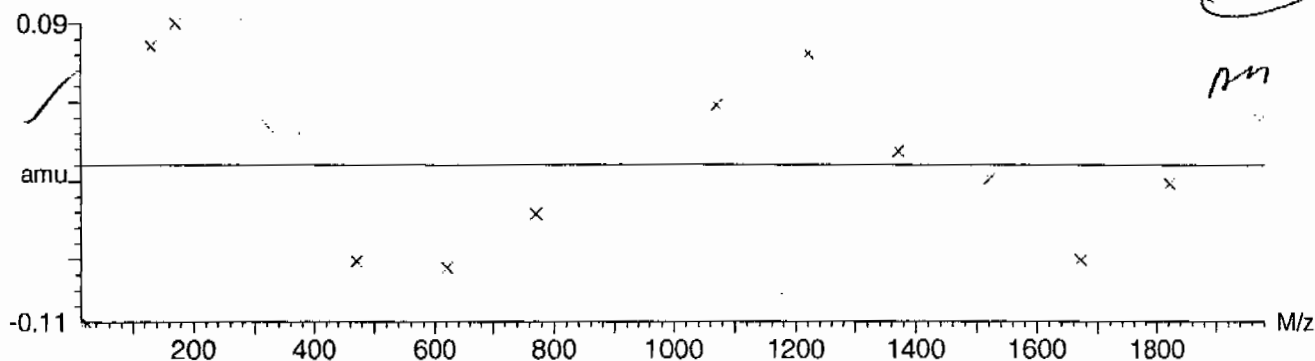


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $2.048910 \times 10^{-9} \pm 0.057803$



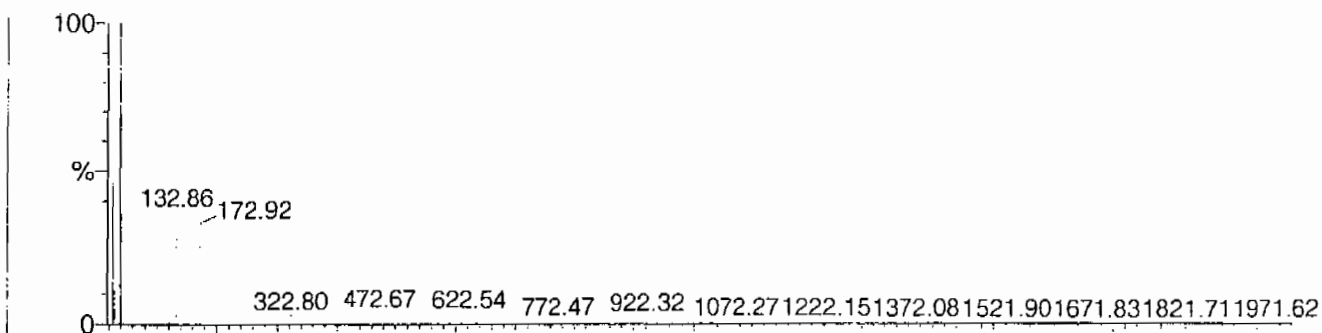
Calibration Report - MS2 Scanning

Page 1 of 1

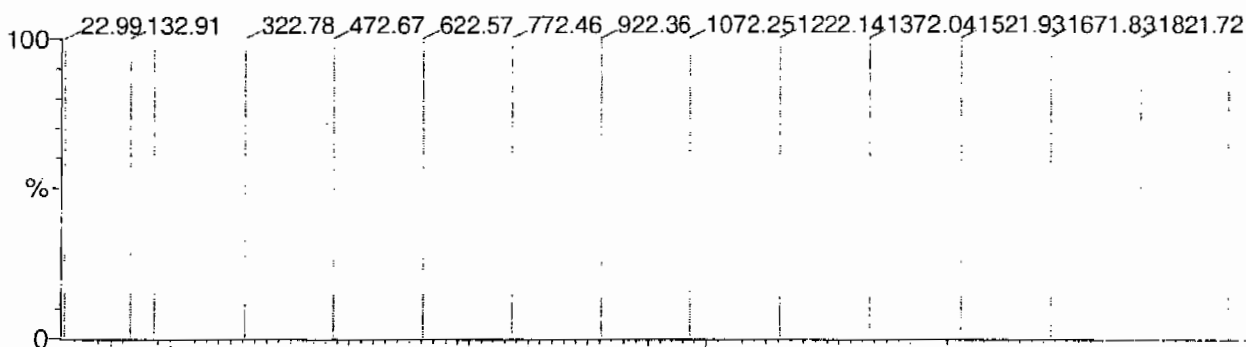
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

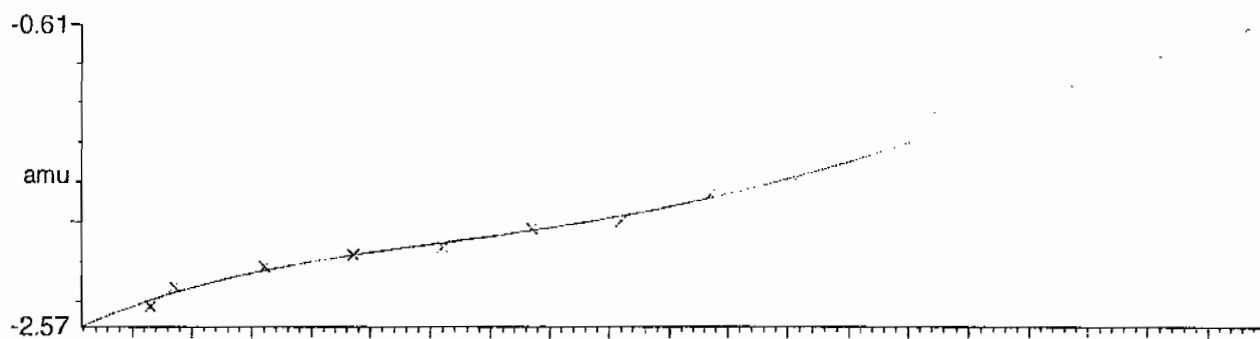
14 matches of 15 tested references



Reference file: Naics2

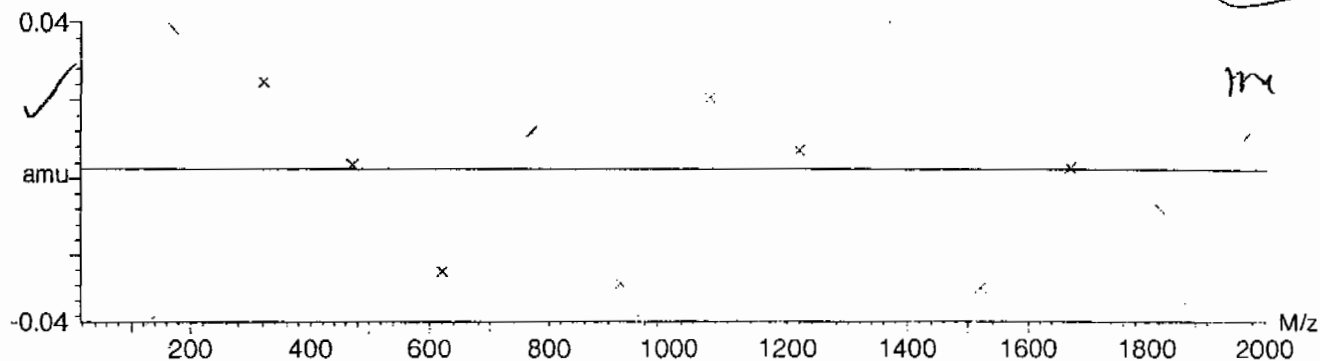


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-2.623502 \times 10^{-9} \pm 0.025622$



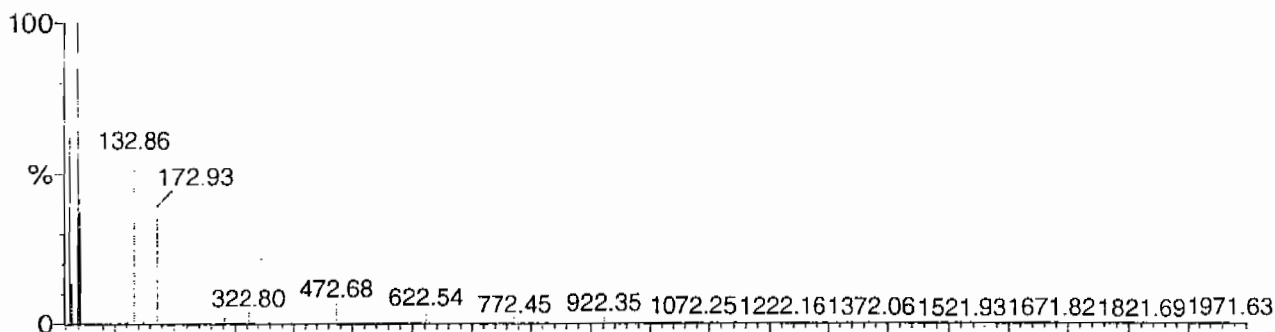
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

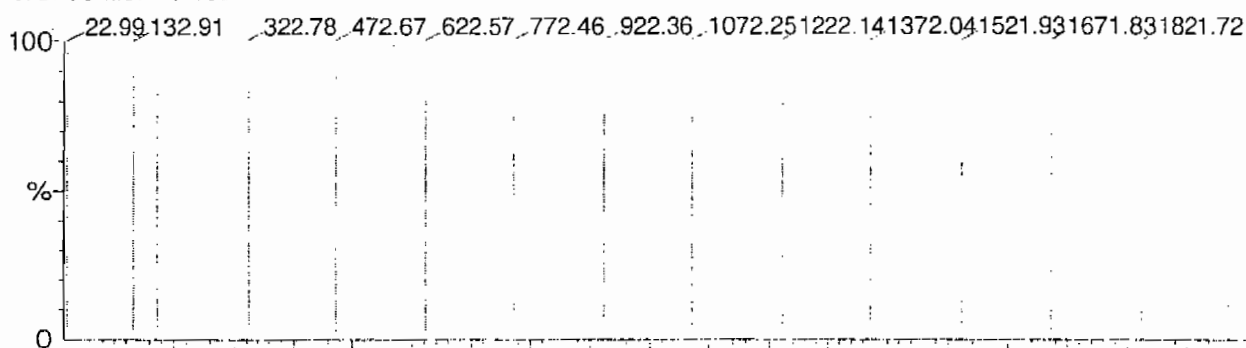
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

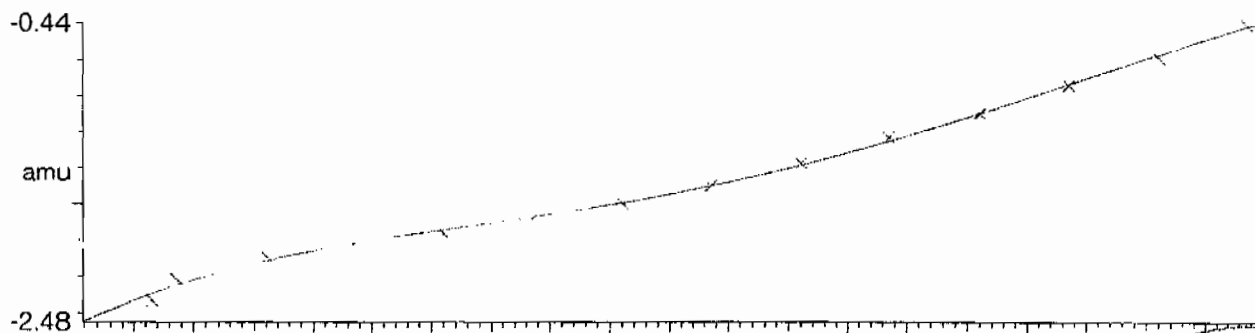
14 matches of 15 tested references



Reference file: Naics2

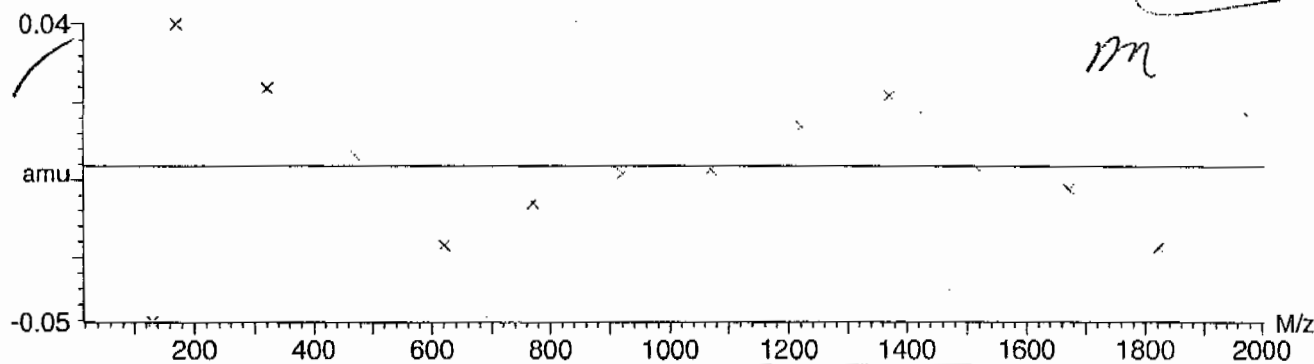


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-6.785350 \times 10^{-9} \pm 0.023134$

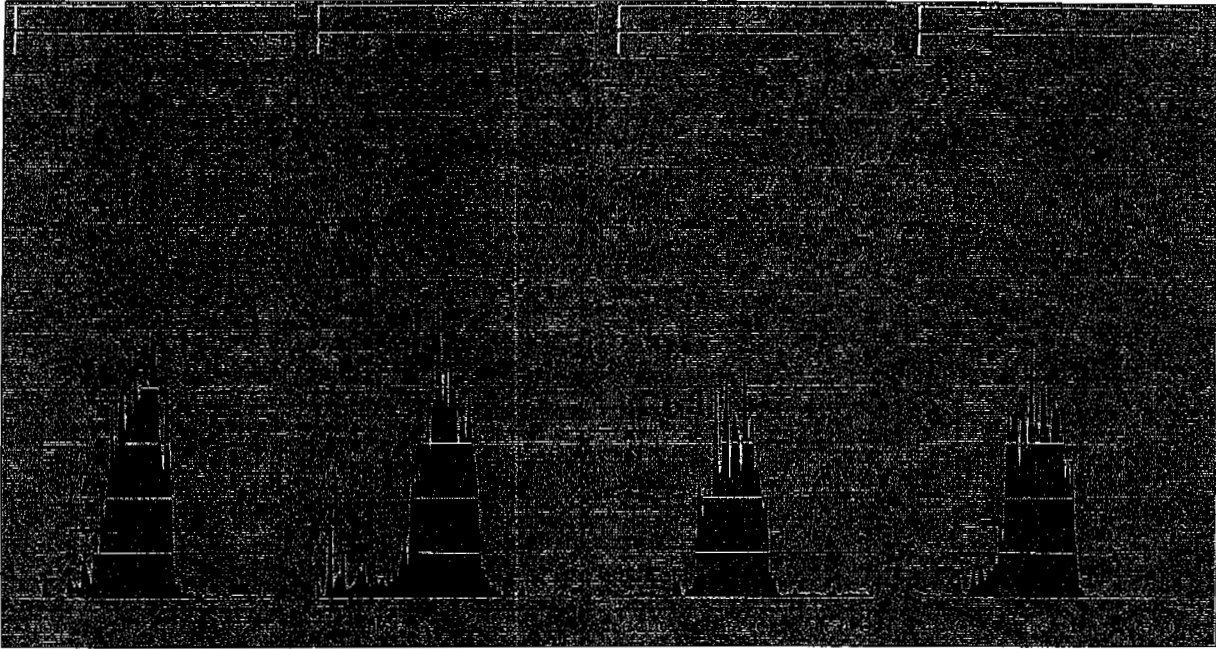


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Tue Feb 16 13:37:41 2010

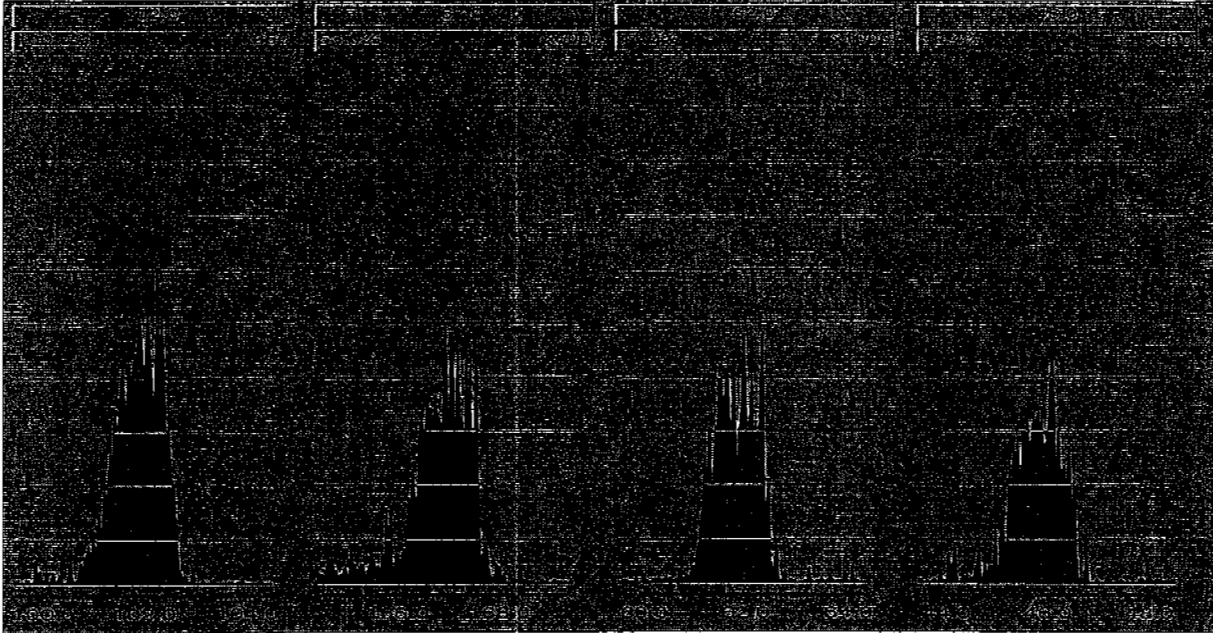


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNXNEW_EXP.PROVACQUDB\explosives04.IPR

Printed : Thu Feb 25 09:58:14 2010



High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

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) #
			3012.417	12.049	17408.567	17.428
Upper Limit			3916.1421	12.549	22631.1371	17.928
Lower Limit			2108.6919	11.549	12185.9969	16.928
MB for batch 950082	22-feb-10 11:23	EXP0216280a	2454.97	12.067	16213.3	17.444
LCS for batch 950082	22-feb-10 11:53	EXP0216281a	3049.59	12.067	15658.6	17.444
RE15-10-7981	22-feb-10 13:22	EXP0216284a	2965.12	12.067	15395.5	17.444
RE15-10-7981(246344001MSD)	22-feb-10 14:21	EXP0216286a	2831.3	12.1	15661.9	17.508
RE15-10-7983	22-feb-10 14:51	EXP0216287a	2714.39	12.099	16934.9	17.499
RE15-10-7984	22-feb-10 15:20	EXP0216288a	2581.97	12.102	14213.2	17.51
RE15-10-7982	22-feb-10 15:50	EXP0216289a	3061.32	12.102	18110.4	17.51

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3411.363	12.049	20061.633	17.439
Upper Limit			4434.7719	12.549	26080.1229	17.939
Lower Limit			2387.9541	11.549	14043.1431	16.939
RE15-10-7981(246344001MS)	25-feb-10 15:57	EXP0225013a	3609.79	12.03	22753.5	17.433
RE15-10-7985	25-feb-10 16:26	EXP0225014a	3495.11	12.032	20742.1	17.422

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

SAMPLE DATA

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216284a

Date Analyzed: 22-FEB-10 13:22

Units: ug/kg

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

*Concentration =

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

Quantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 33 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216284a

Acquire Date: 22-Feb-2010

Acquire Time: 13:22:00

Sample ID: 246344001

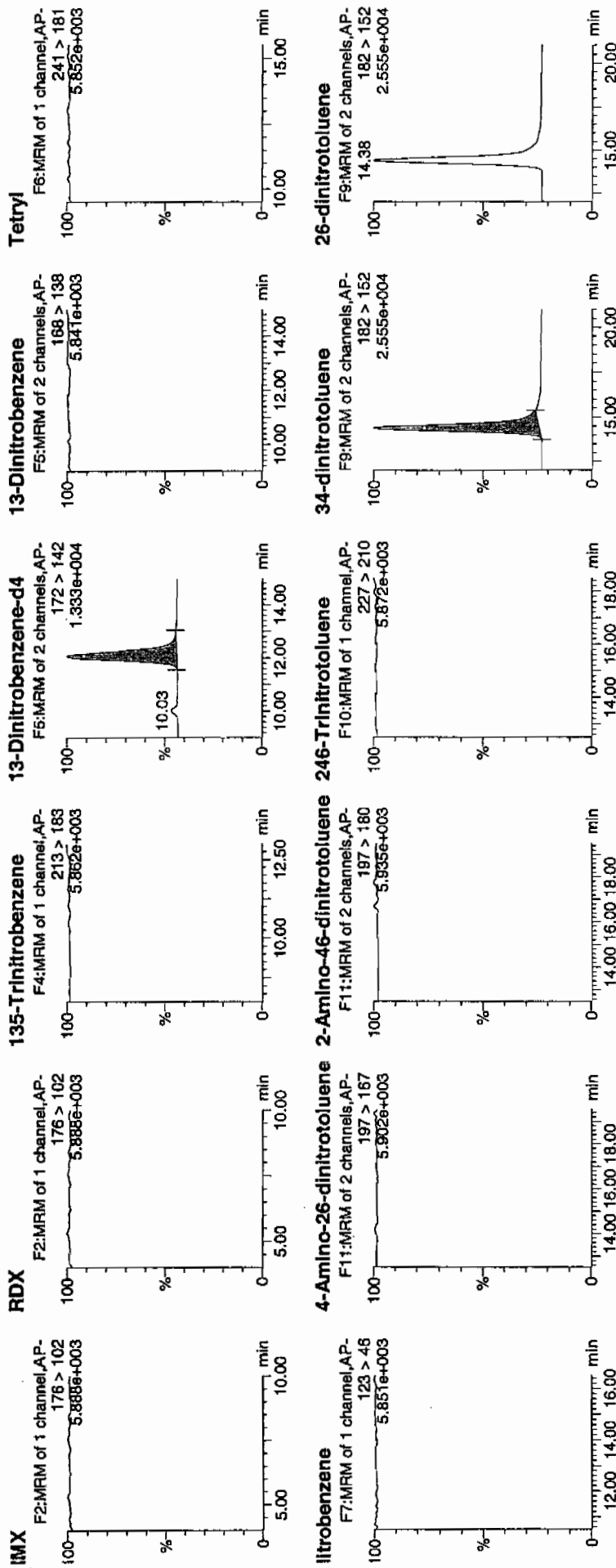
Injection Volume: 3.3 µL

not

4/23/10

WAV/950083 | 5022 | 21

Page 259 of 266



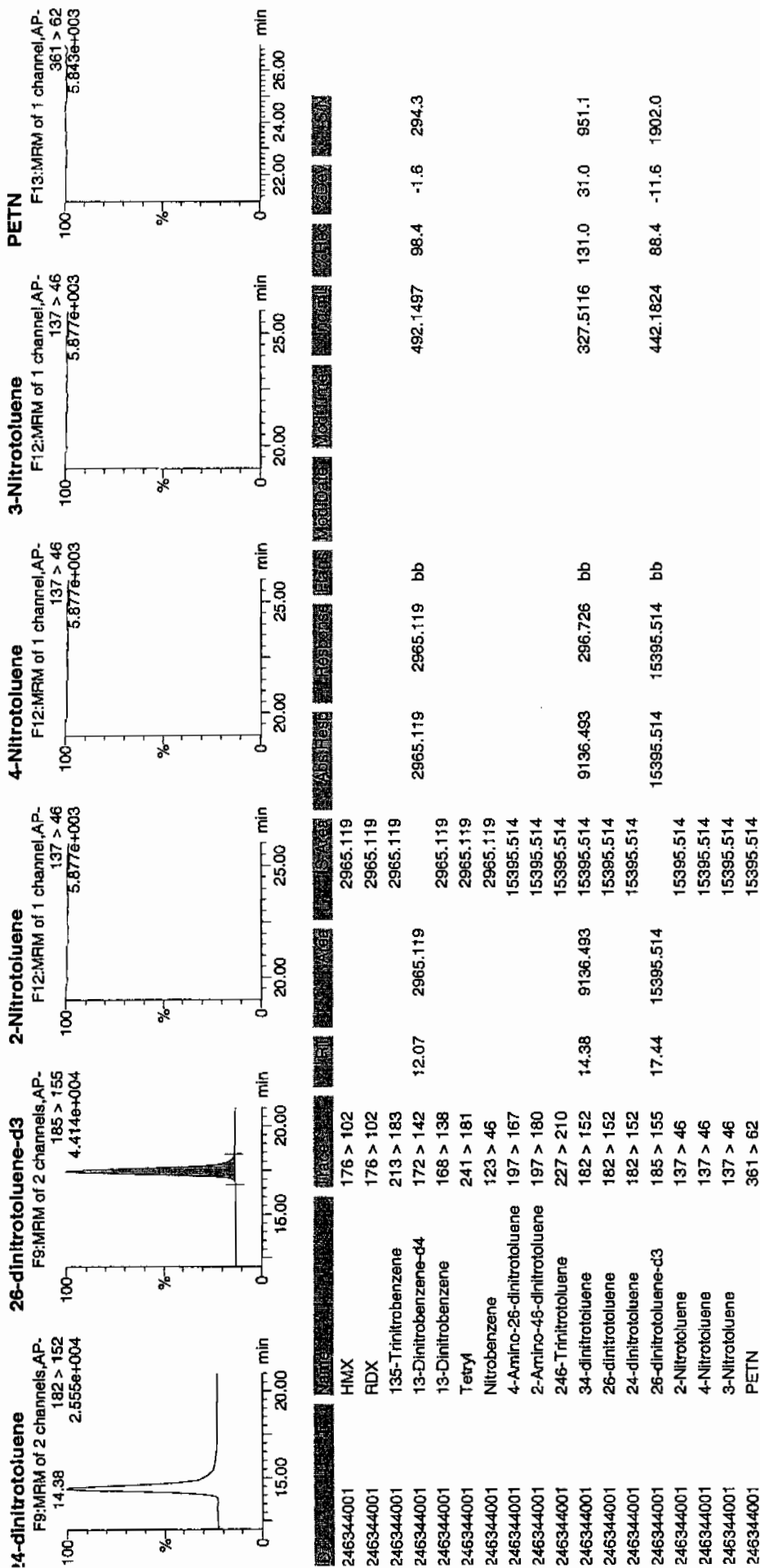
4/23/10

Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 34 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344001

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200018.wiff

Date Analyzed: 20-FEB-10 14:04

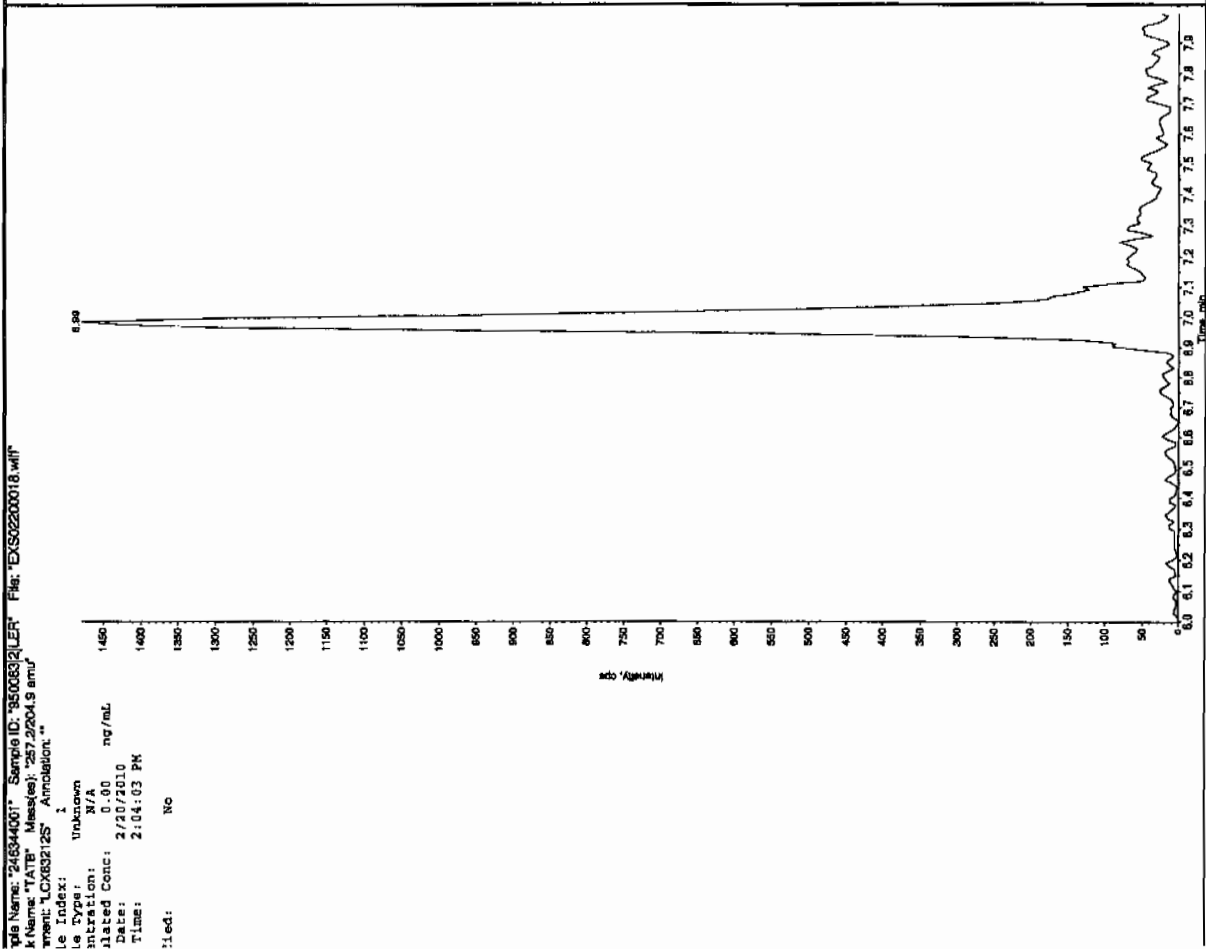
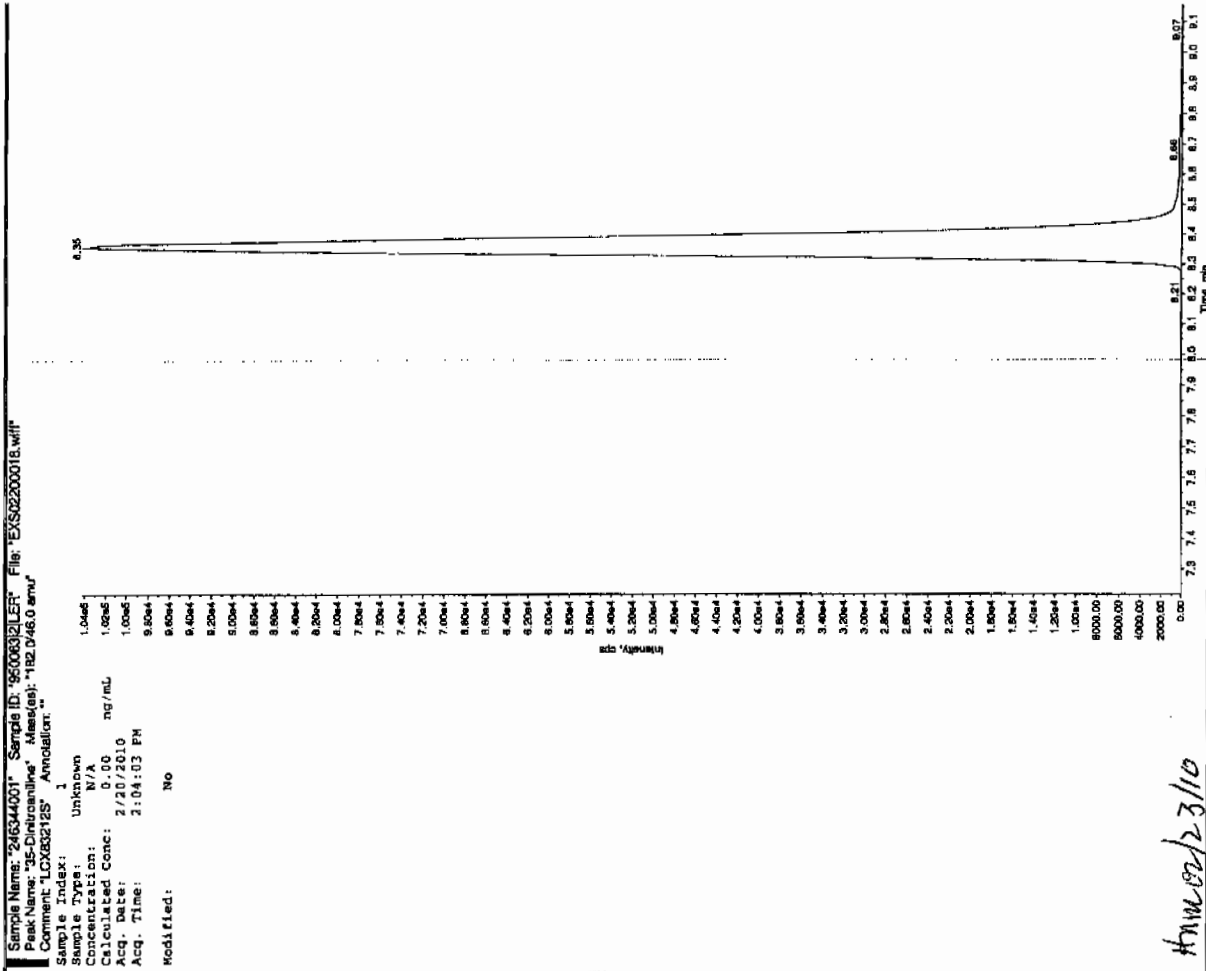
Units: ug/kg

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

*Concentration =

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

See 2/25/10

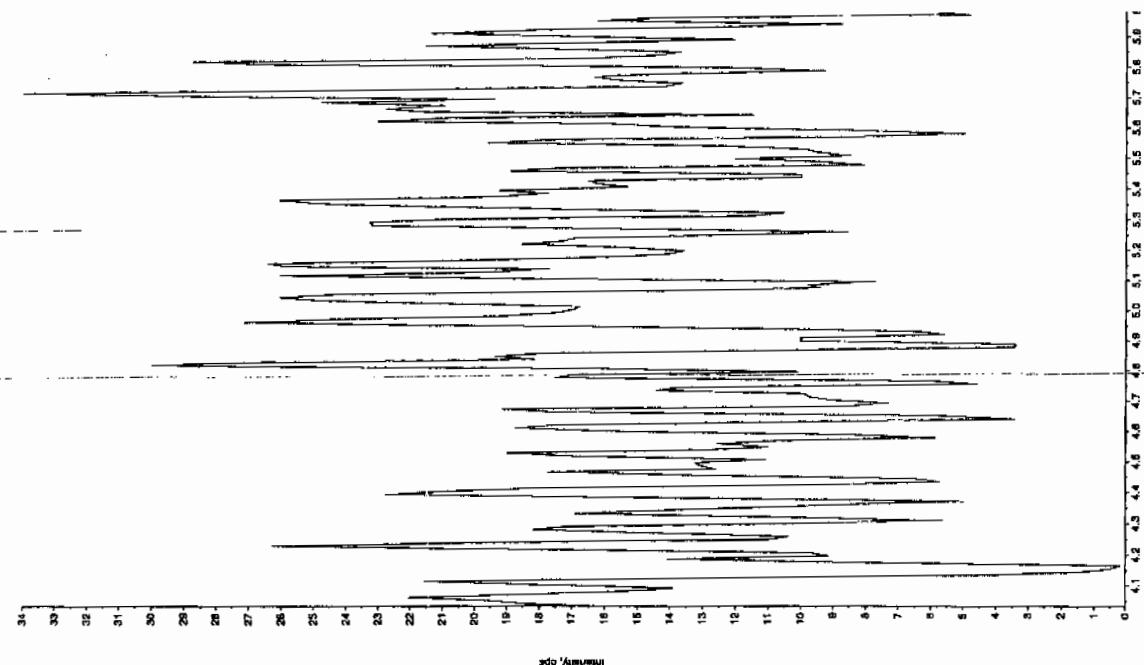
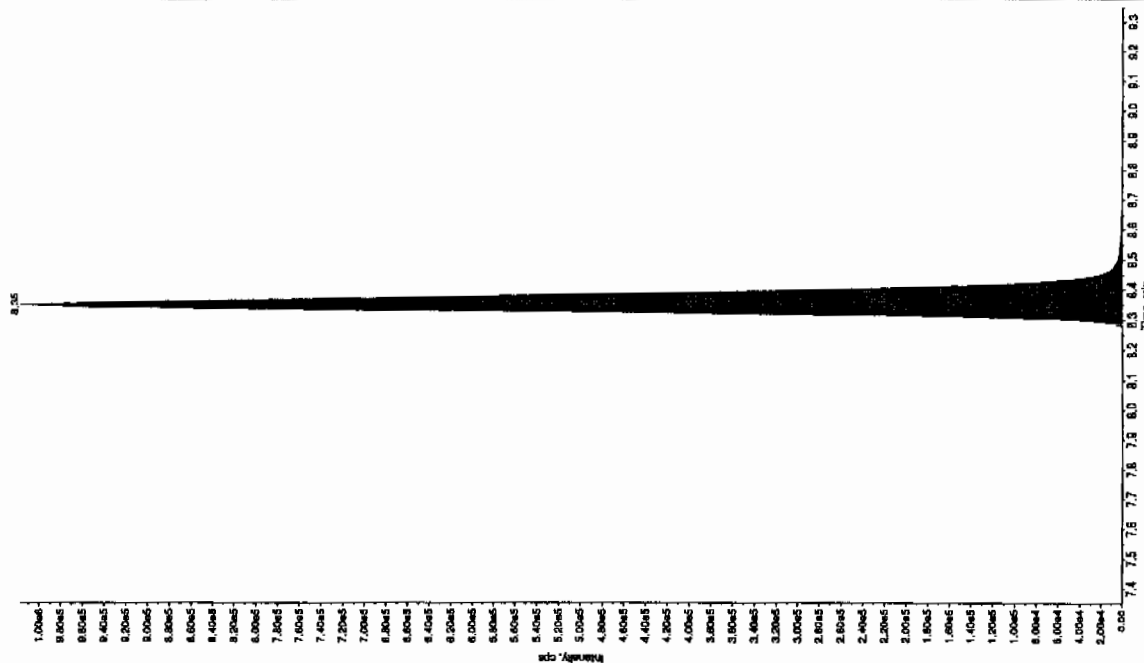


2/23/10

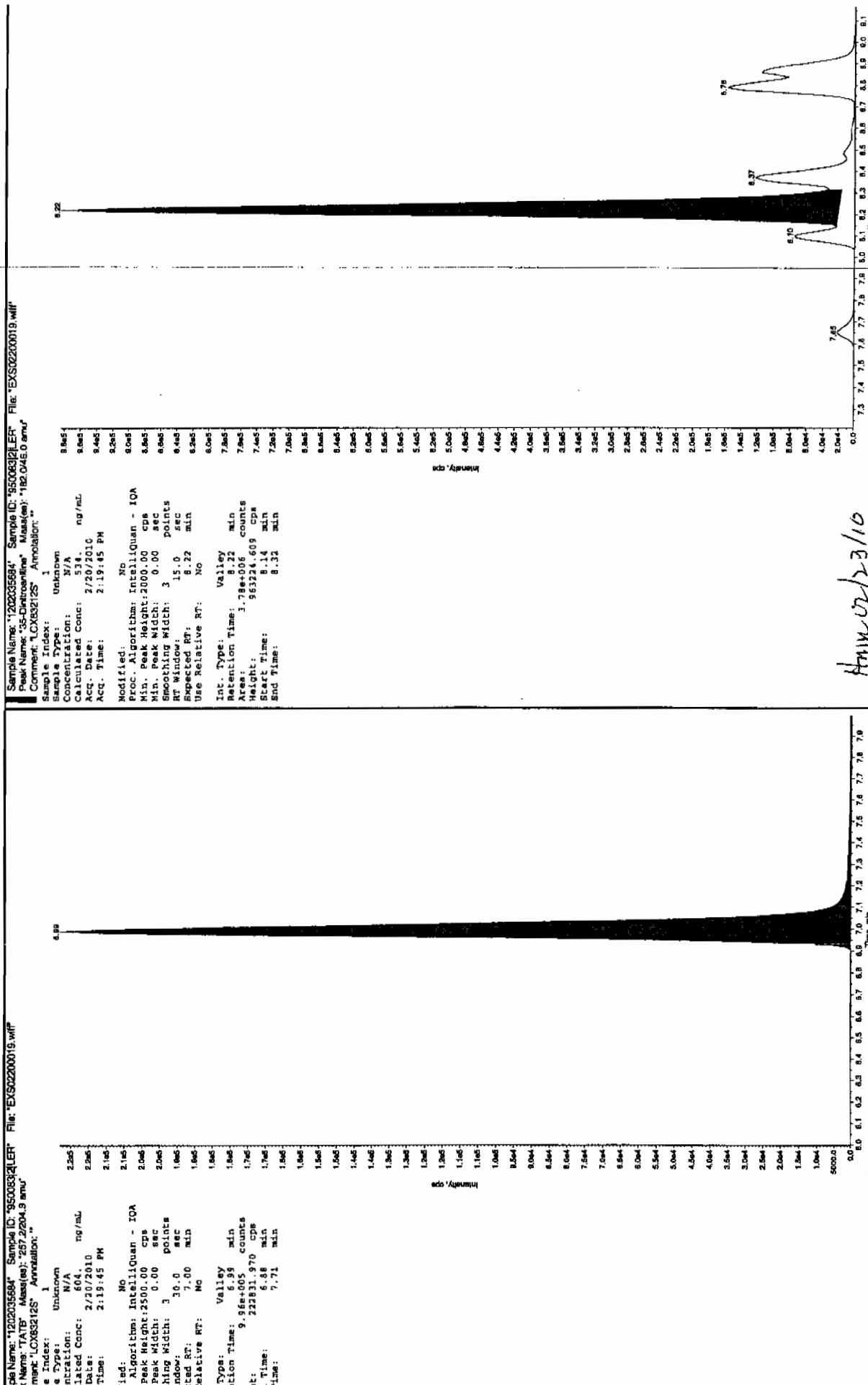
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246344001" Sample ID: "95008321" IER File: "EX502200018.wiff"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Instrument: "LCX83212S" Annotation: ""

Sample Index:	1
Sample type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
Acq. Date:	2/20/2010
Acq. Time:	2:04:03 PM
Modified:	No
	ng/mL

[illegible]

Before Jan 2/2010



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216287a

Date Analyzed: 22-FEB-10 14:51

Units: ug/kg

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

*Concentration =

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

Identify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 39 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216287a

Acquisition Date: 22-Feb-2010

Time: 14:51:06

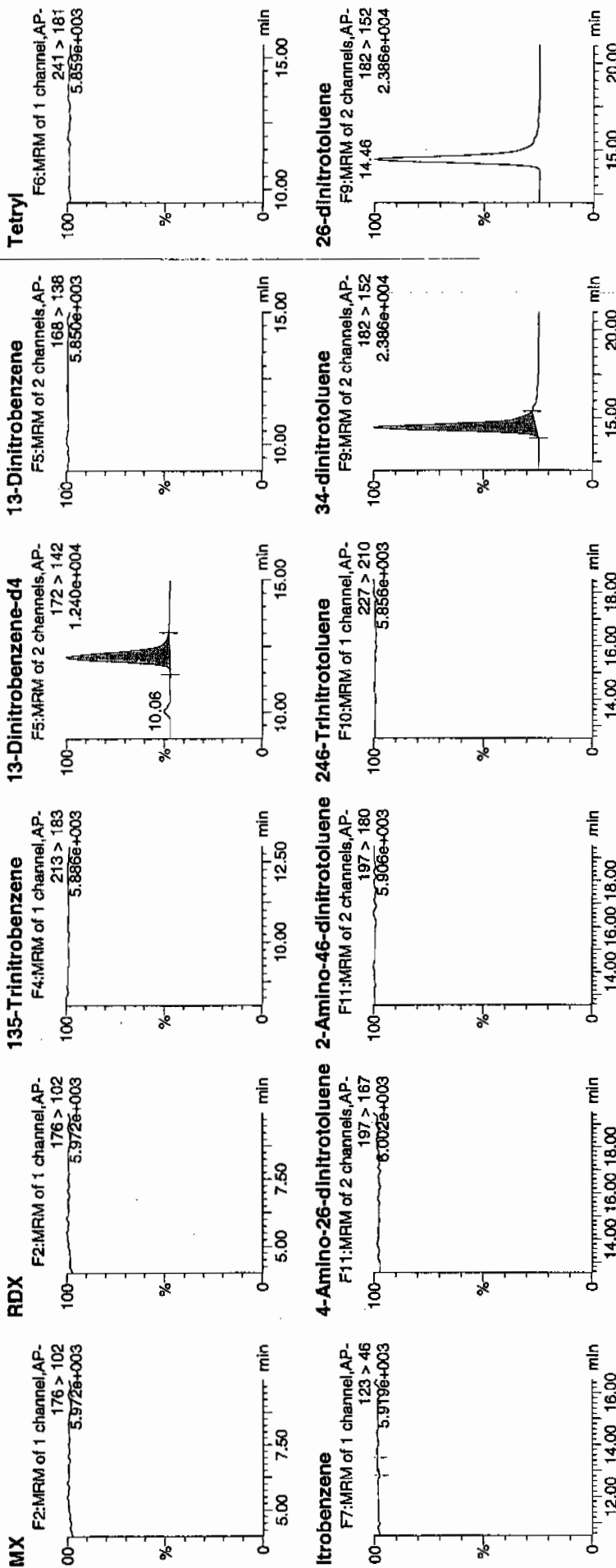
Sample ID: 246344002

Label: 3:4,B

10/23/10

10/23/10

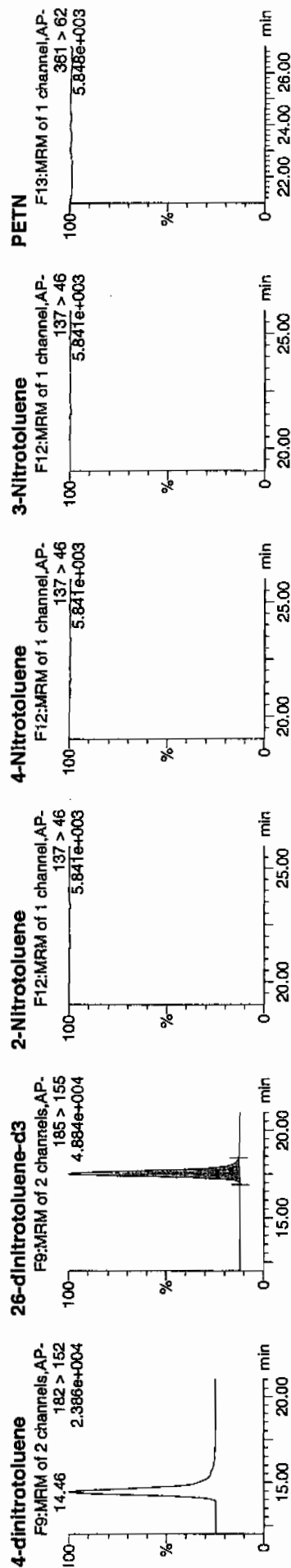
Page 266 of 1886



4/11/10 12:41/10

Dataset: C:\MASSLYN\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



	NAME	WATER	AGE	ISV63	Absorbance	Response	Date	Time	Temp	PH
/46344002	HMX	176 > 102		2714.391						
/46344002	RDX	176 > 102		2714.391						
/46344002	135-Trinitrobenzene	213 > 183		2714.391						
/46344002	13-Dinitrobenzene-d4	172 > 142	12.10	2714.391	2714.391	bb	MM-	23-Feb-10	08:47:17	
/46344002	13-Dinitrobenzene	168 > 138		2714.391						450.5339
/46344002	Tetryl	241 > 181		2714.391						90.1
/46344002	Nitrobenzene	123 > 46		2714.391						-8.9
/46344002	4-Amino-26-dinitrotoluene	197 > 167		16934.865						
/46344002	2-Amino-46-dinitrotoluene	197 > 180		16934.865						
/46344002	246-Trinitrotoluene	227 > 210		16934.865						
/46344002	34-dinitrotoluene	182 > 152	14.46	8343.022	8343.022	246.327 bb				271.8636
/46344002	26-dinitrotoluene	182 > 152		16934.865						108.8
/46344002	24-dinitrotoluene	182 > 152		16934.865						8.8
/46344002	26-dinitrotoluene-d3	185 > 155	17.50	16934.865	16934.865	16934.865 bb				486.3949
/46344002	2-Nitrotoluene	137 > 46		16934.865						97.3
/46344002	4-Nitrotoluene	137 > 46		16934.865						-2.7
/46344002	3-Nitrotoluene	137 > 46		16934.865						2823.7
/46344002	PETN	361 > 62		16934.865						

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7983

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344002

Sample Amount 2

Moisture: 25.0

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200021.wiff

Date Analyzed: 20-FEB-10 14:51

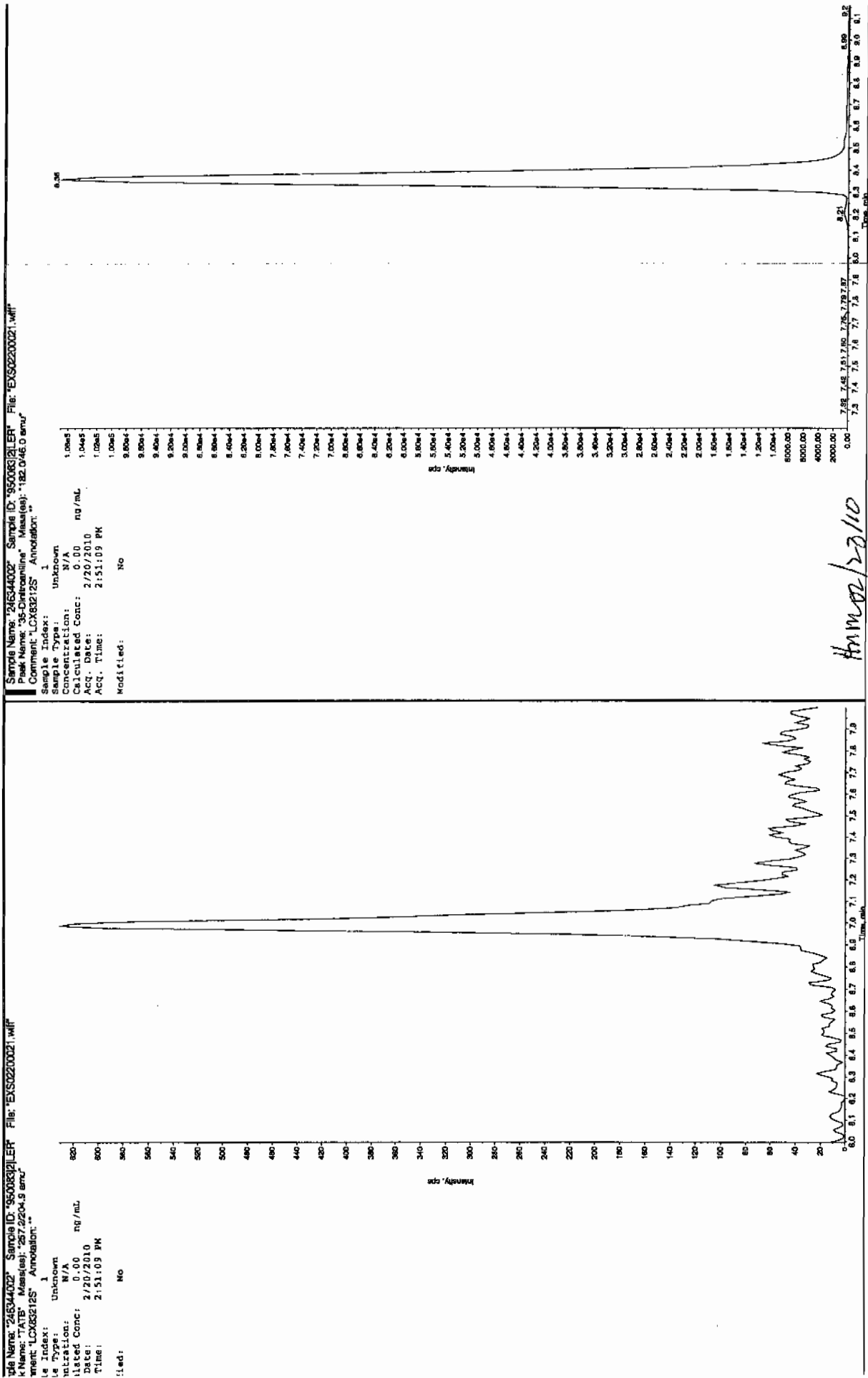
Units: ug/kg

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 =

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

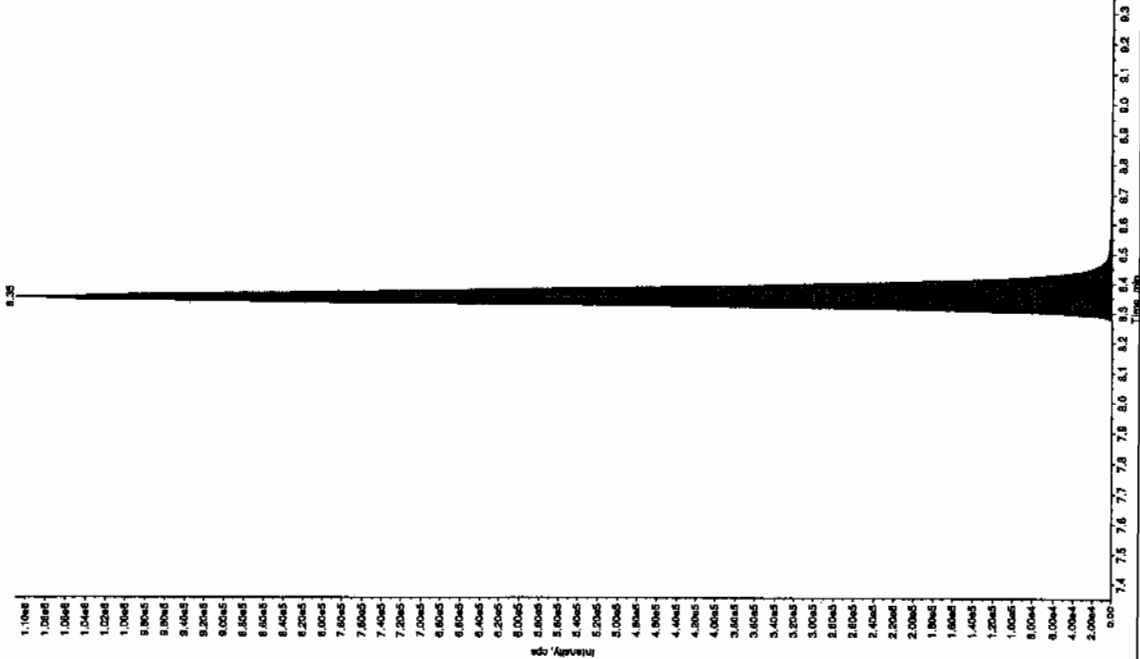
Jan 2/22/10



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: 246344002 Sample ID: 95003921.ER File: EXS02200021.wif
 Peak Name: 26-Diamino-4-nitrofluorene Mass(es): 166.046.0 amu
 Comment: LCX832125 Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.60 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:51:09 PM
 Modified: No



Sample Name: 246344002 Sample ID: 95003921.ER File: EXS02200021.wif
 Peak Name: 26-Diamino-4-nitrofluorene Mass(es): 166.046.0 amu
 Comment: LCX832125 Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.60 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:51:09 PM
 Modified: No

Algorithm: IntelliQuan - IOA
 Peak Height: 1460.00 cps
 Peak Width: 0.00 sec
 Ring Width: 3 points
 Window: 15.0 sec
 Ret. RT: 8.35 min
 Relative RT: No

Type: Valley
 Retention Time: 8.35 min
 Counts: 4.33e+006
 RT: 111037.319 cps
 Time: 8.35 min
 Time: 8.71 min

File Name: "24634402" Sample ID: "95008321" File: "EX50220021.wif"
 Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"
 Comment: "LCX83212S" Annotation: ""

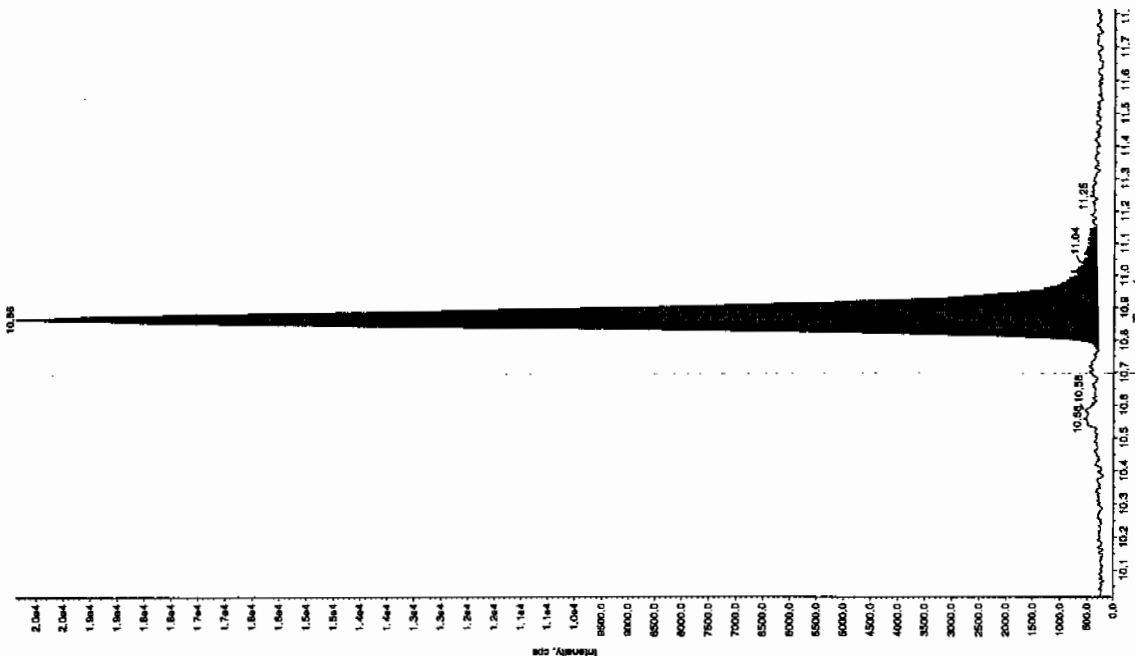
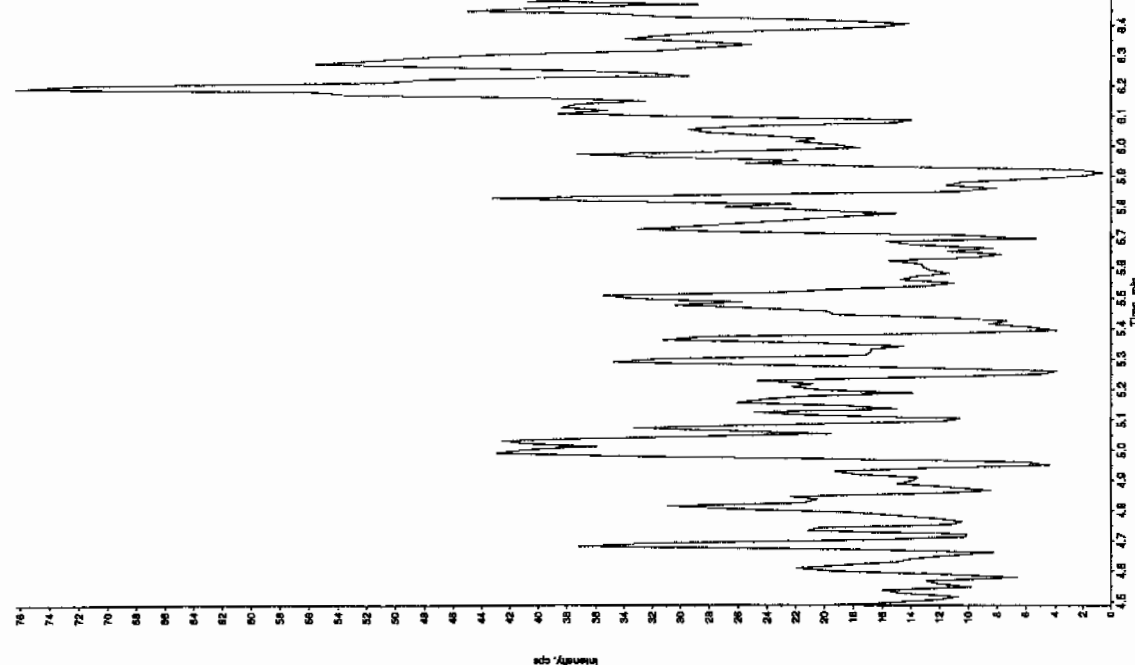
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:51:09 PM
 Modified: No
 Proc. Algorithm: Intensity - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 3.00 points
 RT Window: 10.0 min
 Expected RT: 10.8 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 10.9 min
 Area: 8.78e+004 counts
 Height: 20061.367 cps
 Start Time: 10.8 min
 End Time: 11.2 min

Sample Name: "24634402" Sample ID: "95008321" File: "EX50220021.wif"
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "368.179.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.11 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:51:09 PM
 Modified: No
 Proc. Algorithm: Intensity - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 3.00 points
 RT Window: 10.0 min
 Expected RT: 10.8 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 10.9 min
 Area: 8.78e+004 counts
 Height: 20061.367 cps
 Start Time: 10.8 min
 End Time: 11.2 min



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216288a

Date Analyzed: 22-FEB-10 15:20

Units: ug/kg

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

*Concentration =

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

name: C:\MASSLYN\NEW EXP.PRO\DATA\EXP0216288a

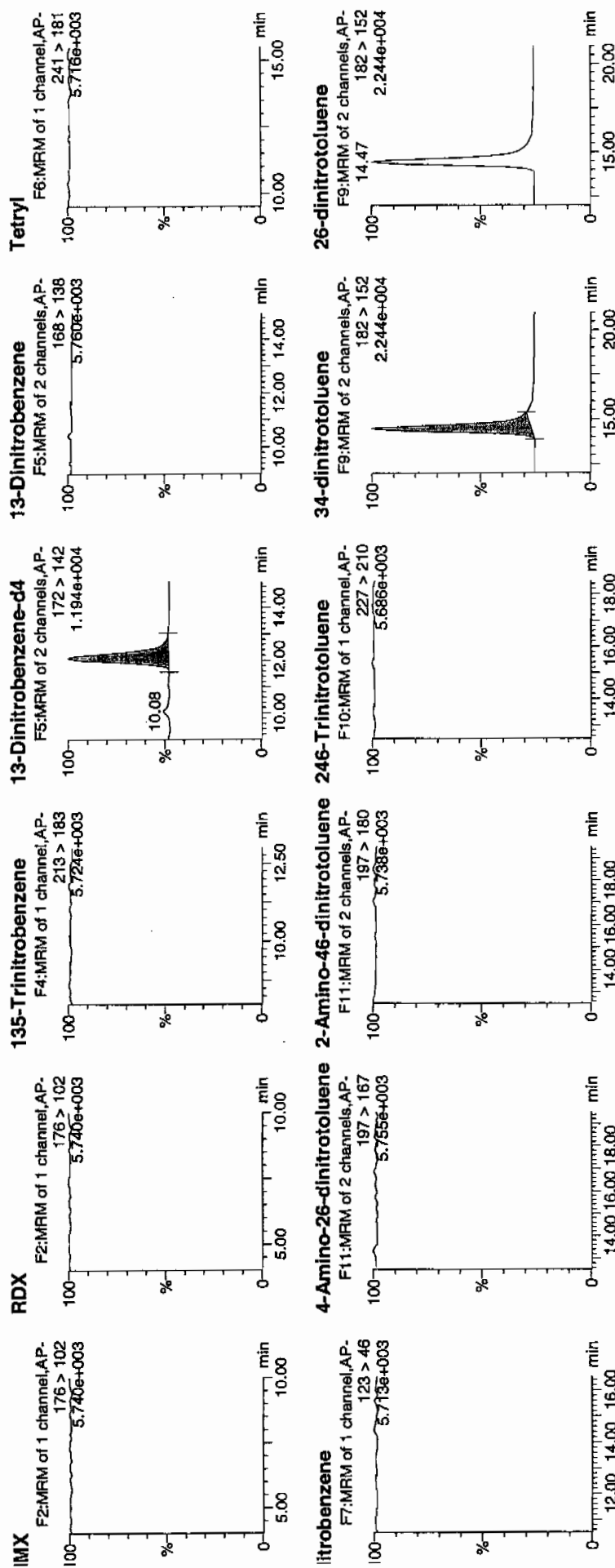
ate: 22-Feb-2010

Time: 15:20:36

J: 246344003

ial: 3:4,C

e 273 of 1886



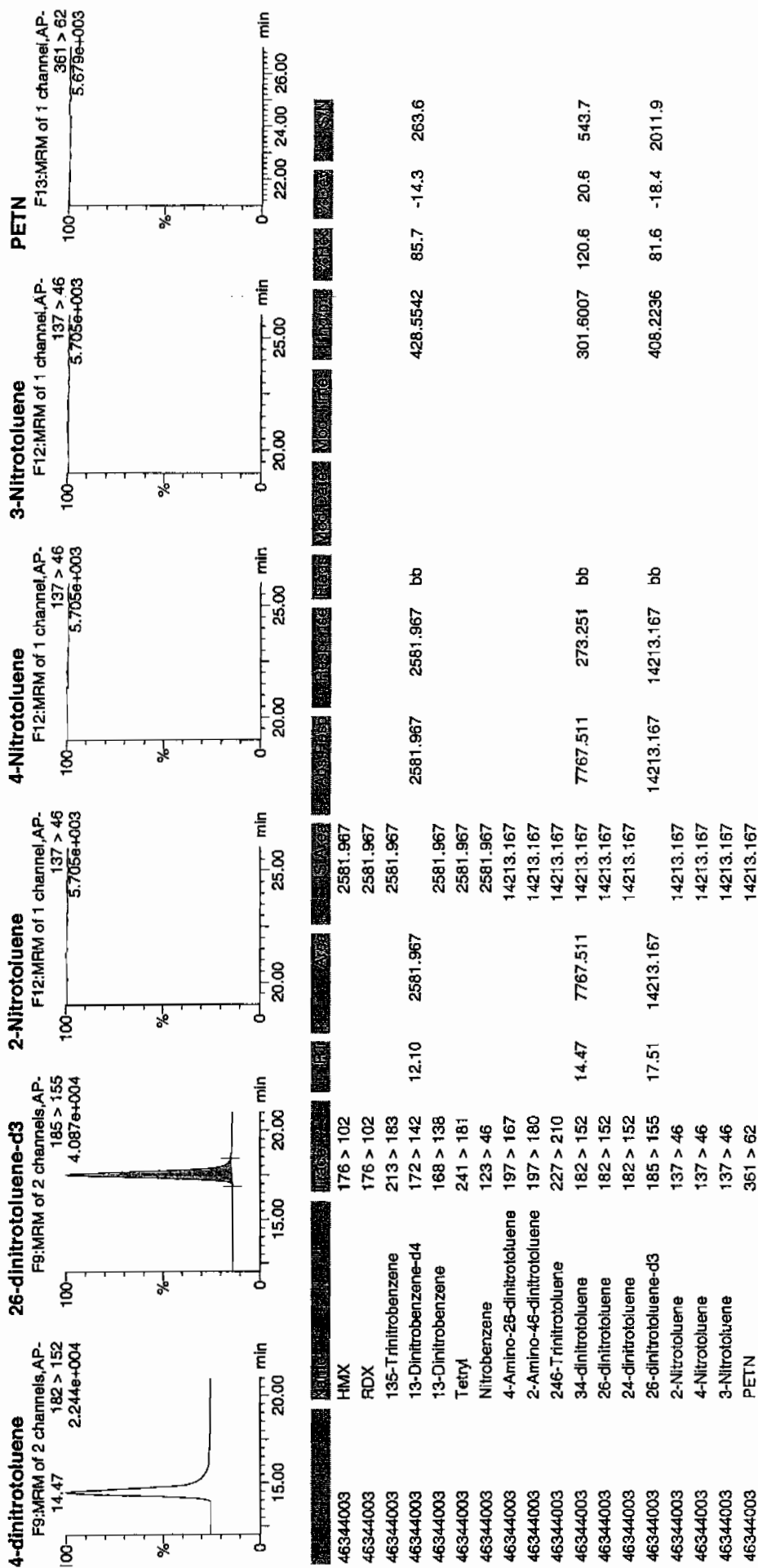
01/02/2010

Quantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 42 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7984

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344003

Sample Amount 2

Moisture: 5.2

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200022.wiff

Date Analyzed: 20-FEB-10 15:06

Units: ug/kg

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

*Concentration =

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

Jan 23/10

File Name: "24634403" Sample ID: "960832" File: "EXS02200022.wif"

Peak Name: "TA TB" Mass(es): "257.2204.9 amu"

Annotation: "LCX832125"

Annotation: "1"

Sample Index: 1

Sample Type: Unknown

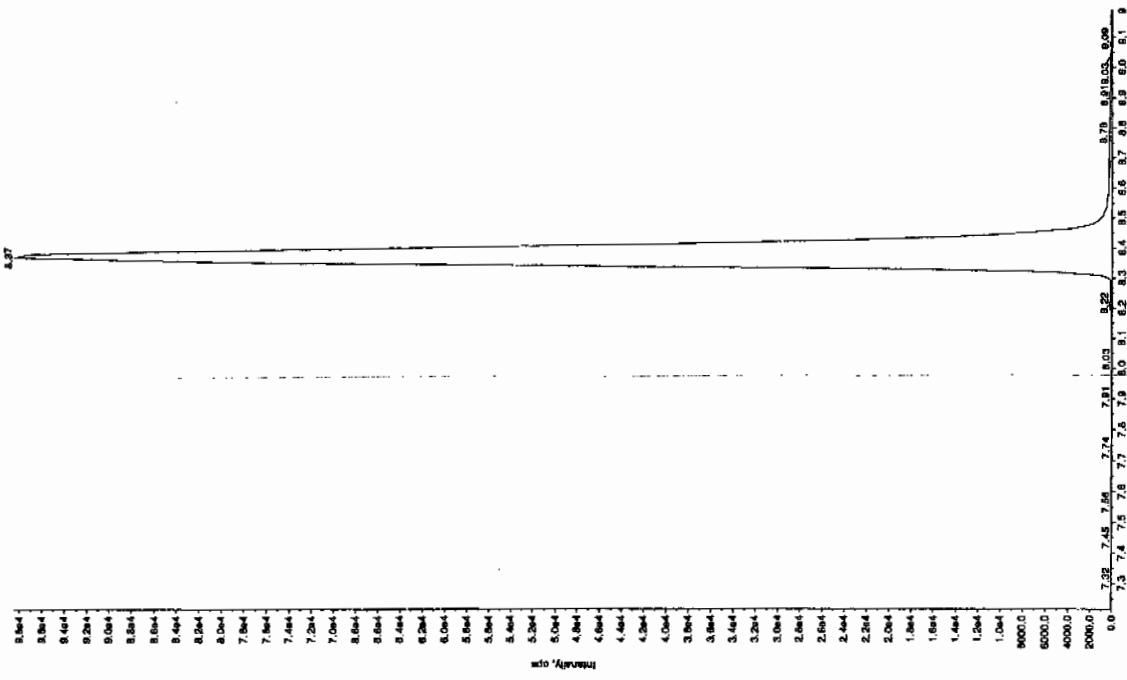
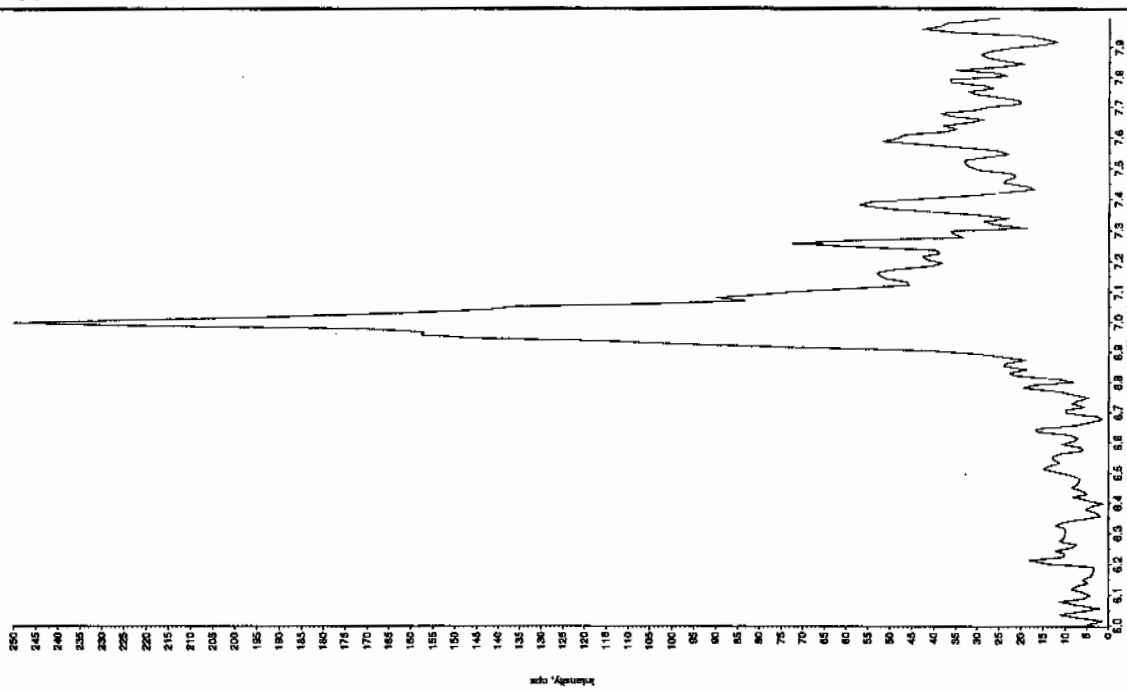
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 2/20/2010

Acq. Time: 3:06:50 PM

Modified: No



Jan 23/10

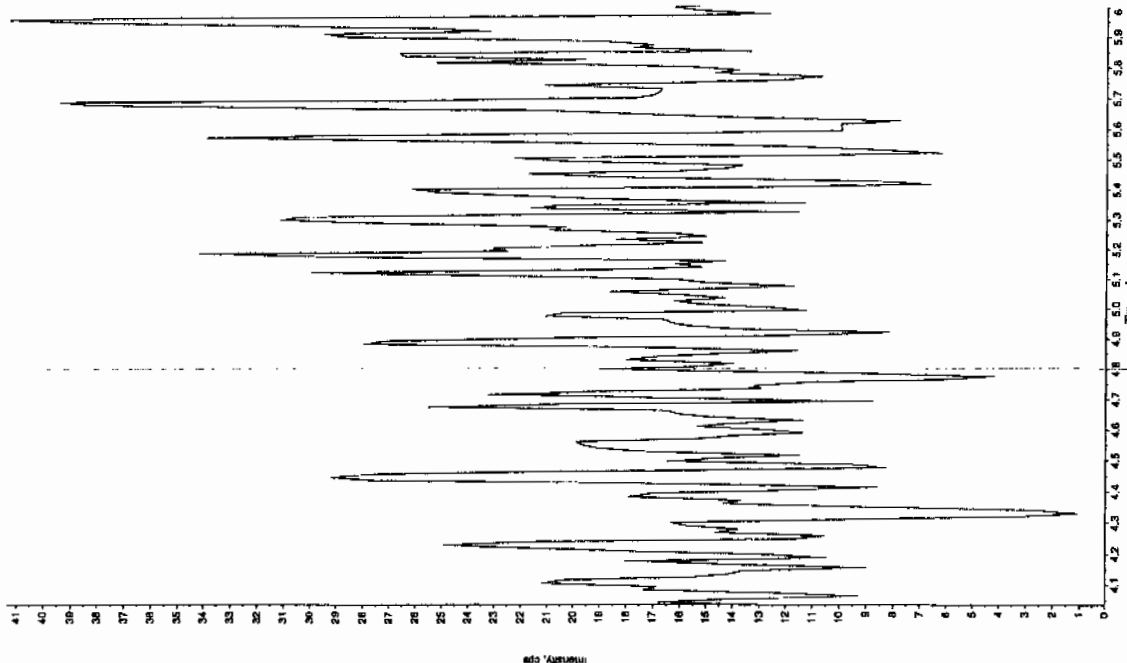
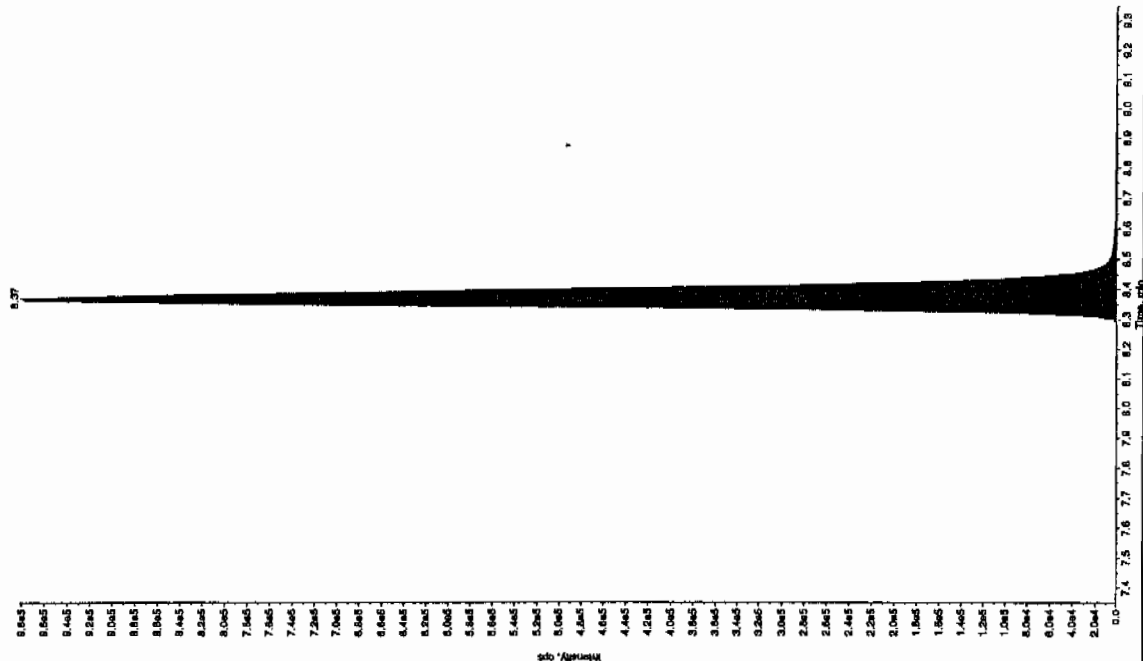
File Name: "24634403" Sample ID: "950332125" File: "EXS0200022.wif" File: "EXS0200022.wif"
 Name: "34-Dichlorobenzene" Mass(es): "162.171519 amu"
 Comment: "LCX832125" Annotation: "1"

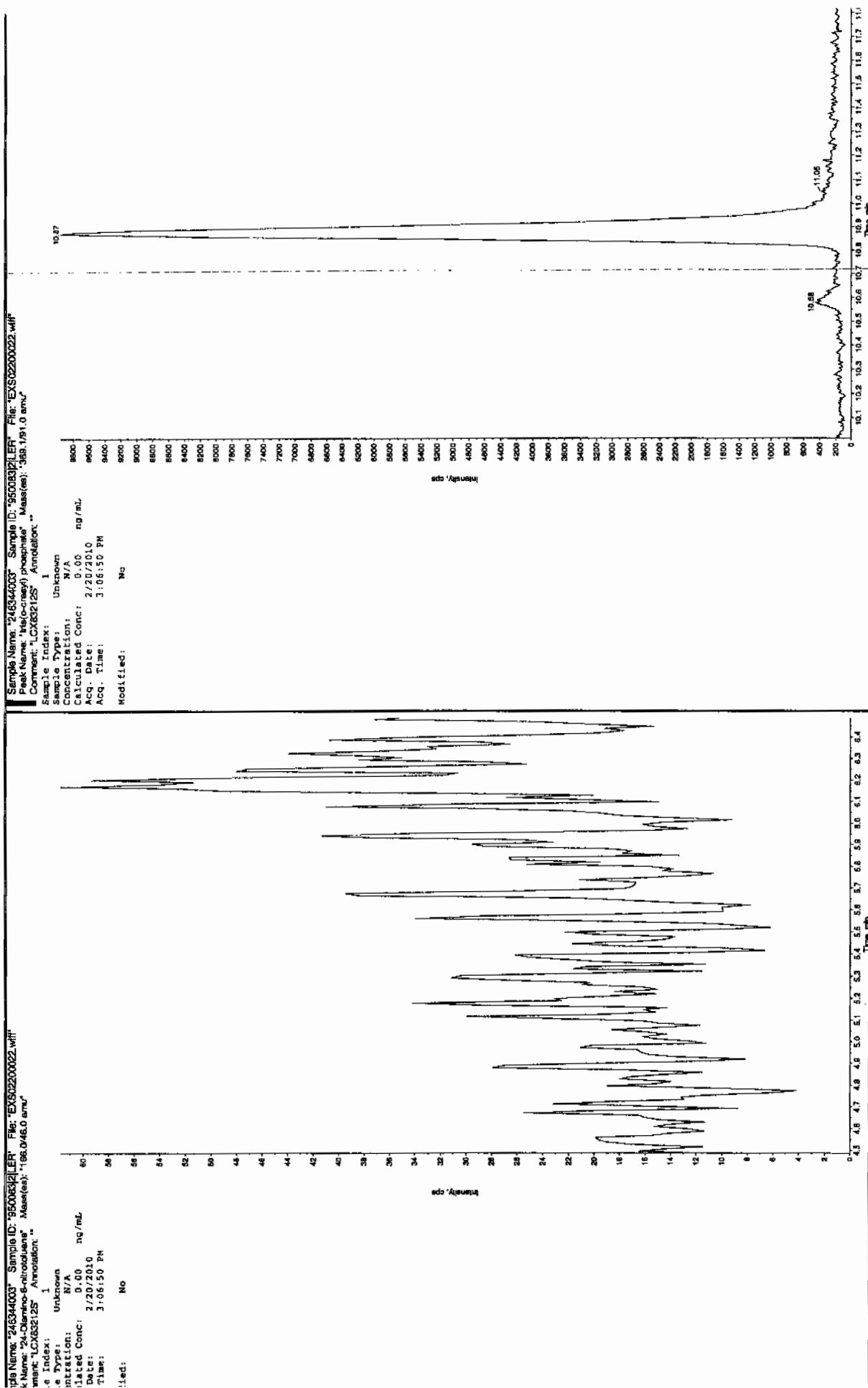
Sample Name: "24634403" Sample ID: "950332125" File: "EXS0200022.wif"
 Peak Name: "34-Dichlorobenzene" Mass(es): "162.171519 amu"
 Comment: "LCX832125" Annotation: "1"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 3:05:50 PM
 Modified: No

Algorithm: IntelliQuan - IOA
 Peak Height: 1460.00 cps
 Peak Width: 0.00 sec
 Window: 15.0 points
 Ret. RT: 8.35 min
 Relative RT: No

Type: Valley
 Time: 8.37 min
 Count: 4,094,005 counts
 RT: 981210.815 cps
 Time: 8.27 min
 Time: 8.74 min





L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216289a

Date Analyzed: 22-FEB-10 15:50

Units: ug/kg

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

*Concentration =

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

Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 43 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216289a

Acquire Date: 22-Feb-2010

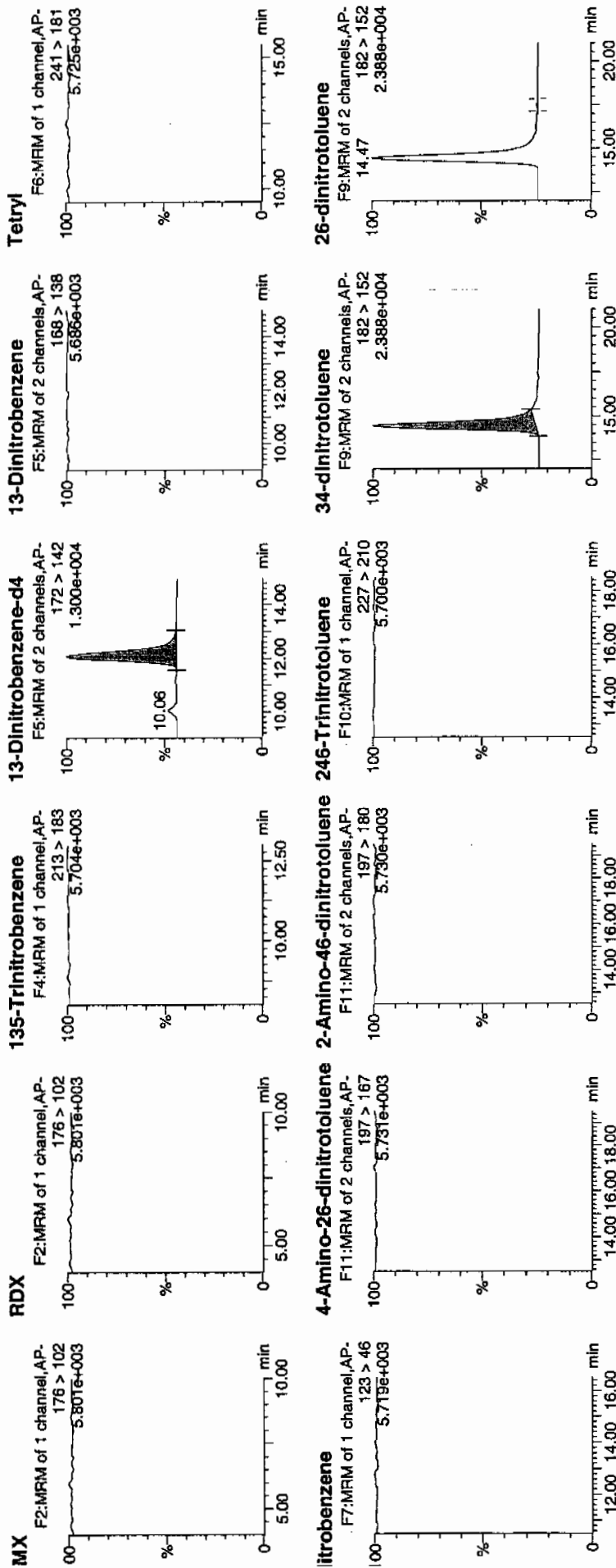
Time: 15:50:11

File: 246344004

Label: 3:4,D

LAU/950083/8022/21

4/23/10



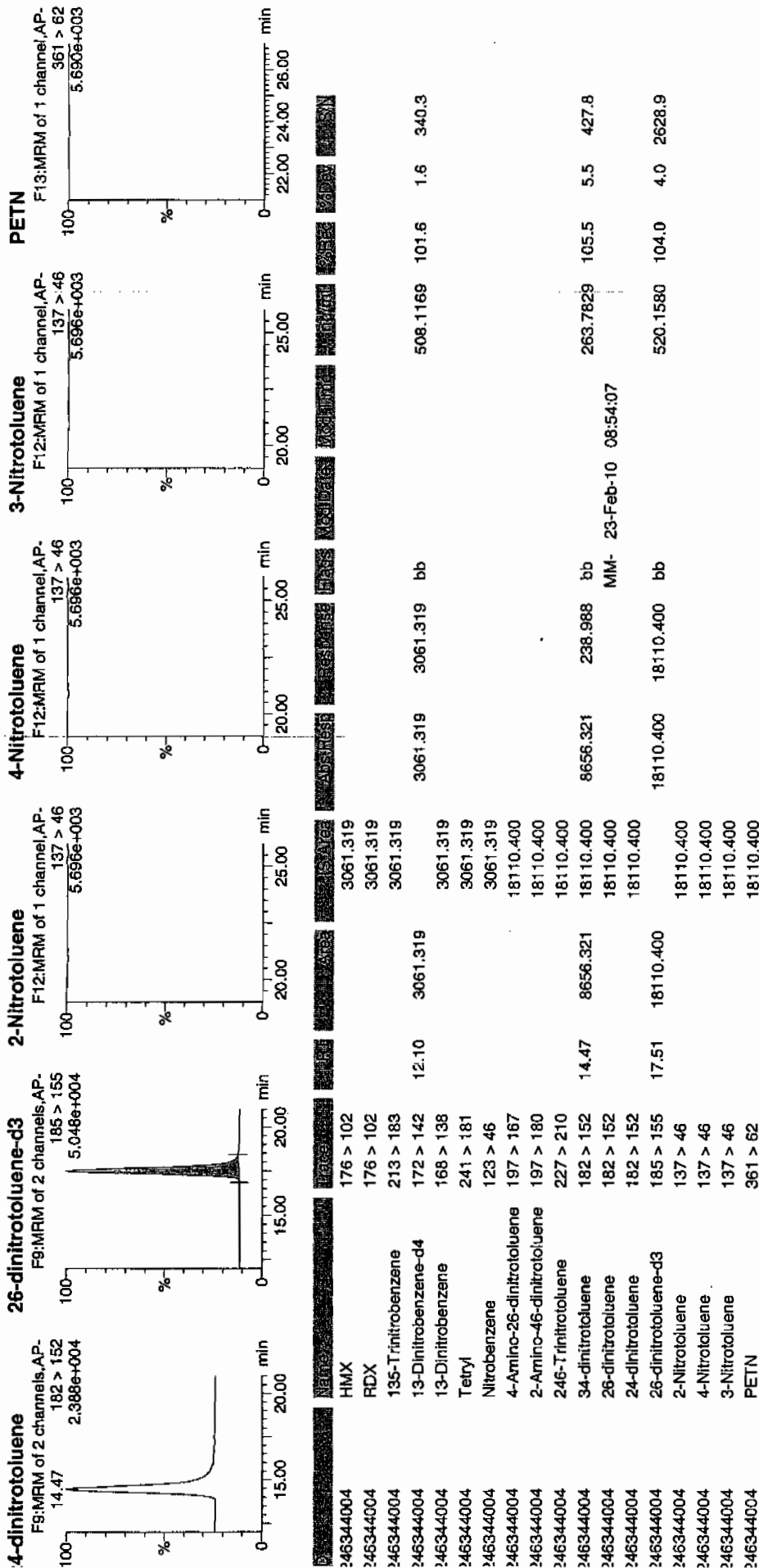
Amw/24/10

Quantify Sample Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 44 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7982

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344004

Sample Amount 2

Moisture: 15.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200023.wiff

Date Analyzed: 20-FEB-10 15:22

Units: ug/kg

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

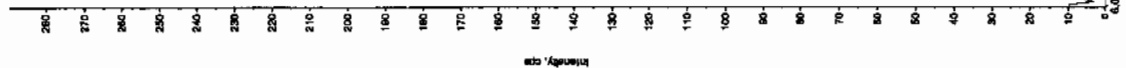
*Concentration =

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

for ratio

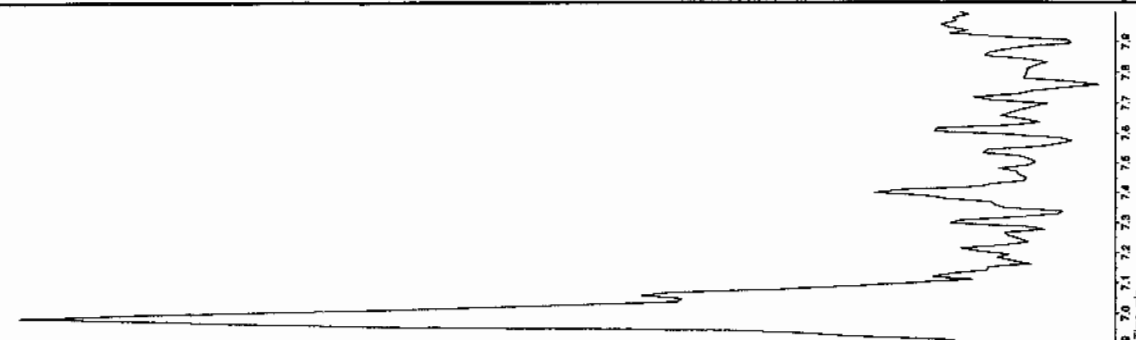
Sample Name: "248344004" Sample ID: "95008321" File: "EXS02200023.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCX032125" Annotation: "1"

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/20/2010
 Acq. Date: 3/22/11 PM
 Acq. Time: 3:22:31 PM
 Modified: No

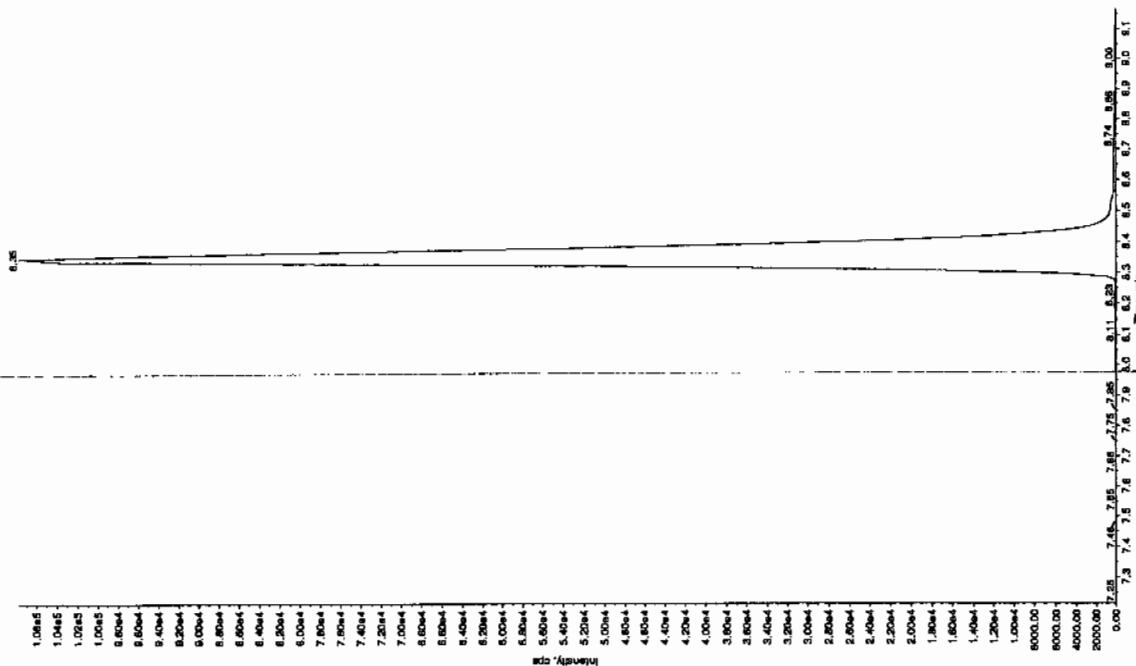


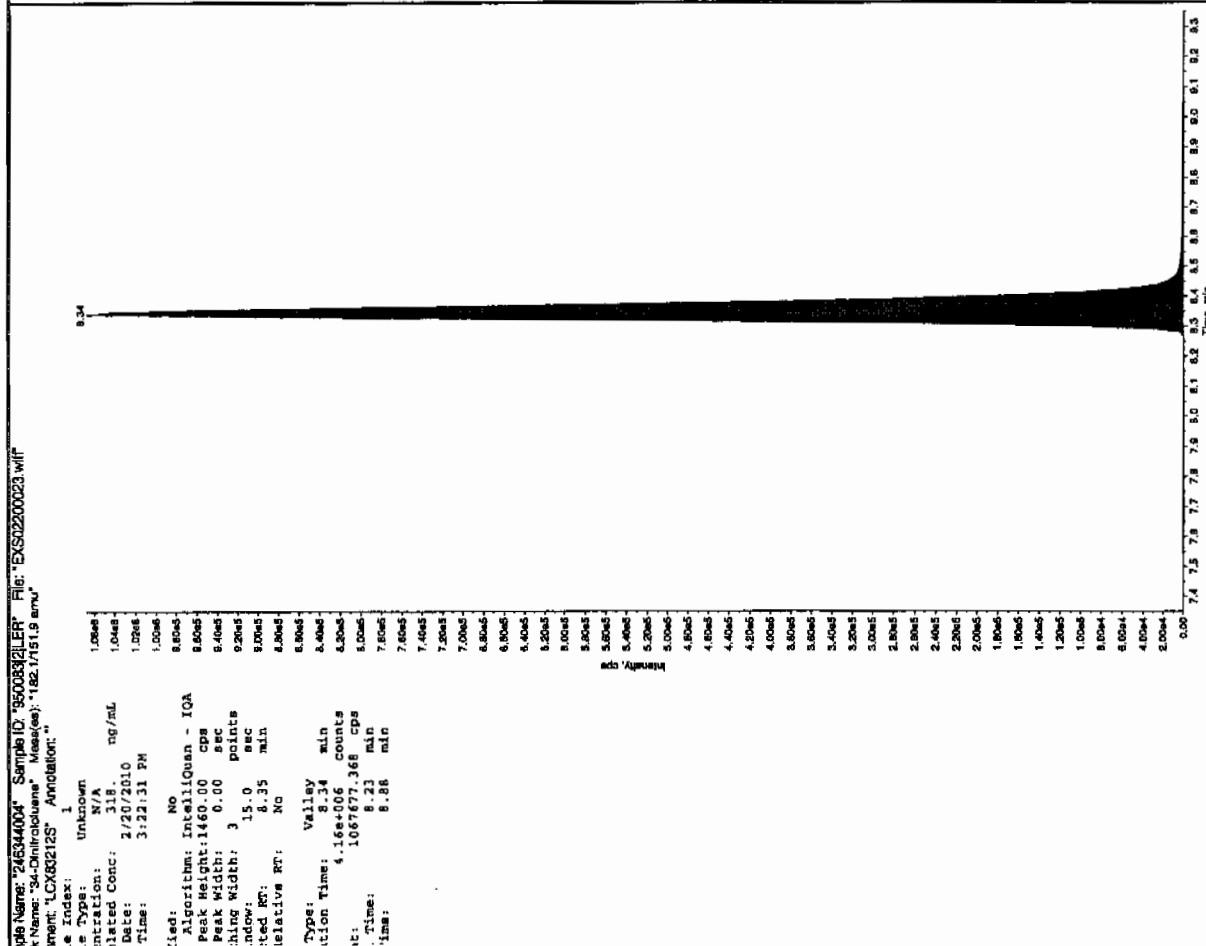
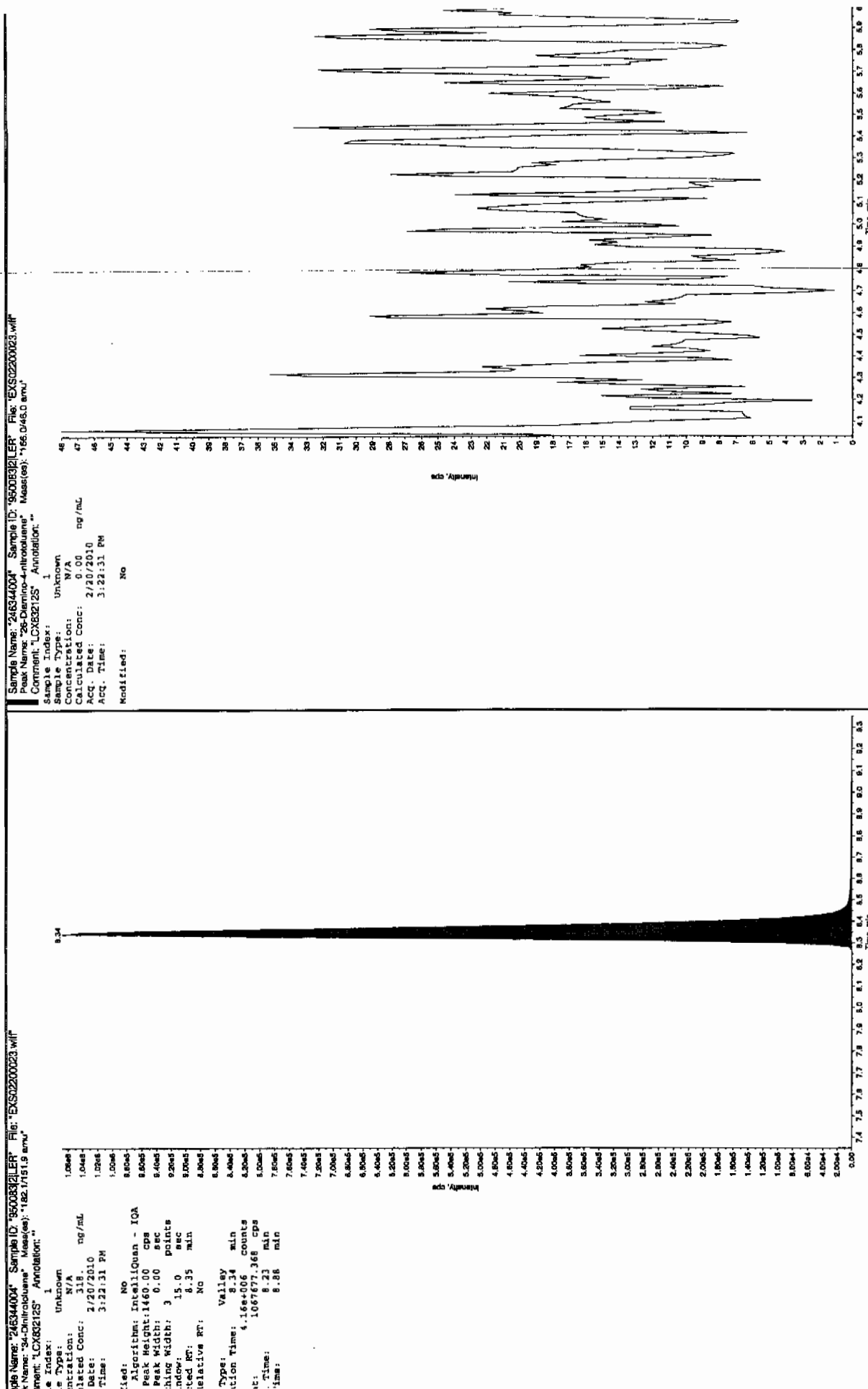
Sample Name: "248344004" Sample ID: "95008321" File: "EXS02200023.wif"
 Peak Name: "35-Dinitroanthracene" Mass(es): "182.046.0 amu"
 Comment: "LCX032125" Annotation: "1"

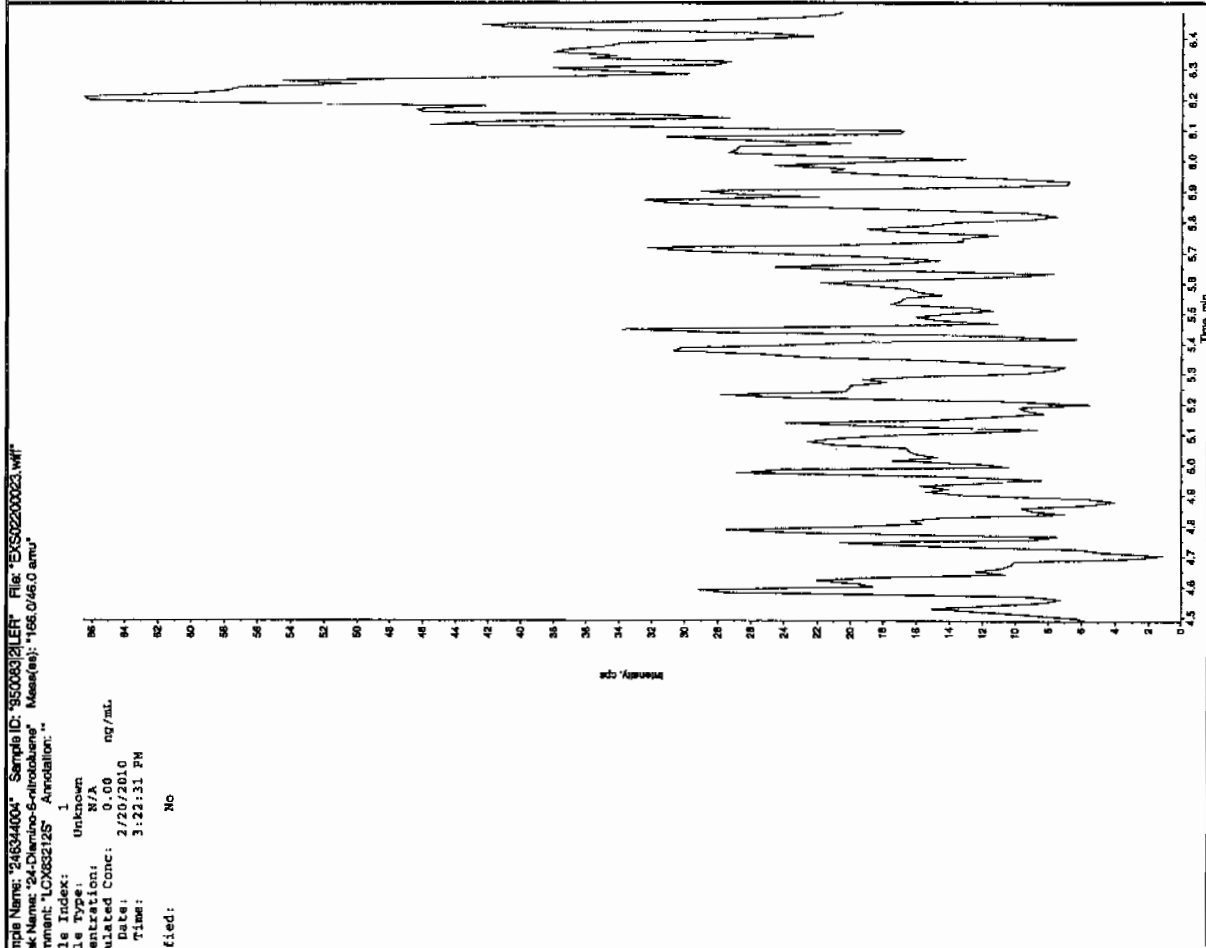
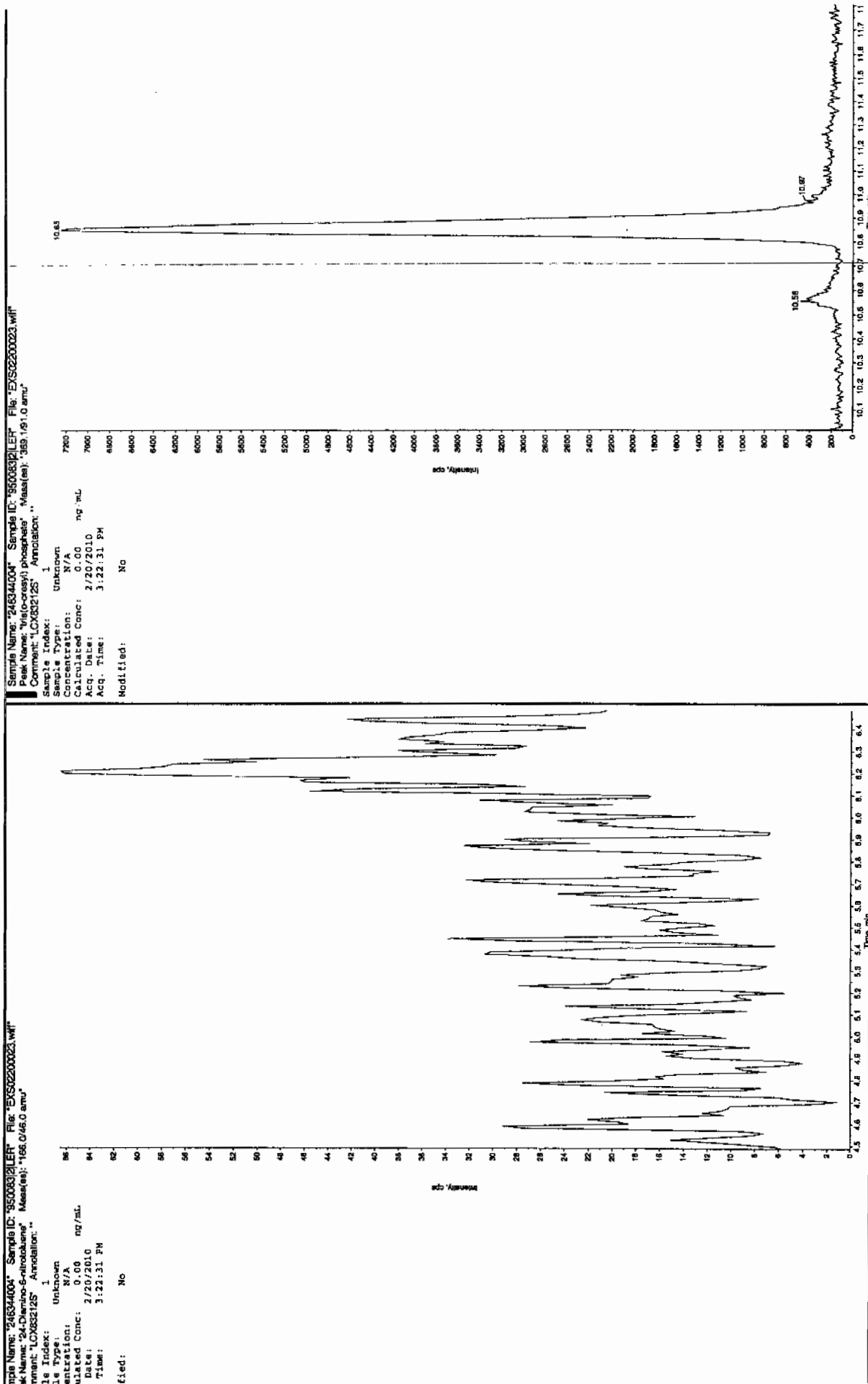
Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/20/2010
 Acq. Date: 3/22/11 PM
 Acq. Time: 3:22:31 PM
 Modified: No



Handwritten: HPLC 12/3/10







LC SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0225014a

Date Analyzed: 25-FEB-10 16:26

Units: ug/kg

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

*Concentration =

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

Quantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Feb 26 09:17:09 2010, Page 27 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225014a

Date: 25-Feb-2010

Time: 16:26:47

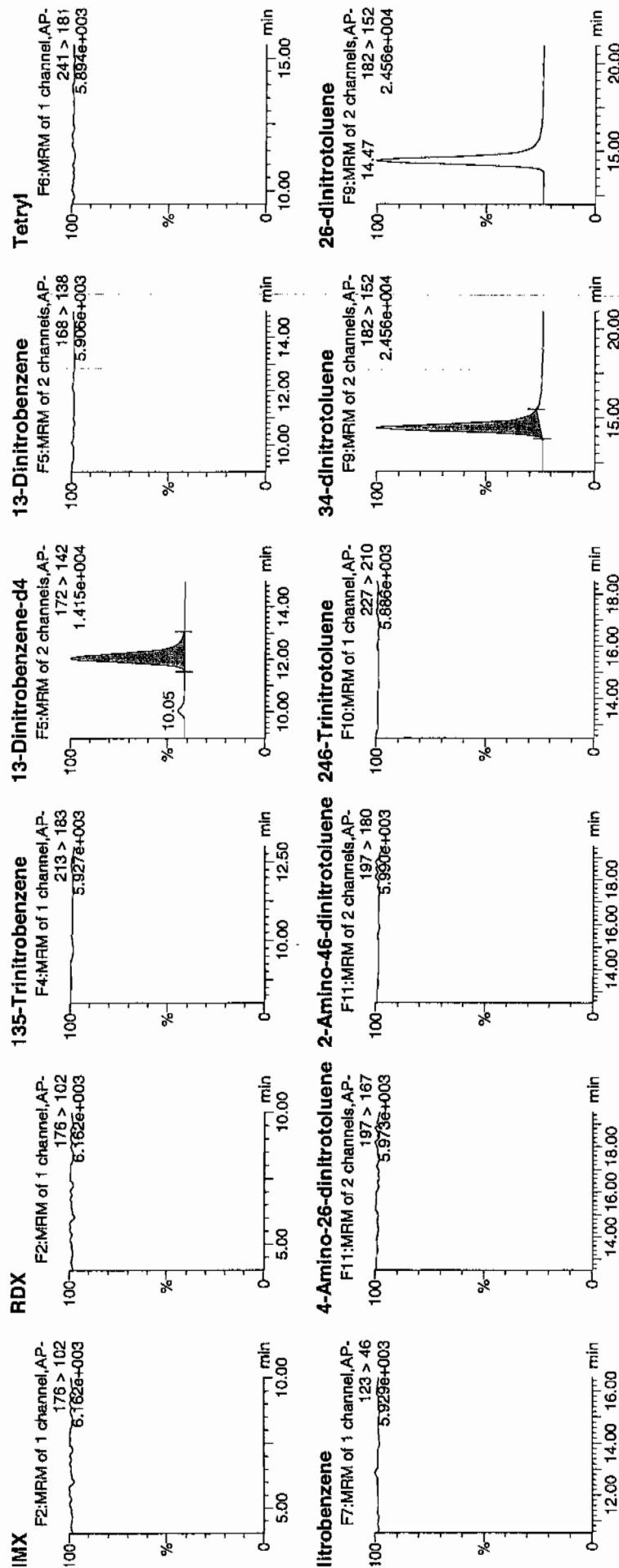
ID: 246344005

Label: 1:4,A

1077
2/26/10

170003 / 8000 / 21

Page 287 of 1886



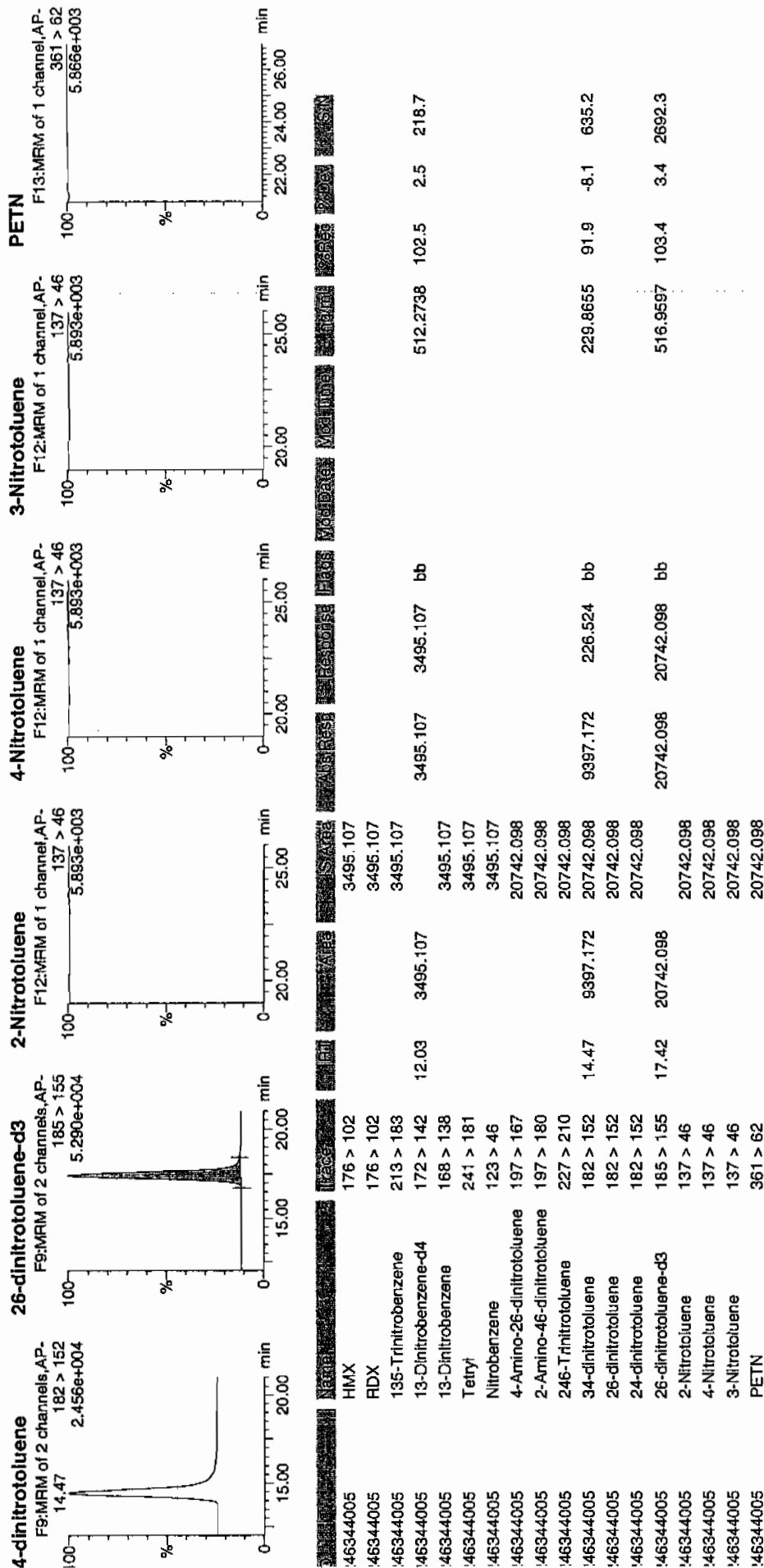
done 2/26/10

Quantify Sample Report

iEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 26 09:17:09 2010, Page 28 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7985

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 246344005

Sample Amount 2

Moisture: 47.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200027.wiff

Date Analyzed: 20-FEB-10 16:25

Units: ug/kg

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

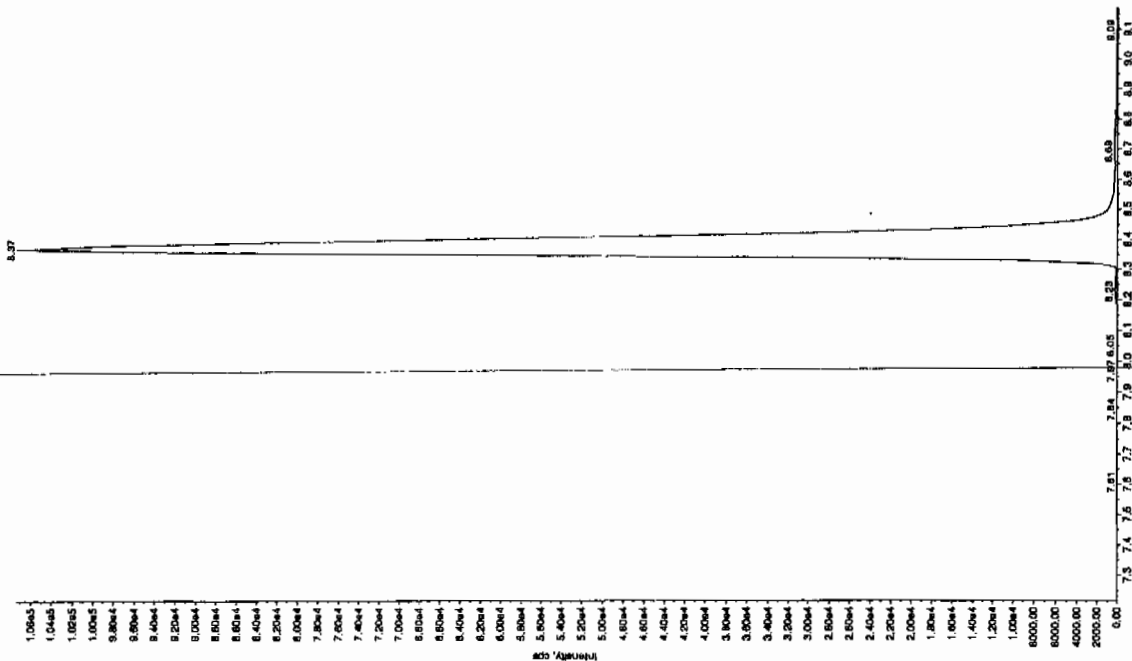
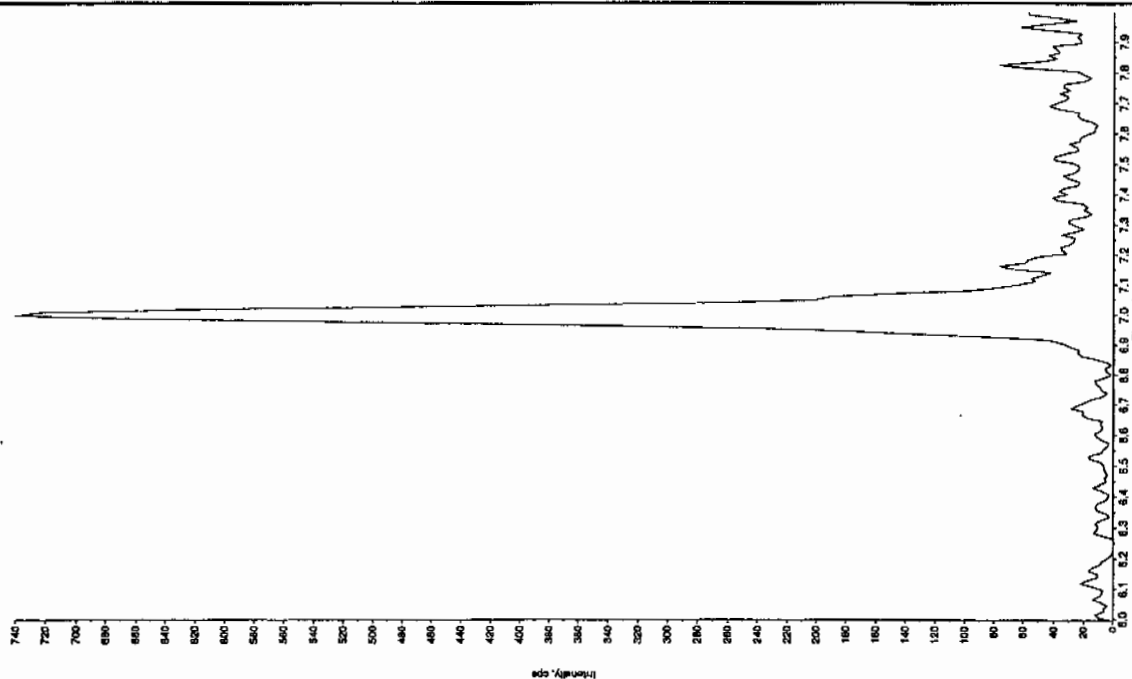
*Concentration =

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

See 2/20/10

File Name: "24634005" Sample ID: "50083212" File: "EXS0200027.wiff"
 File Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCX832125" Annotation: "1"

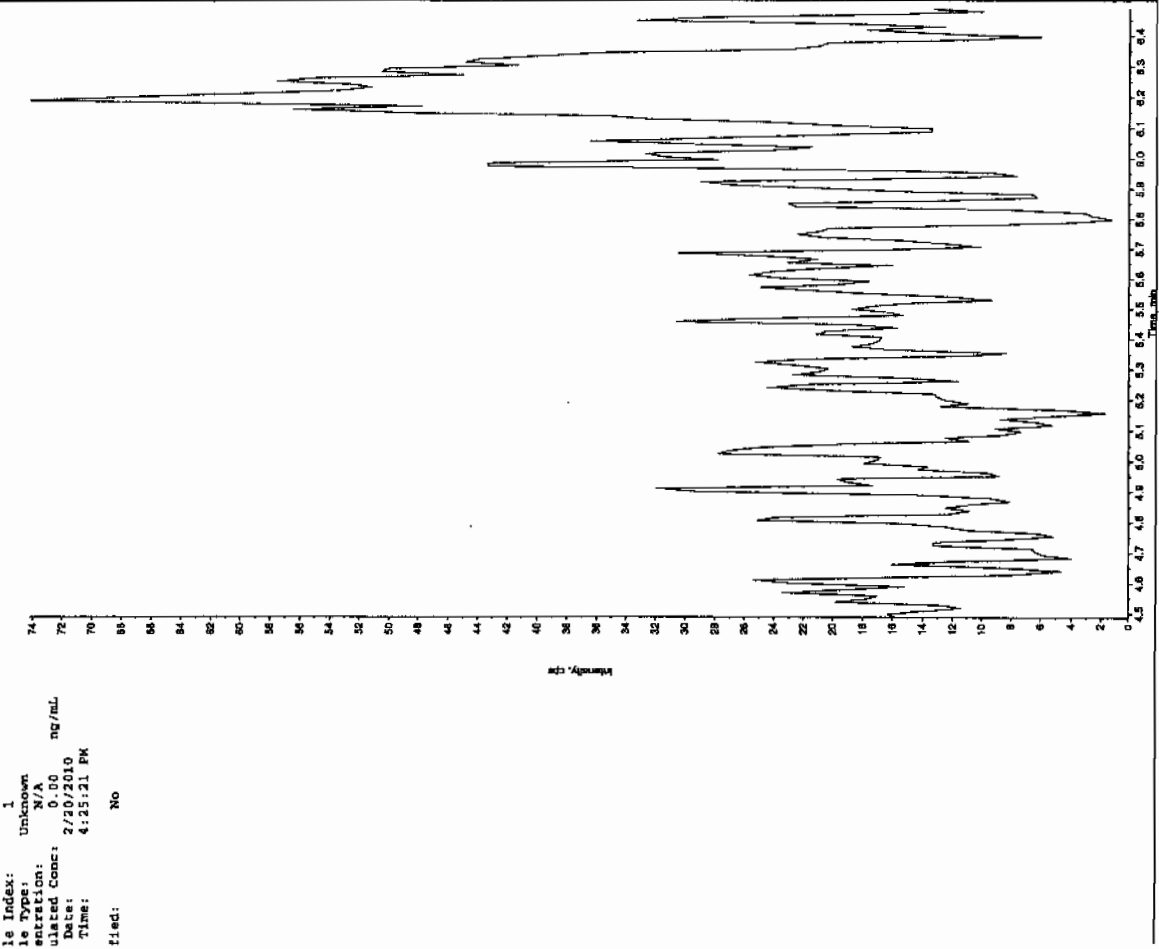
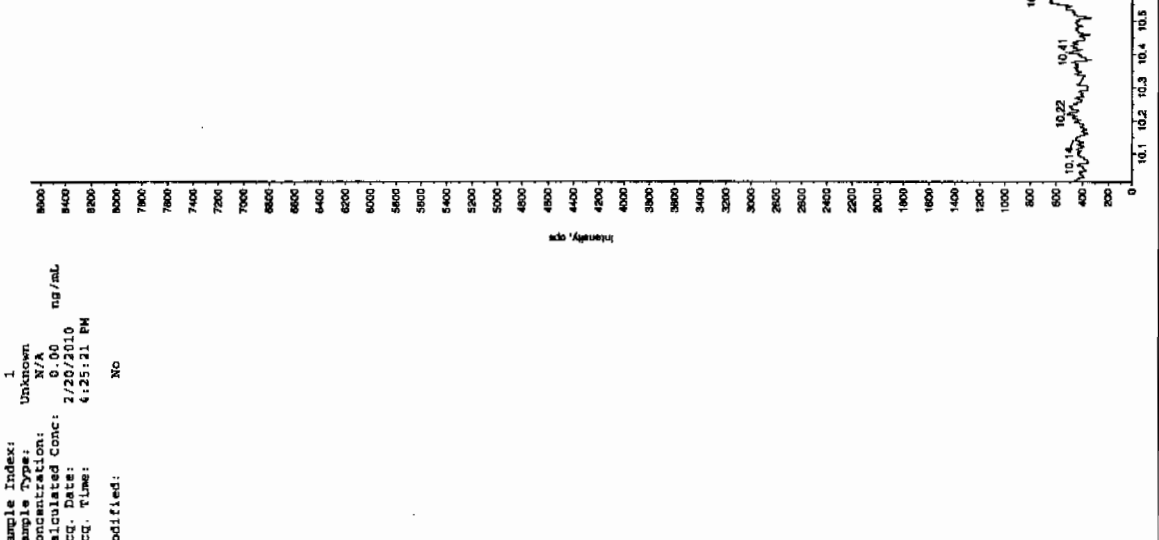
Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 4:25:21 PM
 Modified: No



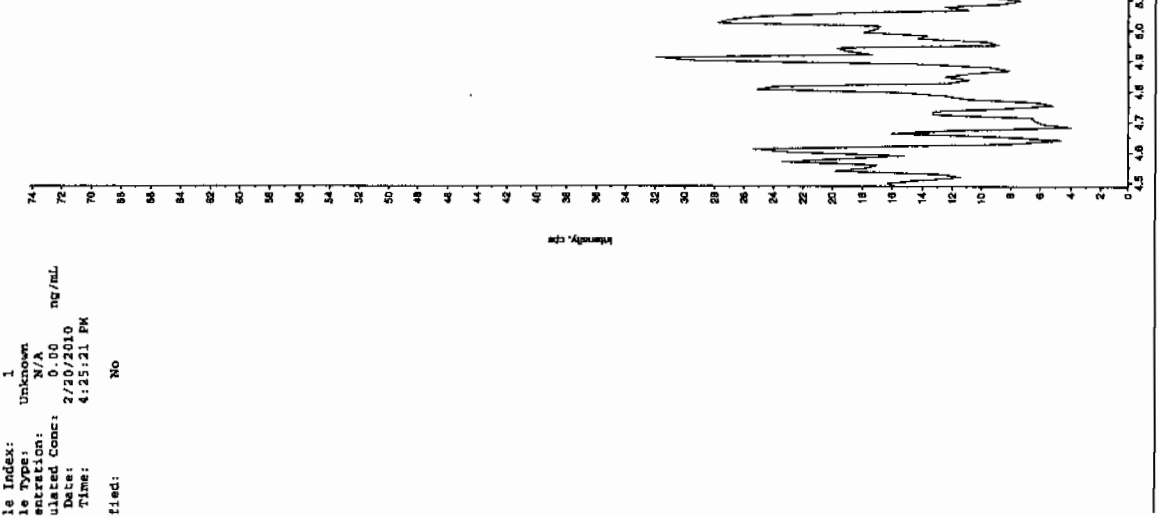
Amw 02/23/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246344006" Sample ID: "95008321LER" File: "EXS02200027.wif"
 Peak Name: "tris(cresyl phosphate)" Mass(es): "359.1/81.0 amu"
 Comment: "LCX83212S" Annotation: ""



Sample Name: "246344006" Sample ID: "95008321LER" File: "EXS02200027.wif"
 Peak Name: "24-Diamino-5-norbornene" Mass(es): "156.0/46.0 amu"
 Comment: "LCX83212S" Annotation: ""



Sample Name: "246344006" Sample ID: "95008321LER" File: "EXS02200027.wif"
 Peak Name: "24-Diamino-5-norbornene" Mass(es): "156.0/46.0 amu"
 Comment: "LCX83212S" Annotation: ""

STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	na	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)

Calibration Levels 8321A-Modified-EXPL.xls

Form 6

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1570

Lab Code: GEL

Run Date: 16-FEB-10.20-FEB-10.25-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a			
Data File:									
1,3,5-Trinitrobenzene	3.974	4.275	3.998	3.443	3.801	3.743	3.872	7.253	
1,3-Dinitrobenzene-d4	6.479	6.269	6.407	6.397	5.489	5.109	6.025	9.613	
2,4,6-Trinitrotoluene	.311	.331	.325	.38	.335	.329	0.335	7.003	
2,4-Dinitrotoluene	.22	.247	.233	.258	.258	.262	0.246	6.788	
2,6-Dinitrotoluene	.926	1.085	1.036	1.071	1.113	1.126	1.060	6.868	
2,6-Dinitrotoluene-d3	37.517	35.811	37.549	35.639	32.457	29.93	34.817	8.699	
2-Amino-4,6-dinitrotoluene	.4	.452	.421	.427	.458	.435	0.432	4.923	
3,4-Dinitrotoluene	.812	.944	.904	1.008	.893	.876	0.906	7.276	
4-Amino-2,6-dinitrotoluene	.35	.323	.285	.352	.298	.312	0.320	8.491	
HMX	3.59	3.564	3.729	3.903	4.47	3.894	3.858	8.619	
Nitrobenzene	.831	.943	.785	.911	.849	.831	0.858	6.765	
RDX	2.28	2.16	2.79	2.593	3.02	2.717	2.593	12.46	
Tetryl	1.117	1.386	1.084	1.014	.989	.952	1.090	14.415	
m-Dinitrobenzene	.991	1.315	1.169	1.17	1.25	1.236	1.189	9.364	
m-Nitrotoluene	.078	.09	.083	.1	.095	.091	0.090	8.99	
o-Nitrotoluene	.139	.156	.146	.153	.159	.159	0.152	5.121	
p-Nitrotoluene	.072	.072	.076	.082	.083	.076	0.077	6.293	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

Form 6

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1570

Lab Code: GEL

Run Date: 16-FEB-10.20-FEB-10.25-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a					
Parname:											
PETN	2110.32	4458.8	14532.6	25000.7	38622.3	42985.8	1.84	-0.0004443	26.645	.9992	

Quadratic Fit: $y = Ax^2 + Bx + C$
 where X^2 column above is coefficient A
 X column above is coefficient B
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

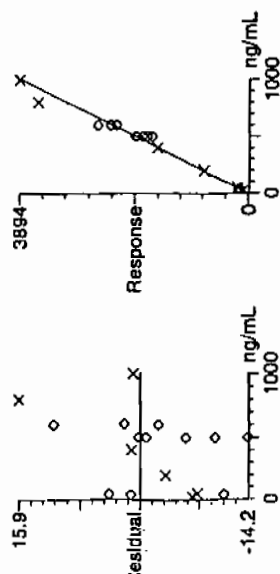
* Values outside of QC Limit

unantify Calibration Report
EL Laboratories, LLC / Analyst: Michael A. Penny

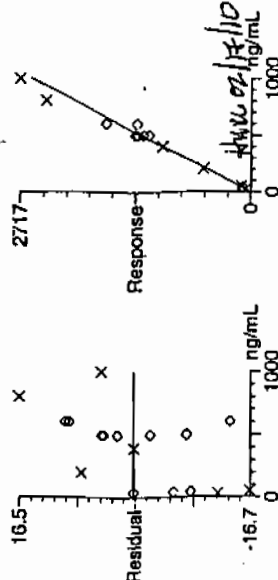
atlas: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
alibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Compound name: HMX
Response Factor: 3.85837
RF SD: 0.33256, % Relative SD: 8.61918
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



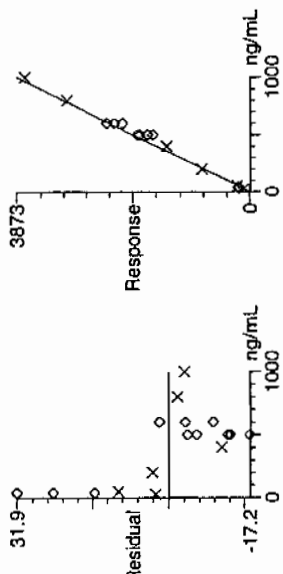
Compound name: RDX
Response Factor: 2.59344
RF SD: 0.323138, % Relative SD: 12.4598
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



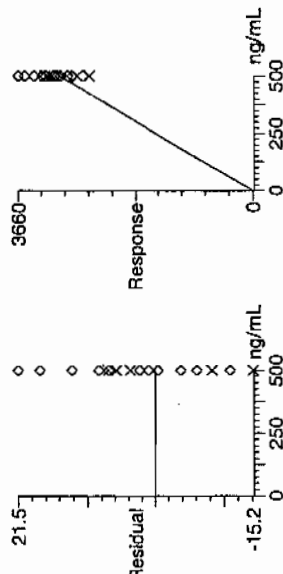
uantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

atset: C:\MASSLYN\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

omponent name: 135-Trinitrobenzene
esponse Factor: 3.87255
RF SD: 0.280856, % Relative SD: 7.2525
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF



omponent name: 13-Dinitrobenzene-d4
esponse Factor: 6.02483
RF SD: 0.579171, % Relative SD: 9.61306
esponse type: External Std, Area
urve type: RF



Quantify Calibration Report

iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

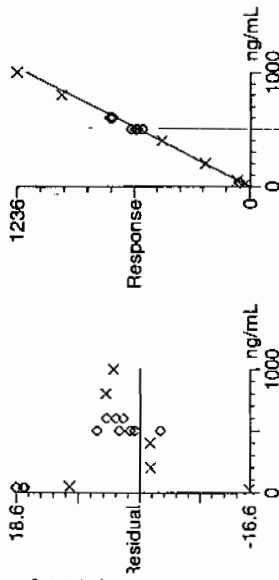
Compound name: 13-Dinitrobenzene

Response Factor: 1.18852

IRF SD: 0.111292, % Relative SD: 9.36391

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF



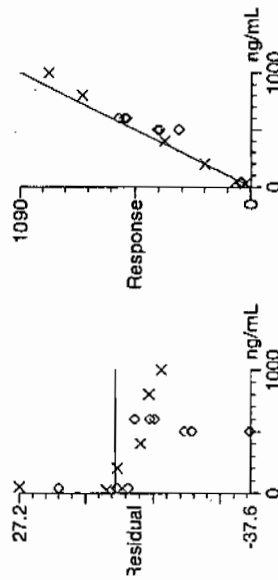
Compound name: Tetraol

Response Factor: 1.09023

IRF SD: 0.157158, % Relative SD: 14.4151

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

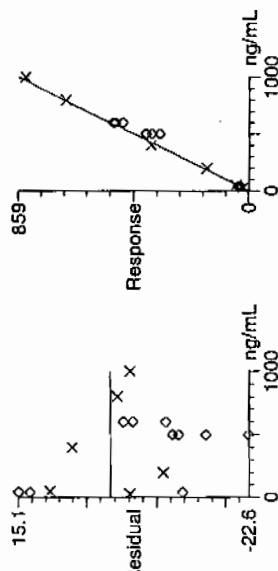
Curve type: RF



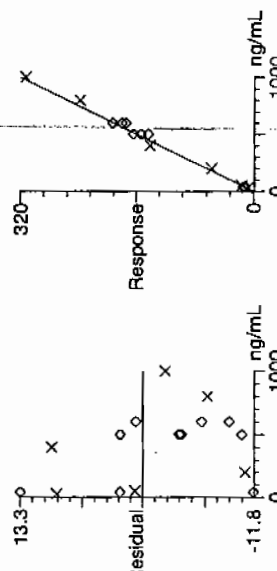
uantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

atset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

omponent name: Nitrobenzene
esponse Factor: 0.858509
RF SD: 0.0580797, % Relative SD: 6.76517
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF



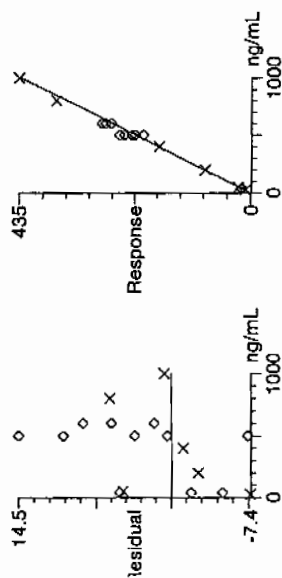
omponent name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.320217
RF SD: 0.0271885, % Relative SD: 8.49063
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF



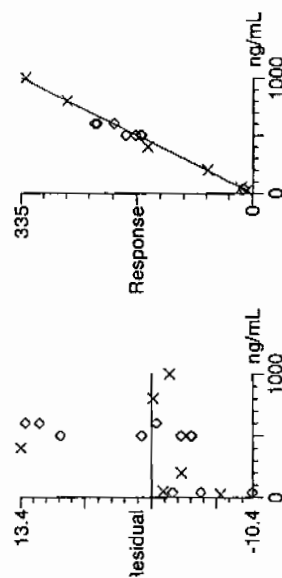
Quantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

atset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.432055
RF SD: 0.0212718, % Relative SD: 4.9234
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



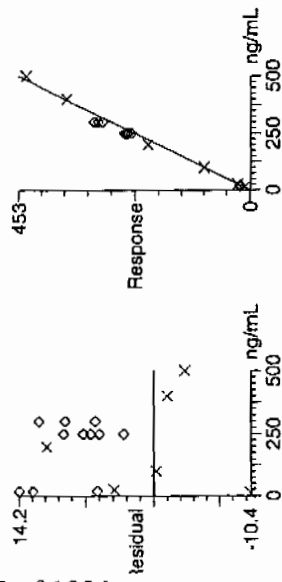
Compound name: 246-Trinitrotoluene
Response Factor: 0.335255
RF SD: 0.0234791, % Relative SD: 7.00337
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



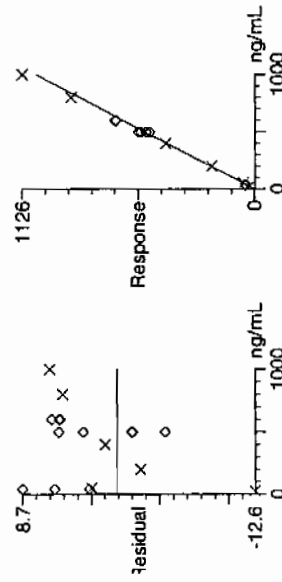
Quantify Calibration Report
 iEL Laboratories, LLC / Analyst : Michael A. Penny

atasset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 34-dinitrotoluene
 Response Factor: 0.906001
 RF SD: 0.0659248, % Relative SD: 7.27646
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



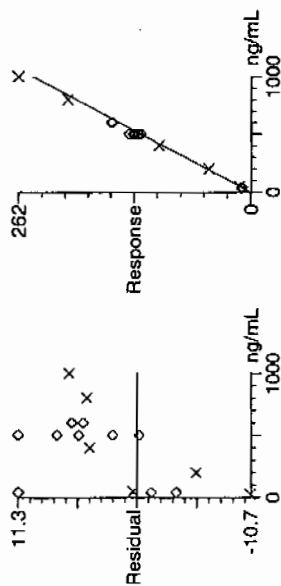
Compound name: 26-dinitrotoluene
 Response Factor: 1.05944
 RF SD: 0.0727574, % Relative SD: 6.86754
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



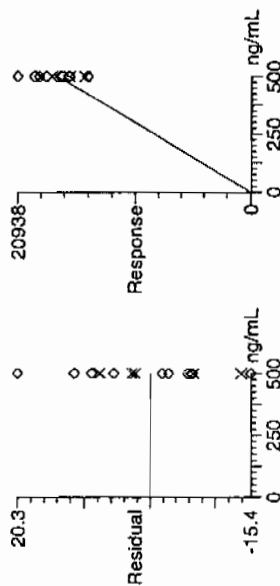
Quantify Calibration Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 24-dinitrotoluene
 Response Factor: 0.24651
 RF SD: 0.0167341, % Relative SD: 6.78841
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: 26-dinitrotoluene-d3
 Response Factor: 34.8171
 RF SD: 3.02888, % Relative SD: 8.6994
 Response type: External Std, Area
 Curve type: RF

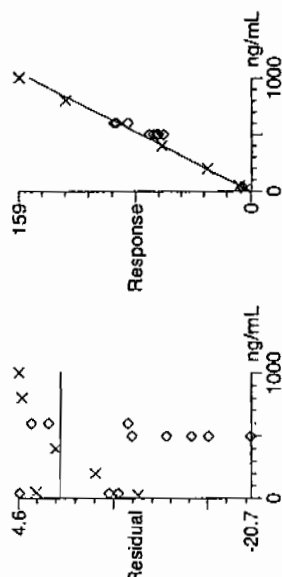


Quantify Calibration Report
 iEL Laboratories, LLC / Analyst : Michael A. Penny

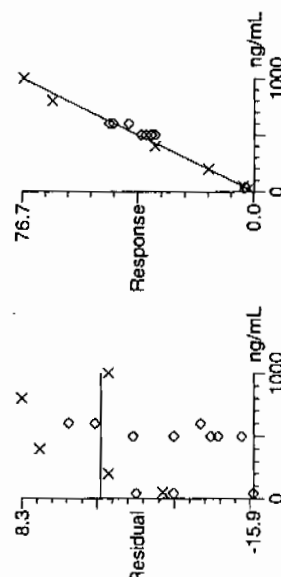
Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Nitrotoluene
 Response Factor: 0.152194
 IRF SD: 0.0077939, % Relative SD: 5.12103
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF

Page 304 of 1886



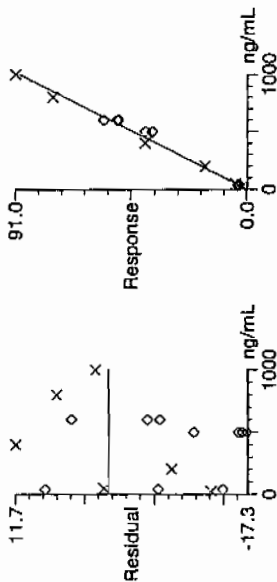
Compound name: 4-Nitrotoluene
 Response Factor: 0.0766512
 IRF SD: 0.00482394, % Relative SD: 6.29336
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



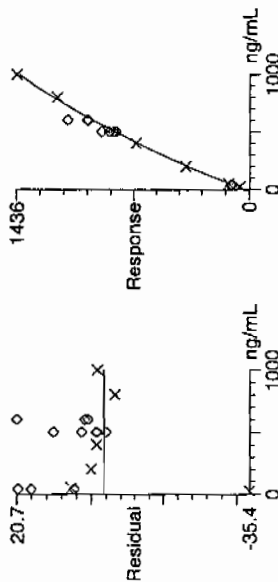
Quantify Calibration Report
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 3-Nitrotoluene
 Response Factor: 0.0894891
 RF SD: 0.0080453, % Relative SD: 8.99027
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: PETN
 Coefficient of Determination: 0.999195
 Calibration curve: $-0.000444334 \cdot x^2 + 1.84022 \cdot x + 26.6447$
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0216010a

Analysis Date: 16-FEB-10 21:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	667.211	111	
Nitrobenzene	600	546.753	91	
PETN	600	622.003	104	
RDX	600	517.279	86	
Tetryl	600	535.085	89	
m-Dinitrobenzene	600	615.667	103	
m-Nitrotoluene	600	571.306	95	
o-Nitrotoluene	600	619.132	103	
p-Nitrotoluene	600	620.215	103	
1,3,5-Trinitrobenzene	600	544.138	91	
1,3-Dinitrobenzene-d4	500	505.15	101	
2,4,6-Trinitrotoluene	600	596.996	99	
2,4-Dinitrotoluene	600	637.037	106	
2,6-Dinitrotoluene	600	631.497	105	
2,6-Dinitrotoluene-d3	500	470.813	94	
2-Amino-4,6-dinitrotoluene	600	609.733	102	
3,4-Dinitrotoluene	300	318.405	106	
4-Amino-2,6-dinitrotoluene	600	544.592	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
SEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216010a

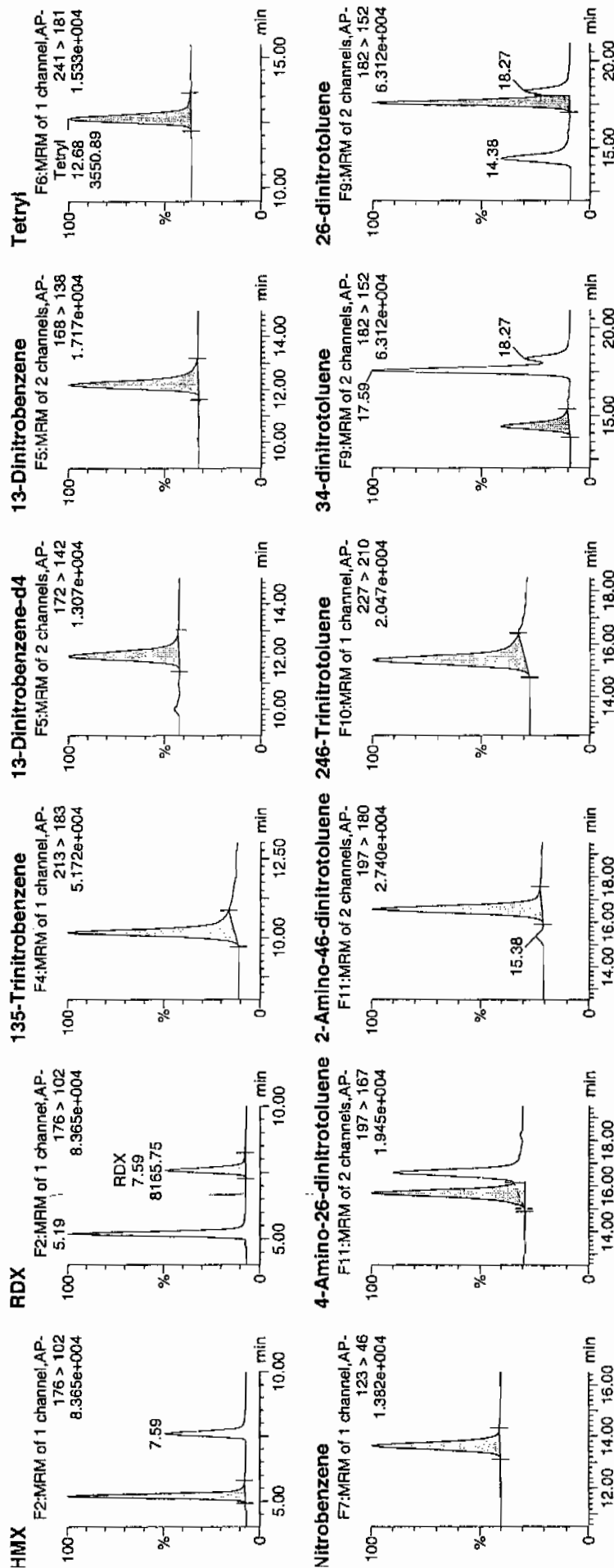
Date: 16-Feb-2010

Time: 21:34:44

ID: WXX100216-07ICV

Vial: 1:1,B

WXX
2/17/10



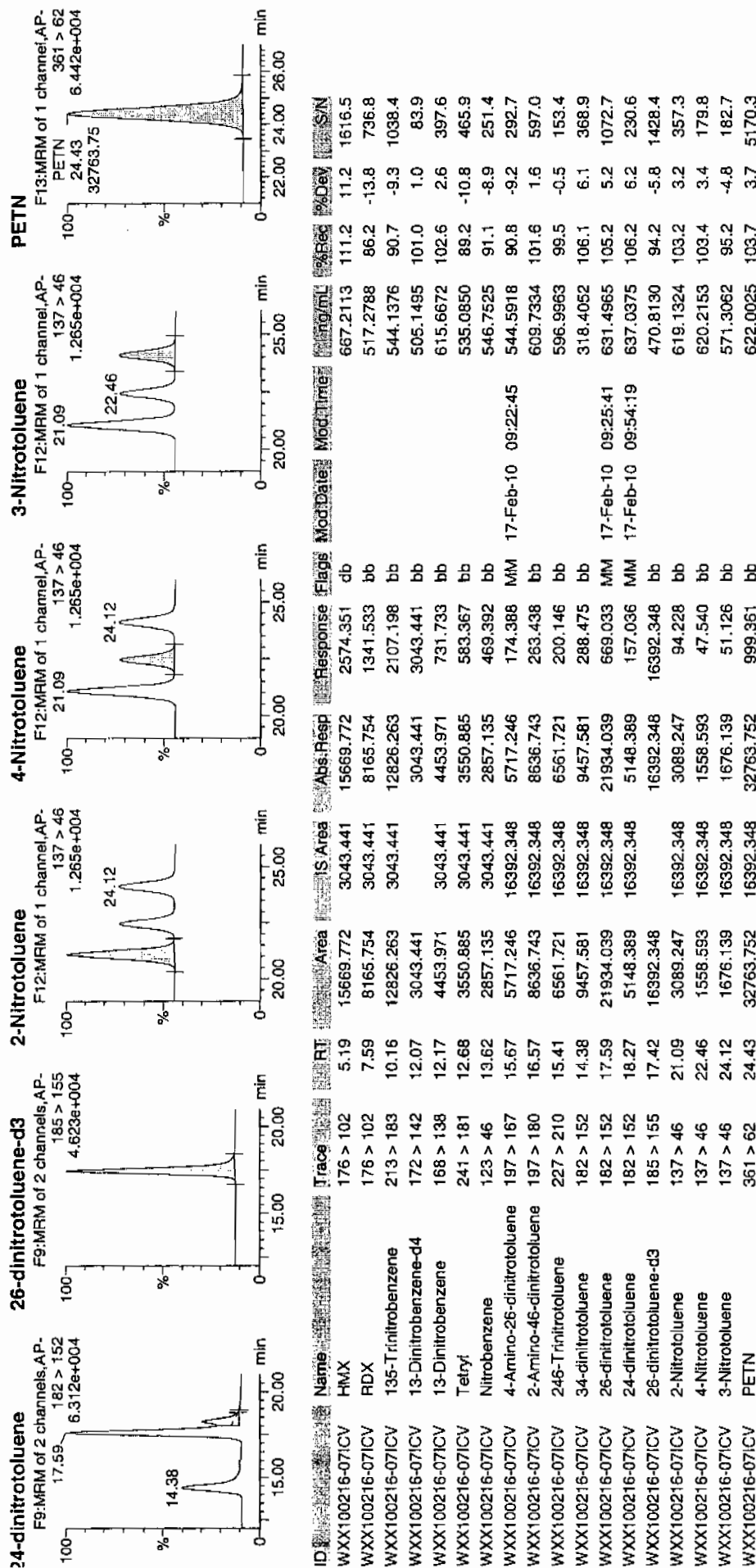
HNW
2/17/10

Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 20 of 59

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/16/10
 Time of Injection: 2134
 Standard Number: WXX100216-07ICV
 Data File: EXP0216010a

HMX	111.2
RDX	86.2
135-TNB	90.7
13-DNB	102.6
Tetryl	89.2
Nitrobenzene	91.1
4A-26-DNT	90.8
2A-46-DNT	101.6
246-TNT	99.5
34-DNT(surr)	106.1
26-DNT	105.2
24-DNT	106.2
2-NT	103.2
4-NT	103.4
3-NT	95.2
PETN	103.7

*WXX
2/17/10*

Total 1585.9

Average 99.1

WXX 02/17/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

Form 1

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1570

Lab Code: GEL

Run Date: 16-FEB-10.20-FEB-10.25-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Paramname	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0225003a	EXP0225004a	EXP0225005a	EXP0225006a	EXP0225007a	EXP0225008a			
Data File:									
1,3,5-Trinitrobenzene	3.437	3.625	2.99	3.417	3.47	4.21	3.525	11.26	
1,3-Dinitrobenzene-d4	6.343	7.207	7.806	6.854	6.674	6.054	6.823	9.172	
2,4,6-Trinitrotoluene	.313	.34	.332	.36	.481	.403	0.372	16.591	
2,4-Dinitrotoluene	.295	.258	.24	.249	.273	.269	0.264	7.398	
2,6-Dinitrotoluene	1.139	1.14	1.089	1.092	1.104	1.101	1.111	2.064	
2,6-Dinitrotoluene-d3	40.575	44.289	40.511	39.72	38.627	37.017	40.123	6.08	
2-Amino-4,6-dinitrotoluene	.5	.435	.382	.389	.432	.422	0.427	9.918	
3,4-Dinitrotoluene	.927	.91	.946	1.007	1.104	1.019	0.986	7.353	
4-Amino-2,6-dinitrotoluene	.341	.29	.264	.274	.309	.289	0.295	9.354	
HMX	3.954	4.289	3.148	4.27	4.309	4.635	4.101	12.542	
Nitrobenzene	.749	.849	.685	.787	.89	.887	0.808	10.145	
PETN	1.106	.942	1.079	1.008	.929	.853	0.986	9.793	
RDX	2.869	2.923	2.46	2.927	3.032	3.076	2.881	7.632	
Tetryl	.96	1.021	.771	1.118	.986	1.027	0.981	11.82	
m-Dinitrobenzene	1.456	1.19	1.126	1.194	1.223	1.248	1.240	9.173	
m-Nitrotoluene	.093	.08	.09	.087	.088	.089	0.088	5.047	
o-Nitrotoluene	.165	.14	.152	.143	.159	.152	0.152	6.242	
p-Nitrotoluene	.09	.063	.069	.072	.074	.074	0.074	12.425	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

Quantity Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\022510expa.mdb, Time: Thu Feb 25 15:54:02 2010

Calibration: Untitled, Time: Fri Feb 26 09:15:37 2010

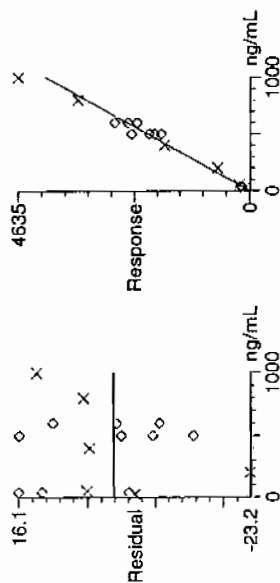
Compound name: HMX

Response Factor: 4.10076

RRF SD: 0.514315, % Relative SD: 12.5419

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF



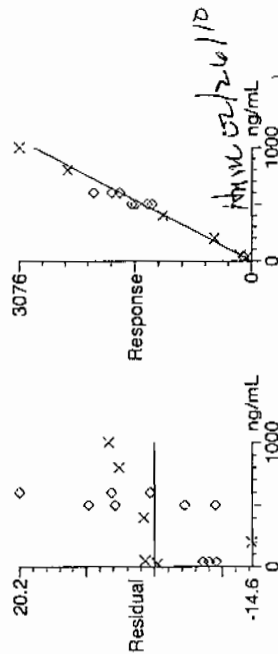
Compound name: RDX

Response Factor: 2.88114

RRF SD: 0.219887, % Relative SD: 7.63196

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

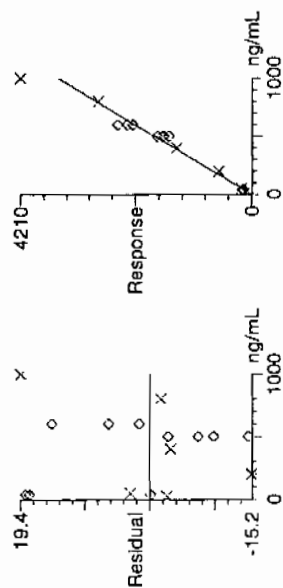
Curve type: RF



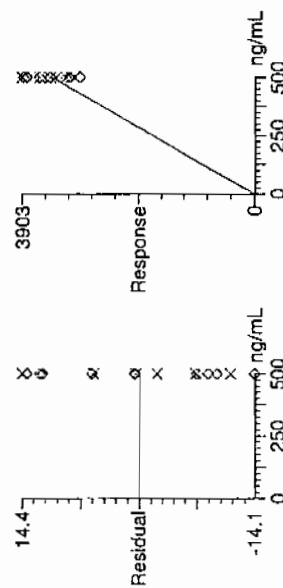
Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSL\YNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.52473
RRF SD: 0.396884, % Relative SD: 11.26
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



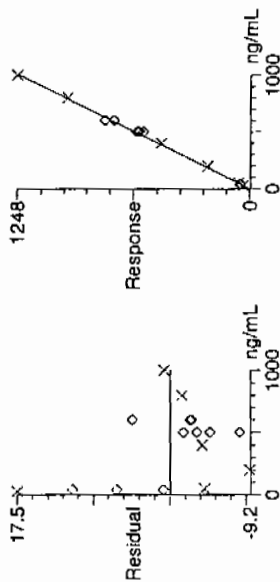
Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.82273
RRF SD: 0.625811, % Relative SD: 9.17245
Response type: External Std, Area
Curve type: RF



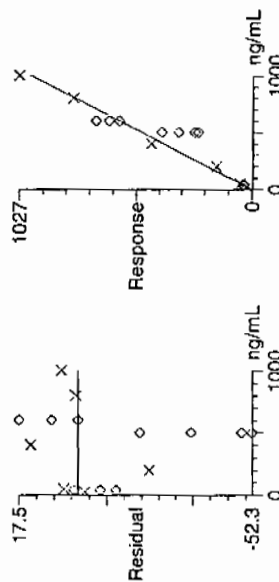
Quantify Calibration Report
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 13-Dinitrobenzene
 Response Factor: 1.23958
 RRF SD: 0.113713, % Relative SD: 9.17347
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



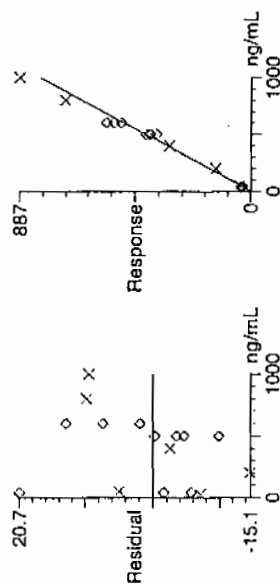
Compound name: Tetryl
 Response Factor: 0.980524
 RRF SD: 0.115895, % Relative SD: 11.8197
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



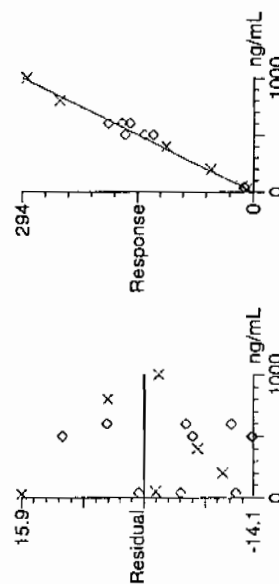
Quantify Calibration Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: Nitrobenzene
Response Factor: 0.807846
RRF SD: 0.0819595, % Relative SD: 10.1454
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



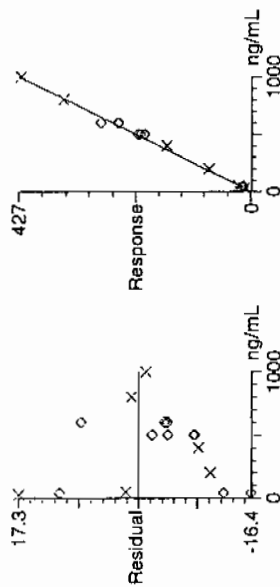
Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.29432
RRF SD: 0.0275298, % Relative SD: 9.35368
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



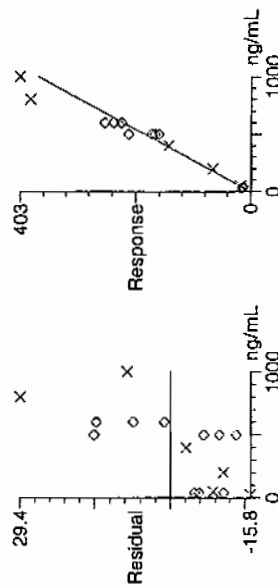
Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.426789
RRF SD: 0.0423267, % Relative SD: 9.91793
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

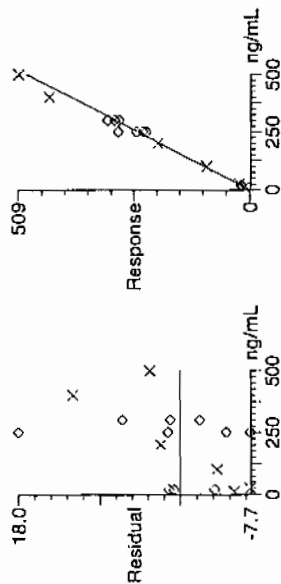


Compound name: 246-Trinitrotoluene
Response Factor: 0.371655
RRF SD: 0.0616611, % Relative SD: 16.591
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

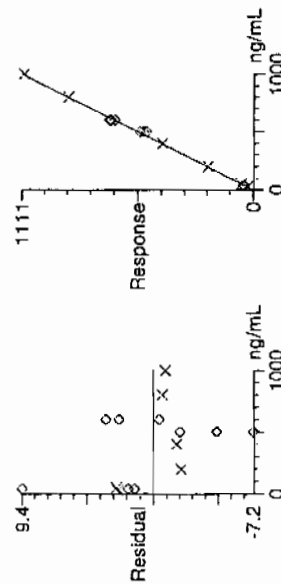


Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 34-dinitrotoluene
 Response Factor: 0.985464
 RRF SD: 0.0724638, % Relative SD: 7.35327
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: R/F



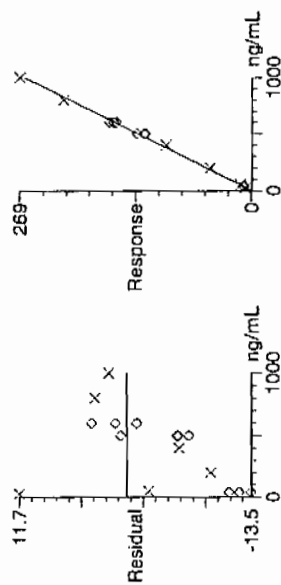
Compound name: 26-dinitrotoluene
 Response Factor: 1.11104
 RRF SD: 0.0229365, % Relative SD: 2.06441
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: R/F



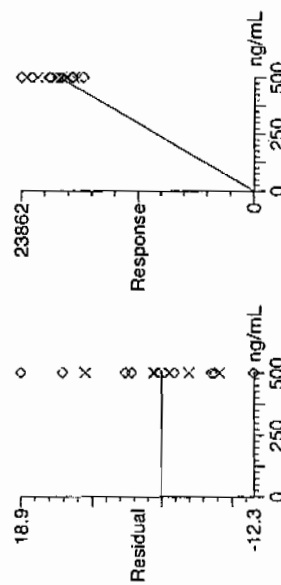
Quantify Calibration Report
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 24-dinitrotoluene
 Response Factor: 0.264146
 RRF SD: 0.019542, % Relative SD: 7.39818
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



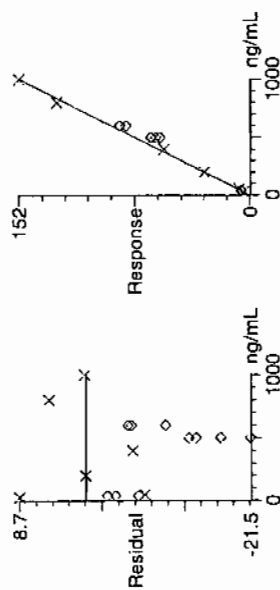
Compound name: 26-dinitrotoluene-d3
 Response Factor: 40.1232
 RRF SD: 2.43967, % Relative SD: 6.08044
 Response type: External Std, Area
 Curve type: RF



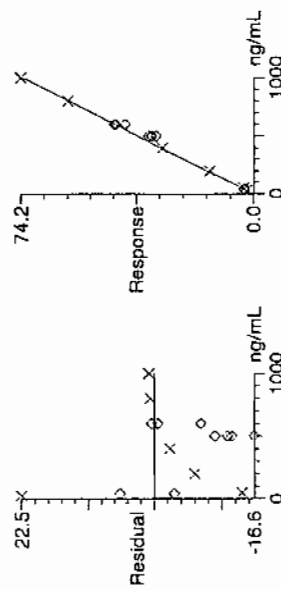
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.151942
RRF SD: 0.00948411, % Relative SD: 6.24191
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



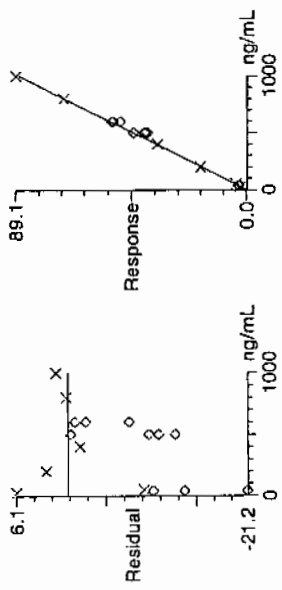
Compound name: 4-Nitrotoluene
Response Factor: 0.0735304
RRF SD: 0.00913633, % Relative SD: 12.4252
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



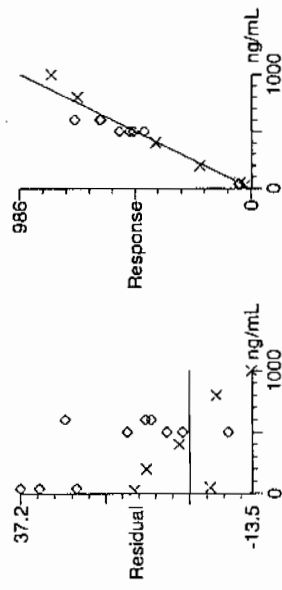
Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0878355
RRF SD: 0.00443348, % Relative SD: 5.04748
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: PETN
Response Factor: 0.986198
RRF SD: 0.0965827, % Relative SD: 9.79343
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02200011.wiff

Analysis Date: 20-FEB-10 12:14

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	546	109	
2,6-Diamino-4-nitrotoluene	500	538	108	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	516	103	
TATB	500	506	101	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0225010a

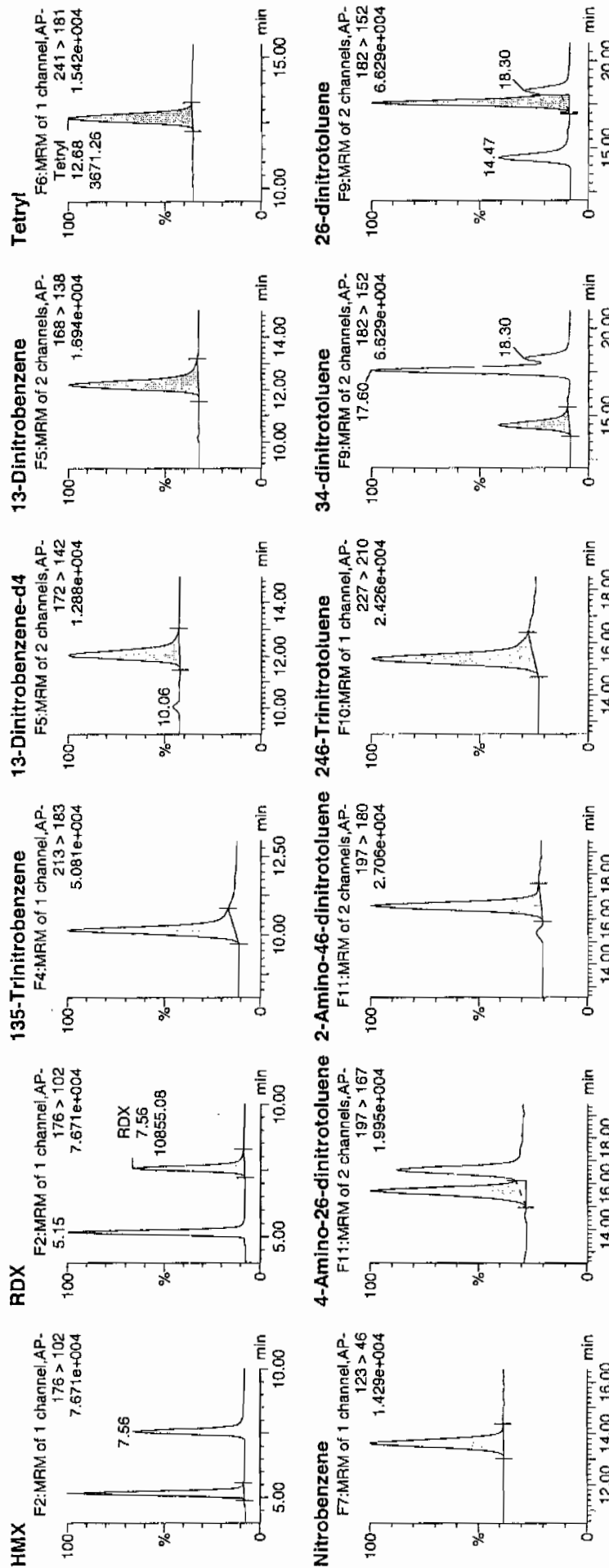
Date: 25-Feb-2010

Time: 14:28:24

ID: WXX100225-07ICV

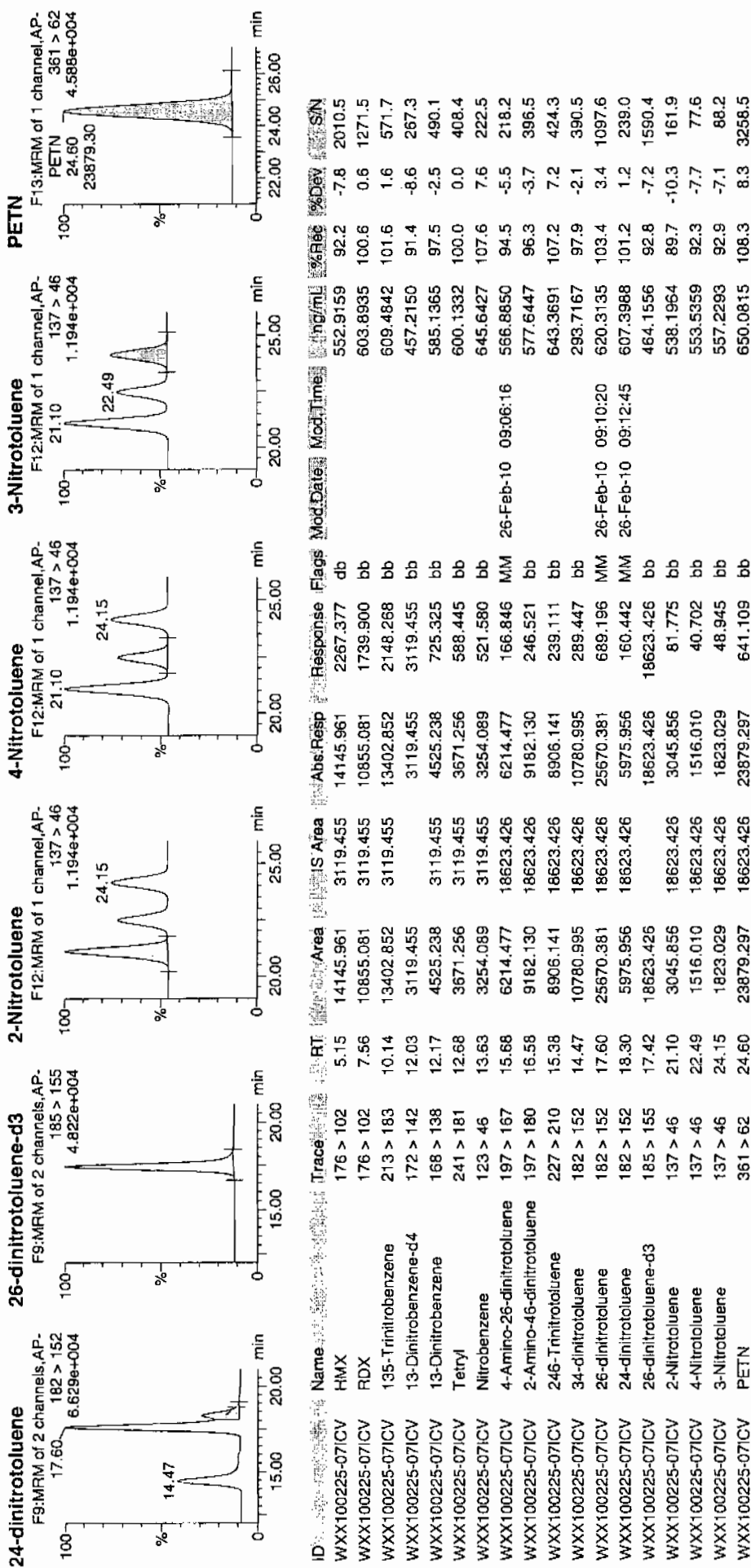
Vial: 1:1,B

uiff
uplw



Have
or 12-6/10

Dataset: C:\MASSLYNX\New_Exp_PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/25/10
 Time of Injection: 1428
 Standard Number: WXX100225-07ICV
 Data File: EXP0225010a

HMX	92.2
RDX	100.6
135-TNB	101.6
13-DNB	97.5
Tetryl	100.0
Nitrobenzene	107.6
4A-26-DNT	94.5
2A-46-DNT	96.3
246-TNT	107.2
34-DNT(surr)	97.9
26-DNT	103.4
24-DNT	101.2
2-NT	89.7
4-NT	92.3
3-NT	92.9
PETN	108.3

*not
4/26/10*

Total 1583.2

Average 99.0

WXX 02-25-10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1570

Lab Code: GEL

Run Date: 16-FEB-10 20-FEB-10 25-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Average RF

Paramname	19	20	21	22	23	24	25	Ave RF	RSD	Q
Calibration Level:	EXS02200003.w	EXS02200004.w	EXS02200005.w	EXS02200006.w	EXS02200007.w	EXS02200008.w	EXS02200009.w			
Data File:										
2,4-Diamino-6-nitrotoluene	1360	1220	1220	1150	1090	1220	1330	1227.143	7.53	
2,6-Diamino-4-nitrotoluene	2270	1970	2030	1930	1930	2030	1950	2015.714	6.02	
3,4-Dinitrotoluene	14000	12800	13200	12500	14800	12700	11500	13071.429	8.07	
3,5-Dinitroaniline	8020	7500	7520	6760	7370	6420	5980	7081.429	10.1	
TATB	1710	1650	1650	1650	1640	1630	1600	1647.143	1.93	
tris(o-cresyl) phosphate	25300	24300	22600	21500	21100	19600	15400	21400.000	15.4	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

022010ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.65e+003			
Standard deviation	31.8			
%RSD	1.93			
Use Area				

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	7.08e+003			
Standard deviation	715			
%RSD	10.1			
Use Area				

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.31e+004			
Standard deviation	1.06e+003			
%RSD	8.07			
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	2.02e+003			
Standard deviation	121			
%RSD	6.02			
Use Area				

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.23e+003			
Standard deviation	92.4			

Page 1

Sen
2/22/10

Sen
2/22/10

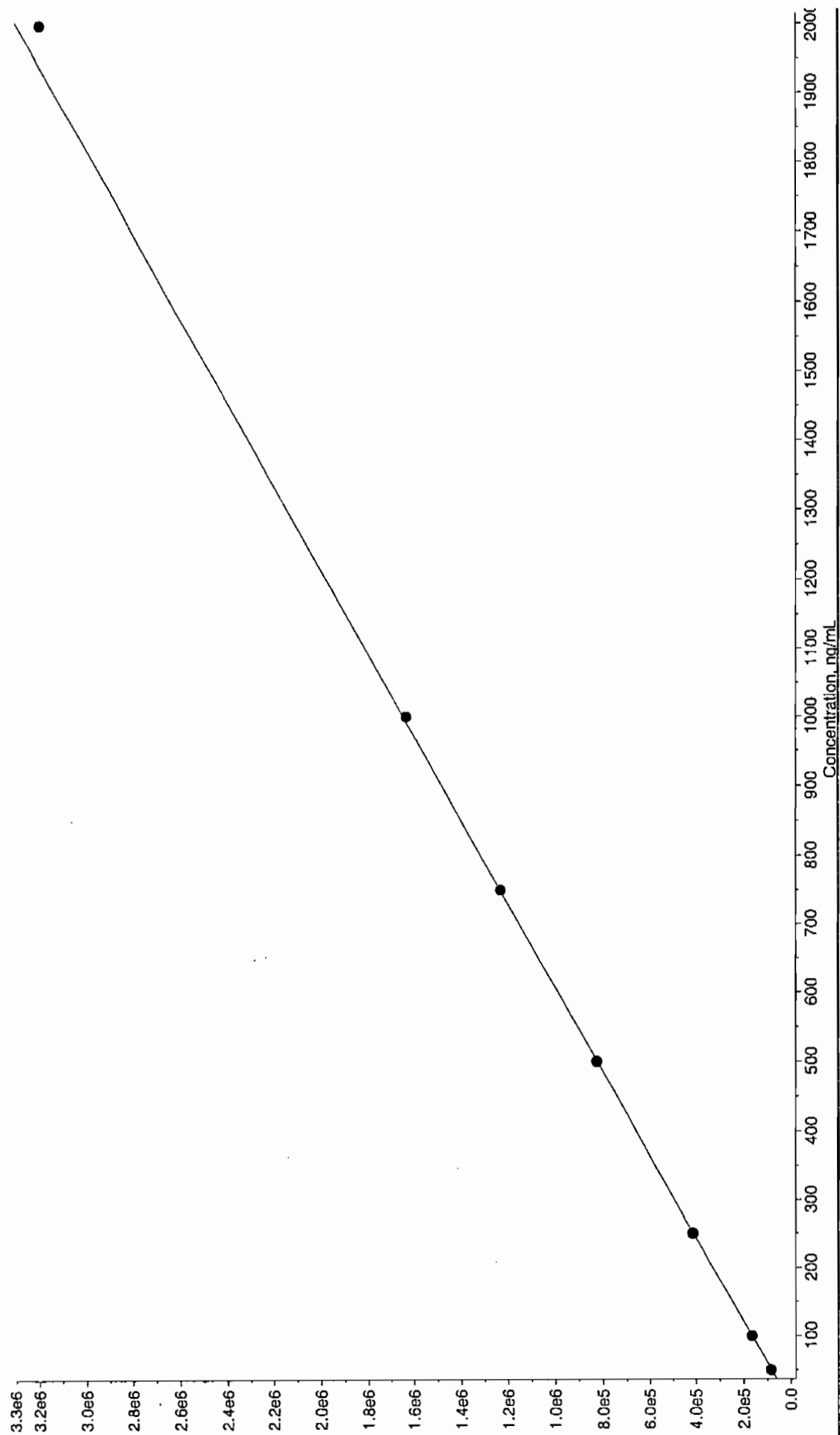
022010ICAL

%RSD 7.53
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

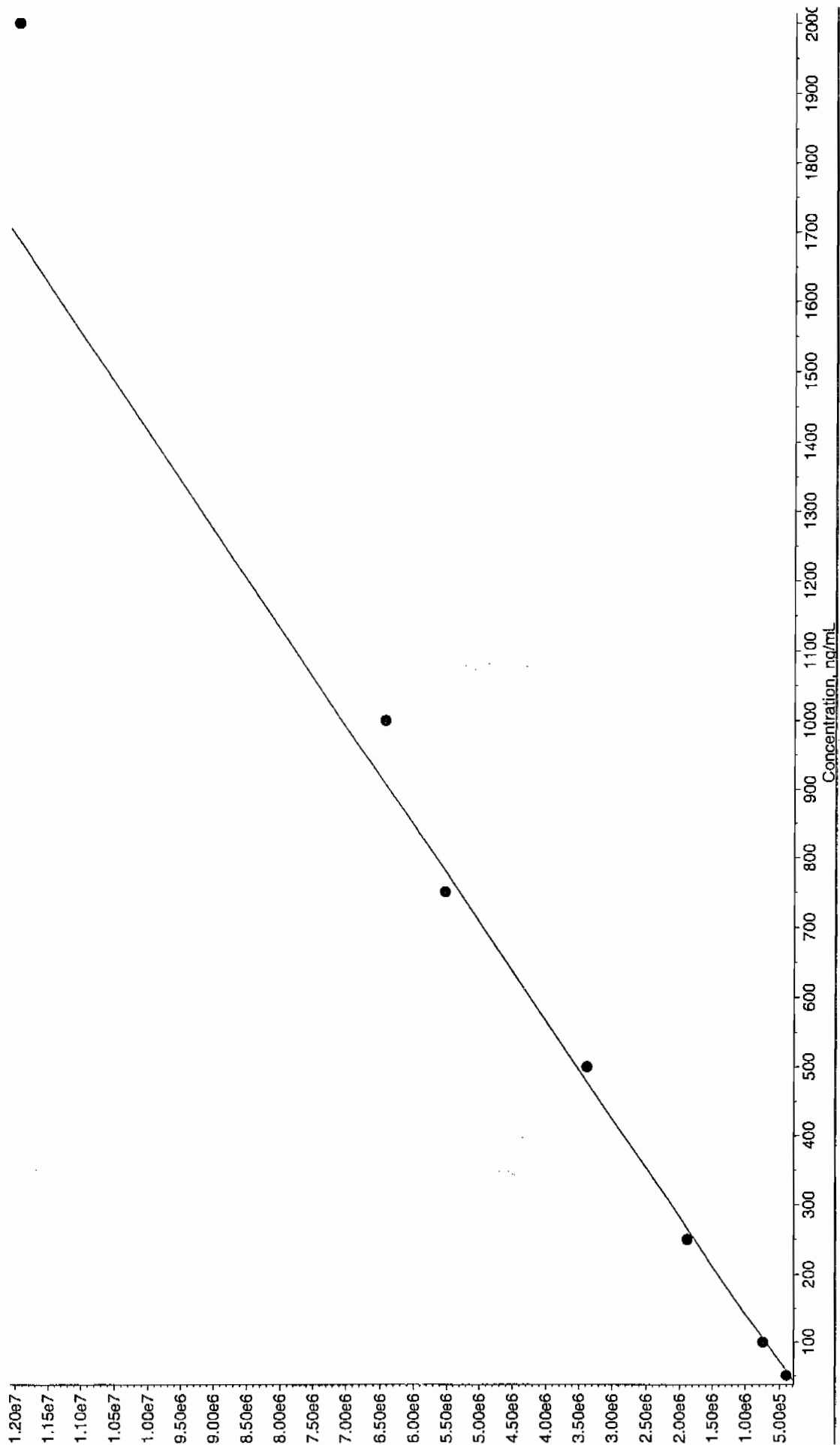
Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	2.14e+004			
Standard deviation	3.3e+003			
%RSD	15.4			
Use Area				

022010.rdb (TATB): "Mean Response Factor" Regression ("No" weighting): $y = 1.65e+003 \times (\text{std. dev.} = 31.8)$



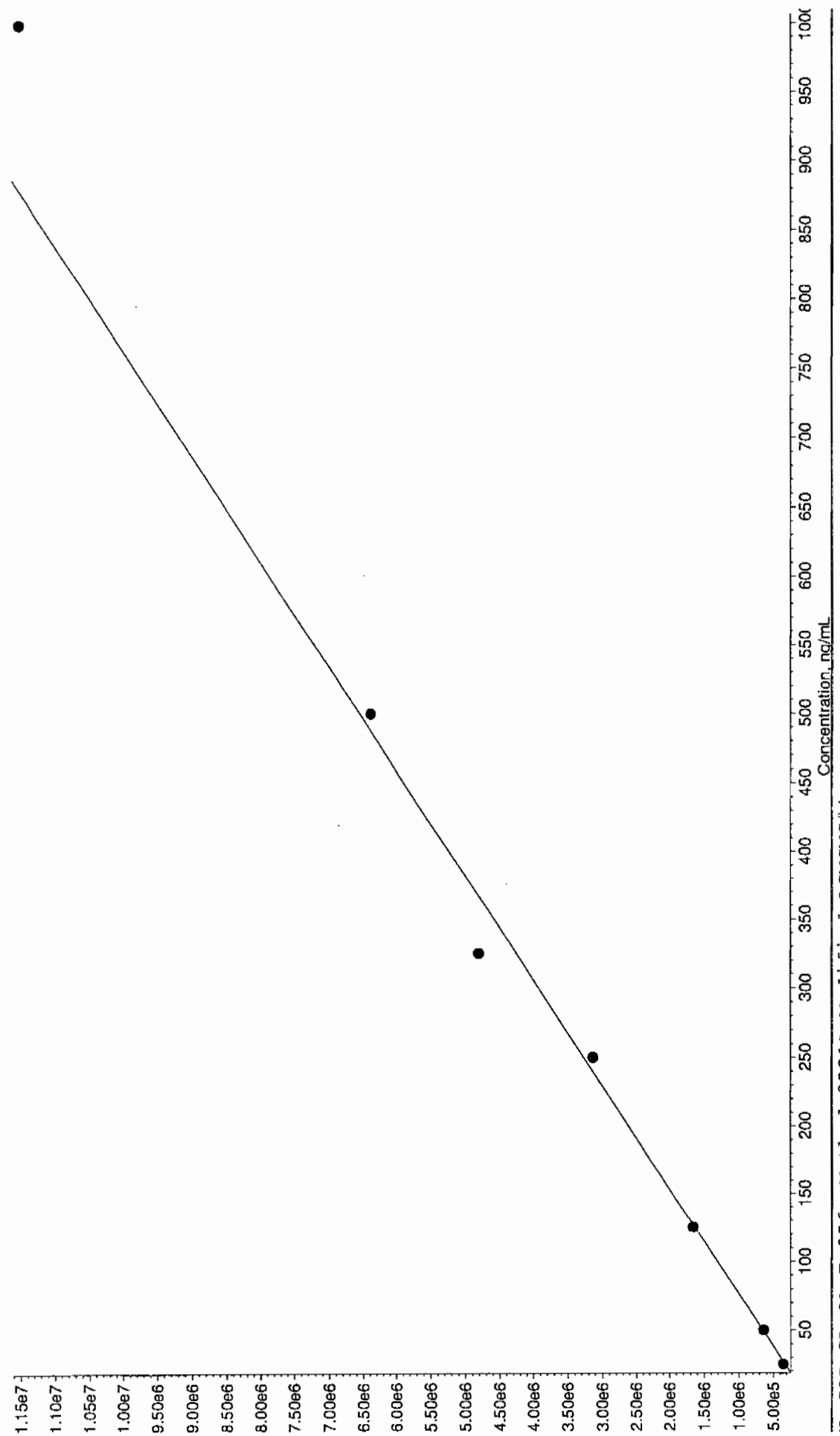
IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022010.rdb (35-Dinitroaniline): "Mean Response Factor" Regression ("No" weighting): $y = 7.08e+003 \times (\text{std. dev.} = 715)$



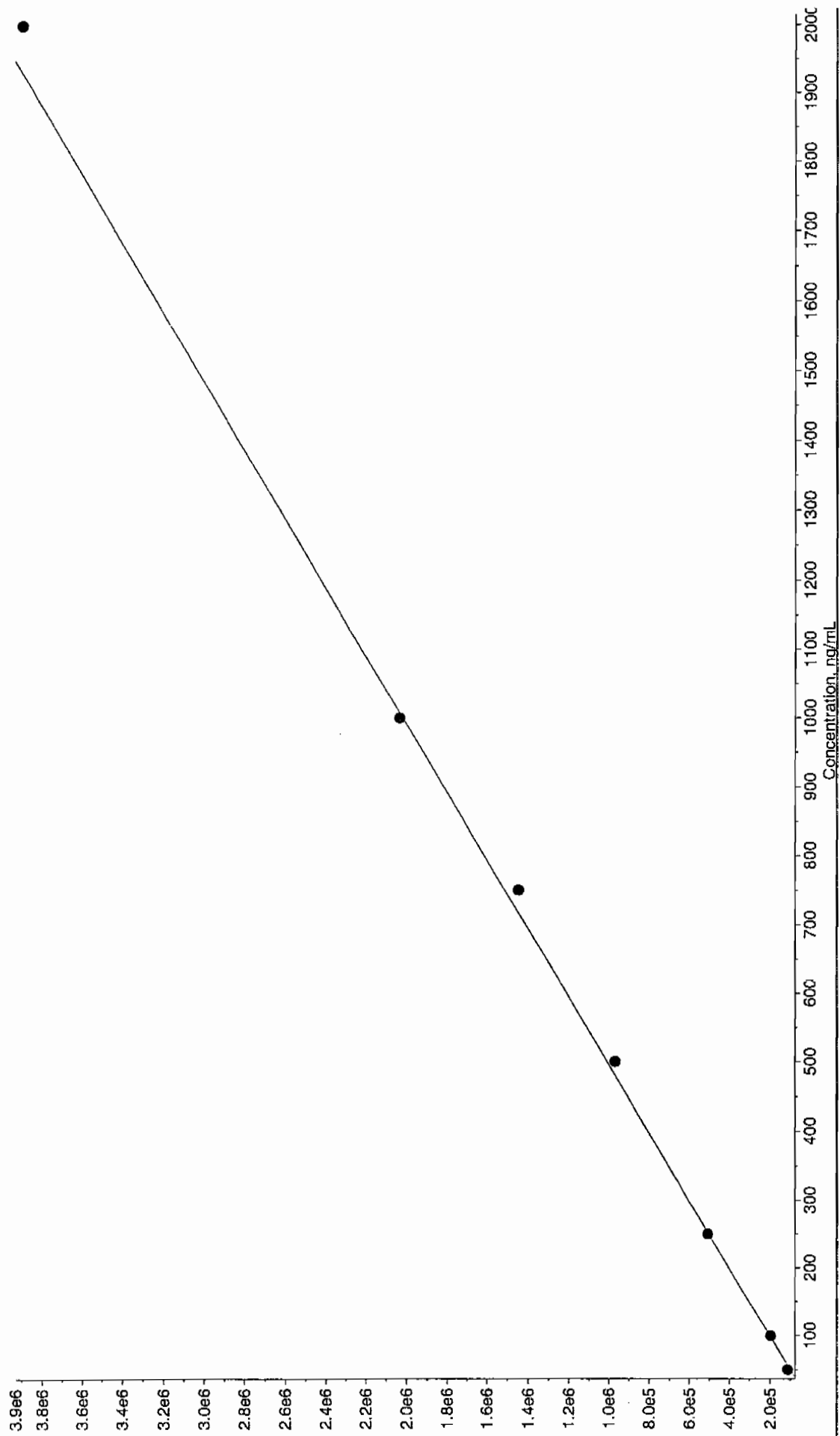
GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022010.rdb (34-Dinitrotoluene): "Mean Response Factor" Regression ("No" weighting): $y = 1.31e+004 \times (\text{std. dev.} = 1.06e+003)$



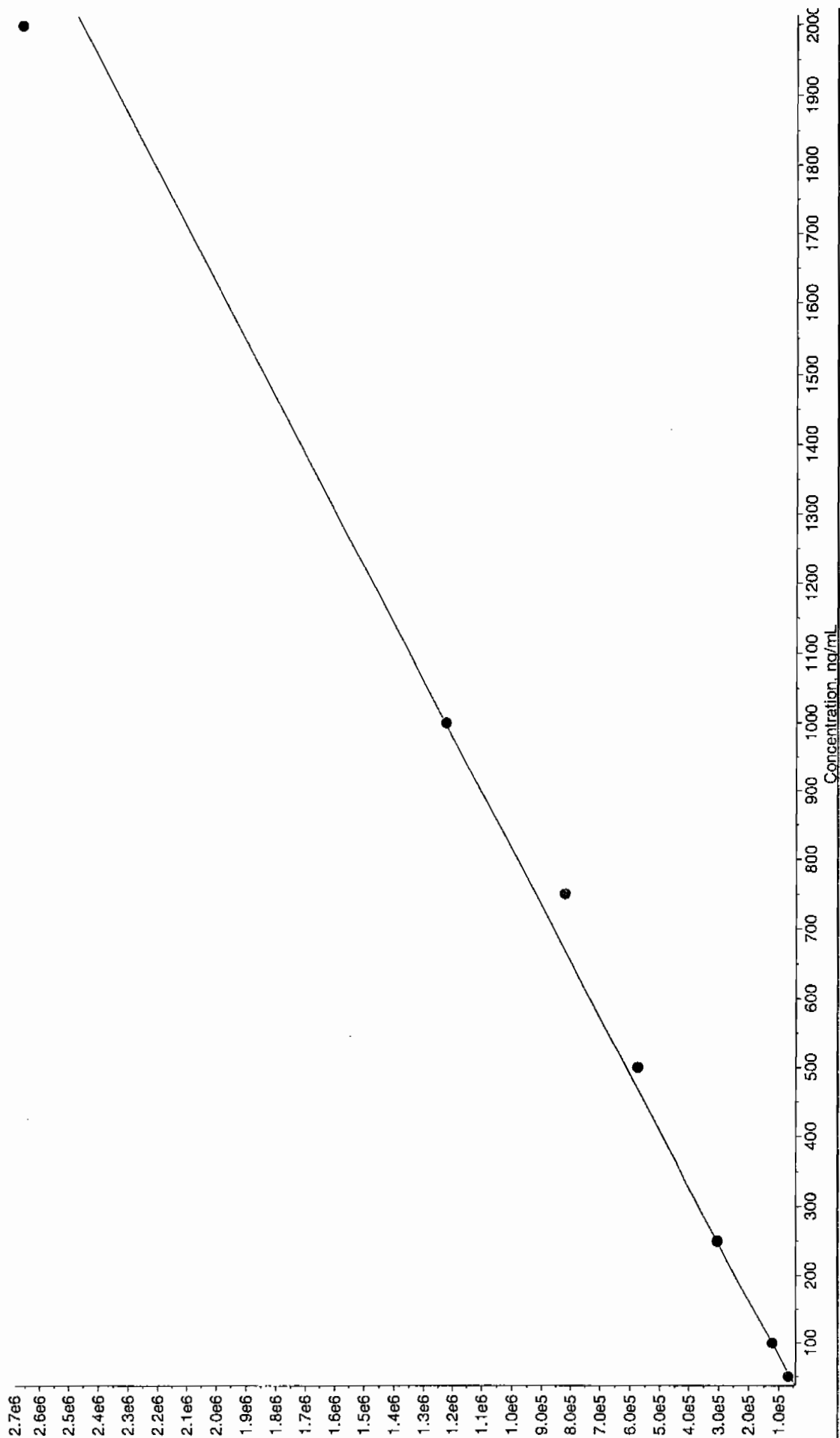
IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022010.rdb (26-Diamino-4-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): $y = 2.02e+003 \times (\text{std. dev.} = 121)$



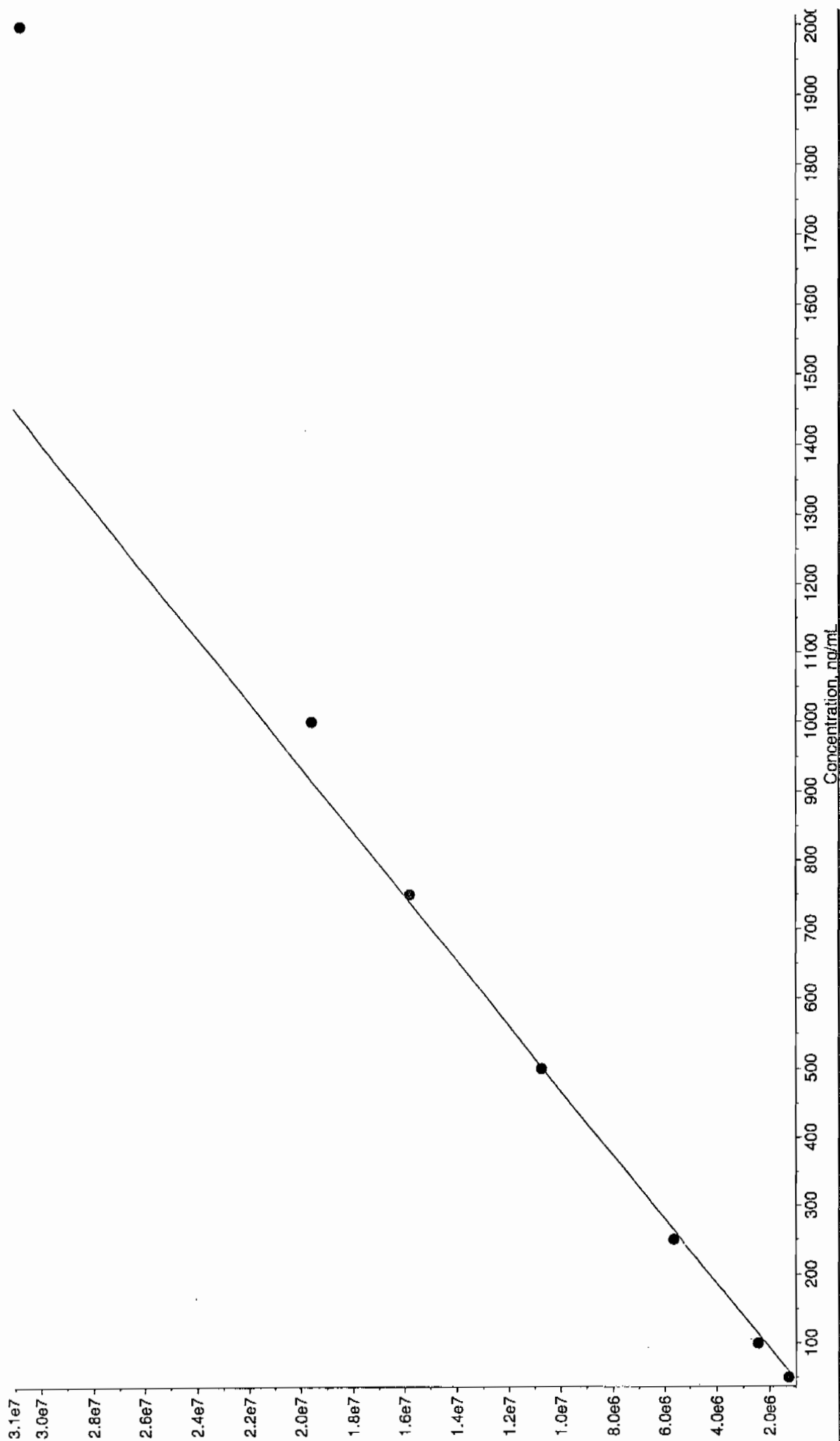
IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022010.rdb (24-Diamino-6-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): $y = 1.23e+003 \times (\text{std. dev.} = 92.4)$



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022010.rdb (tris(o-cresyl) phosphate): "Mean Response Factor" Regression ("No" weighting): $y = 2.14e+004 \times (\text{std. dev.} = 3.3e+003)$



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0225010a

Analysis Date: 25-FEB-10 14:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	585.136	98	
m-Nitrotoluene	600	557.229	93	
o-Nitrotoluene	600	538.196	90	
p-Nitrotoluene	600	553.536	92	
1,3,5-Trinitrobenzene	600	609.484	102	
1,3-Dinitrobenzene-d4	500	457.215	91	
2,4,6-Trinitrotoluene	600	643.369	107	
2,4-Dinitrotoluene	600	607.399	101	
2,6-Dinitrotoluene	600	620.313	103	
2,6-Dinitrotoluene-d3	500	464.156	93	
2-Amino-4,6-dinitrotoluene	600	577.645	96	
3,4-Dinitrotoluene	300	293.717	98	
4-Amino-2,6-dinitrotoluene	600	566.885	94	
HMX	600	552.916	92	
Nitrobenzene	600	645.643	108	
PETN	600	650.082	108	
RDX	600	603.893	101	
Tetryl	600	600.133	100	

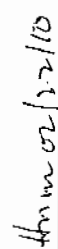
Recovery Limits:

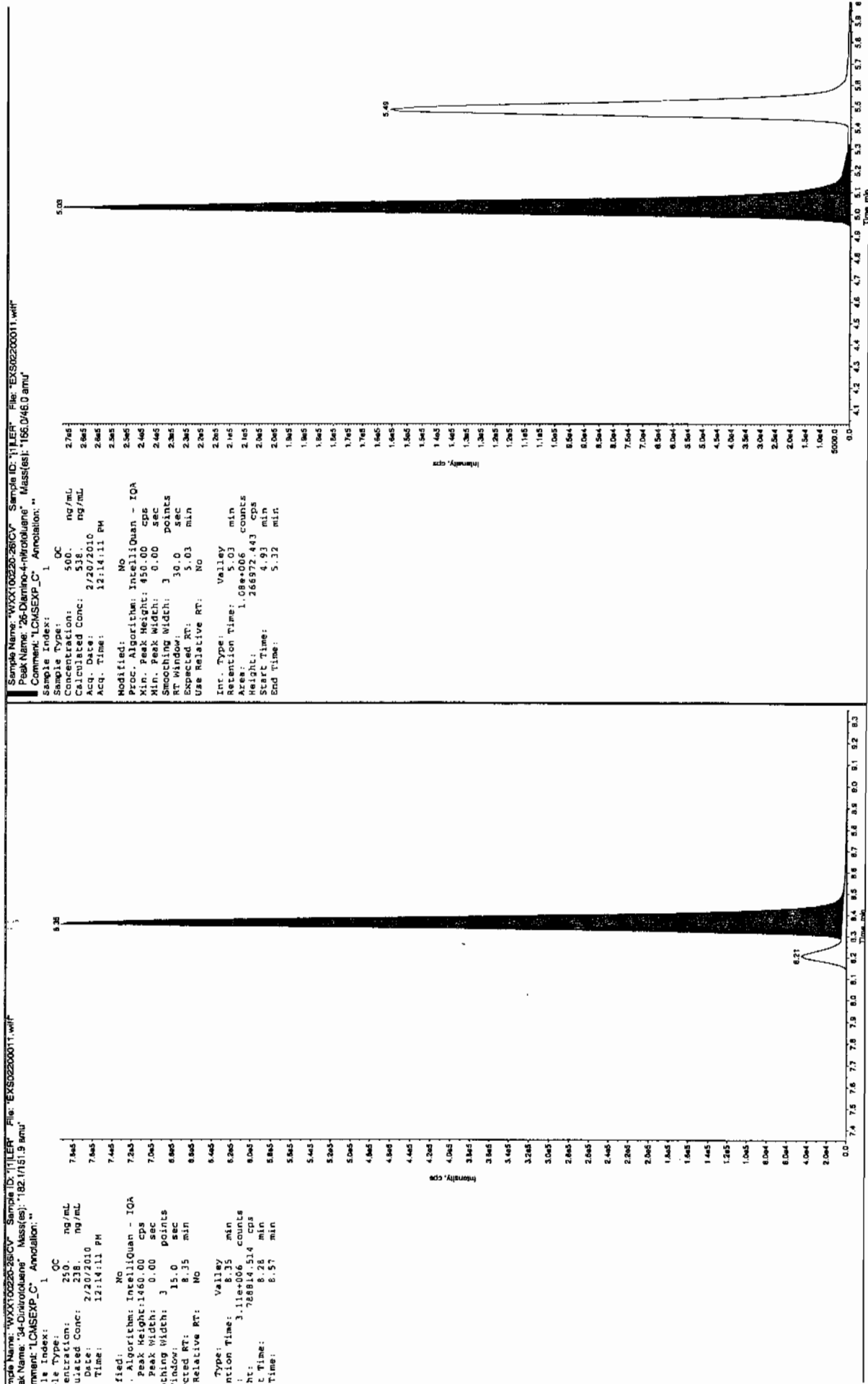
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

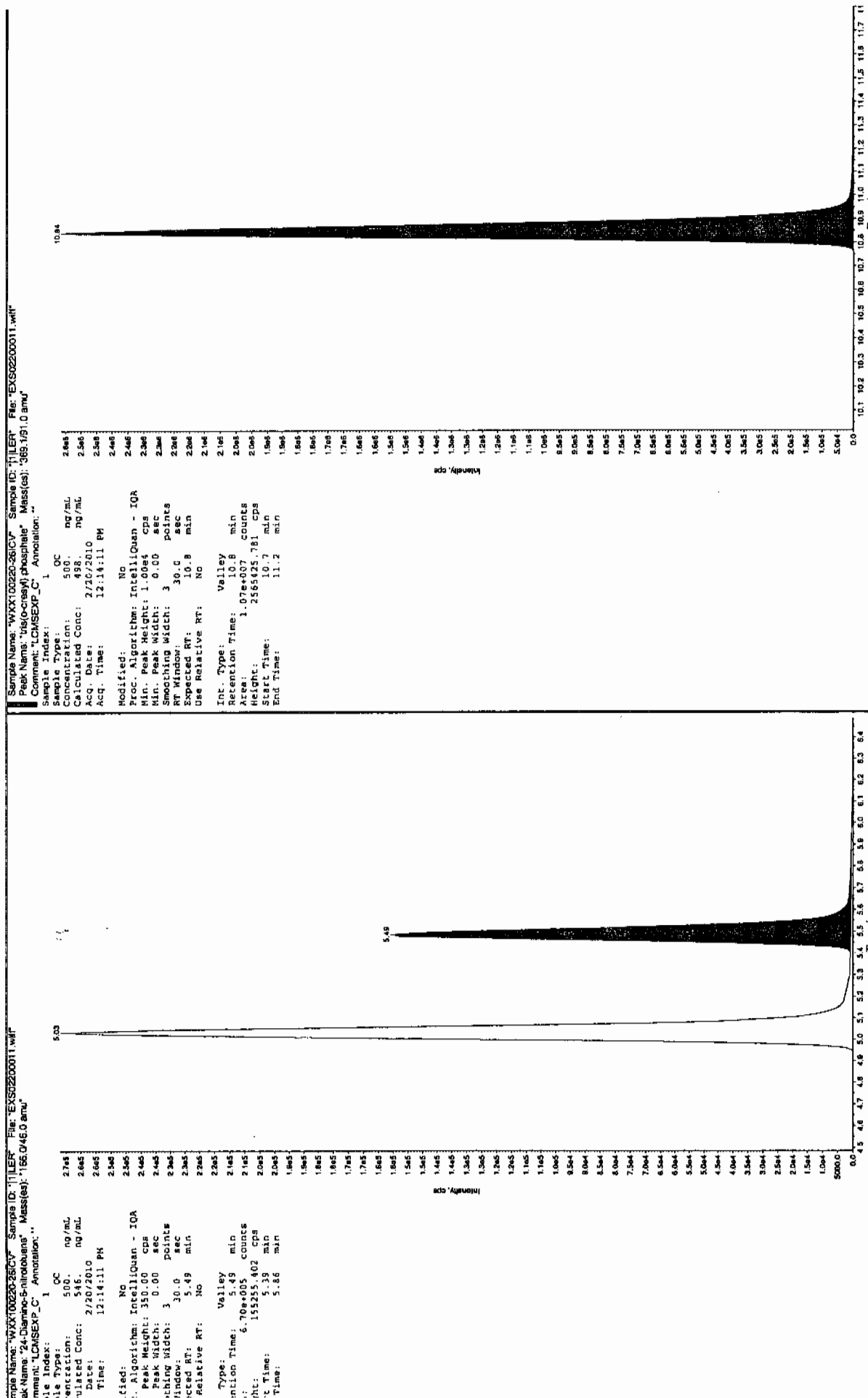
Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits







7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216012a

Analysis Date: 16-FEB-10 22:33

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	41.012	103	
HMX	40	41.651	104	
Nitrobenzene	40	45.259	113	
PETN	40	42.843	107	
RDX	40	36.749	92	
Tetryl	40	39.776	99	
m-Dinitrobenzene	40	46.913	117	
m-Nitrotoluene	40	43.185	108	
o-Nitrotoluene	40	41.818	105	
p-Nitrotoluene	40	36.985	92	
1,3,5-Trinitrobenzene	40	52.773	132	*
1,3-Dinitrobenzene-d4	500	467.275	93	
2,4,6-Trinitrotoluene	40	39.143	98	
2,4-Dinitrotoluene	40	38.529	96	
2,6-Dinitrotoluene	40	43.494	109	
2,6-Dinitrotoluene-d3	500	466.982	93	
2-Amino-4,6-dinitrotoluene	40	39.227	98	
3,4-Dinitrotoluene	20	22.552	113	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216012a

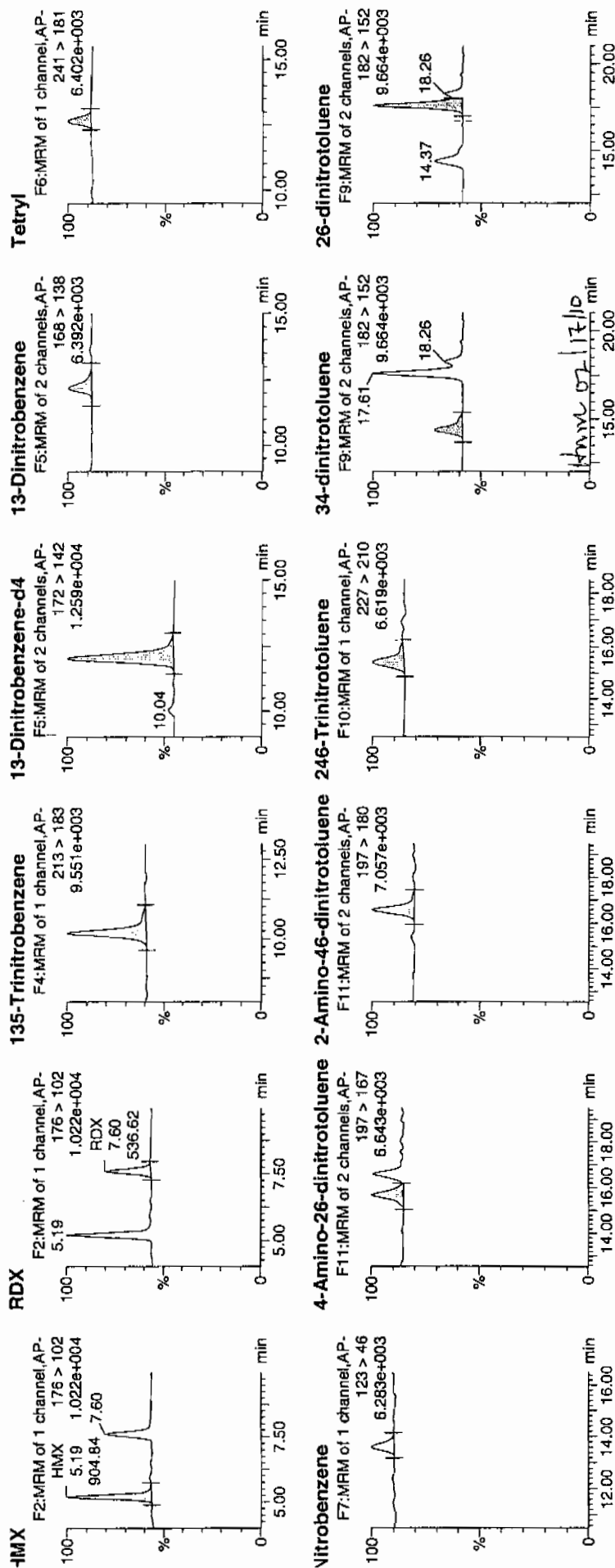
Date: 16-Feb-2010

Time: 22:33:56

D: WXX100216-08CRI

/ial: 1:1,C

17/2/10

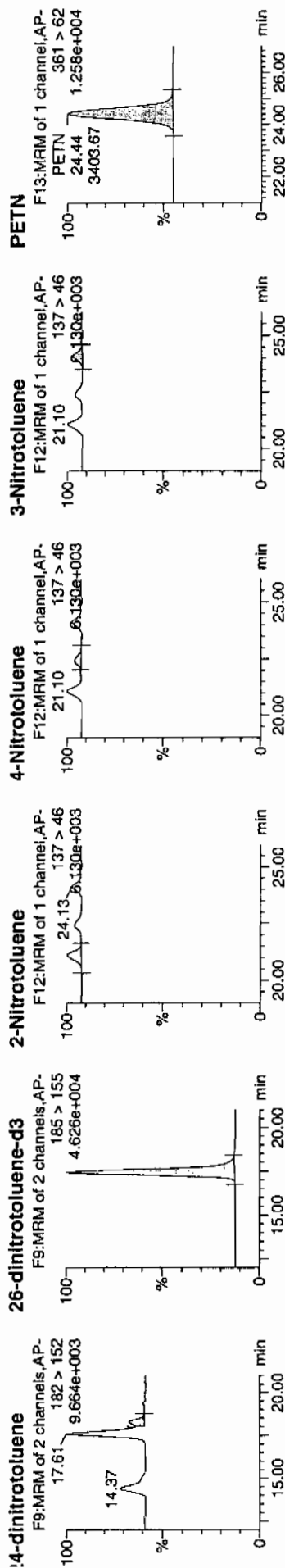


Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 24 of 59

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	Area	Norm	Rec	Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	904.843	2815.255	904.843	160.704	bb			41.6506	104.1	4.1	146.1	
WXX100216-08CRI	RDX	176 > 102	7.60	536.624	2815.255	536.624	95.306	bb			36.7490	91.9	-8.1	78.6	
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1150.692	2815.255	1150.692	204.367	bb			52.7734	131.9	31.9	153.3	
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2815.255	2815.255	2815.255	2815.255	bb			467.2753	93.5	-6.5	116.9	
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	313.940	2815.255	313.940	55.757	bb			46.9129	117.3	17.3	56.5	
WXX100216-08CRI	Tetryl	241 > 181	12.66	244.166	2815.255	244.166	43.365	bb			39.7758	99.4	-0.6	26.2	
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	218.774	2815.255	218.774	38.855	bb			45.2588	113.1	13.1	13.8	
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	427.054	16258.972	427.054	13.133	MM	17-Feb-10	09:22:56	41.0124	102.5	2.5	29.2	
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	551.120	16258.972	551.120	16.948	bb			39.2269	98.1	-1.9	56.9	
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.40	426.730	16258.972	426.730	13.123	bb			39.1431	97.9	-2.1	30.4	
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	684.397	16258.972	684.397	20.432	bb			22.5515	112.8	12.8	21.1	
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1498.403	16258.972	1498.403	46.079	MM	17-Feb-10	09:25:53	43.4940	108.7	8.7	65.6	
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.26	308.850	16258.972	308.850	9.498	MM	17-Feb-10	09:54:26	38.5291	96.3	-3.7	13.0	
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16258.972	16258.972	16258.972	16258.972	bb			456.9822	93.4	-6.6	1321.7	
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	206.957	16258.972	206.957	6.364	bb			41.8176	104.5	4.5	61.3	
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.41	92.186	16258.972	92.186	2.835	bb			36.9848	92.5	-7.5	27.2	
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.13	125.667	16258.972	125.667	3.865	bb			43.1845	108.0	8.0	39.5	
WXX100216-08CRI	PETN	361 > 62	24.44	3403.665	16258.972	3403.665	104.670	bb			42.8433	107.1	7.1	656.3	

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/16/10
 Time of Injection 2233
 Standard Number WXX100216-08CRI
 Data File EXP0216012a

HMX	104.1
RDX	91.9
135-TNB	131.9
13-DNB	117.3
Tetryl	99.4
Nitrobenzene	113.1
4A-26-DNT	102.5
2A-46-DNT	98.1
246-TNT	97.9
34-DNT(surr)	112.8
26-DNT	108.7
24-DNT	96.3
2-NT	104.5
4-NT	92.5
3-NT	108.0
PETN	107.1

*WXX
2/17/10*

Total 1686.1

Average 105.4

WXX 02/17/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216021a

Analysis Date: 17-FEB-10 03:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	485.976	97	
2-Amino-4,6-dinitrotoluene	600	634.785	106	
3,4-Dinitrotoluene	300	327.796	109	
4-Amino-2,6-dinitrotoluene	600	562.441	94	
HMX	600	585.906	98	
Nitrobenzene	600	587.781	98	
PETN	600	627.186	105	
RDX	600	656.37	109	
Tetryl	600	543.324	91	
m-Dinitrobenzene	600	630.615	105	
m-Nitrotoluene	600	562.285	94	
o-Nitrotoluene	600	556.59	93	
p-Nitrotoluene	600	538.033	90	
1,3,5-Trinitrobenzene	600	579.243	97	
1,3-Dinitrobenzene-d4	500	497.509	100	
2,4,6-Trinitrotoluene	600	668.453	111	
2,4-Dinitrotoluene	600	630.739	105	
2,6-Dinitrotoluene	600	632.433	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%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216021a

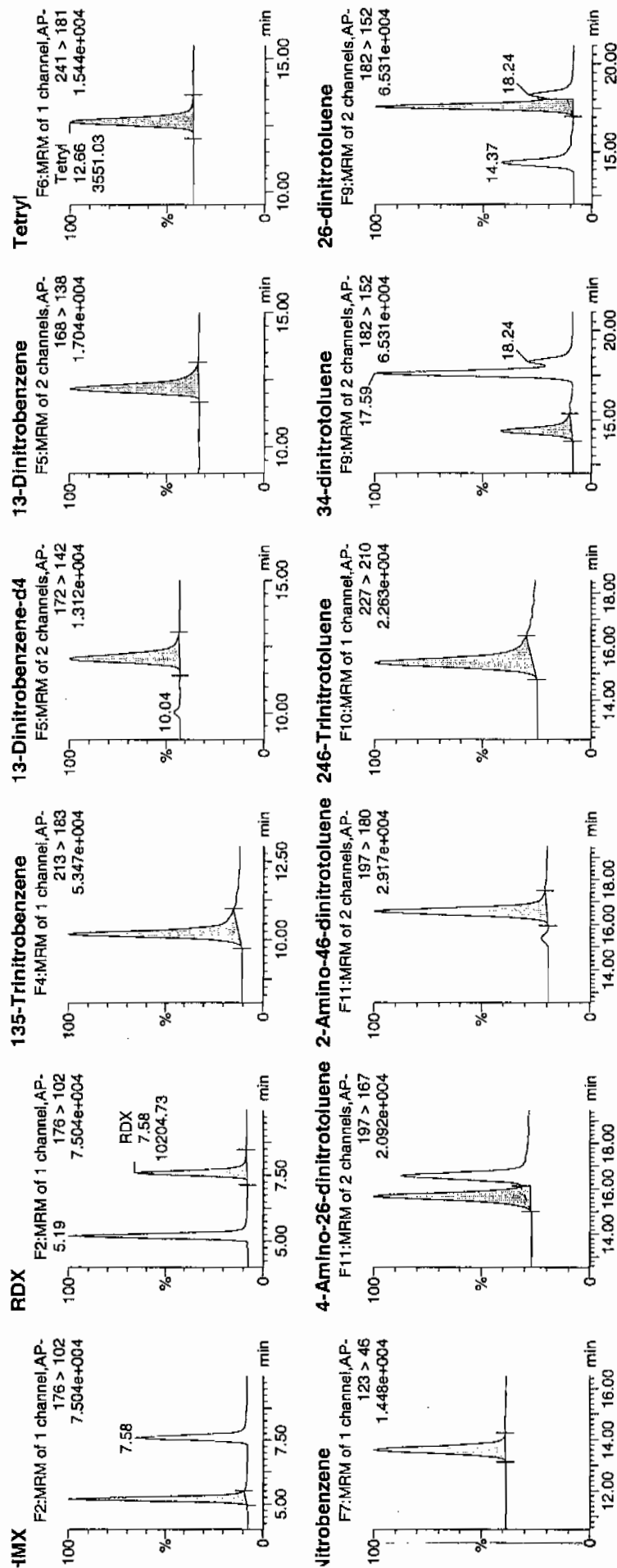
Date: 17-Feb-2010

Time: 03:00:59

D: WXX100216-07CCV

/ial: 1:1,B

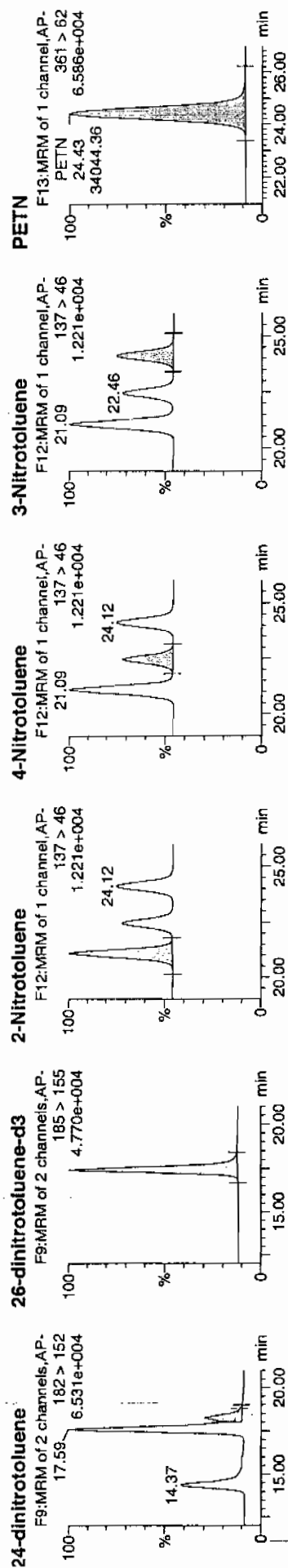
WXX
2/17/10



WXX
02/17/10

Dataset: C:\MASSLYN\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



ID	Name	Trace	RT	IS Area	Abs./Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	ISN
WXX100216-07CCV	HMX	176 > 102	5.19	13552.134	2997.406	13552.134	bb	2260.644	bb	585.9057	97.7	-2.3	2331.3
WXX100216-07CCV	RDX	176 > 102	7.58	10204.725	2997.406	10204.725	bb	1702.259	bb	656.3705	109.4	9.4	1478.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13447.239	2997.406	13447.239	bb	2243.146	bb	579.2434	96.5	-3.5	1192.4
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	2997.406	2997.406	2997.406	bb	2997.406	bb	497.5086	99.5	-0.5	158.4
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4493.104	2997.406	4493.104	bb	749.499	bb	630.6152	105.1	5.1	503.7
WXX100216-07CCV	TeiryI	241 > 181	12.66	3551.025	2997.406	3551.025	bb	592.350	bb	543.3244	90.6	-9.4	473.6
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3025.073	2997.406	3025.073	bb	504.615	bb	587.7805	98.0	-2.0	278.1
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	6094.788	16920.273	6094.788	MM	180.103	MM	562.4405	93.7	-6.3	422.1
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9281.178	16920.273	9281.178	bb	274.102	bb	634.7853	105.8	5.8	337.8
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7583.733	16920.273	7583.733	bb	224.102	bb	668.4527	111.4	11.4	213.3
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10050.091	16920.273	10050.091	bb	296.984	bb	327.7962	109.3	9.3	453.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.59	22674.004	16920.273	22674.004	MM	670.025	MM	632.4328	105.4	5.4	1271.5
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.24	5261.653	16920.273	5261.653	MM	155.484	MM	630.7389	105.1	5.1	273.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16920.273	16920.273	16920.273	bb	16920.273	bb	485.9758	97.2	-2.8	2036.1
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	2866.625	16920.273	2866.625	bb	84.710	bb	556.5902	92.8	-7.2	705.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1395.615	16920.273	1395.615	bb	41.241	bb	538.0334	89.7	-10.3	337.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1702.802	16920.273	1702.802	bb	50.318	bb	562.2854	93.7	-6.3	379.3
WXX100216-07CCV	PETN	361 > 62	24.43	34044.359	16920.273	34044.359	bb	1006.023	bb	627.1860	104.5	4.5	7276.4

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/17/10
 Time of Injection: 0300
 Standard Number: WXX100216-07CCV
 Data File: EXP0216021a

HMX	97.7
RDX	109.4
135-TNB	96.5
13-DNB	105.1
Tetryl	90.6
Nitrobenzene	98.0
4A-26-DNT	93.7
2A-46-DNT	105.8
246-TNT	111.4
34-DNT(surr)	109.3
26-DNT	105.4
24-DNT	105.1
2-NT	92.8
4-NT	89.7
3-NT	93.7
PETN	104.5

*100.5
2/17/10*

Total 1608.7

Average 100.5

HMX 02/17/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216023a

Analysis Date: 17-FEB-10 03:59

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.744	124	
1,3-Dinitrobenzene-d4	500	479.66	96	
2,4,6-Trinitrotoluene	40	35.851	90	
2,4-Dinitrotoluene	40	39.455	99	
2,6-Dinitrotoluene	40	41.064	103	
2,6-Dinitrotoluene-d3	500	491.1	98	
2-Amino-4,6-dinitrotoluene	40	38.066	95	
3,4-Dinitrotoluene	20	21.18	106	
4-Amino-2,6-dinitrotoluene	40	45.31	113	
HMX	40	40.495	101	
Nitrobenzene	40	46.027	115	
PETN	40	46.88	117	
RDX	40	40.003	100	
Tetryl	40	46.382	116	
m-Dinitrobenzene	40	47.022	118	
m-Nitrotoluene	40	34.333	86	
o-Nitrotoluene	40	37.918	95	
p-Nitrotoluene	40	33.624	84	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 45 of 59

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216023a

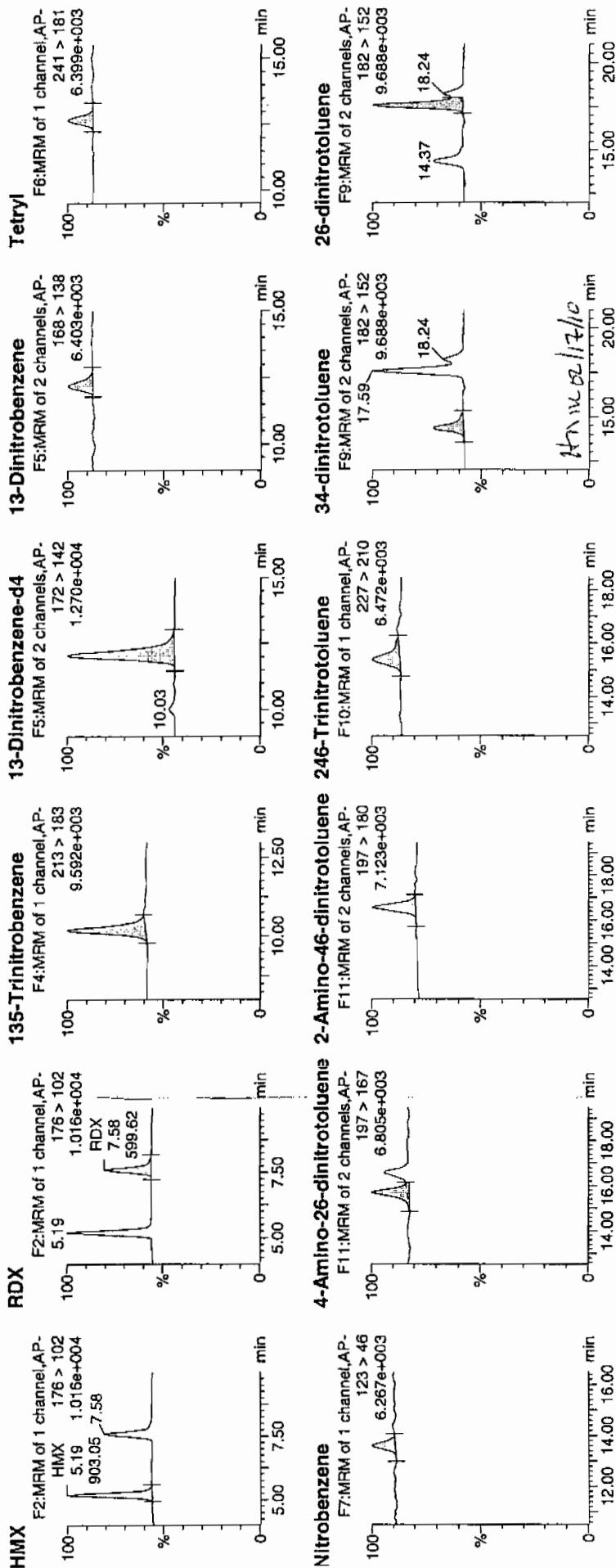
Date: 17-Feb-2010

Time: 03:59:56

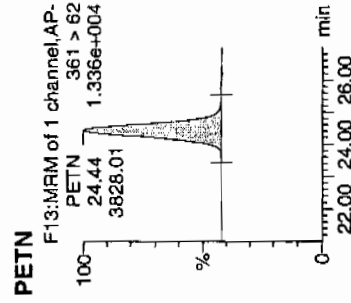
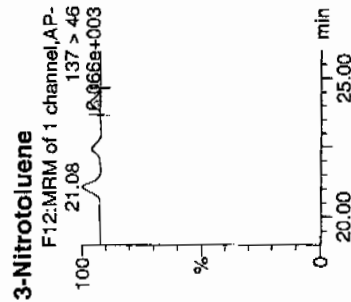
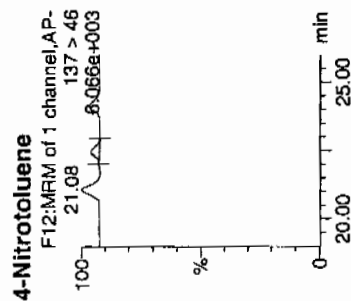
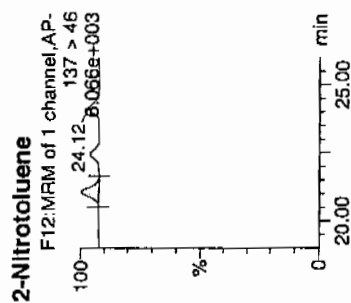
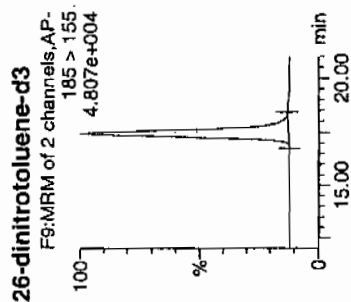
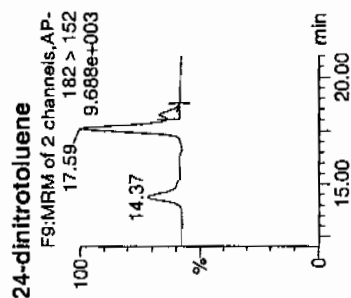
ID: WXX100216-08CRI

Vial: 1:1,C

Handwritten: *17/2/10*



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Integr	%Ref	%Dev	SN
WXX100216-08C1	HMX	176 > 102	5.19	903.051	2889.872	903.051	156.244	bb			40.4948	101.2	1.2	129.0
WXX100216-08C1	ROX	176 > 102	7.58	599.618	2889.872	599.618	103.745	bb			40.0027	100.0	0.0	71.5
WXX100216-08C1	135-Trinitrobenzene	213 > 183	10.18	1113.391	2889.872	1113.391	192.637	bb			49.7442	124.4	24.4	149.0
WXX100216-08C1	13-Dinitrobenzene-d4	172 > 142	12.03	2889.872	2889.872	2889.872	2889.872	bb			479.6602	95.9	-4.1	417.1
WXX100216-08C1	13-Dinitrobenzene	168 > 138	12.20	323.009	2889.872	323.009	55.886	bb			47.0218	117.6	17.6	49.9
WXX100216-08C1	Tetryl	241 > 181	12.66	292.267	2889.872	292.267	50.567	bb			46.3823	116.0	16.0	23.4
WXX100216-08C1	Nitrobenzene	123 > 46	13.61	228.386	2889.872	228.386	39.515	bb			46.0273	115.1	15.1	23.5
WXX100216-08C1	4-Amino-26-dinitrotoluene	197 > 167	15.70	496.172	17098.684	496.172	14.509	MM	17-Feb-10	09:23:37	45.3101	113.3	13.3	43.7
WXX100216-08C1	2-Amino-46-dinitrotoluene	197 > 180	16.57	562.424	17098.684	562.424	16.446	bb			38.0656	95.2	-4.8	54.4
WXX100216-08C1	246-Trinitrotoluene	227 > 210	15.37	411.028	17098.684	411.028	12.019	bb			35.8512	89.6	-10.4	34.7
WXX100216-08C1	34-dinitrotoluene	182 > 152	14.37	656.211	17098.684	656.211	19.189	bb			21.1798	105.9	5.9	25.2
WXX100216-08C1	26-dinitrotoluene	182 > 152	17.59	1487.743	17098.684	1487.743	43.505	MM	17-Feb-10	09:26:28	41.0638	102.7	2.7	76.0
WXX100216-08C1	24-dinitrotoluene	182 > 152	18.24	332.609	17098.684	332.609	9.726	MM	17-Feb-10	09:58:34	39.4554	98.6	-1.4	15.9
WXX100216-08C1	26-dinitrotoluene-d3	185 > 155	17.43	17098.684	17098.684	17098.684	17098.684	bb			491.1000	98.2	-1.8	1844.2
WXX100216-08C1	2-Nitrotoluene	137 > 46	21.08	197.351	17098.684	197.351	5.771	bb			37.9183	94.8	-5.2	50.3
WXX100216-08C1	4-Nitrotoluene	137 > 46	22.44	88.137	17098.684	88.137	2.577	bb			33.6238	84.1	-15.9	24.1
WXX100216-08C1	3-Nitrotoluene	137 > 46	24.12	105.069	17098.684	105.069	3.072	bb			34.3330	85.8	-14.2	27.3
WXX100216-08C1	PETN	361 > 62	24.44	3828.005	17098.684	3828.005	111.939	bb			46.8804	117.2	17.2	698.1

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/17/10
 Time of Injection 0359
 Standard Number WXX100216-08CRI
 Data File EXP0216023a

HMX	101.2
RDX	100.0
135-TNB	124.4
13-DNB	117.6
Tetryl	116.0
Nitrobenzene	115.1
4A-26-DNT	113.3
2A-46-DNT	95.2
246-TNT	89.6
34-DNT(surr)	105.9
26-DNT	102.7
24-DNT	98.6
2-NT	94.8
4-NT	84.1
3-NT	85.8
PETN	117.2

*μTP
2/17/10*

Total 1661.5

Average 103.8

4711-02-17-10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216027a

Analysis Date: 17-FEB-10 05:58

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	628.032	105	
o-Nitrotoluene	600	608.219	101	
p-Nitrotoluene	600	603.723	101	
1,3,5-Trinitrobenzene	600	611.171	102	
1,3-Dinitrobenzene-d4	500	441.467	88	
2,4,6-Trinitrotoluene	600	677.667	113	
2,4-Dinitrotoluene	600	637.719	106	
2,6-Dinitrotoluene	600	636.41	106	
2,6-Dinitrotoluene-d3	500	422.753	85	
2-Amino-4,6-dinitrotoluene	600	651.036	109	
3,4-Dinitrotoluene	300	336.279	112	
4-Amino-2,6-dinitrotoluene	600	604.644	101	
HMX	600	612.626	102	
Nitrobenzene	600	578.267	96	
PETN	600	723.944	121	*
RDX	600	659.537	110	
Tetryl	600	567.895	95	
m-Dinitrobenzene	600	622.089	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216027a

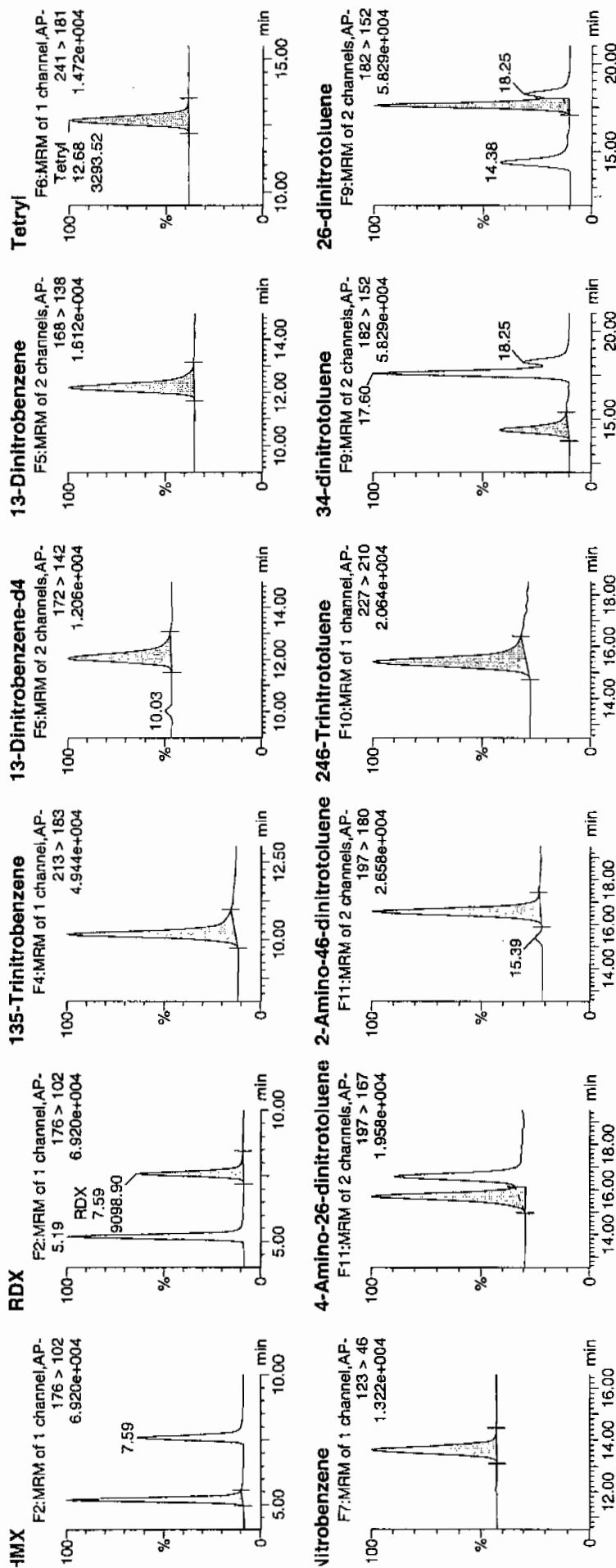
Date: 17-Feb-2010

Time: 05:58:23

D: WXX100216-07CCV

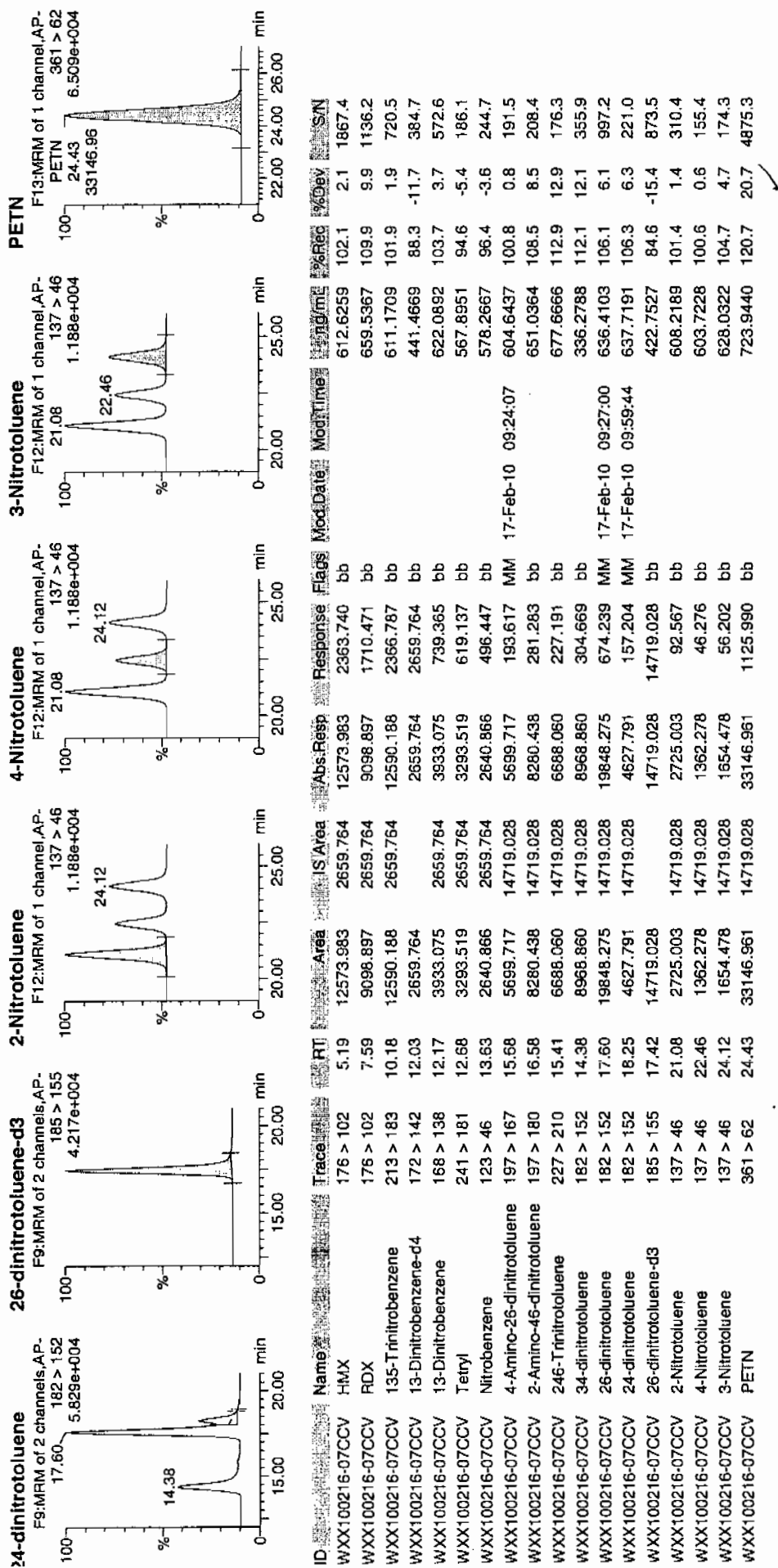
/ial: 1:1,B

WXX
2/17/10



WXX
2/17/10

Dataset: C:\MASSLYNX\New_Exp\PROV021610expA.qld, Time: Wed Feb 17 10:00:06 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/17/10
 Time of Injection: 0558
 Standard Number: WXX100216-07CCV
 Data File: EXP0216027a

HMX	102.1
RDX	109.9
135-TNB	101.9
13-DNB	103.7
Tetryl	94.6
Nitrobenzene	96.4
4A-26-DNT	100.8
2A-46-DNT	108.5
246-TNT	112.9
34-DNT(surr)	112.1
26-DNT	106.1
24-DNT	106.3
2-NT	101.4
4-NT	100.6
3-NT	104.7
PETN	120.7

*WAF
2/17/10*

Total 1682.7

Average 105.2

WAF 02/17/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216029a

Analysis Date: 17-FEB-10 06:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	512.607	103	
2,4,6-Trinitrotoluene	40	37.982	95	
2,4-Dinitrotoluene	40	44.51	111	
2,6-Dinitrotoluene	40	42.325	106	
2,6-Dinitrotoluene-d3	500	468.417	94	
2-Amino-4,6-dinitrotoluene	40	42.003	105	
3,4-Dinitrotoluene	20	22.85	114	
4-Amino-2,6-dinitrotoluene	40	35.28	88	
HMX	40	35.563	89	
Nitrobenzene	40	35.31	88	
PETN	40	48.188	120	
RDX	40	37.715	94	
Tetryl	40	38.583	96	
m-Dinitrobenzene	40	47.424	119	
m-Nitrotoluene	40	37.561	94	
o-Nitrotoluene	40	37.519	94	
p-Nitrotoluene	40	38.529	96	
1,3,5-Trinitrobenzene	40	46.171	115	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp\PRO021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP\PROData\EXP0216029a

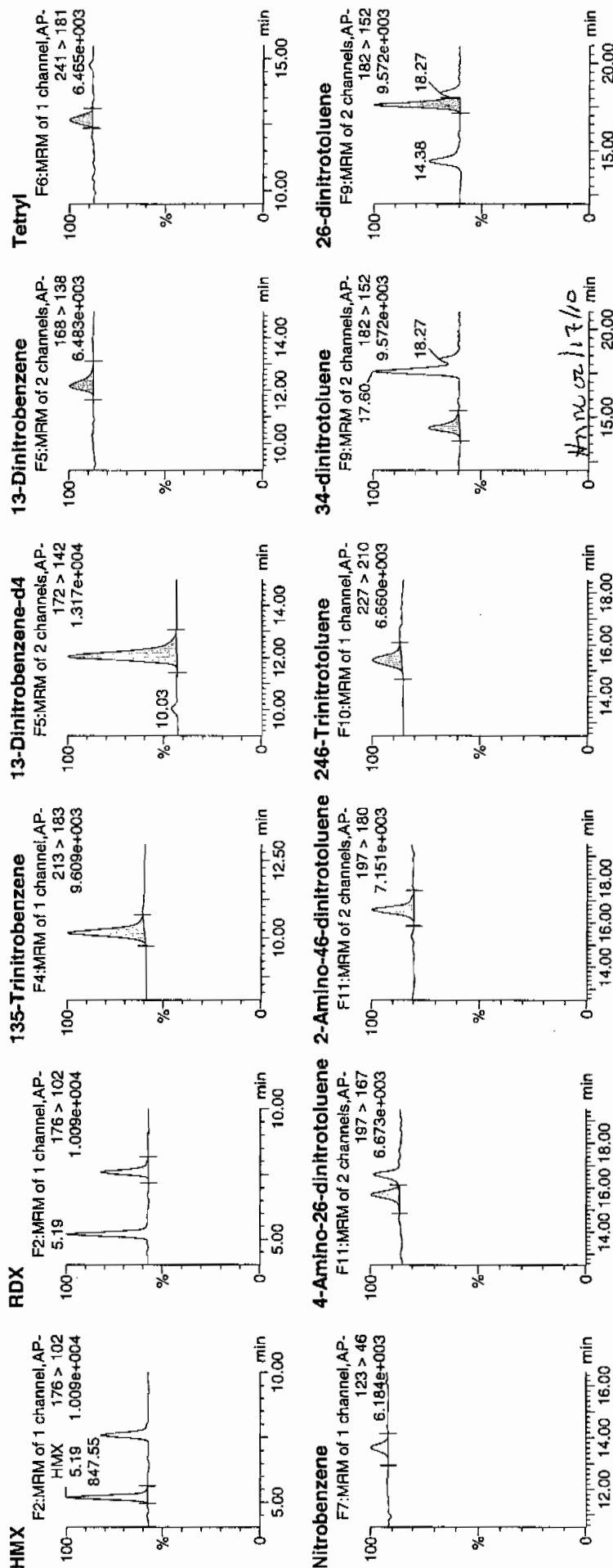
Date: 17-Feb-2010

Time: 06:57:50

ID: WXX100216-08CRI

Vial: 1:1,C

WFF
2/17/10

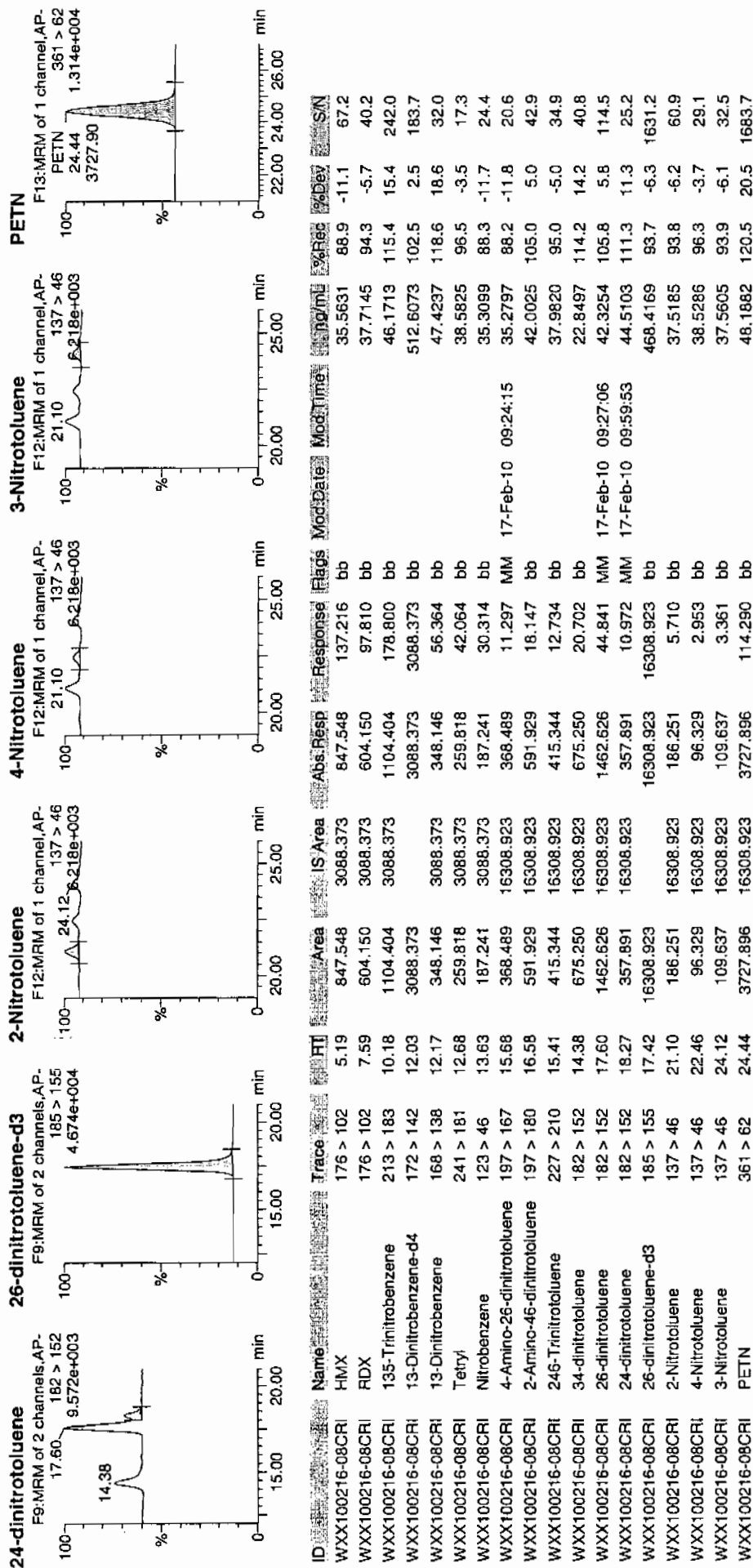


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Feb 17 10:00:54 2010, Page 58 of 59

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA.qld, Time: Wed Feb 17 10:00:06 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/17/10
 Time of Injection 0657
 Standard Number WXX100216-08CRI
 Data File EXP0216029a

HMX	88.9
RDX	94.3
135-TNB	115.4
13-DNB	118.6
Tetryl	96.5
Nitrobenzene	88.3
4A-26-DNT	88.2
2A-46-DNT	105.0
246-TNT	95.0
34-DNT(surr)	114.2
26-DNT	105.8
24-DNT	111.3
2-NT	93.8
4-NT	96.3
3-NT	93.9
PETN	120.5

*WXX
4/17/10*

Total 1626.0

H/M 02/17/10

Average 101.6

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216039a

Analysis Date: 17-FEB-10 11:55

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.479	98	
1,3-Dinitrobenzene-d4	500	387.961	78	*
2,4,6-Trinitrotoluene	600	707.346	118	
2,4-Dinitrotoluene	600	645.209	108	
2,6-Dinitrotoluene	600	613.479	102	
2,6-Dinitrotoluene-d3	500	403.474	81	
2-Amino-4,6-dinitrotoluene	600	628.06	105	
3,4-Dinitrotoluene	300	337.542	113	
4-Amino-2,6-dinitrotoluene	600	652.842	109	
HMX	600	593.956	99	
Nitrobenzene	600	632.339	105	
PETN	600	805.557	134	*
RDX	600	659.382	110	
Tetryl	600	551.825	92	
m-Dinitrobenzene	600	625.313	104	
m-Nitrotoluene	600	627.48	105	
o-Nitrotoluene	600	662.654	110	
p-Nitrotoluene	600	651.214	109	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Feb 18 08:53:51 2010, Page 19 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216039a

Date: 17-Feb-2010

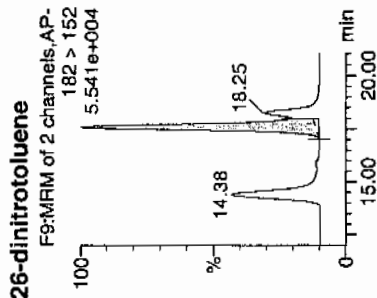
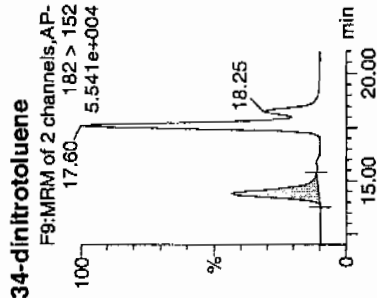
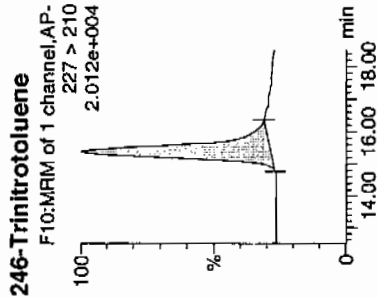
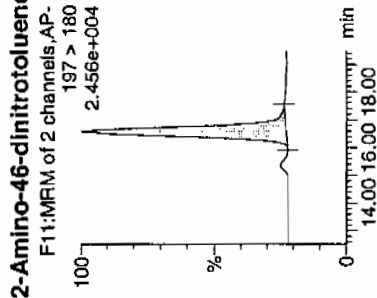
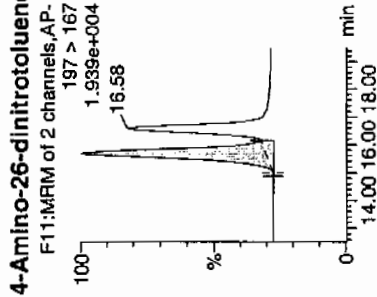
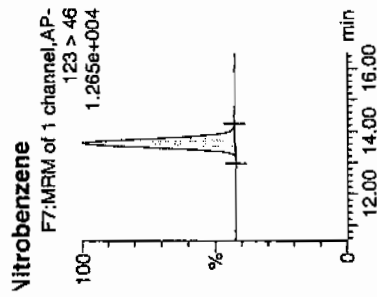
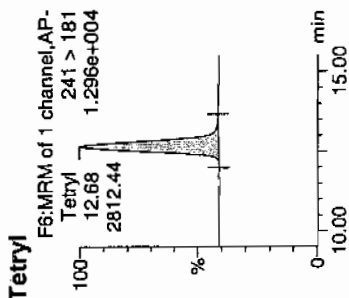
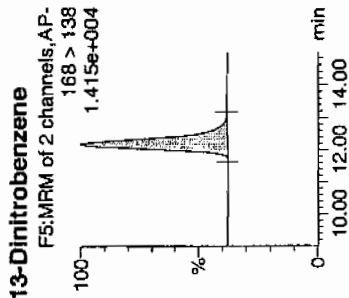
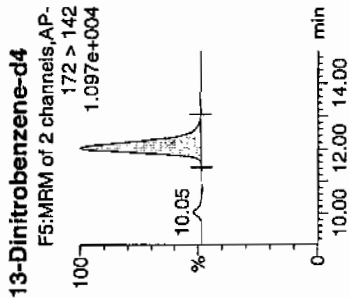
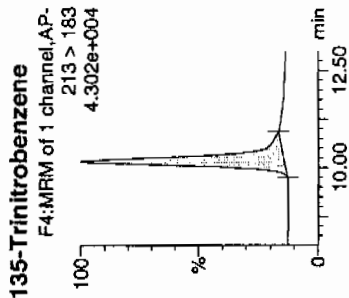
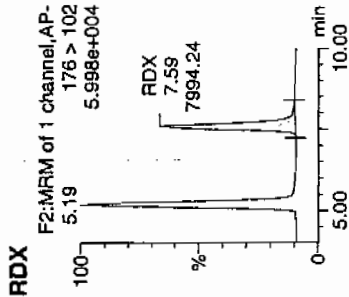
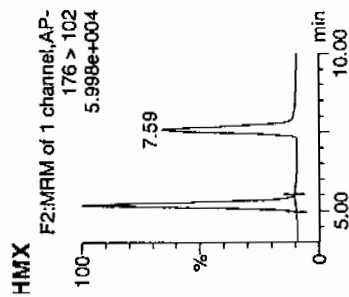
Time: 11:55:13

ID: WXX100216-07CCV

Vial: 1:1,B

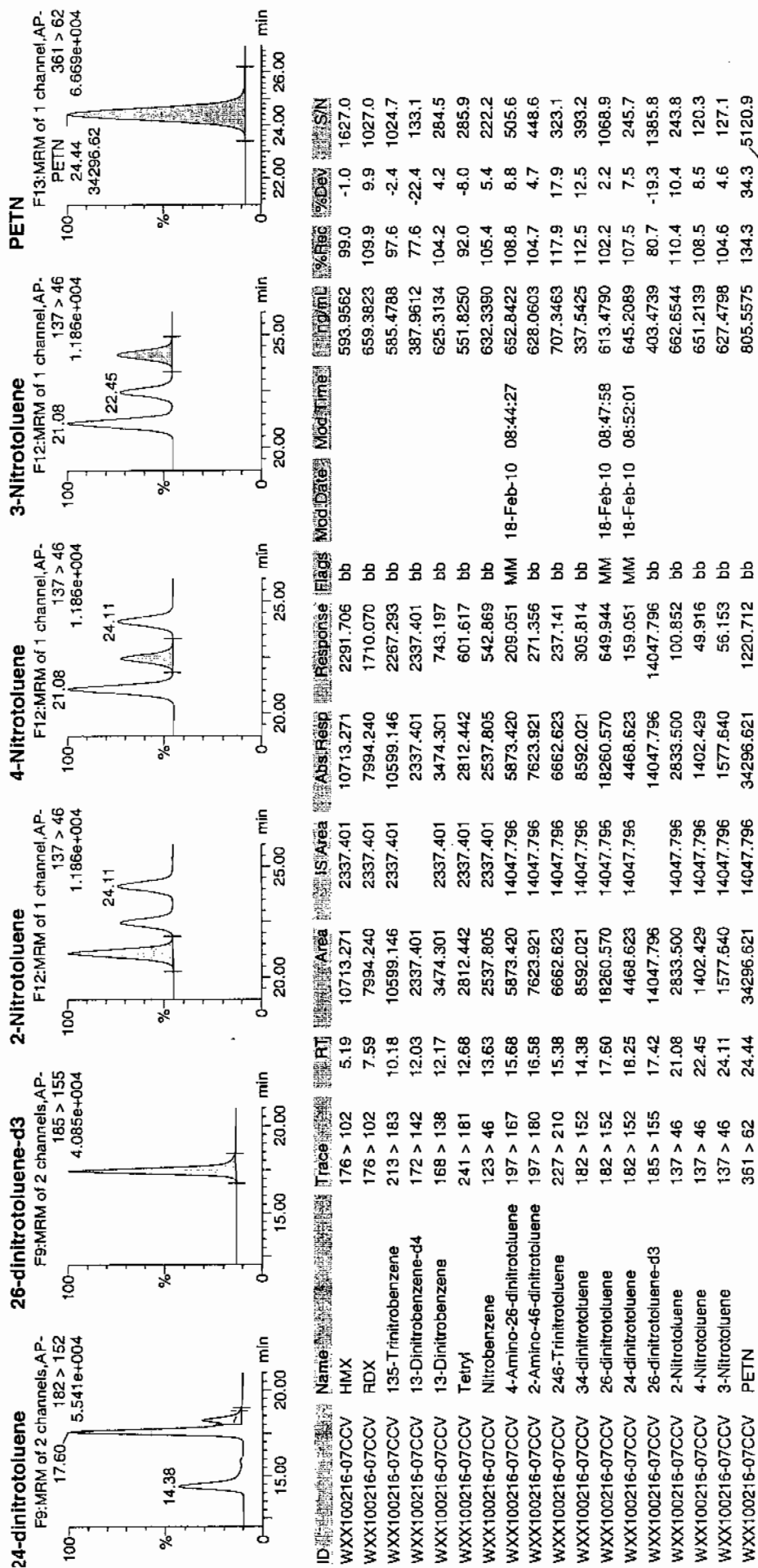
WXX
4/10/10

HMZ



WXX
4/10/10

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA1.qtd, Time: Thu Feb 18 08:53:07 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/17/10
 Time of Injection: 1155
 Standard Number: WXX100216-07CCV
 Data File: EXP0216039a

HMX	99.0
RDX	109.9
135-TNB	97.6
13-DNB	104.2
Tetryl	92.0
Nitrobenzene	105.4
4A-26-DNT	108.8
2A-46-DNT	104.7
246-TNT	117.9
34-DNT(surr)	112.5
26-DNT	102.2
24-DNT	107.5
2-NT	110.4
4-NT	108.5
3-NT	104.6
PETN	134.3

Total 1719.5

Average 107.5

107.5
2/18/10

Sum 02-18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216041a

Analysis Date: 17-FEB-10 12:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	49.973	125	
RDX	40	39.872	100	
Tetryl	40	51.62	129	
m-Dinitrobenzene	40	47.407	119	
m-Nitrotoluene	40	45.574	114	
o-Nitrotoluene	40	37.868	95	
p-Nitrotoluene	40	46.625	117	
1,3,5-Trinitrobenzene	40	49.958	125	
1,3-Dinitrobenzene-d4	500	436.567	87	
2,4,6-Trinitrotoluene	40	33.868	85	
2,4-Dinitrotoluene	40	48.789	122	
2,6-Dinitrotoluene	40	42.876	107	
2,6-Dinitrotoluene-d3	500	442.639	89	
2-Amino-4,6-dinitrotoluene	40	38.248	96	
3,4-Dinitrotoluene	20	20.64	103	
4-Amino-2,6-dinitrotoluene	40	36.085	90	
HMX	40	43.087	108	
Nitrobenzene	40	41.223	103	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216041a

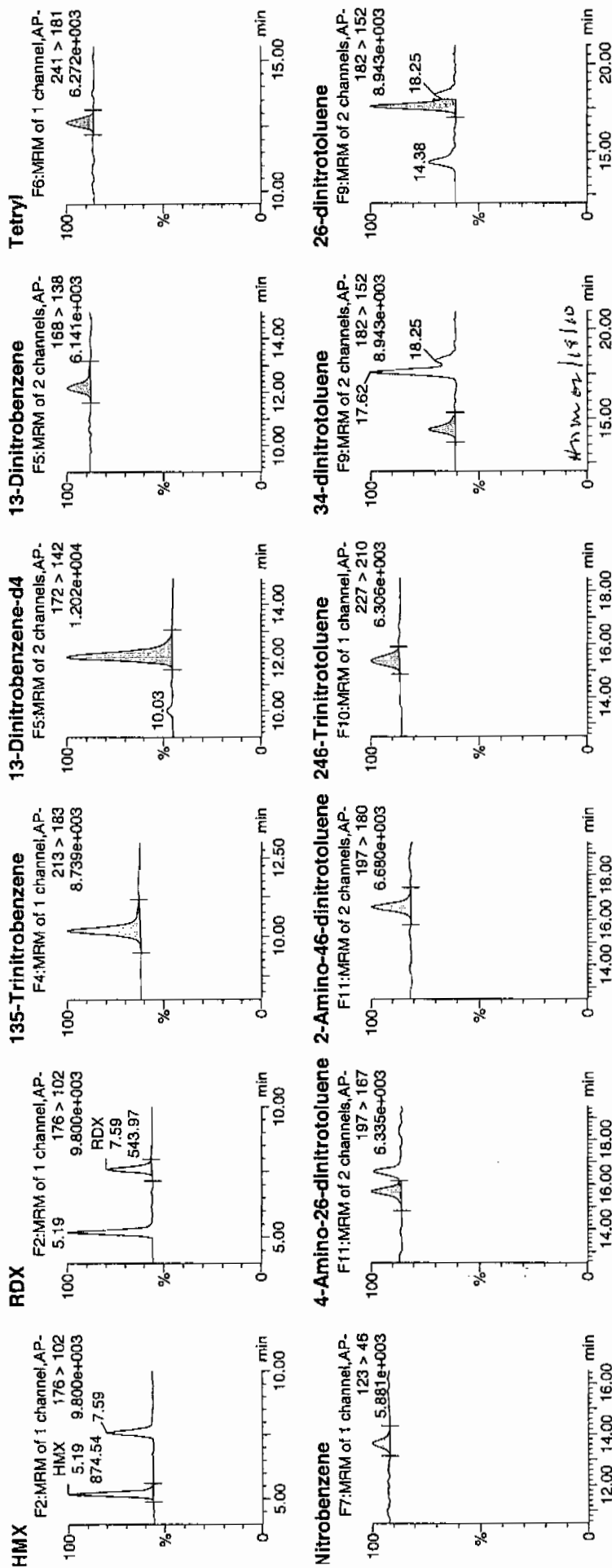
Date: 17-Feb-2010

Time: 12:54:26

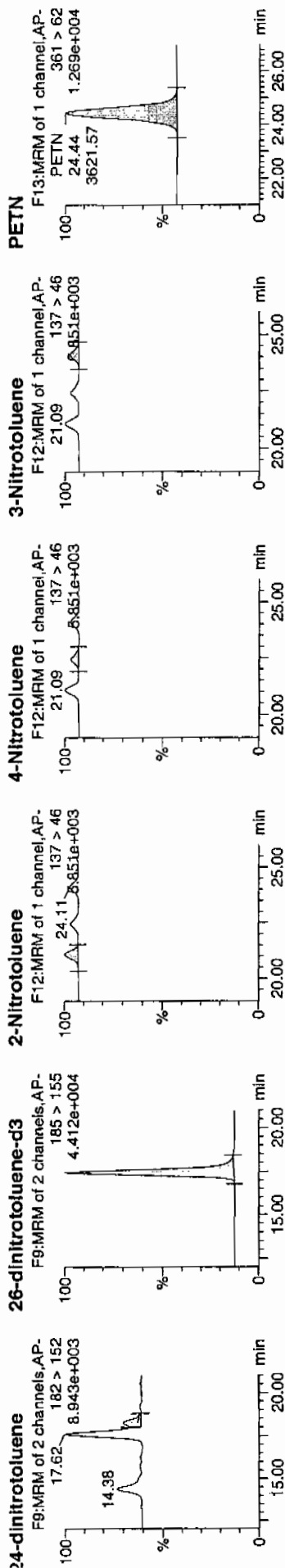
ID: WXX100216-08CRI

Vial: 1:1,C

2/18/10



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



ID	Name	Trace	RT	Area	IS-Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc mg/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	874.541	2630.245	874.541	166.247	bb			43.0873	107.7	7.7	143.8
WXX100216-08CRI	RDX	176 > 102	7.59	543.971	2630.245	543.971	103.407	bb			39.8724	98.7	-0.3	77.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1017.727	2630.245	1017.727	193.466	bb			49.9584	124.9	24.9	42.9
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2630.245		2630.245	2630.245	bb			436.5674	87.3	-12.7	269.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	296.395	2630.245	296.395	56.344	bb			47.4065	118.5	18.5	27.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	296.048	2630.245	296.048	56.278	bb			51.6199	129.0	29.0	24.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	186.169	2630.245	186.169	35.390	bb			41.2227	103.1	3.1	18.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	356.159	15411.399	356.159	11.555	MM	18-Feb-10	08:44:35	36.0850	90.2	-9.8	23.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	509.352	15411.399	509.352	16.525	bb			38.2479	95.6	-4.4	62.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	349.977	15411.399	349.977	11.354	bb			33.8682	84.7	-15.3	59.5
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	576.394	15411.399	576.394	18.700	bb			20.6404	103.2	3.2	14.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1400.108	15411.399	1400.108	45.424	MM	18-Feb-10	08:48:09	42.8759	107.2	7.2	47.1
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	370.708	15411.399	370.708	12.027	MM	18-Feb-10	08:51:46	48.7893	122.0	22.0	10.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15411.399		15411.399	15411.399	bb			442.6386	88.5	-11.5	1346.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	177.640	15411.399	177.640	5.763	bb			37.8679	94.7	-5.3	32.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	110.157	15411.399	110.157	3.574	bb			46.6252	116.6	16.6	18.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	125.706	15411.399	125.706	4.078	bb			45.5737	113.9	13.9	20.0
WXX100216-08CRI	PETN	361 > 62	24.44	3621.569	15411.399	3621.569	117.496	bb			49.9729	124.9	24.9	470.4

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/17/10
 Time of Injection 1254
 Standard Number WXX100216-08CRI
 Data File EXP0216041a

HMX	107.7
RDX	99.7
135-TNB	124.9
13-DNB	118.5
Tetryl	129.0
Nitrobenzene	103.1
4A-26-DNT	90.2
2A-46-DNT	95.6
246-TNT	84.7
34-DNT(surr)	103.2
26-DNT	107.2
24-DNT	122.0
2-NT	94.7
4-NT	116.6
3-NT	113.9
PETN	124.9

*WXX
2/18/10*

Total 1735.9

Average 108.5

Sum 02/18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216052a

Analysis Date: 17-FEB-10 18:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	586.393	98	
1,3-Dinitrobenzene-d4	500	469.603	94	
2,4,6-Trinitrotoluene	600	667.732	111	
2,4-Dinitrotoluene	600	640.278	107	
2,6-Dinitrotoluene	600	617.89	103	
2,6-Dinitrotoluene-d3	500	472.936	95	
2-Amino-4,6-dinitrotoluene	600	700.294	117	
3,4-Dinitrotoluene	300	322.55	108	
4-Amino-2,6-dinitrotoluene	600	558.036	93	
HMX	600	526.292	88	
Nitrobenzene	600	561.562	94	
PETN	600	685.593	114	
RDX	600	615.154	103	
Tetryl	600	581.072	97	
m-Dinitrobenzene	600	614.714	102	
m-Nitrotoluene	600	522.1	87	
o-Nitrotoluene	600	521.805	87	
p-Nitrotoluene	600	528.568	88	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qtd, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216052a

Date: 17-Feb-2010

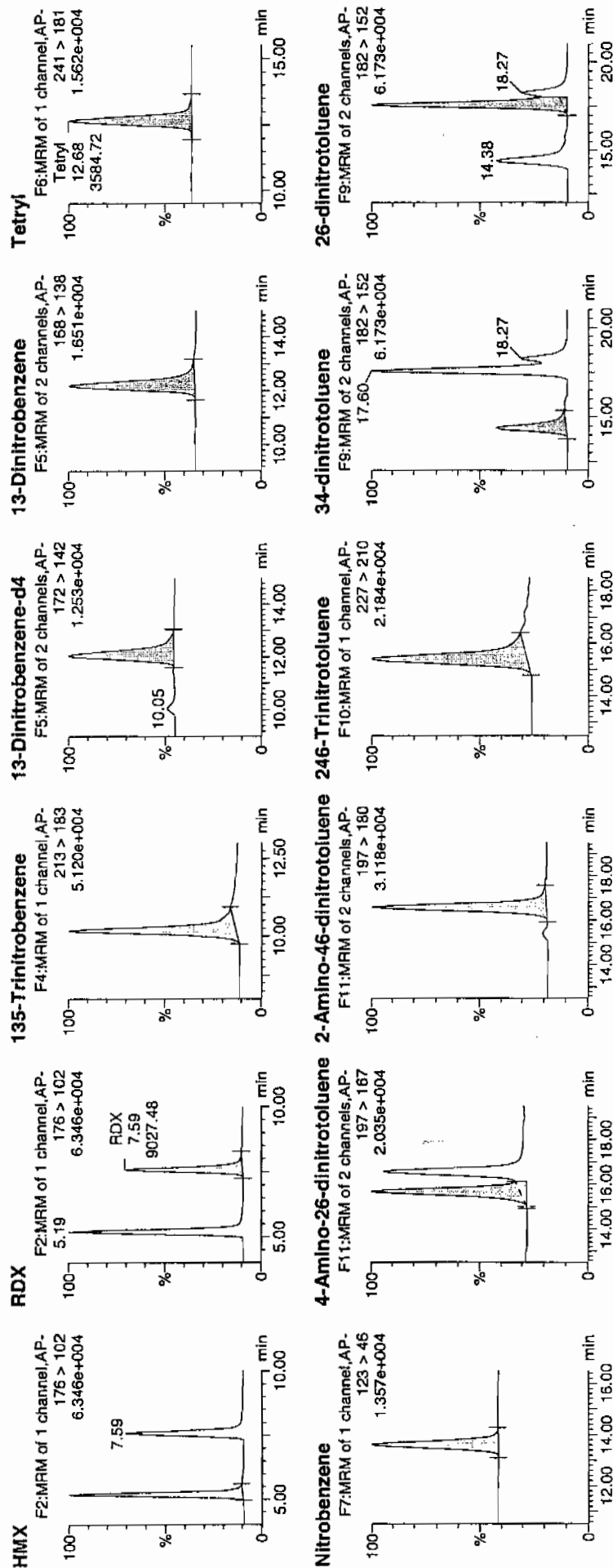
Time: 18:20:28

ID: WXX100216-07CCV

Vial: 1:1,B

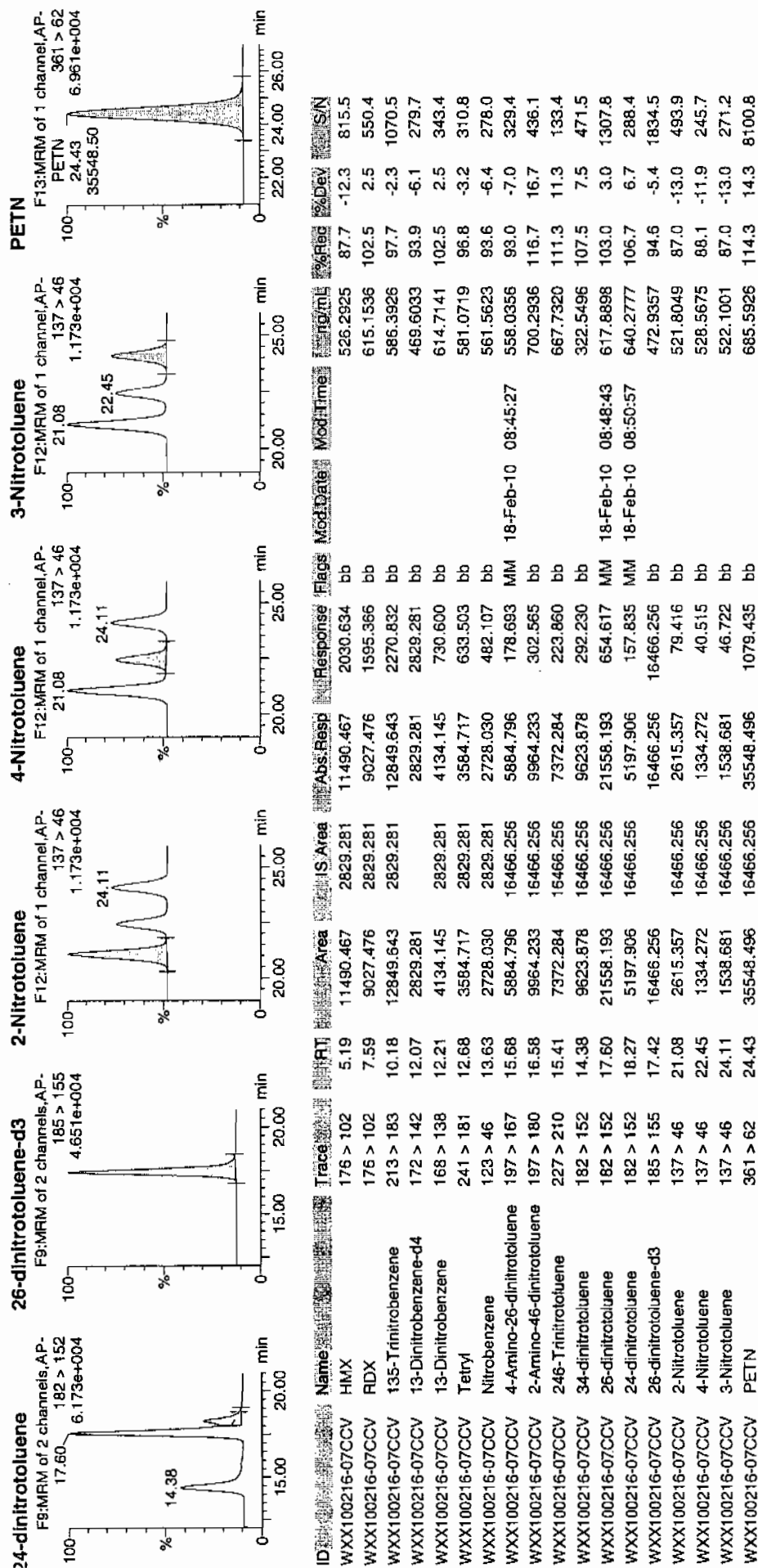
WXX
2/18/10

Page 366 of 1886



WXX 2/18/10

Dataset: C:\MASSLYNX\New_Exp\PRO021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/17/10
 Time of Injection: 1820
 Standard Number: WXX100216-07CCV
 Data File: EXP0216052a

HMX	87.7
RDX	102.5
135-TNB	97.7
13-DNB	102.5
Tetryl	96.8
Nitrobenzene	93.6
4A-26-DNT	93.0
2A-46-DNT	116.7
246-TNT	111.3
34-DNT(surr)	107.5
26-DNT	103.0
24-DNT	106.7
2-NT	87.0
4-NT	88.1
3-NT	87.0
PETN	114.3

MTT
2/18/10

Total 1595.4

Average 99.7

done on 1/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216054a

Analysis Date: 17-FEB-10 19:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.067	123	
1,3-Dinitrobenzene-d4	500	526.622	105	
2,4,6-Trinitrotoluene	40	45.215	113	
2,4-Dinitrotoluene	40	38.588	96	
2,6-Dinitrotoluene	40	43.371	108	
2,6-Dinitrotoluene-d3	500	482.623	97	
2-Amino-4,6-dinitrotoluene	40	45.806	115	
3,4-Dinitrotoluene	20	22.123	111	
4-Amino-2,6-dinitrotoluene	40	49.639	124	
HMX	40	43.201	108	
Nitrobenzene	40	41.456	104	
PETN	40	47.927	120	
RDX	40	45.793	114	
Tetryl	40	38.525	96	
m-Dinitrobenzene	40	46.393	116	
m-Nitrotoluene	40	35.588	89	
o-Nitrotoluene	40	43.751	109	
p-Nitrotoluene	40	34.462	86	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0216054a

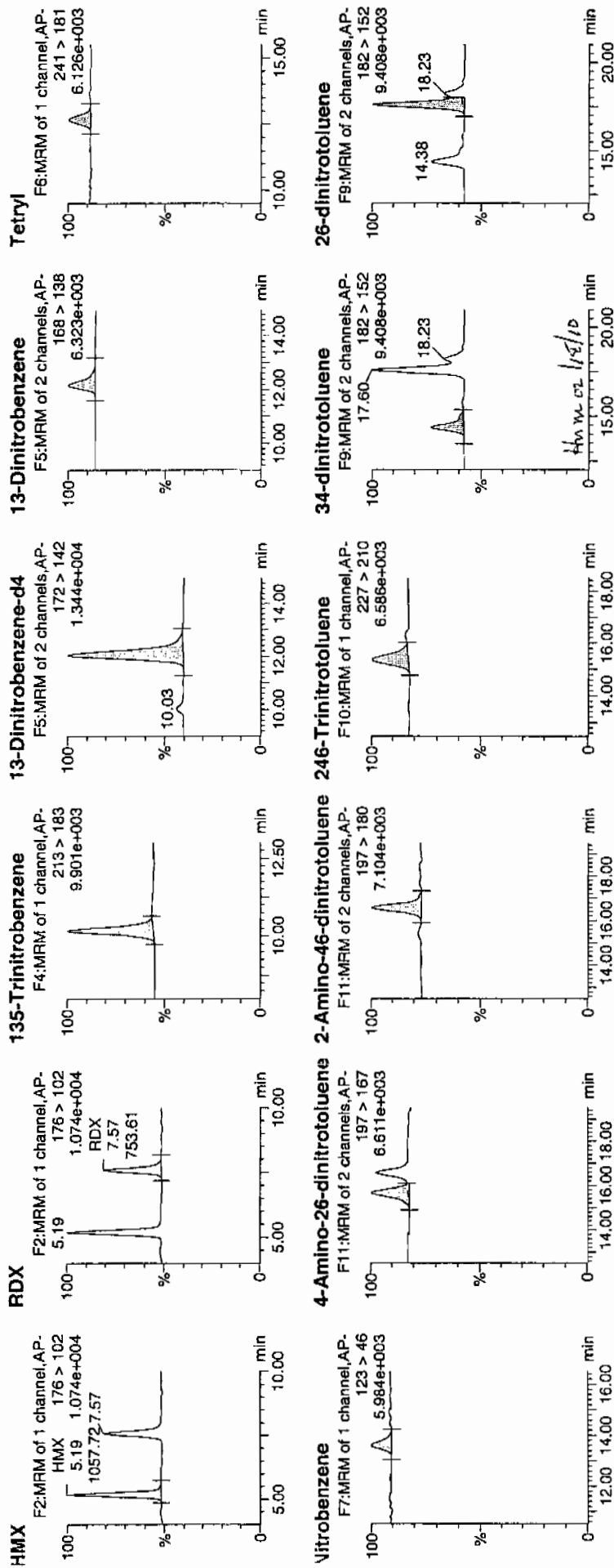
Date: 17-Feb-2010

Time: 19:19:47

ID: WXX100216-08CRI

Vial: 1:1,C

WXX
2/18/10

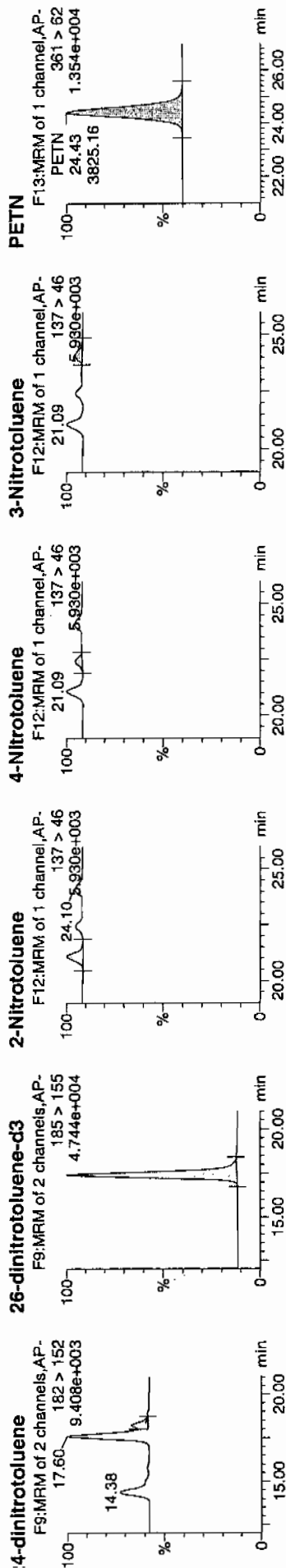


Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Feb 18 08:53:51 2010, Page 50 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



D	Name	Trace	RT	Area	S/A	Abs Resp	Response	Flags	Mod Date	Mod Time	Inj Vol	% Rec	% Dev	SN
NXX100216-08CRI	HMZ	176 > 102	5.19	1057.724	3172.809	1057.724	166.686	bb			43.2010	108.0	8.0	337.5
NXX100216-08CRI	RDX	176 > 102	7.57	753.607	3172.809	753.607	118.760	bb			45.7925	114.5	14.5	206.1
NXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1205.768	3172.809	1205.768	190.016	bb			49.0674	122.7	22.7	83.7
NXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3172.809	3172.809	3172.809	3172.809	bb			526.6220	105.3	5.3	217.3
NXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	349.888	3172.809	349.888	55.139	bb			46.3926	116.0	16.0	58.6
NXX100216-08CRI	Tetryl	241 > 181	12.68	266.522	3172.809	266.522	42.001	bb			38.5248	96.3	-3.7	16.4
NXX100216-08CRI	Nitrobenzene	123 > 46	13.58	225.843	3172.809	225.843	35.590	bb			41.4560	103.6	3.6	30.2
NXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	534.191	16803.529	534.191	15.895	MM	18-Feb-10	08:45:35	49.6388	124.1	24.1	30.5
NXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	665.112	16803.529	665.112	19.791	bb			45.8063	114.5	14.5	84.8
NXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	509.430	16803.529	509.430	15.158	bb			45.2146	113.0	13.0	71.3
NXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	673.596	16803.529	673.596	20.043	bb			22.1228	110.6	10.6	46.6
NXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1544.212	16803.529	1544.212	45.949	MM	18-Feb-10	08:48:53	43.3711	108.4	8.4	133.2
NXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	319.681	16803.529	319.681	9.512	MM	18-Feb-10	08:50:42	38.5879	96.5	-3.5	27.1
NXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16803.529	16803.529	16803.529	16803.529	bb			482.6227	96.5	-3.5	1788.6
NXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	223.779	16803.529	223.779	6.659	bb			43.7513	109.4	9.4	29.9
NXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	98.774	16803.529	98.774	2.642	bb			34.4617	86.2	-13.8	12.3
NXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	107.030	16803.529	107.030	3.185	bb			35.5881	89.0	-11.0	12.7
NXX100216-08CRI	PETN	361 > 62	24.43	3825.164	16803.529	3825.164	113.820	bb			47.9269	119.8	19.8	958.7

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/17/10
 Time of Injection 1919
 Standard Number WXX100216-08CRI
 Data File EXP0216054a

HMX	108.0
RDX	114.5
135-TNB	122.7
13-DNB	116.0
Tetryl	96.3
Nitrobenzene	103.6
4A-26-DNT	124.1
2A-46-DNT	114.5
246-TNT	113.0
34-DNT(surr)	110.6
26-DNT	108.4
24-DNT	96.5
2-NT	109.4
4-NT	86.2
3-NT	89.0
PETN	119.8

*with
4/18/10*

Total 1732.6

Time 02/18/10

Average 108.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216065a

Analysis Date: 18-FEB-10 00:45

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	332.023	111	
4-Amino-2,6-dinitrotoluene	600	595.679	99	
HMX	600	685.513	114	
Nitrobenzene	600	619.311	103	
PETN	600	592.614	99	
RDX	600	694.615	116	
Tetryl	600	564.648	94	
m-Dinitrobenzene	600	607.21	101	
m-Nitrotoluene	600	591.803	99	
o-Nitrotoluene	600	604.859	101	
p-Nitrotoluene	600	605.824	101	
1,3,5-Trinitrobenzene	600	589.98	98	
1,3-Dinitrobenzene-d4	500	503.448	101	
2,4,6-Trinitrotoluene	600	674.628	112	
2,4-Dinitrotoluene	600	646.389	108	
2,6-Dinitrotoluene	600	642.938	107	
2,6-Dinitrotoluene-d3	500	484.848	97	
2-Amino-4,6-dinitrotoluene	600	685.308	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 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216065a

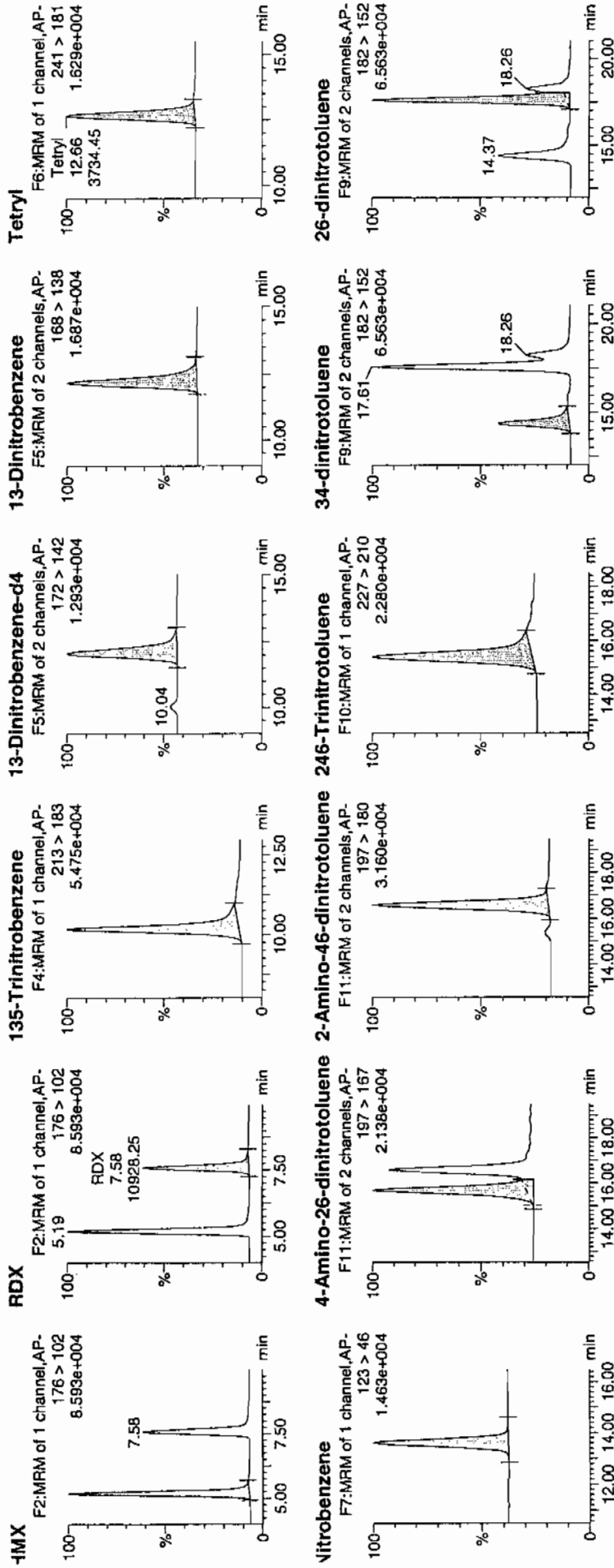
Date: 18-Feb-2010

Time: 00:45:20

D: WXX100216-07CCV

/ial: 1:1,B

2/18/10

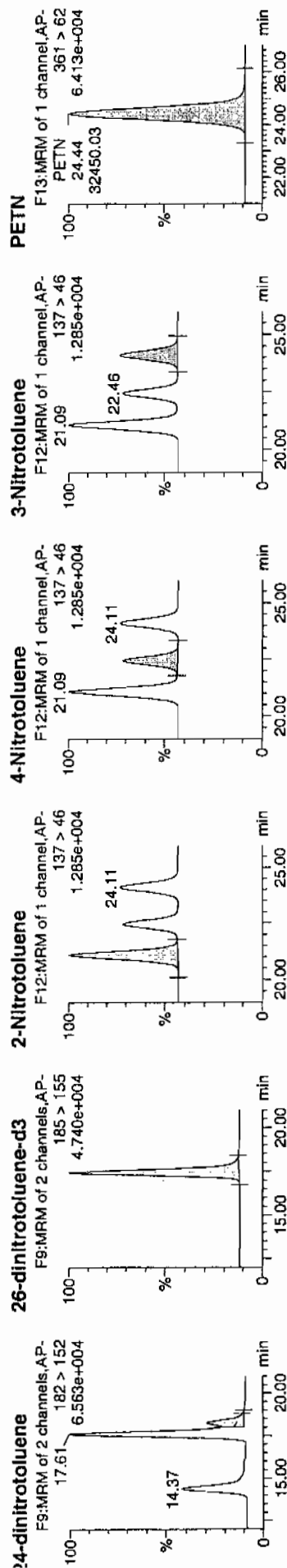


Handwritten note: 17.61

Printed: Thu Feb 18 08:53:51 2010, Page 72 of 103

Quantify Sample Report
SEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc (ng/ml)	%Rec	%Dev	SN
WXX100216-07CCV	HMX	176 > 102	5.19	16045.377	3033.191	16045.377	2644.966	bb			685.5131	114.3	14.3	4796.8
WXX100216-07CCV	RDX	176 > 102	7.58	10928.254	3033.191	10928.254	1801.445	bb			694.6153	115.8	15.8	2791.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13860.002	3033.191	13860.002	2284.723	bb			589.9797	98.3	-1.7	651.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3033.191	3033.191	3033.191	3033.191	bb			503.4482	100.7	0.7	211.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4377.993	3033.191	4377.993	721.681	bb			607.2099	101.2	1.2	1168.9
WXX100216-07CCV	Tetryl	241 > 181	12.66	3734.446	3033.191	3734.446	615.597	bb			564.6476	94.1	-5.9	245.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3225.402	3033.191	3225.402	531.685	bb			619.3113	103.2	3.2	203.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6439.984	16881.000	6439.984	190.747	MM	18-Feb-10	08:45:48	595.6786	99.3	-0.7	289.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9996.612	16881.000	9996.612	296.091	bb			685.3080	114.2	14.2	311.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7636.027	16881.000	7636.027	226.172	bb			674.6279	112.4	12.4	330.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10156.054	16881.000	10156.054	300.813	bb			332.0230	110.7	10.7	270.1
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.61	22997.145	16881.000	22997.145	681.155	MM	18-Feb-10	08:49:12	642.9383	107.2	7.2	748.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.26	5379.695	16881.000	5379.695	159.342	MM	18-Feb-10	08:50:31	646.3895	107.7	7.7	160.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16881.000	16881.000	16881.000	16881.000	bb			484.8478	97.0	-3.0	2282.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	3107.994	16881.000	3107.994	92.056	bb			604.8589	100.8	0.8	698.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1567.810	16881.000	1567.810	46.437	bb			605.8236	101.0	1.0	345.9
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1788.032	16881.000	1788.032	52.960	bb			591.8030	98.6	-1.4	366.6
WXX100216-07CCV	PETN	361 > 62	24.44	32450.031	16881.000	32450.031	961.141	bb			592.6141	98.8	-1.2	10378.5

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/18/10
 Time of Injection: 0045
 Standard Number: WXX100216-07CCV
 Data File: EXP0216065a

HMX	114.3
RDX	115.8
135-TNB	98.3
13-DNB	101.2
Tetryl	94.1
Nitrobenzene	103.2
4A-26-DNT	99.3
2A-46-DNT	114.2
246-TNT	112.4
34-DNT(surr)	110.7
26-DNT	107.2
24-DNT	107.7
2-NT	100.8
4-NT	101.0
3-NT	98.6
PETN	98.8

*not
2/18/10*

Total 1677.6

Average 104.9

Handwritten: 02/18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216067a

Analysis Date: 18-FEB-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	41.094	103	
2,6-Dinitrotoluene-d3	500	534.755	107	
2-Amino-4,6-dinitrotoluene	40	37.567	94	
3,4-Dinitrotoluene	20	20.903	105	
4-Amino-2,6-dinitrotoluene	40	37.482	94	
HMX	40	31.977	80	
Nitrobenzene	40	28.466	71	
PETN	40	44.163	110	
RDX	40	37.7	94	
Tetryl	40	40.159	100	
m-Dinitrobenzene	40	38.48	96	
m-Nitrotoluene	40	33.219	83	
o-Nitrotoluene	40	44.575	111	
p-Nitrotoluene	40	37.562	94	
1,3,5-Trinitrobenzene	40	50.874	127	
1,3-Dinitrobenzene-d4	500	574.253	115	
2,4,6-Trinitrotoluene	40	44.52	111	
2,4-Dinitrotoluene	40	35.748	89	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216067a

Date: 18-Feb-2010

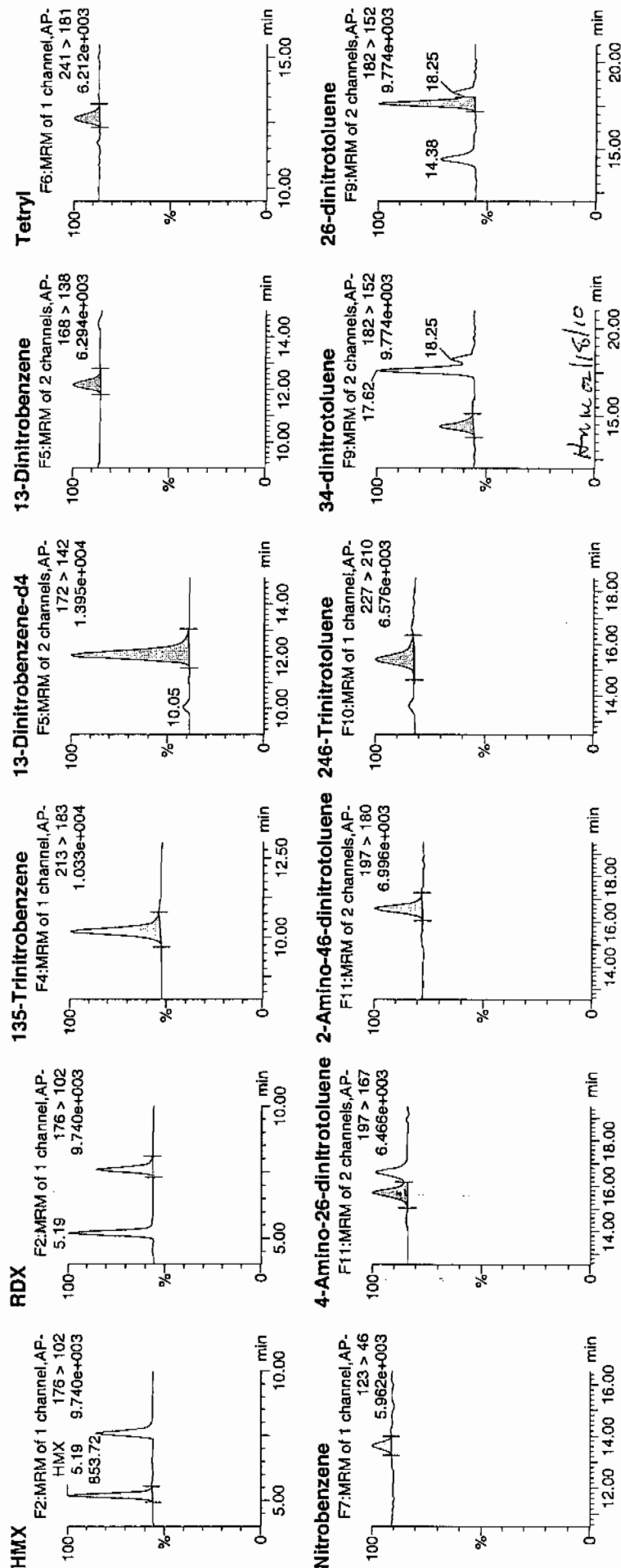
Time: 01:44:38

ID: WXX100216-08CRI

Vial: 1:1,C

APR 1/15/10

Page 378 of 1886

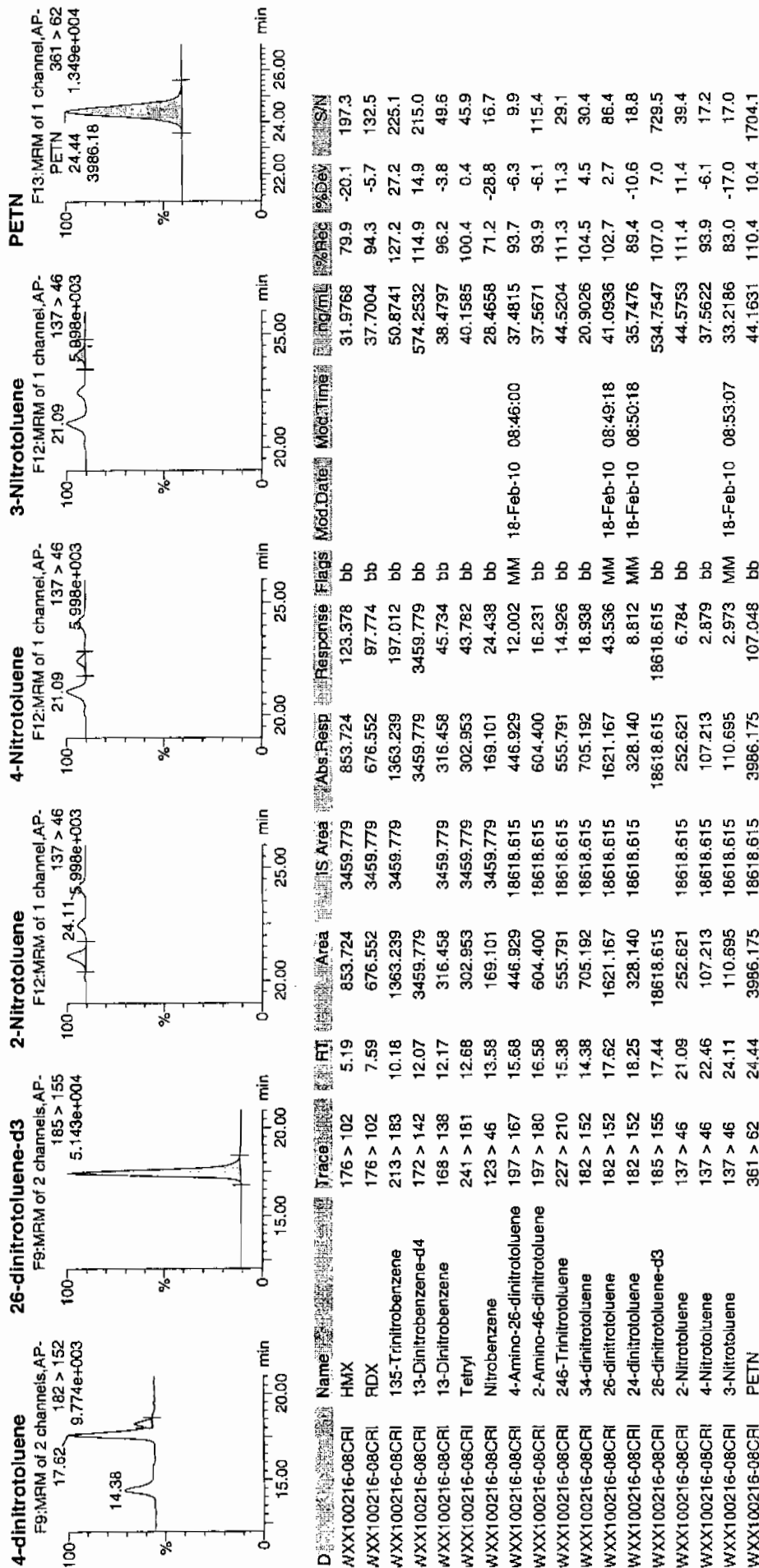


Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Feb 18 08:53:51 2010, Page 76 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/18/10
 Time of Injection 0144
 Standard Number WXX100216-08CRI
 Data File EXP0216067a

HMX	79.9
RDX	94.3
135-TNB	127.2
13-DNB	96.2
Tetryl	100.4
Nitrobenzene	71.2
4A-26-DNT	93.7
2A-46-DNT	93.9
246-TNT	111.3
34-DNT(surr)	104.5
26-DNT	102.7
24-DNT	89.4
2-NT	111.4
4-NT	93.9
3-NT	83.0
PETN	110.4

Handwritten: 11/18/10

Total 1563.4

Average 97.7

Handwritten: HAN 02/18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216078a

Analysis Date: 18-FEB-10 07:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	589.034	98	
1,3,5-Trinitrobenzene	600	520.611	87	
1,3-Dinitrobenzene-d4	500	542.41	108	
2,4,6-Trinitrotoluene	600	648.856	108	
2,4-Dinitrotoluene	600	647.037	108	
2,6-Dinitrotoluene	600	629.886	105	
2,6-Dinitrotoluene-d3	500	468.716	94	
2-Amino-4,6-dinitrotoluene	600	615.257	103	
3,4-Dinitrotoluene	300	357.759	119	
4-Amino-2,6-dinitrotoluene	600	549.787	92	
HMX	600	519.274	87	
Nitrobenzene	600	504.757	84	
PETN	600	715.342	119	
RDX	600	628.868	105	
Tetryl	600	541.018	90	
m-Dinitrobenzene	600	590.189	98	
m-Nitrotoluene	600	537.034	90	
o-Nitrotoluene	600	576.847	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216078a

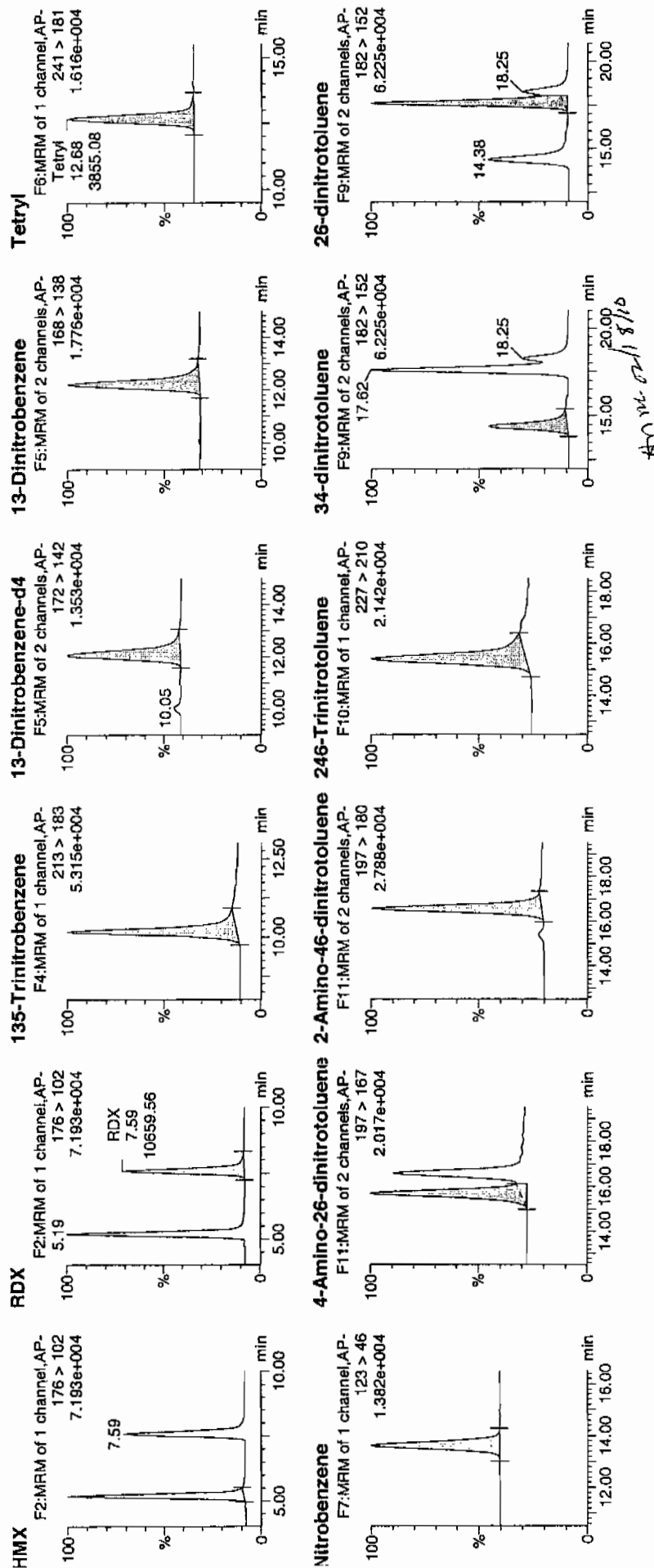
Date: 18-Feb-2010

Time: 07:10:32

ID: WXX100216-07CCV

Vial: 1:1,B

WJL
2/18/10

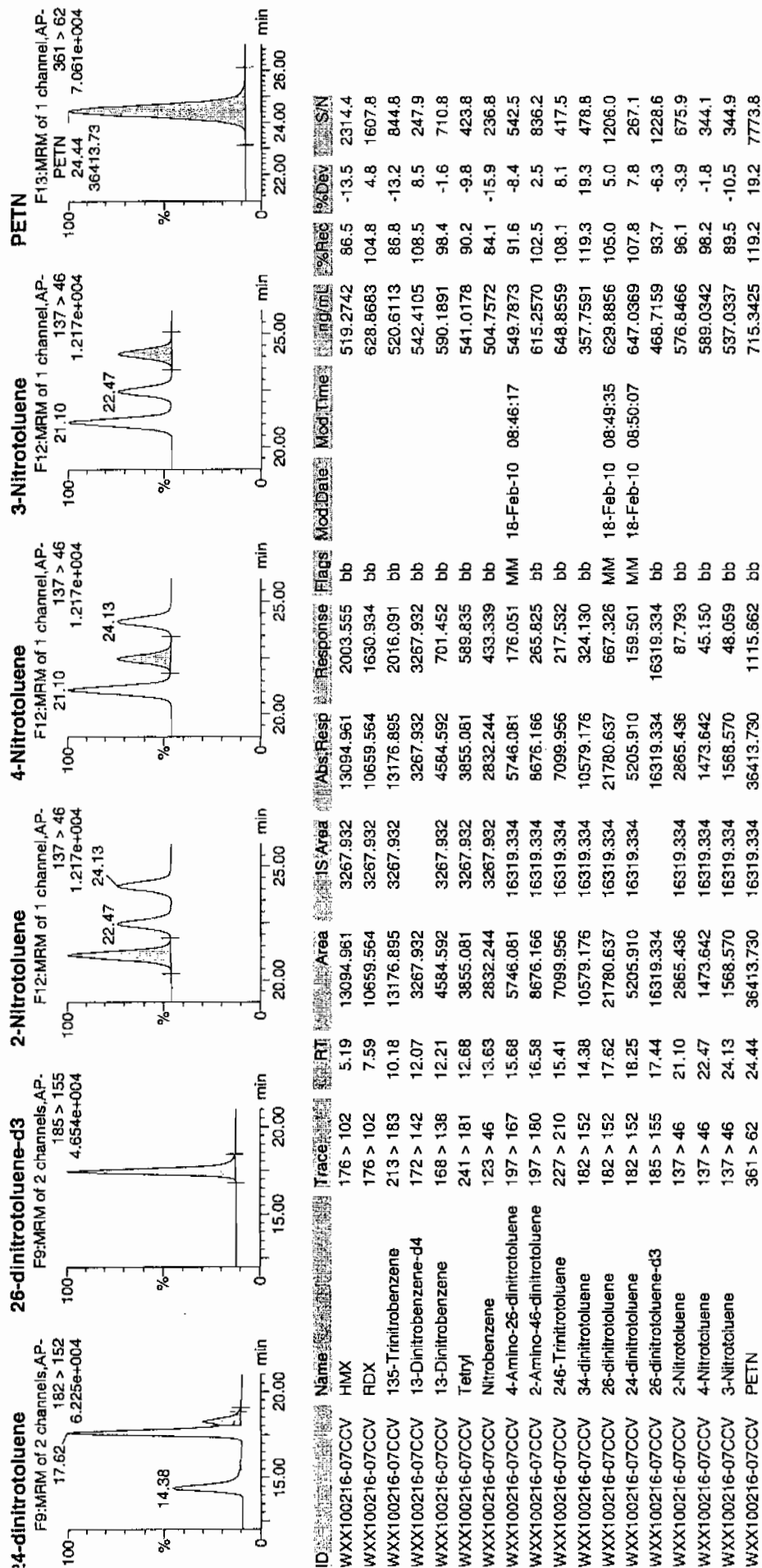


Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Feb 18 08:53:51 2010, Page 98 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qid, Time: Thu Feb 18 08:53:07 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/18/10
 Time of Injection: 0710
 Standard Number: WXX100216-07CCV
 Data File: EXP0216078a

HMX	86.5
RDX	104.8
135-TNB	86.8
13-DNB	98.4
Tetryl	90.2
Nitrobenzene	84.1
4A-26-DNT	91.6
2A-46-DNT	102.5
246-TNT	108.1
34-DNT(surr)	119.3
26-DNT	105.0
24-DNT	107.8
2-NT	96.1
4-NT	98.2
3-NT	89.5
PETN	119.2

*MTT
2/18/10*

Total 1588.1

Average 99.3

MTT-02/18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216080a

Analysis Date: 18-FEB-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	40.759	102	
o-Nitrotoluene	40	45.987	115	
p-Nitrotoluene	40	51.62	129	
1,3,5-Trinitrobenzene	40	48.403	121	
1,3-Dinitrobenzene-d4	500	494.727	99	
2,4,6-Trinitrotoluene	40	41.136	103	
2,4-Dinitrotoluene	40	38.771	97	
2,6-Dinitrotoluene	40	44.76	112	
2,6-Dinitrotoluene-d3	500	481.497	96	
2-Amino-4,6-dinitrotoluene	40	41.233	103	
3,4-Dinitrotoluene	20	22.678	113	
4-Amino-2,6-dinitrotoluene	40	37.418	94	
HMX	40	43.826	110	
Nitrobenzene	40	37.223	93	
PETN	40	54.239	136	*
RDX	40	42.015	105	
Tetryl	40	39.964	100	
m-Dinitrobenzene	40	45.818	115	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216080a

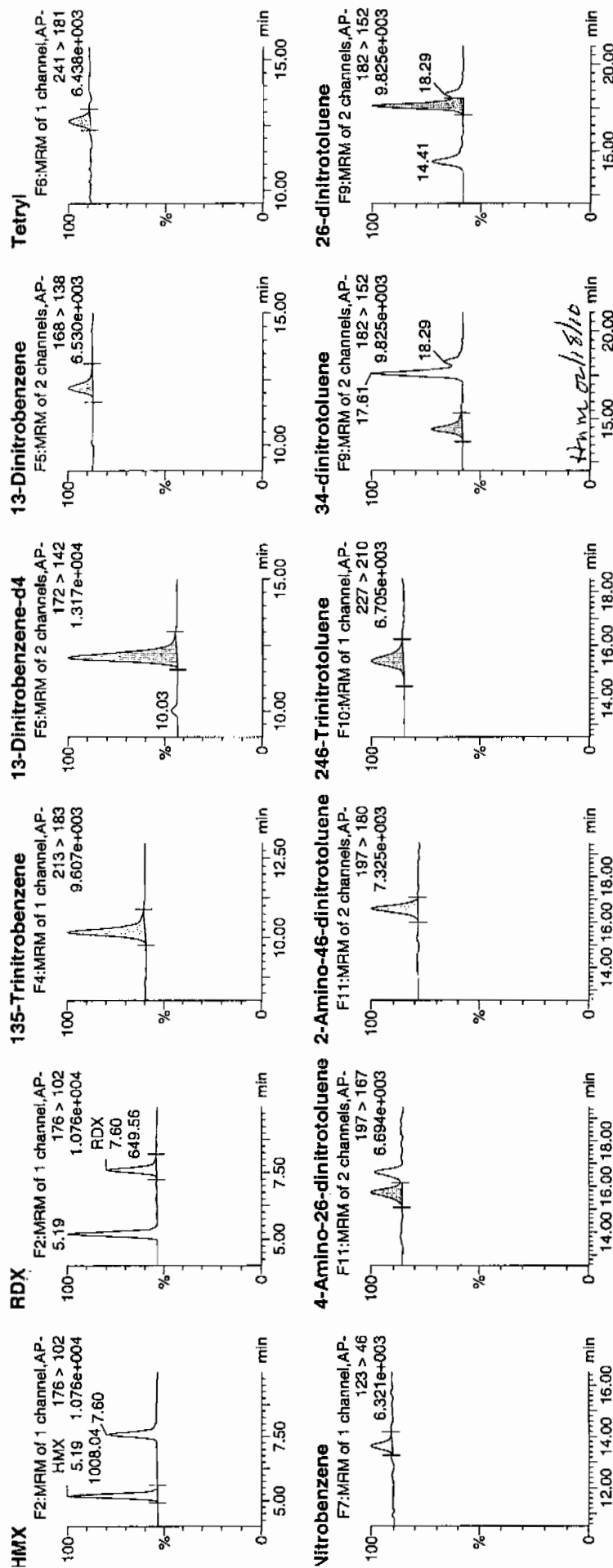
Date: 18-Feb-2010

Time: 08:10:12

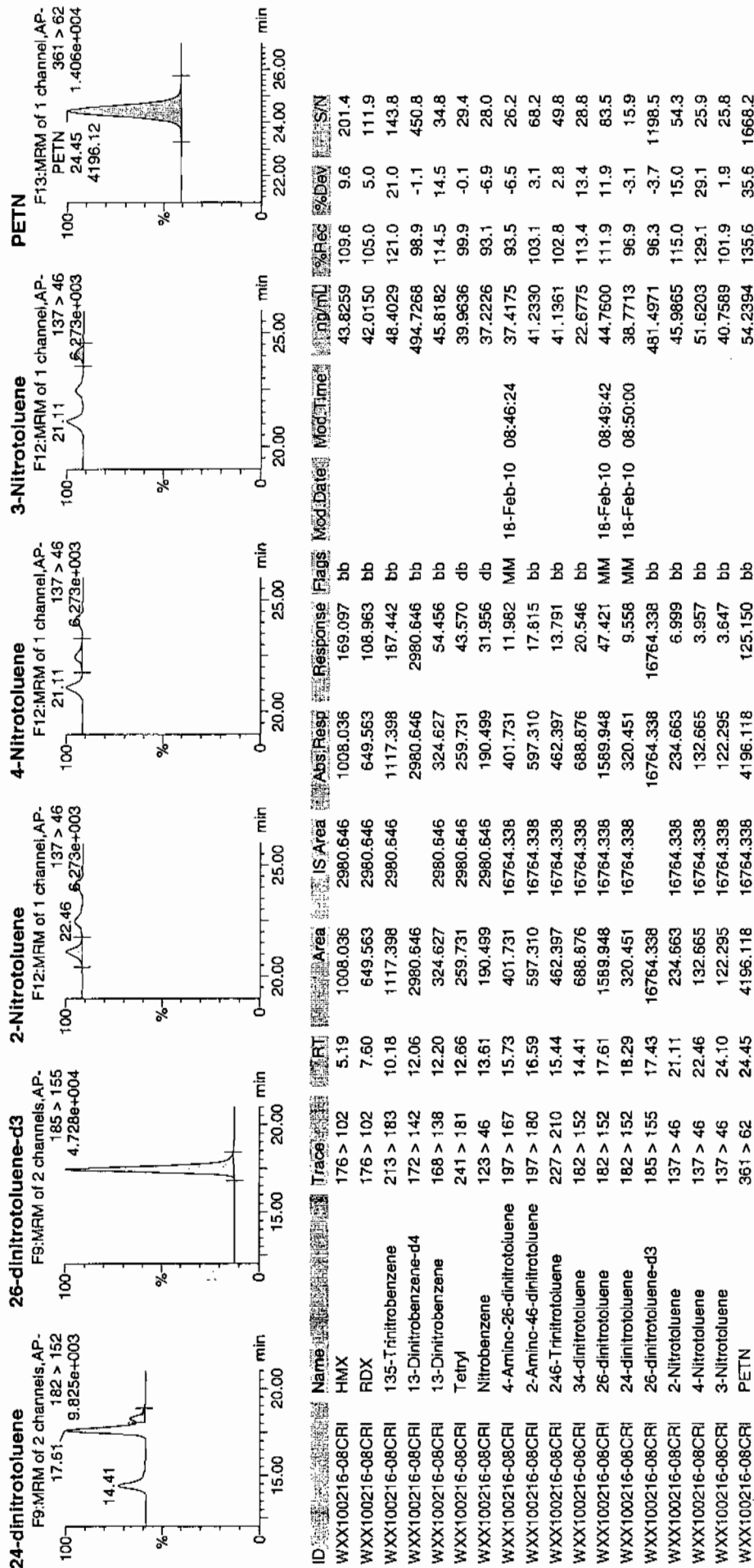
D: WXX100216-08CRI

Vial: 1:1,C

10/10/10



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/18/10
 Time of Injection 0810
 Standard Number WXX100216-08CRI
 Data File EXP0216080a

HMX	109.6
RDX	105.0
135-TNB	121.0
13-DNB	114.5
Tetryl	99.9
Nitrobenzene	93.1
4A-26-DNT	93.5
2A-46-DNT	103.1
246-TNT	102.8
34-DNT(surr)	113.4
26-DNT	111.9
24-DNT	96.9
2-NT	115.0
4-NT	129.1
3-NT	101.9
PETN	135.6

*MTT
2/18/10*

Total 1746.3

Average 109.1

Have called

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216089a

Analysis Date: 18-FEB-10 12:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	659.229	110	
2,6-Dinitrotoluene	600	644.249	107	
2,6-Dinitrotoluene-d3	500	461.757	92	
2-Amino-4,6-dinitrotoluene	600	655.311	109	
3,4-Dinitrotoluene	300	351.733	117	
4-Amino-2,6-dinitrotoluene	600	586.497	98	
HMX	600	695.878	116	
Nitrobenzene	600	570.735	95	
PETN	600	765.325	128	*
RDX	600	762.426	127	*
Tetryl	600	584.833	97	
m-Dinitrobenzene	600	636.337	106	
m-Nitrotoluene	600	573.92	96	
o-Nitrotoluene	600	648.456	108	
p-Nitrotoluene	600	589.135	98	
1,3,5-Trinitrobenzene	600	575.828	96	
1,3-Dinitrobenzene-d4	500	495.598	99	
2,4,6-Trinitrotoluene	600	691.665	115	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216089a

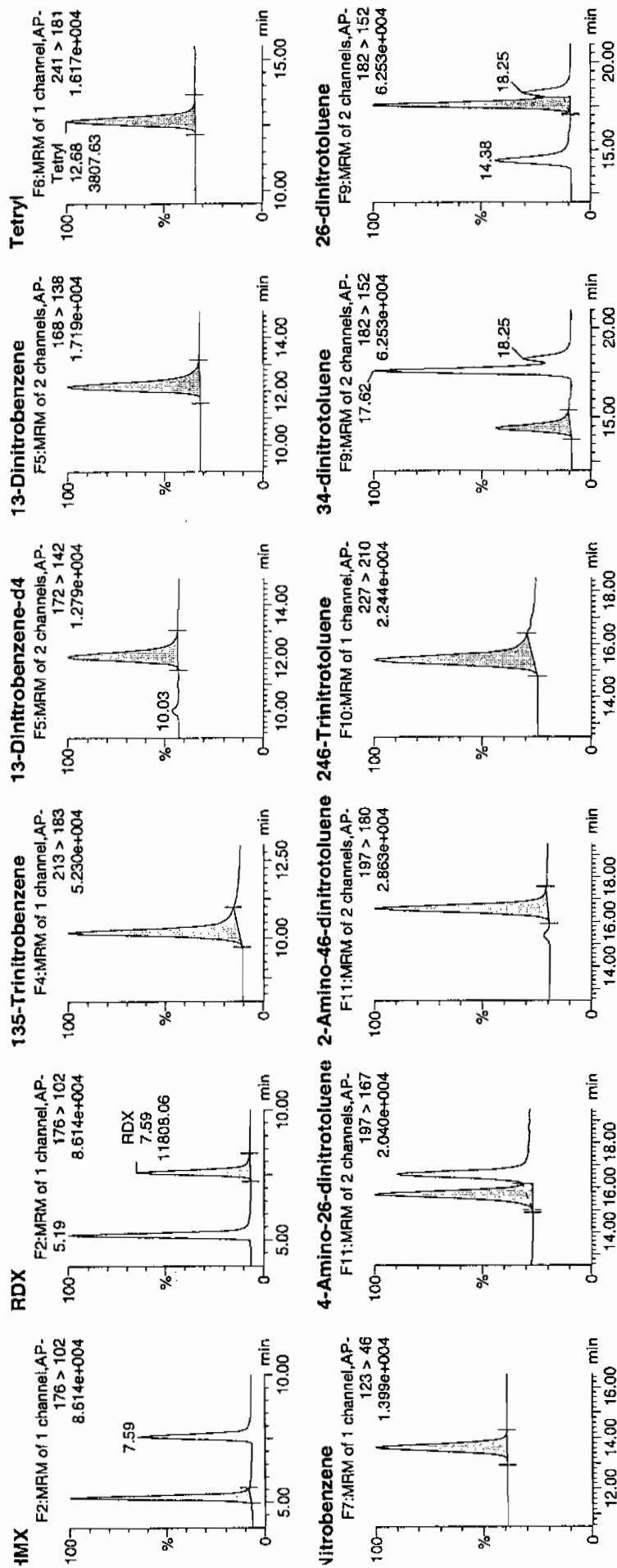
Date: 18-Feb-2010

Time: 12:36:18

File: D:\WXX100216-07CCV

Label: 1:1,B

1/1/10



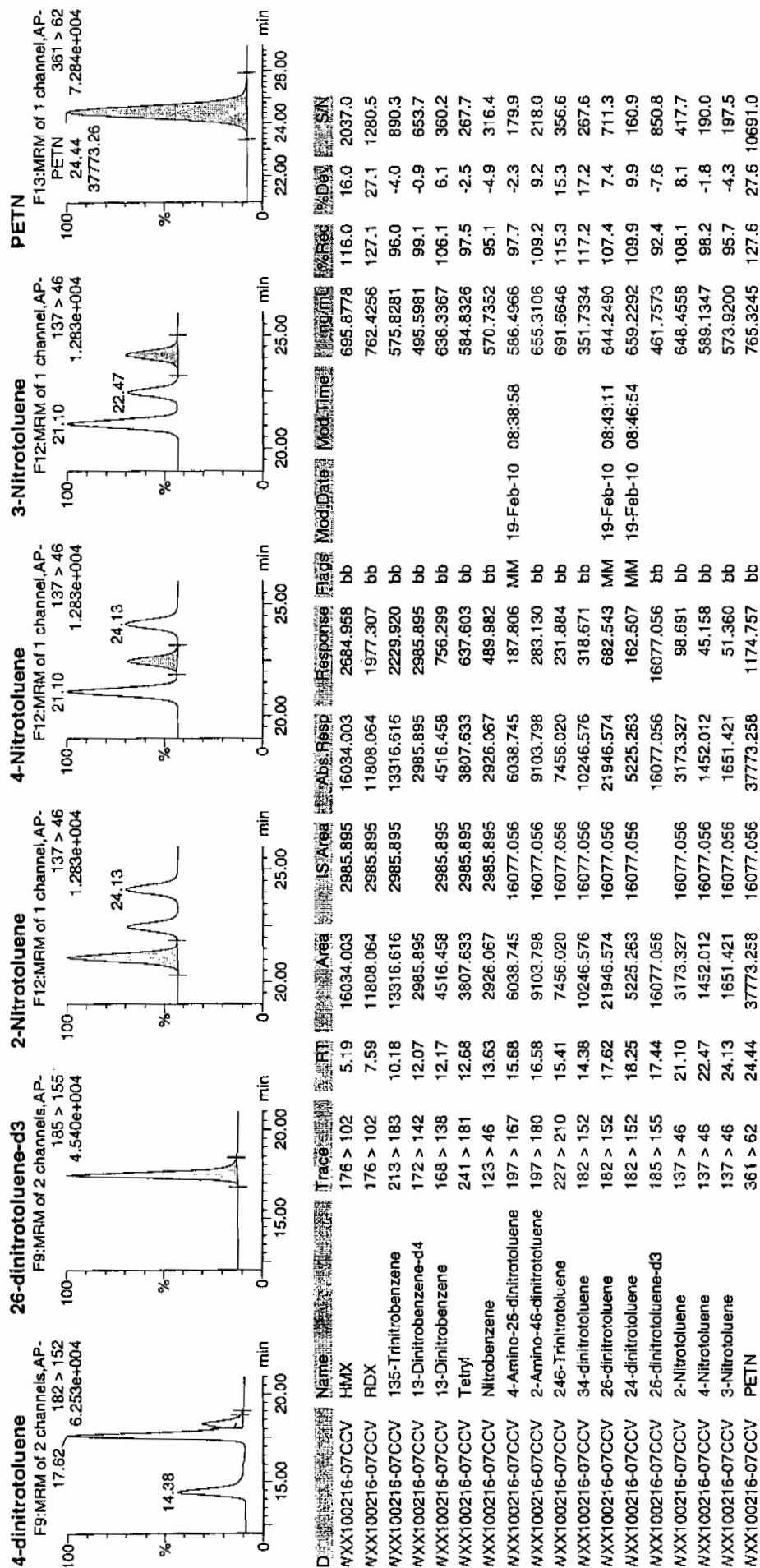
Handwritten note: 1/1/10

Identify Sample Report

iEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 18 of 97

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/18/10
 Time of Injection: 1236
 Standard Number: WXX100216-07CCV
 Data File: EXP0216089a

HMX	116.0
RDX	127.1
135-TNB	96.0
13-DNB	106.1
Tetryl	97.5
Nitrobenzene	95.1
4A-26-DNT	97.7
2A-46-DNT	109.2
246-TNT	115.3
34-DNT(surr)	117.2
26-DNT	107.4
24-DNT	109.9
2-NT	108.1
4-NT	98.2
3-NT	95.7
PETN	127.6

*with
2/19/10*

Total 1724.1

Average 107.8

done 02/18/10
 ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216091a

Analysis Date: 18-FEB-10 13:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.419	124	
1,3-Dinitrobenzene-d4	500	495.095	99	
2,4,6-Trinitrotoluene	40	63.823	160	*
2,4-Dinitrotoluene	40	44.759	112	
2,6-Dinitrotoluene	40	43.488	109	
2,6-Dinitrotoluene-d3	500	500.11	100	
2-Amino-4,6-dinitrotoluene	40	42.691	107	
3,4-Dinitrotoluene	20	22.924	115	
4-Amino-2,6-dinitrotoluene	40	39.308	98	
HMX	40	45.096	113	
Nitrobenzene	40	40.389	101	
PETN	40	50.626	127	
RDX	40	44.527	111	
Tetryl	40	44.164	110	
m-Dinitrobenzene	40	38.138	95	
m-Nitrotoluene	40	37.355	93	
o-Nitrotoluene	40	34.55	86	
p-Nitrotoluene	40	31.551	79	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216091a

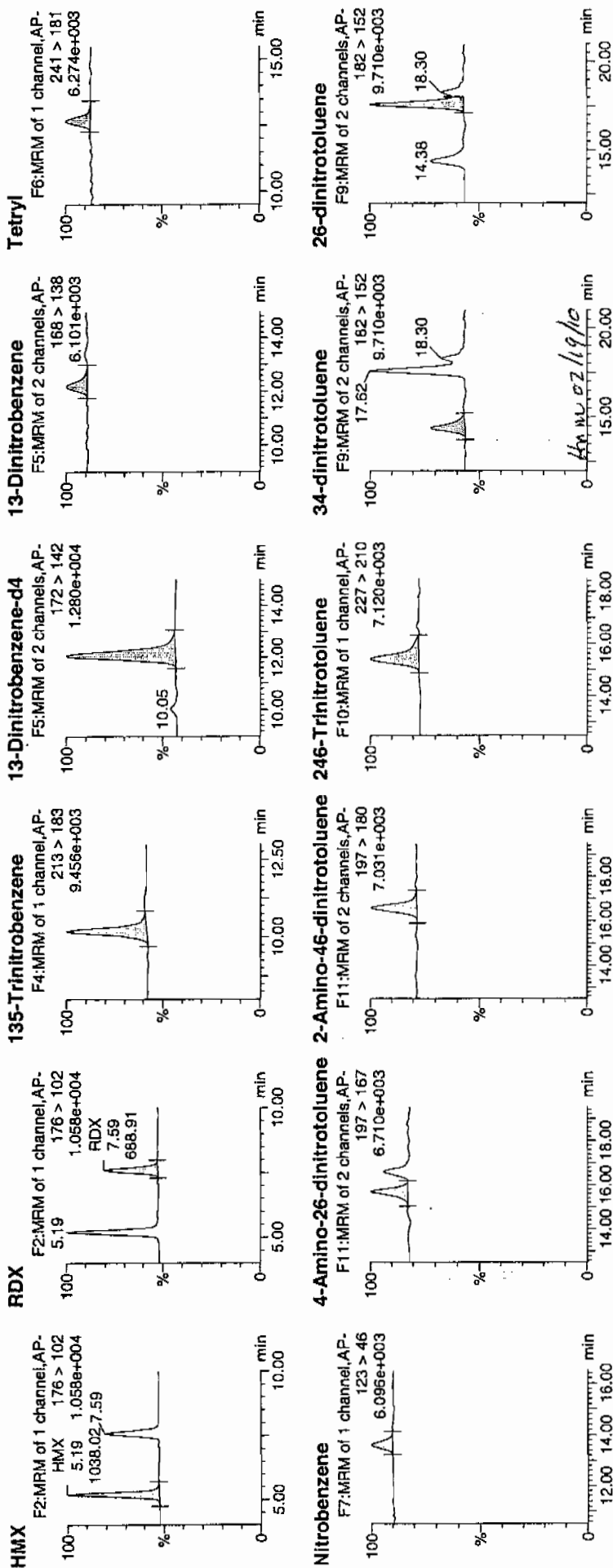
Date: 18-Feb-2010

Time: 13:35:23

ID: WXX100216-08CRI

Vial: 1:1,C

1/19/10
M.A.P.

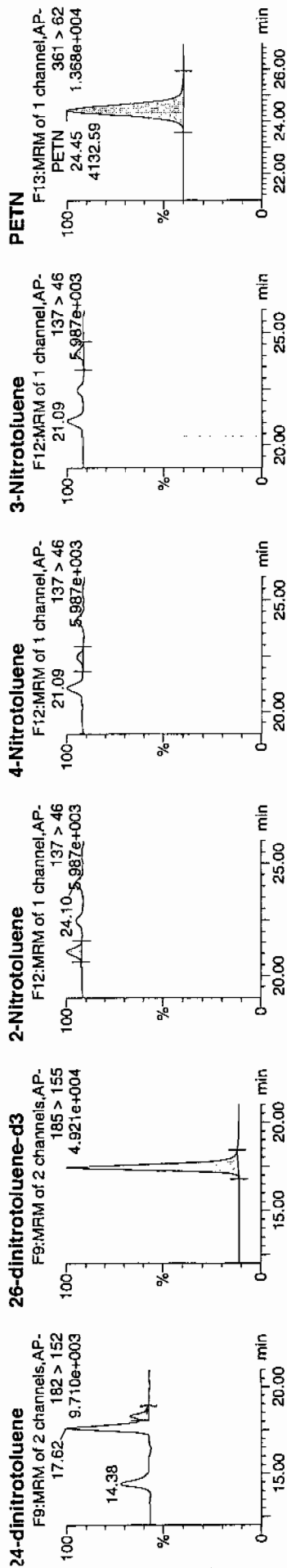


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 22 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	% Rec	% Dev	SN
WXX100216-08CRI	HMX	176 > 102	5.19	1038.023	2982.866	1038.023	173.998	bb			45.0961	112.7	12.7	166.4
WXX100216-08CRI	RDX	176 > 102	7.59	688.912	2982.866	688.912	115.478	bb			44.5270	111.3	11.3	97.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1141.707	2982.866	1141.707	191.378	bb			49.4191	123.5	23.5	56.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2982.866		2982.866	2982.866	bb			495.0953	99.0	-1.0	121.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	270.413	2982.866	270.413	45.328	bb			38.1380	95.3	-4.7	27.2
WXX100216-08CRI	Tetryl	241 > 181	12.68	287.244	2982.866	287.244	48.149	bb			44.1640	110.4	10.4	28.0
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	206.859	2982.866	206.859	34.675	bb			40.3892	101.0	1.0	31.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	438.338	17412.377	438.338	12.587	bb			39.3076	98.3	-1.7	36.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	642.342	17412.377	642.342	18.445	bb			42.6913	106.7	6.7	109.0
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	745.148	17412.377	745.148	21.397	bb			63.8233	159.6	59.6	80.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	723.283	17412.377	723.283	20.769	bb			22.9241	114.6	14.6	41.3
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1604.459	17412.377	1604.459	46.072	MM	19-Feb-10	08:43:19	43.4875	108.7	8.7	115.7
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.30	384.242	17412.377	384.242	11.034	MM	19-Feb-10	08:46:31	44.7591	111.9	11.9	26.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17412.377		17412.377	17412.377	bb			500.1098	100.0	0.0	2498.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	183.120	17412.377	183.120	5.258	bb			34.5501	86.4	-13.6	48.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.47	84.222	17412.377	84.222	2.418	bb			31.5514	78.9	-21.1	19.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	116.415	17412.377	116.415	3.343	bb			37.3552	93.4	-6.6	24.4
WXX100216-08CRI	PETN	361 > 62	24.45	4132.593	17412.377	4132.593	118.668	bb			50.6256	126.6	26.6	818.9

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/18/10
 Time of Injection 1335
 Standard Number WXX100216-08CRI
 Data File EXP0216091a

HMX	112.7
RDX	111.3
135-TNB	123.5
13-DNB	95.3
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	98.3
2A-46-DNT	106.7
246-TNT	159.6
34-DNT(surr)	114.6
26-DNT	108.7
24-DNT	111.9
2-NT	86.4
4-NT	78.9
3-NT	93.4
PETN	126.6

*MAP
2/18/10*

Total 1739.3

Average 108.7

MAP 02/18/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216101a

Analysis Date: 18-FEB-10 18:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	597.56	100	
m-Dinitrobenzene	600	622.496	104	
m-Nitrotoluene	600	569.513	95	
o-Nitrotoluene	600	604.641	101	
p-Nitrotoluene	600	614.496	102	
1,3,5-Trinitrobenzene	600	636.536	106	
1,3-Dinitrobenzene-d4	500	417.68	84	
2,4,6-Trinitrotoluene	600	691.126	115	
2,4-Dinitrotoluene	600	637.013	106	
2,6-Dinitrotoluene	600	619.323	103	
2,6-Dinitrotoluene-d3	500	397.466	79	*
2-Amino-4,6-dinitrotoluene	600	648.012	108	
3,4-Dinitrotoluene	300	329.226	110	
4-Amino-2,6-dinitrotoluene	600	589.342	98	
HMX	600	661.47	110	
Nitrobenzene	600	556.503	93	
PETN	600	838.314	140	*
RDX	600	788.92	131	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 41 of 97

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Sample Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0216101a

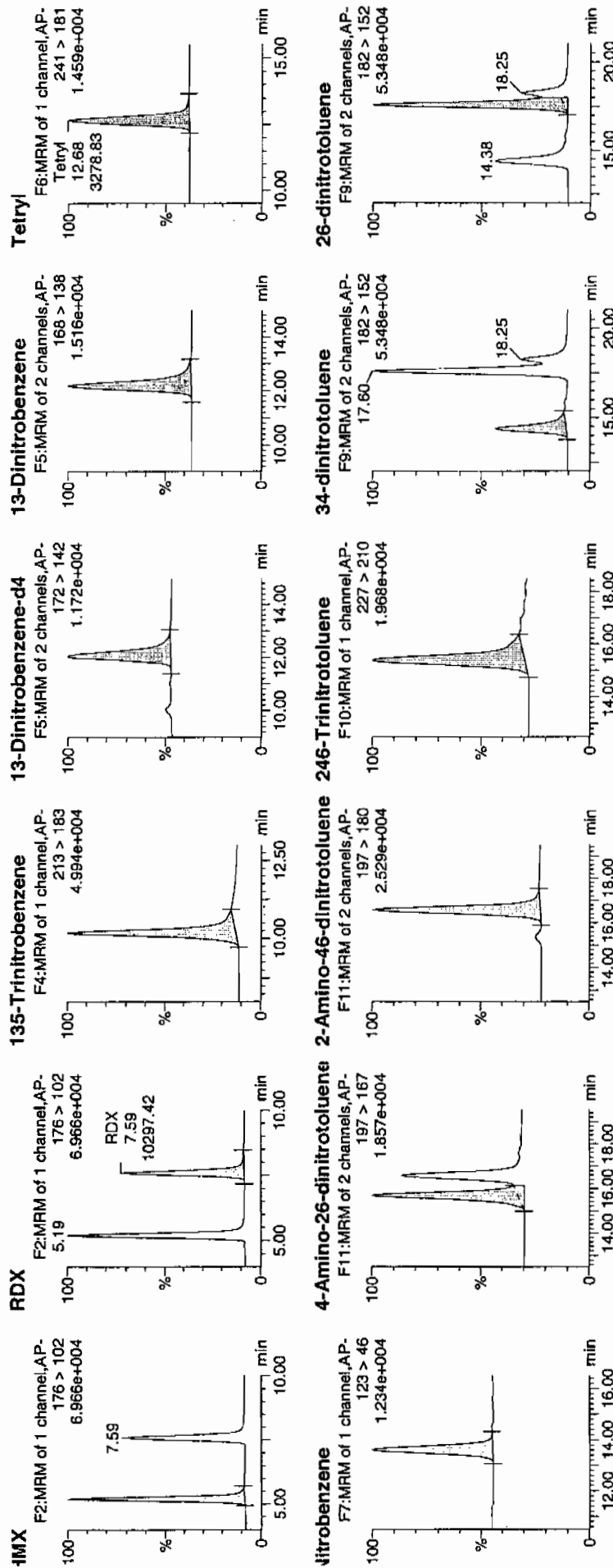
Date: 18-Feb-2010

Time: 18:31:14

File: D:\WXX100216-07CCV

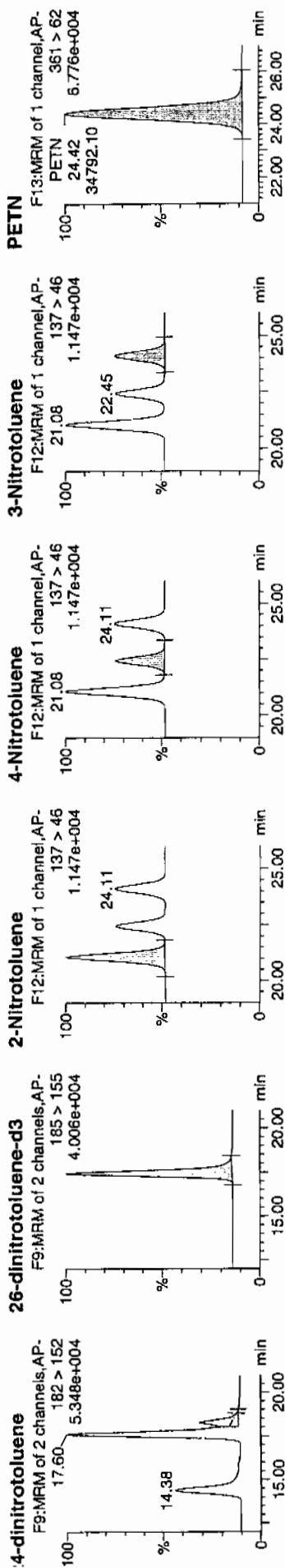
Label: 1:1,B

1/19/10



1/19/10

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Dev	SN
NXX100216-07CCV HMX	176 > 102	5.19	12844.975	2516.453	12844.975	2552.198	bb			661.4698	110.2	805.0
NXX100216-07CCV RDX	176 > 102	7.59	10297.420	2516.453	10297.420	2046.019	bb			788.9189	131.5	562.4
NXX100216-07CCV 135-Trinitrobenzene	213 > 183	10.18	12406.179	2516.453	12406.179	2465.013	bb			636.5357	106.1	424.6
NXX100216-07CCV 13-Dinitrobenzene-d4	172 > 142	12.03	2516.453		2516.453	2516.453	bb			417.6802	83.5	330.0
NXX100216-07CCV 13-Dinitrobenzene	168 > 138	12.17	3723.589	2516.453	3723.589	739.849	bb			622.4958	103.7	190.3
NXX100216-07CCV Tetra	241 > 181	12.68	3278.833	2516.453	3278.833	651.479	bb			597.5600	99.6	372.1
NXX100216-07CCV Nitrobenzene	123 > 46	13.63	2404.535	2516.453	2404.535	477.763	bb			556.5026	92.8	198.0
NXX100216-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.68	5223.180	13838.627	5223.180	188.717	MM	19-Feb-10	08:39:12	589.3419	98.2	189.6
NXX100216-07CCV 2-Amino-45-dinitrotoluene	197 > 180	16.58	7748.987	13838.627	7748.987	279.977	bb			648.0120	108.0	493.7
NXX100216-07CCV 246-Trinitrotoluene	227 > 210	15.38	6412.913	13838.627	6412.913	231.703	bb			691.1262	115.2	120.2
NXX100216-07CCV 34-dinitrotoluene	182 > 152	14.38	8255.552	13838.627	8255.552	298.279	bb			329.2262	109.7	337.2
NXX100216-07CCV 26-dinitrotoluene	182 > 152	17.60	18160.029	13838.627	18160.029	556.136	MM	19-Feb-10	08:43:33	619.3228	103.2	922.8
NXX100216-07CCV 24-dinitrotoluene	182 > 152	18.25	4346.167	13838.627	4346.167	157.030	MM	19-Feb-10	08:46:08	637.0129	106.2	207.3
NXX100216-07CCV 26-dinitrotoluene-d3	185 > 155	17.42	13838.627		13838.627	13838.627	bb			397.4663	79.5	1774.9
NXX100216-07CCV 2-Nitrotoluene	137 > 46	21.08	2546.937	13838.627	2546.937	92.023	bb			604.6405	100.8	226.0
NXX100216-07CCV 4-Nitrotoluene	137 > 46	22.45	1303.650	13838.627	1303.650	47.102	bb			614.4959	102.4	112.4
NXX100216-07CCV 3-Nitrotoluene	137 > 46	24.11	1410.576	13838.627	1410.576	50.965	bb			569.5129	94.9	114.8
NXX100216-07CCV PETN	361 > 62	24.42	34792.098	13838.627	34792.098	1257.065	bb			838.3138	139.7	7852.2

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/18/10
 Time of Injection: 1831
 Standard Number: WXX100216-07CCV
 Data File: EXP0216101a

HMX	110.2
RDX	131.5
135-TNB	106.1
13-DNB	109.7
Tetryl	99.6
Nitrobenzene	92.8
4A-26-DNT	98.2
2A-46-DNT	108.0
246-TNT	115.2
34-DNT(surr)	109.7
26-DNT	103.2
24-DNT	106.2
2-NT	100.8
4-NT	102.4
3-NT	94.9
PETN	139.7

*MAP
2/19/10*

Total 1728.2

Average 108.0

4/19/10 02/19/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216103a

Analysis Date: 18-FEB-10 19:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	21.612	108	
4-Amino-2,6-dinitrotoluene	40	34.649	87	
HMX	40	46.441	116	
Nitrobenzene	40	31.128	78	
PETN	40	54.273	136	*
RDX	40	41.533	104	
Tetryl	40	53.24	133	*
m-Dinitrobenzene	40	46.745	117	
m-Nitrotoluene	40	40.745	102	
o-Nitrotoluene	40	34.511	86	
p-Nitrotoluene	40	26.865	67	*
1,3,5-Trinitrobenzene	40	58.779	147	*
1,3-Dinitrobenzene-d4	500	457.386	91	
2,4,6-Trinitrotoluene	40	46.527	116	
2,4-Dinitrotoluene	40	46.8	117	
2,6-Dinitrotoluene	40	41.187	103	
2,6-Dinitrotoluene-d3	500	451.82	90	
2-Amino-4,6-dinitrotoluene	40	40.759	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%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Identify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216103a

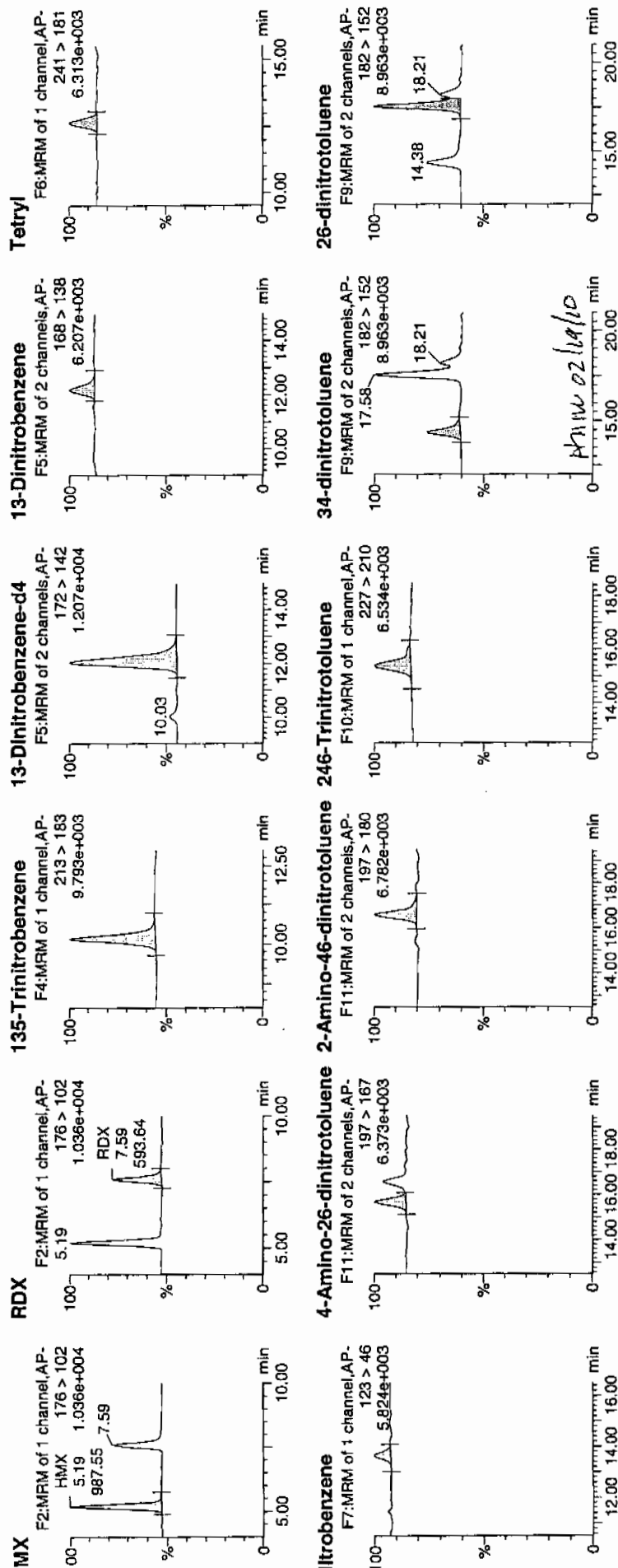
Date: 18-Feb-2010

Time: 19:30:18

File: WXX100216-08CRI

Label: 1:1,C

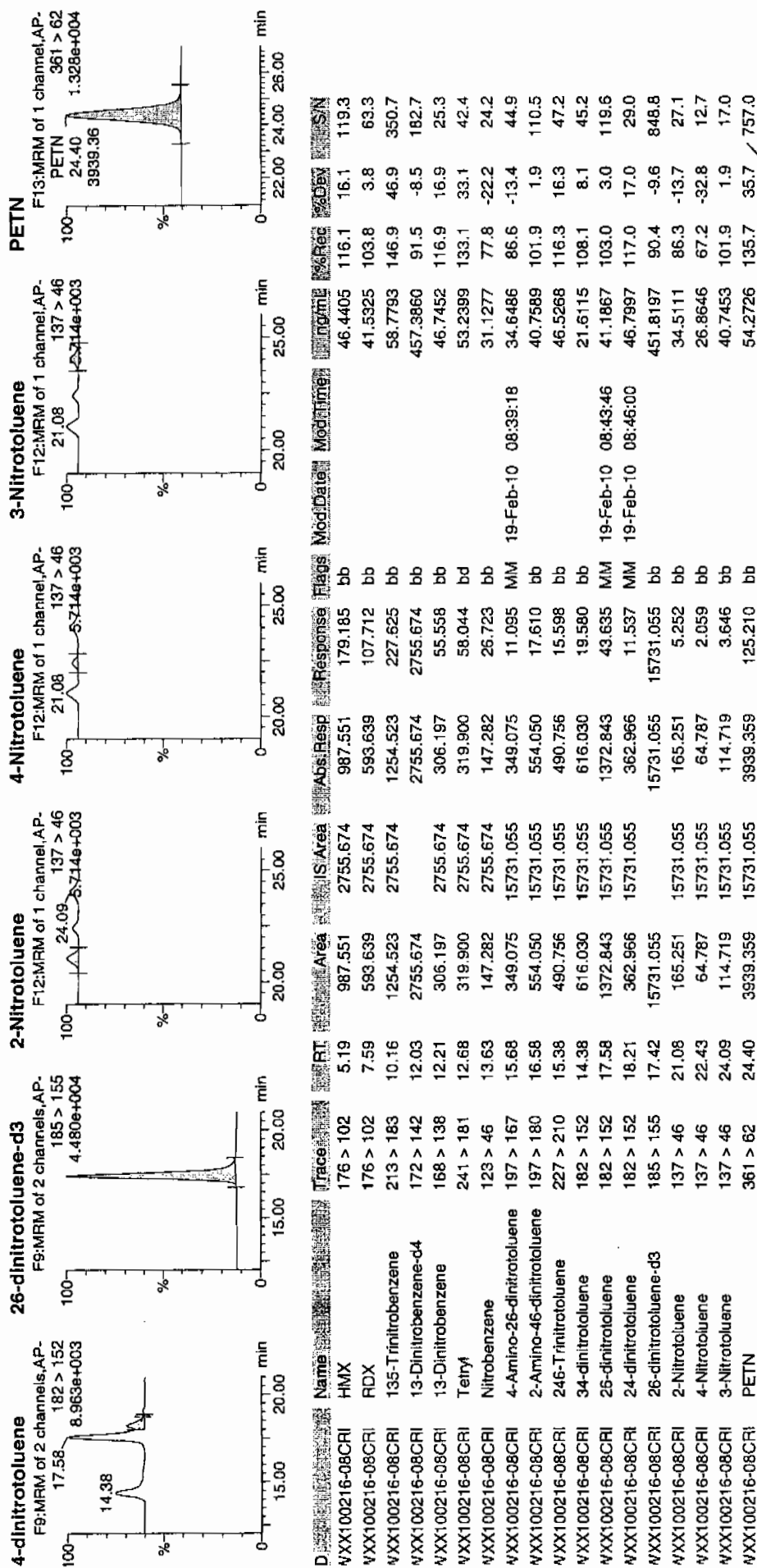
2/19/10



Printed: Fri Feb 19 08:50:21 2010, Page 46 of 97

Quantify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/18/10
 Time of Injection 1930
 Standard Number WXX100216-08CRI
 Data File EXP0216103a

HMX	116.1
RDX	103.8
135-TNB	146.9
13-DNB	116.9
Tetryl	133.1
Nitrobenzene	77.8
4A-26-DNT	86.6
2A-46-DNT	101.9
246-TNT	116.3
34-DNT(surr)	108.1
26-DNT	103.0
24-DNT	117.0
2-NT	86.3
4-NT	67.2
3-NT	101.9
PETN	135.7

*WTF
2/19/10*

Total 1718.6

Average 107.4

WTF on 2/19/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216114a

Analysis Date: 19-FEB-10 00:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	571.409	95	
1,3-Dinitrobenzene-d4	500	465.878	93	
2,4,6-Trinitrotoluene	600	690.895	115	
2,4-Dinitrotoluene	600	648.45	108	
2,6-Dinitrotoluene	600	627.387	105	
2,6-Dinitrotoluene-d3	500	447.599	90	
2-Amino-4,6-dinitrotoluene	600	606.475	101	
3,4-Dinitrotoluene	300	332.84	111	
4-Amino-2,6-dinitrotoluene	600	583.14	97	
HMX	600	691.106	115	
Nitrobenzene	600	588.13	98	
PETN	600	649.5	108	
RDX	600	760.723	127	*
Tetryl	600	549.314	92	
m-Dinitrobenzene	600	621.892	104	
m-Nitrotoluene	600	658.774	110	
o-Nitrotoluene	600	731.578	122	*
p-Nitrotoluene	600	638.105	106	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

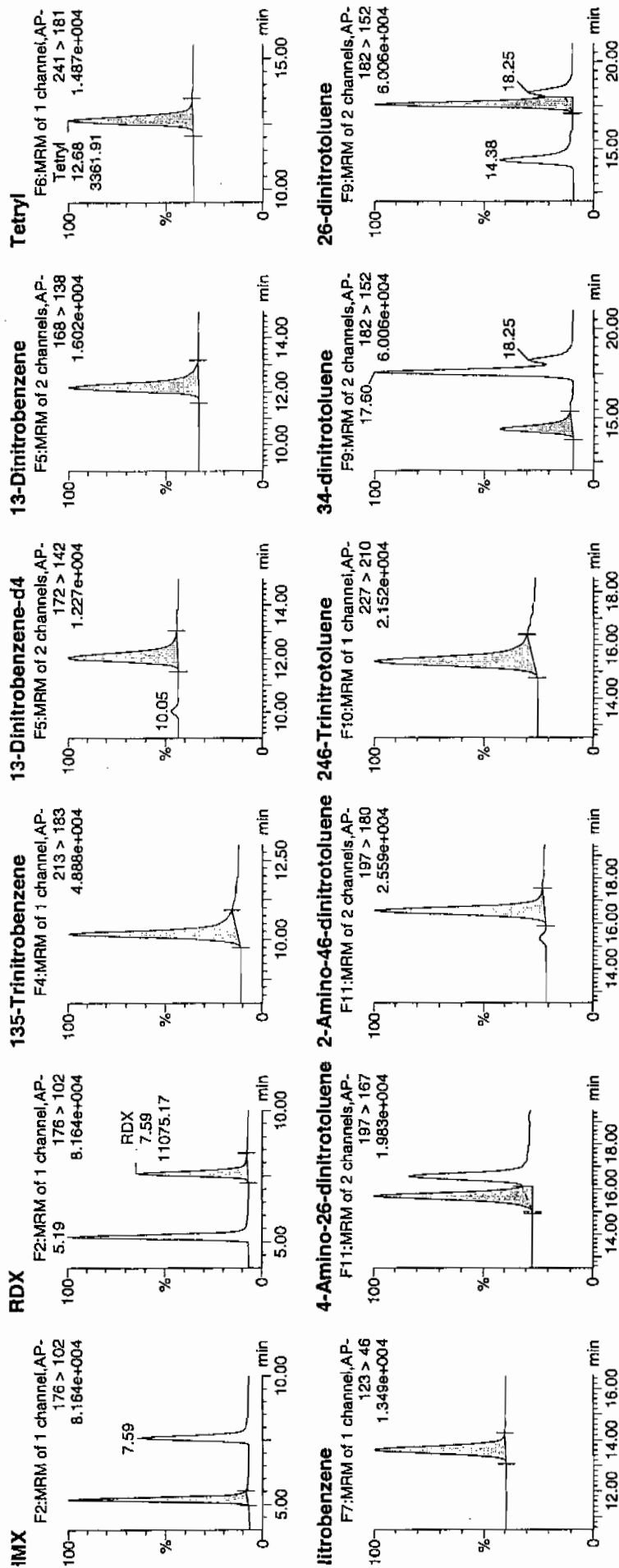
Quantify Sample Report
 EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216114a

Date: 19-Feb-2010
 Time: 00:55:04
 D: WXX100216-07CCV
 /ial: 1:1,B

Handwritten: 2/19/10

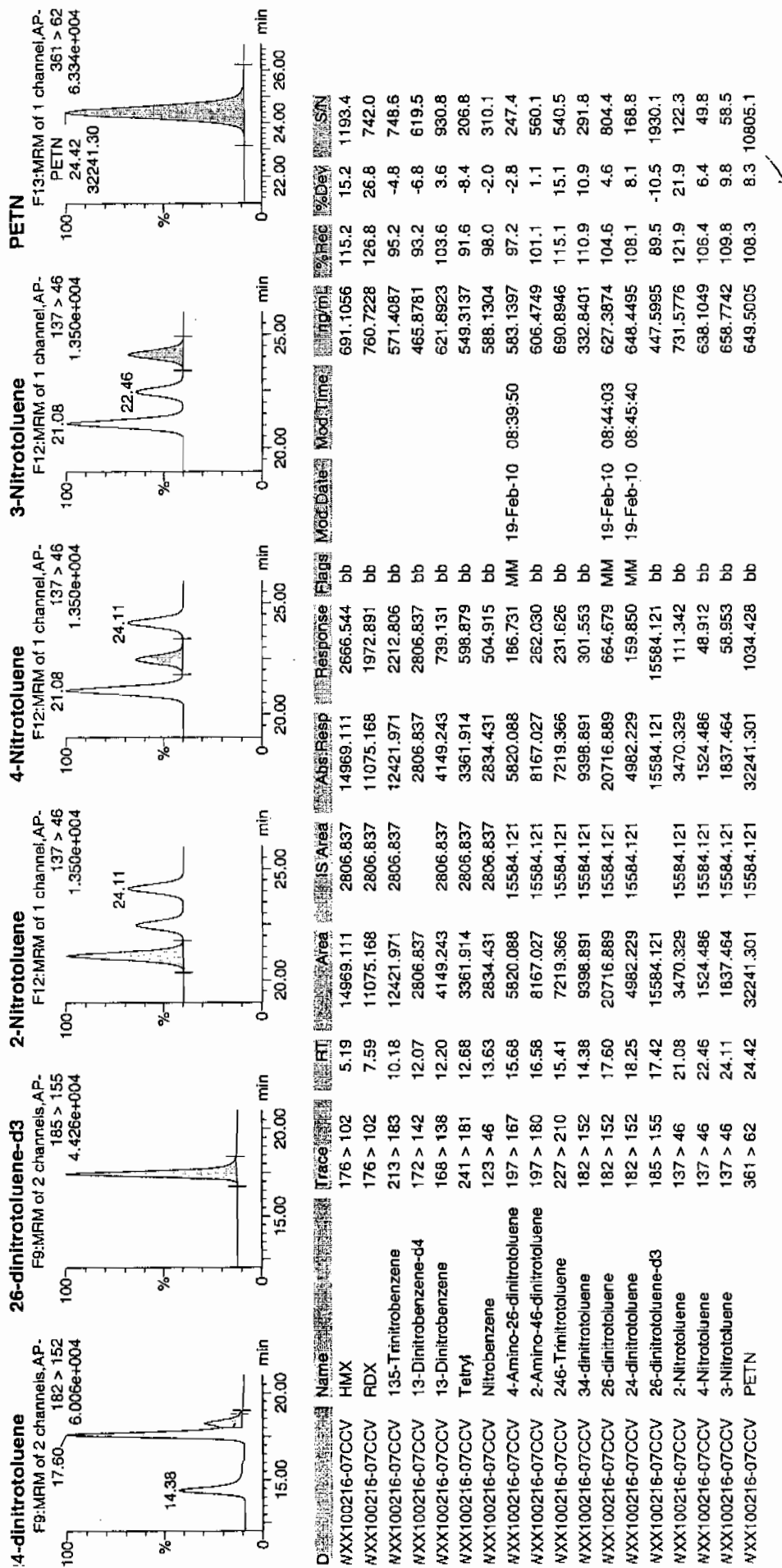


Handwritten: 2/19/10

Printed: Fri Feb 19 08:50:21 2010, Page 68 of 97

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/19/10
 Time of Injection: 0055
 Standard Number: WXX100216-07CCV
 Data File: EXP0216114a

HMX	115.2
RDX	126.8
135-TNB	95.2
13-DNB	103.6
Tetryl	91.6
Nitrobenzene	98.0
4A-26-DNT	97.2
2A-46-DNT	101.1
246-TNT	115.1
34-DNT(surr)	110.9
26-DNT	104.6
24-DNT	108.1
2-NT	121.9
4-NT	106.4
3-NT	109.8
PETN	108.3

*MT
2/19/10*

Total 1713.8

from 02/19/10

Average 107.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216116a

Analysis Date: 19-FEB-10 01:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	54.134	135	*
1,3-Dinitrobenzene-d4	500	470.242	94	
2,4,6-Trinitrotoluene	40	41.446	104	
2,4-Dinitrotoluene	40	40.654	102	
2,6-Dinitrotoluene	40	43.246	108	
2,6-Dinitrotoluene-d3	500	447.67	90	
2-Amino-4,6-dinitrotoluene	40	36.207	91	
3,4-Dinitrotoluene	20	19.336	97	
4-Amino-2,6-dinitrotoluene	40	36.956	92	
HMX	40	44.381	111	
Nitrobenzene	40	40.08	100	
PETN	40	50.067	125	
RDX	40	41.692	104	
Tetryl	40	48.261	121	
m-Dinitrobenzene	40	44.048	110	
m-Nitrotoluene	40	38.744	97	
o-Nitrotoluene	40	45.248	113	
p-Nitrotoluene	40	44.246	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 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0216116a

Date: 19-Feb-2010

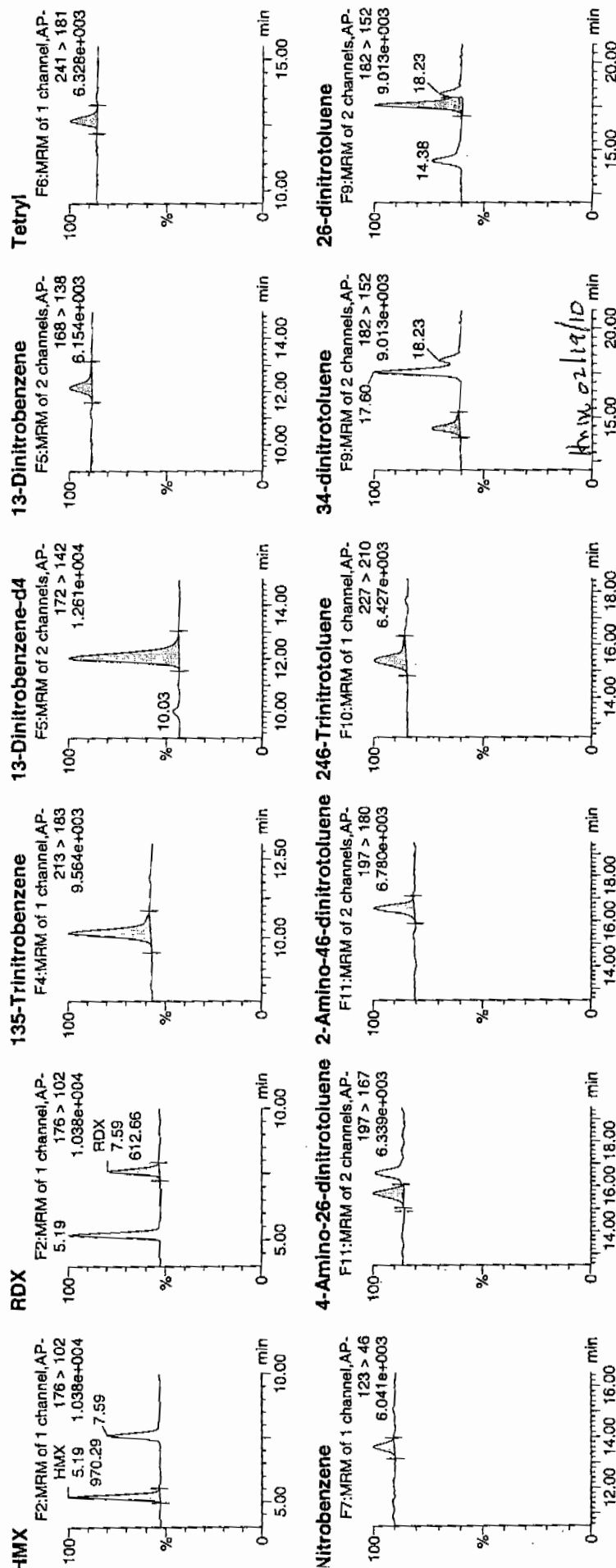
Time: 01:54:19

ID: WXX100216-08CRI

Vial: 1:1,C

Page 410 of 1886

WXX
02/19/10

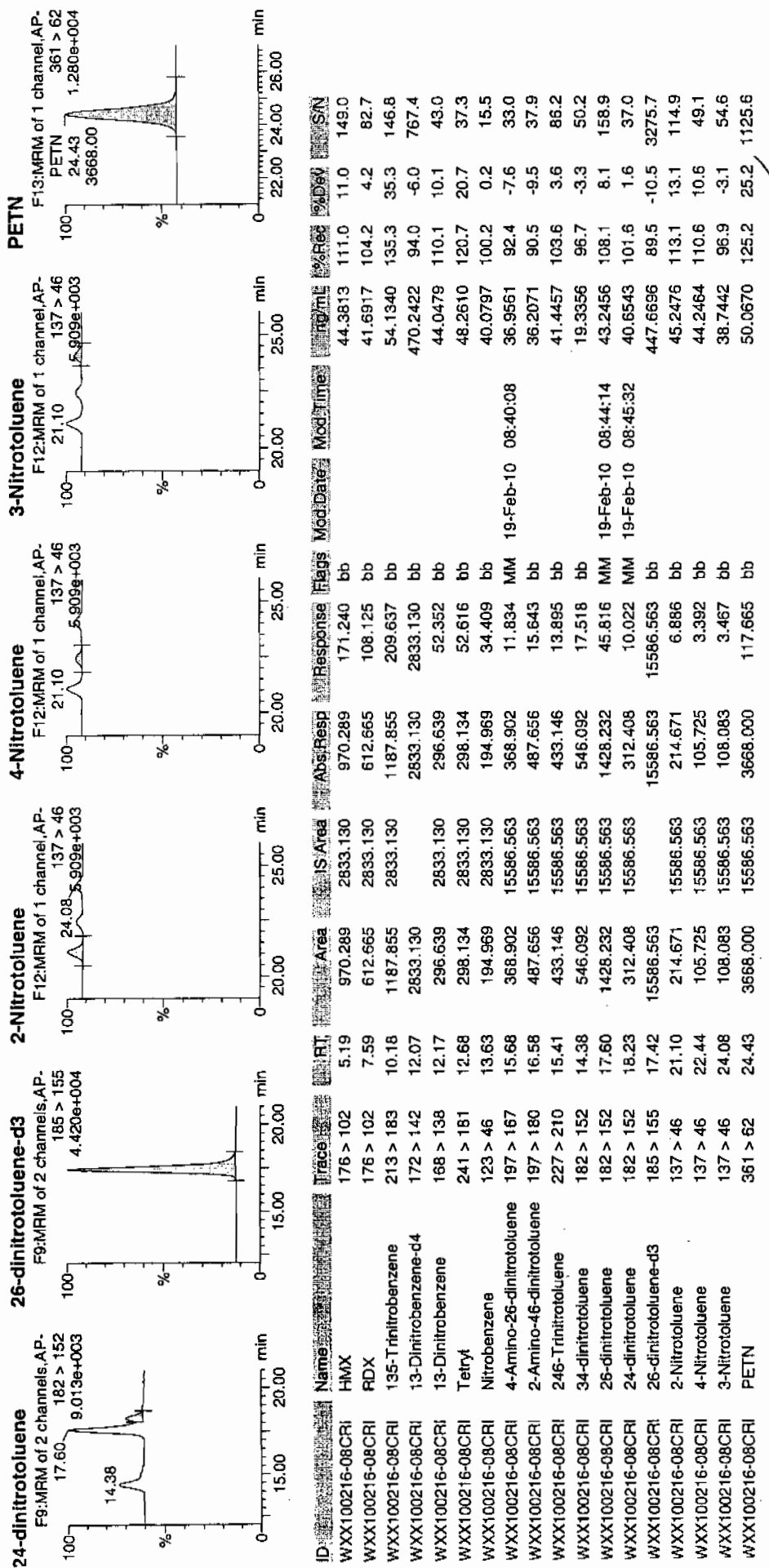


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Feb 19 08:50:21 2010, Page 72 of 97

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/19/10
 Time of Injection 0154
 Standard Number WXX100216-08CRI
 Data File EXP0216116a

HMX	111.0
RDX	104.2
135-TNB	135.3
13-DNB	110.1
Tetryl	120.7
Nitrobenzene	100.2
4A-26-DNT	92.4
2A-46-DNT	90.5
246-TNT	103.6
34-DNT(surr)	96.7
26-DNT	108.1
24-DNT	101.6
2-NT	113.1
4-NT	110.6
3-NT	96.9
PETN	125.2

*Left
2/19/10*

Total 1720.2

Average 107.5

Home 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216126a

Analysis Date: 19-FEB-10 06:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	397.902	80	*
2-Amino-4,6-dinitrotoluene	600	620.207	103	
3,4-Dinitrotoluene	300	328.459	109	
4-Amino-2,6-dinitrotoluene	600	549.091	92	
HMX	600	579.088	97	
Nitrobenzene	600	570.011	95	
PETN	600	752.558	125	*
RDX	600	664.439	111	
Tetryl	600	546.113	91	
m-Dinitrobenzene	600	654.383	109	
m-Nitrotoluene	600	546.709	91	
o-Nitrotoluene	600	565.725	94	
p-Nitrotoluene	600	596.095	99	
1,3,5-Trinitrobenzene	600	602.103	100	
1,3-Dinitrobenzene-d4	500	399.789	80	*
2,4,6-Trinitrotoluene	600	636.088	106	
2,4-Dinitrotoluene	600	631.293	105	
2,6-Dinitrotoluene	600	639.245	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 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216126a

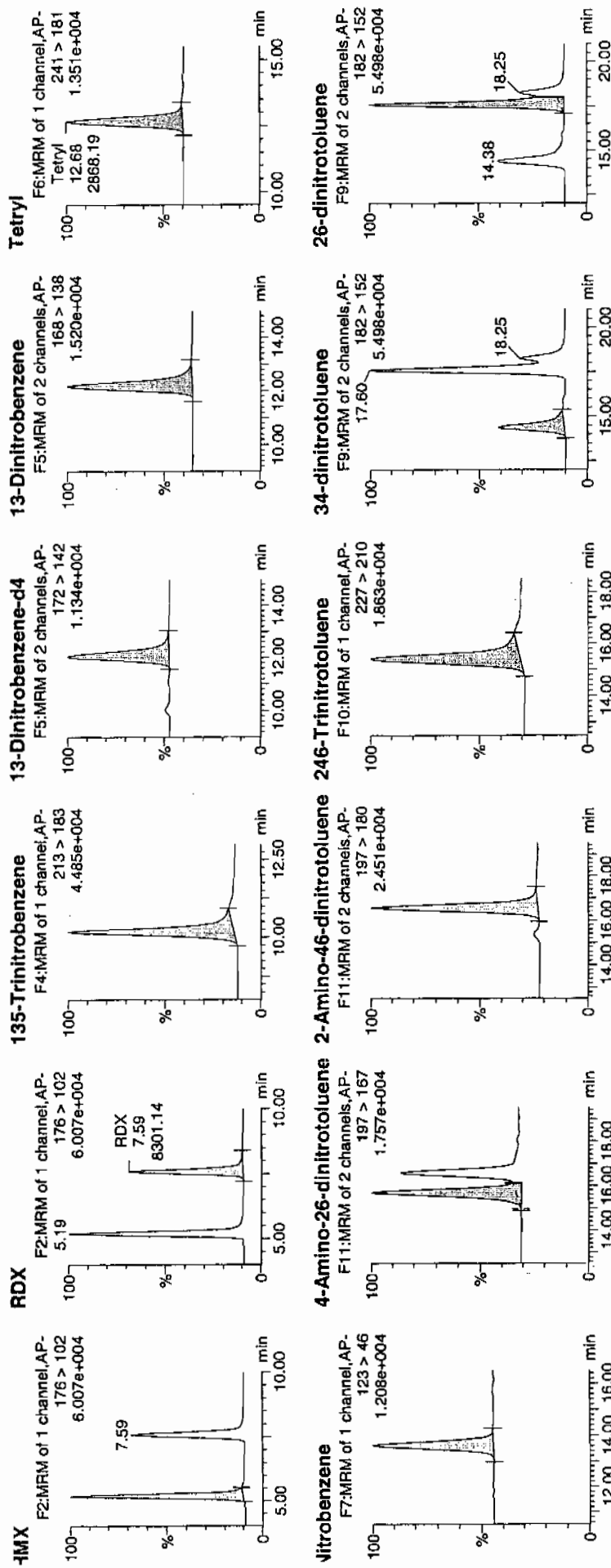
Date: 19-Feb-2010

Time: 06:51:55

D: WXX100216-07CCV

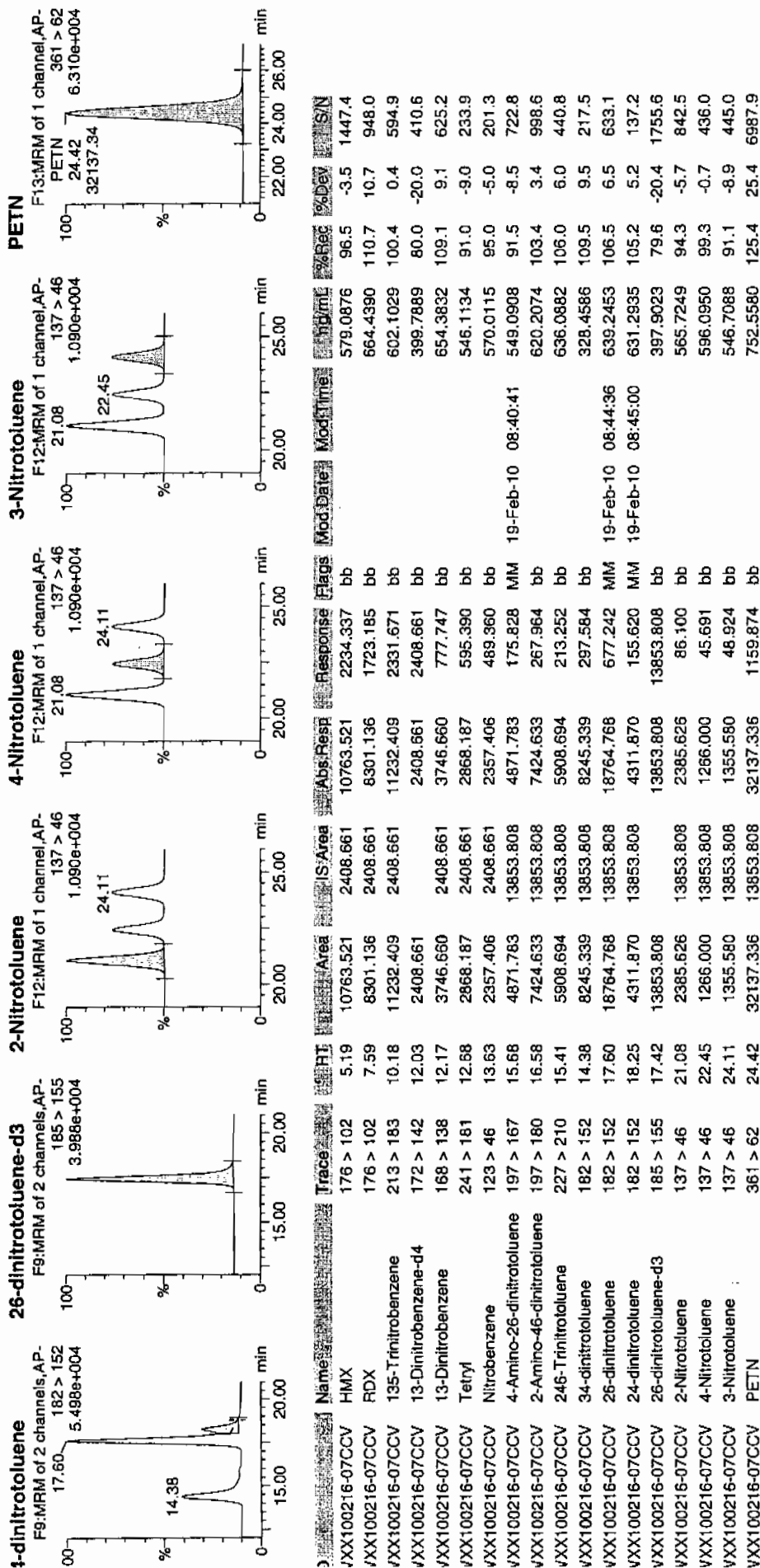
Vial: 1:1,B

AP
2/19/10



AP
2/19/10

atlas: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/19/10
 Time of Injection: 0651
 Standard Number: WXX100216-07CCV
 Data File: EXP0216126a

HMX	96.5
RDX	110.7
135-TNB	100.4
13-DNB	109.1
Tetryl	91.0
Nitrobenzene	95.0
4A-26-DNT	91.5
2A-46-DNT	103.4
246-TNT	106.0
34-DNT(surr)	109.5
26-DNT	106.5
24-DNT	105.2
2-NT	94.3
4-NT	99.3
3-NT	91.1
PETN	125.4

*mtf
2/19/10*

Total 1634.9

Average 102.2

mtf 02/19/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216128a

Analysis Date: 19-FEB-10 07:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	55.601	139	*
1,3-Dinitrobenzene-d4	500	449.803	90	
2,4,6-Trinitrotoluene	40	55.731	139	*
2,4-Dinitrotoluene	40	40.622	102	
2,6-Dinitrotoluene	40	39.408	99	
2,6-Dinitrotoluene-d3	500	428.152	86	
2-Amino-4,6-dinitrotoluene	40	37.221	93	
3,4-Dinitrotoluene	20	25.924	130	
4-Amino-2,6-dinitrotoluene	40	38.795	97	
HMX	40	51.235	128	
Nitrobenzene	40	44.876	112	
PETN	40	54.004	135	*
RDX	40	44.767	112	
Tetryl	40	41.893	105	
m-Dinitrobenzene	40	46.8	117	
m-Nitrotoluene	40	44.528	111	
o-Nitrotoluene	40	39.368	98	
p-Nitrotoluene	40	54.772	137	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Filename: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216128a

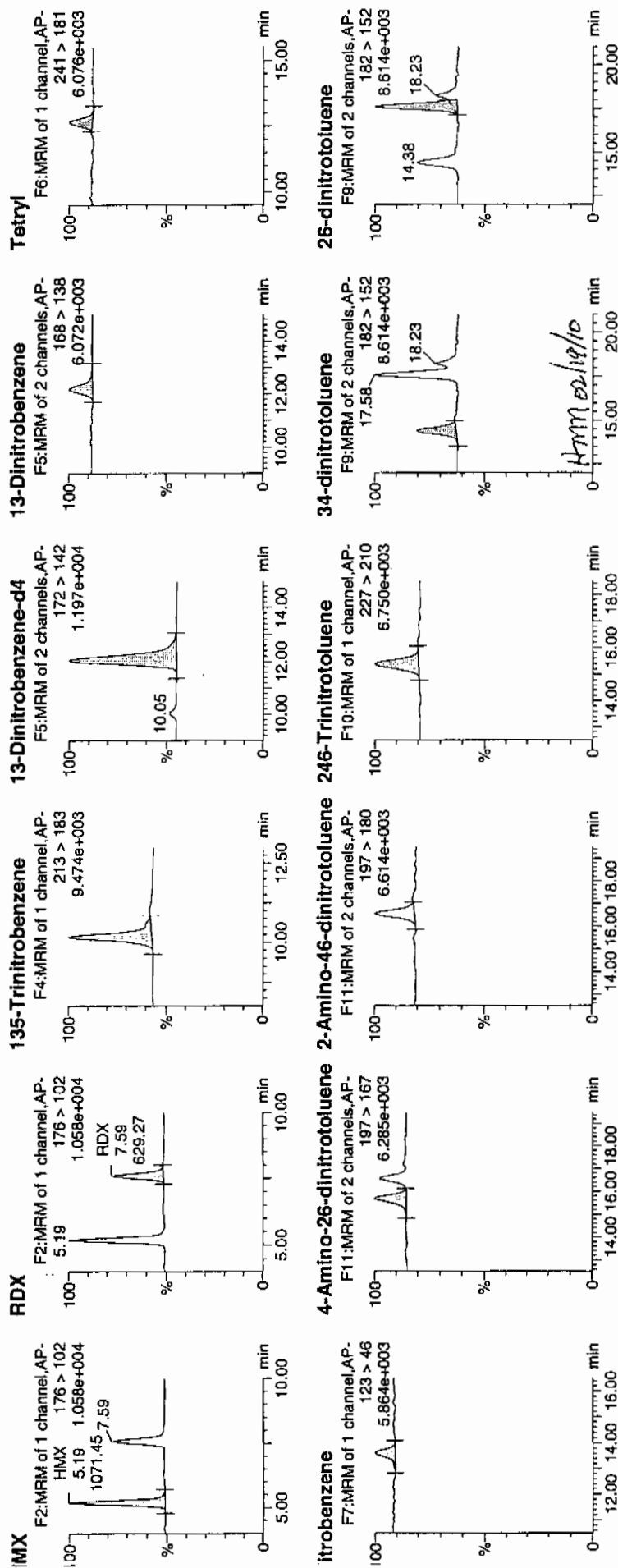
Plate: 19-Feb-2010

Time: 07:51:13

Job: WXX100216-08CRI

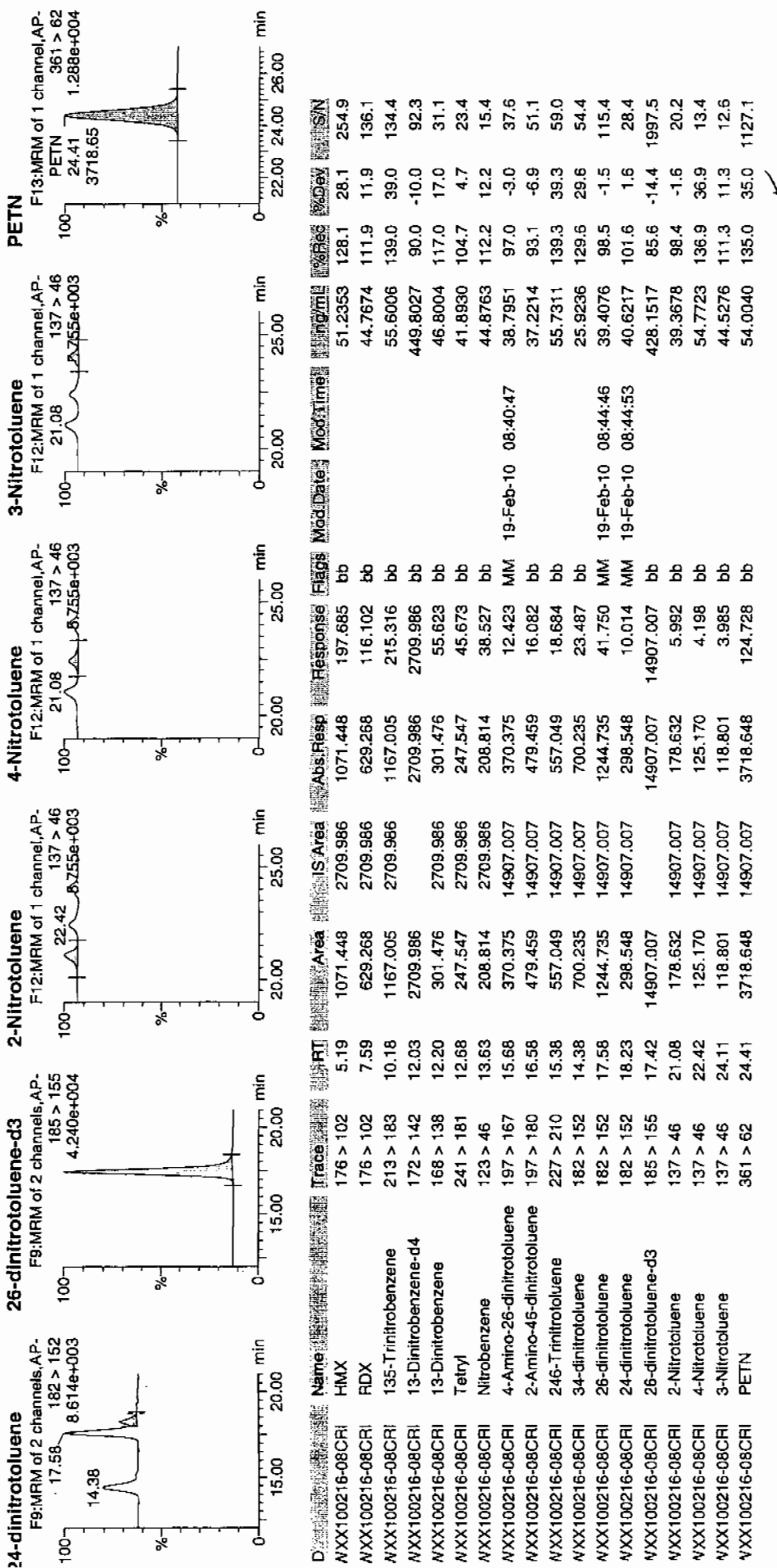
Label: 1:1,C

2/19/10
MMP



Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSL\YXX\New_Exp_PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/19/10
 Time of Injection 0751
 Standard Number WXX100216-08CRI
 Data File EXP0216128a

HMX	128.1
RDX	111.9
135-TNB	139.0
13-DNB	117.0
Tetryl	104.7
Nitrobenzene	112.2
4A-26-DNT	97.0
2A-46-DNT	93.1
246-TNT	139.3
34-DNT(surr)	129.6
26-DNT	98.5
24-DNT	101.6
2-NT	98.4
4-NT	136.9
3-NT	111.3
PETN	135.0

*MAP
2/19/10*

Total 1853.6

Average 115.9

HPM 02/19/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216139a

Analysis Date: 19-FEB-10 13:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	581.663	97	
1,3-Dinitrobenzene-d4	500	443.331	89	
2,4,6-Trinitrotoluene	600	659.577	110	
2,4-Dinitrotoluene	600	628.747	105	
2,6-Dinitrotoluene	600	636.836	106	
2,6-Dinitrotoluene-d3	500	420.393	84	
2-Amino-4,6-dinitrotoluene	600	637.114	106	
3,4-Dinitrotoluene	300	320.79	107	
4-Amino-2,6-dinitrotoluene	600	595.642	99	
HMX	600	592.154	99	
Nitrobenzene	600	551.705	92	
PETN	600	668.485	111	
RDX	600	661.851	110	
Tetryl	600	569.897	95	
m-Dinitrobenzene	600	615.3	103	
m-Nitrotoluene	600	562.081	94	
o-Nitrotoluene	600	617.05	103	
p-Nitrotoluene	600	581.656	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216139a

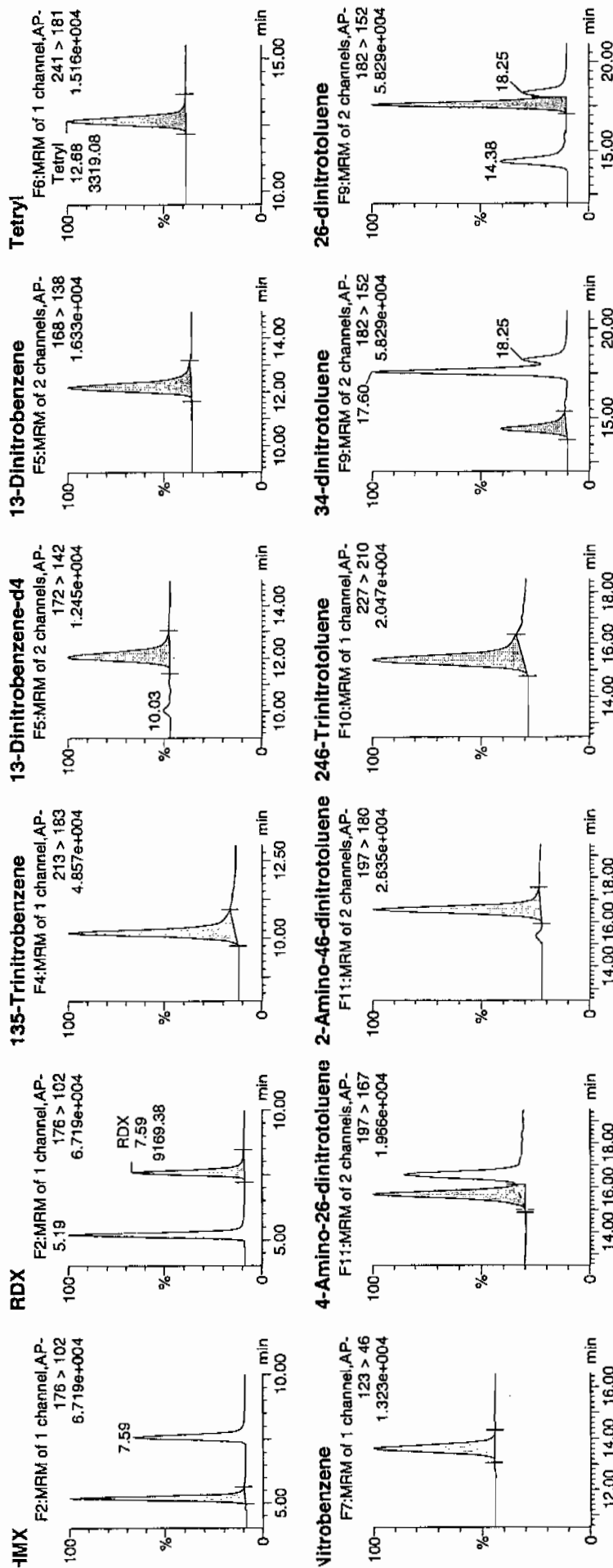
Date: 19-Feb-2010

Time: 13:16:57

ID: WXX100219-07CCV

File: 1:1.B

MM 2/20/10



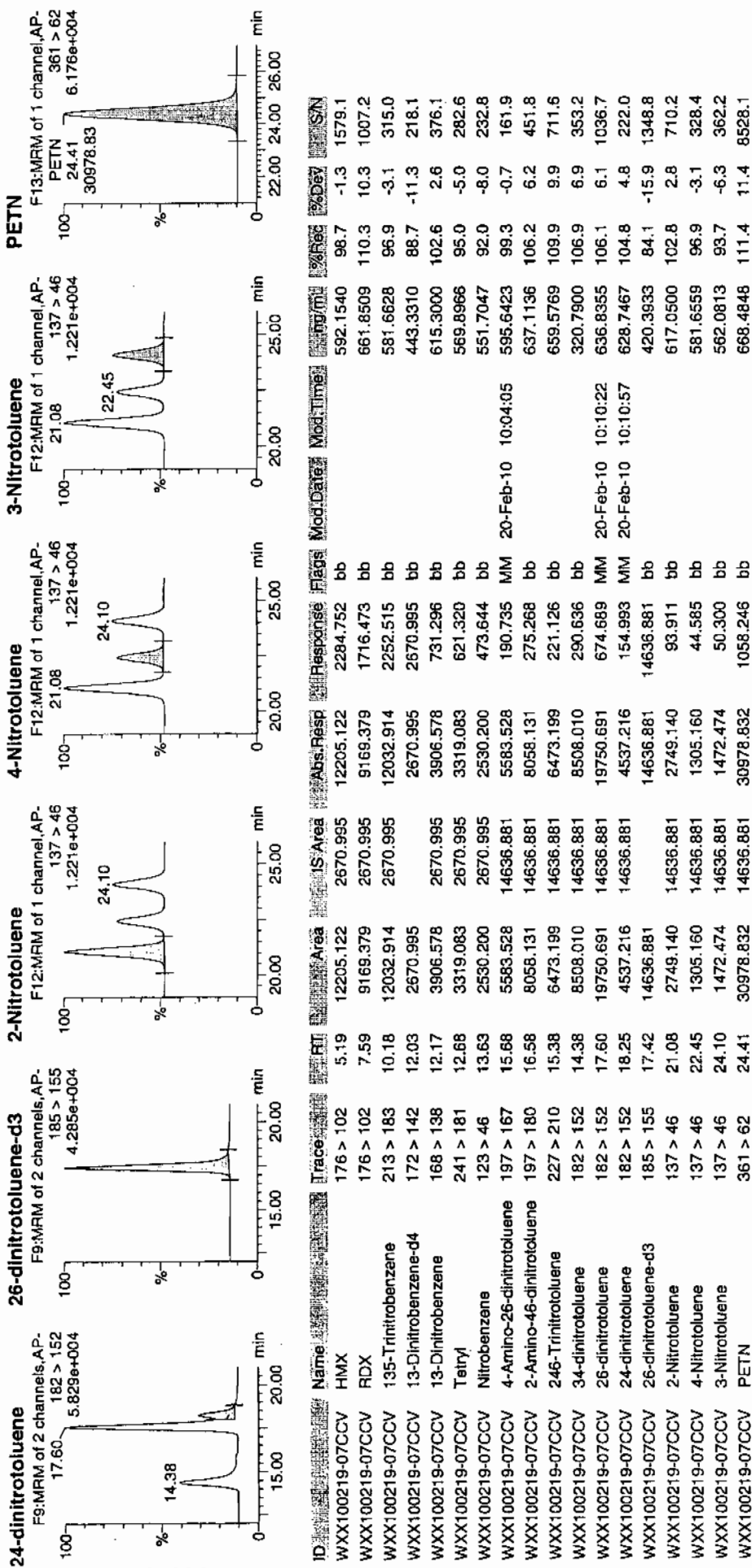
MM 2/20/10

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Feb 20 10:19:24 2010, Page 22 of 103

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/19/10
 Time of Injection: 1316
 Standard Number: WXX100219-07CCV
 Data File: EXP0216139a

HMX	98.7
RDX	110.3
135-TNB	96.9
13-DNB	102.6
Tetryl	95.0
Nitrobenzene	92.0
4A-26-DNT	99.3
2A-46-DNT	106.2
246-TNT	109.9
34-DNT(surr)	106.9
26-DNT	106.1
24-DNT	104.8
2-NT	102.8
4-NT	96.9
3-NT	93.7
PETN	111.4

*WXX
2/20/10*

Total 1633.5

Average 102.1

WXX 02/21/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216141a

Analysis Date: 19-FEB-10 14:38

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	37.237	93	
PETN	40	46.953	117	
RDX	40	40.492	101	
Tetryl	40	47.198	118	
m-Dinitrobenzene	40	42.001	105	
m-Nitrotoluene	40	28.745	72	
o-Nitrotoluene	40	40.324	101	
p-Nitrotoluene	40	44.263	111	
1,3,5-Trinitrobenzene	40	51.493	129	
1,3-Dinitrobenzene-d4	500	432.424	86	
2,4,6-Trinitrotoluene	40	45.9	115	
2,4-Dinitrotoluene	40	37.747	94	
2,6-Dinitrotoluene	40	40.216	101	
2,6-Dinitrotoluene-d3	500	427.034	85	
2-Amino-4,6-dinitrotoluene	40	39.792	99	
3,4-Dinitrotoluene	20	19.371	97	
4-Amino-2,6-dinitrotoluene	40	39.356	98	
HMX	40	40.293	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216141a

Date: 19-Feb-2010

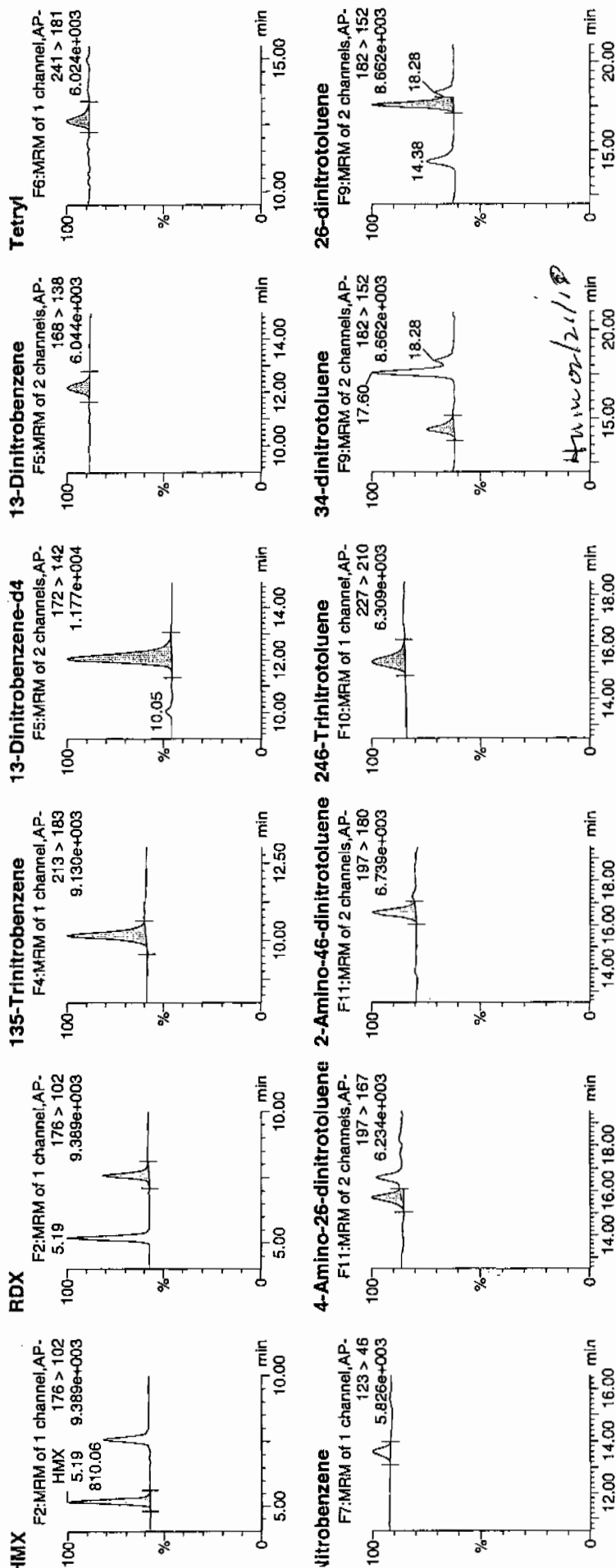
Time: 14:38:39

D: WXX100219-08CRI

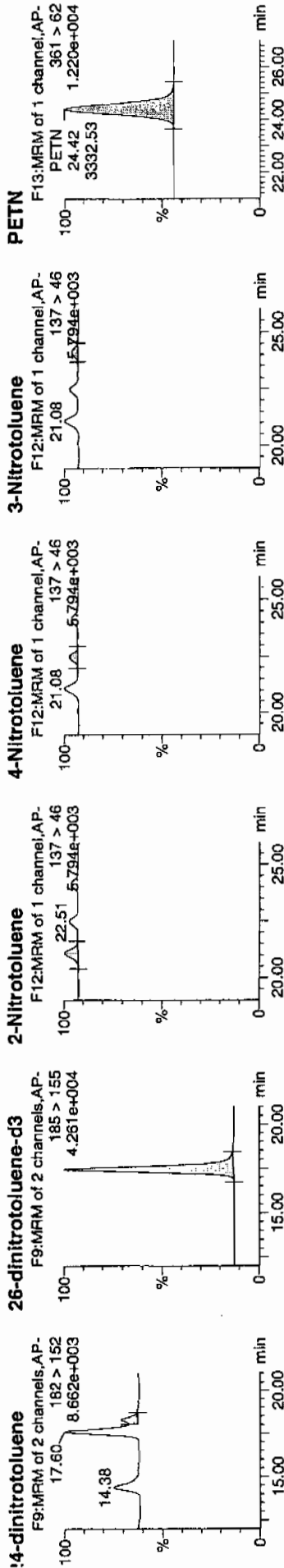
/Inl: 1:1,C

10/21/10

Page 426 of 1886



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



D	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Intg/ml	%Rec	%Dev	SIN
NXX100219-08CRI	HMX	176 > 102	5.19	810.057	2605.284	810.057	155.464	bb			40.2927	100.7	0.7	350.8
NXX100219-08CRI	RDX	176 > 102	7.59	547.179	2605.284	547.179	105.013	bb			40.4919	101.2	1.2	199.0
NXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1039.041	2605.284	1039.041	199.410	bb			51.4933	128.7	28.7	140.6
NXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2605.284	2605.284	2605.284	2605.284	bb			432.4243	86.5	-13.5	129.6
NXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	260.106	2605.284	260.106	49.919	bb			42.0009	105.0	5.0	32.9
NXX100219-08CRI	Tetryl	241 > 181	12.68	266.118	2605.284	266.118	51.457	bb			47.1978	118.0	18.0	13.3
NXX100219-08CRI	Nitrobenzene	123 > 46	13.58	166.572	2605.284	166.572	31.968	bb			37.2368	93.1	-6.9	18.3
NXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	374.749	14868.098	374.749	12.602	MM	20-Feb-10	10:04:14	39.3560	98.4	-1.6	29.7
NXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	511.231	14868.098	511.231	17.192	bb			39.7917	99.5	-0.5	84.6
NXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	457.584	14868.098	457.584	15.388	bb			45.8998	114.7	14.7	55.8
NXX100219-08CRI	34-dinitrotoluene	182 > 152	14.36	521.863	14868.098	521.863	17.550	bb			19.3706	96.9	-3.1	39.5
NXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1266.948	14868.098	1266.948	42.606	MM	20-Feb-10	10:10:11	40.2158	100.5	0.5	116.9
NXX100219-08CRI	24-dinitrotoluene	182 > 152	18.28	276.695	14868.098	276.695	9.305	MM	20-Feb-10	10:11:06	37.7468	94.4	-5.6	26.6
NXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	14868.098	14868.098	14868.098	14868.098	bb			427.0342	85.4	-14.6	1374.8
NXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	182.492	14868.098	182.492	6.137	bb			40.3237	100.8	0.8	62.0
NXX100219-08CRI	4-Nitrotoluene	137 > 46	22.51	100.890	14868.098	100.890	3.393	bb			44.2633	110.7	10.7	37.2
NXX100219-08CRI	3-Nitrotoluene	137 > 46	24.15	76.491	14868.098	76.491	2.572	bb			28.7445	71.9	-28.1	27.0
NXX100219-08CRI	PETN	361 > 62	24.42	3332.531	14868.098	3332.531	112.070	bb			46.9534	117.4	17.4	1998.3

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/19/10
 Time of Injection 1438
 Standard Number WXX100219-08CRI
 Data File EXP0216141a

HMX	100.7
RDX	101.2
135-TNB	128.7
13-DNB	105.0
Tetryl	118.0
Nitrobenzene	93.1
4A-26-DNT	98.4
2A-46-DNT	99.5
246-TNT	114.7
34-DNT(surr)	96.9
26-DNT	100.5
24-DNT	94.4
2-NT	100.8
4-NT	110.7
3-NT	71.9
PETN	117.4

not
2/20/10

Total 1651.9

Average 103.2

Home-02/21/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216152a

Analysis Date: 19-FEB-10 20:04

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	513.424	86	
Nitrobenzene	600	539.863	90	
PETN	600	705.299	118	
RDX	600	587.648	98	
Tetryl	600	522.811	87	
m-Dinitrobenzene	600	623.69	104	
m-Nitrotoluene	600	566.188	94	
o-Nitrotoluene	600	572.566	95	
p-Nitrotoluene	600	581.489	97	
1,3,5-Trinitrobenzene	600	585.615	98	
1,3-Dinitrobenzene-d4	500	433.279	87	
2,4,6-Trinitrotoluene	600	622.918	104	
2,4-Dinitrotoluene	600	632.455	105	
2,6-Dinitrotoluene	600	610.704	102	
2,6-Dinitrotoluene-d3	500	405.063	81	
2-Amino-4,6-dinitrotoluene	600	607.913	101	
3,4-Dinitrotoluene	300	354.753	118	
4-Amino-2,6-dinitrotoluene	600	546.925	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216152a

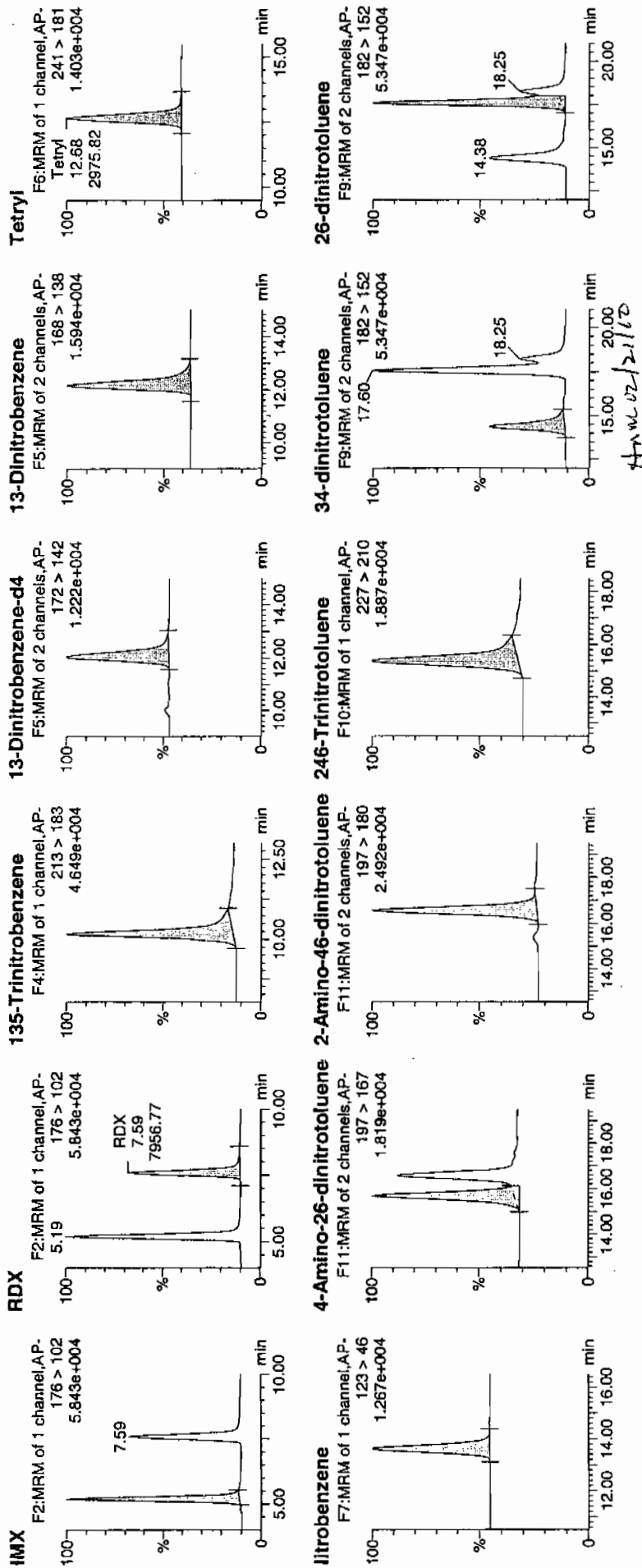
Date: 19-Feb-2010

Time: 20:04:52

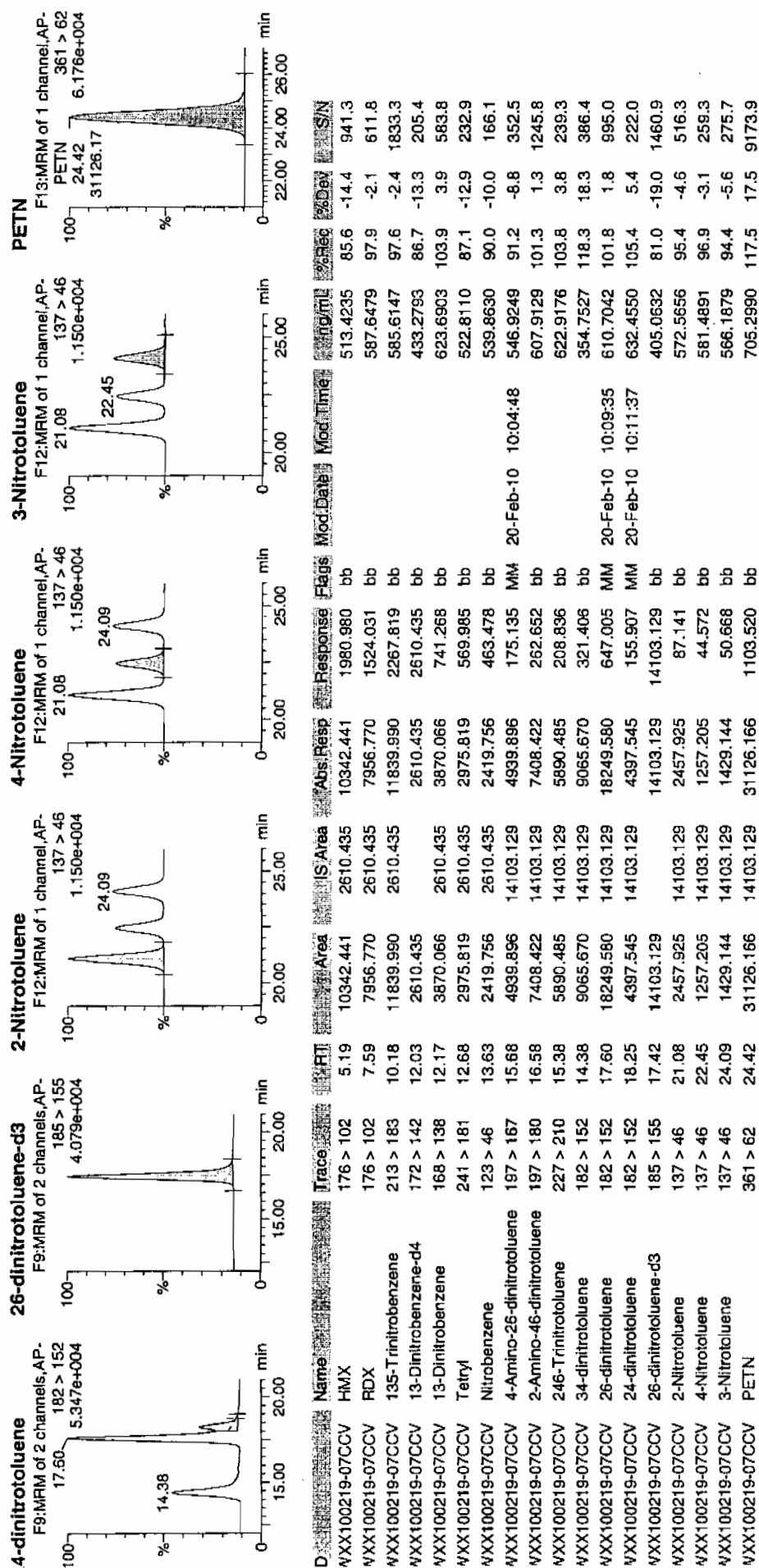
D: WXX100219-07CCV

Fial: 1:1,B

100110



Dataset: C:\MASSLYN\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/19/10
 Time of Injection: 2004
 Standard Number: WXX100219-07CCV
 Data File: EXP0216152a

HMX	85.6
RDX	97.9
135-TNB	97.6
13-DNB	103.9
Tetryl	87.1
Nitrobenzene	90.0
4A-26-DNT	91.2
2A-46-DNT	101.3
246-TNT	103.8
34-DNT (surr)	118.3
26-DNT	101.8
24-DNT	105.4
2-NT	95.4
4-NT	96.9
3-NT	94.4
PETN	117.5

*not
2/20/10*

Total 1588.1

Average 99.3

Handwritten: 2/20/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216154a

Analysis Date: 19-FEB-10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.147	125	
1,3-Dinitrobenzene-d4	500	450.637	90	
2,4,6-Trinitrotoluene	40	41.511	104	
2,4-Dinitrotoluene	40	34.056	85	
2,6-Dinitrotoluene	40	43.032	108	
2,6-Dinitrotoluene-d3	500	422.29	84	
2-Amino-4,6-dinitrotoluene	40	33.702	84	
3,4-Dinitrotoluene	20	18.829	94	
4-Amino-2,6-dinitrotoluene	40	39.443	99	
HMX	40	39.672	99	
Nitrobenzene	40	34.869	87	
PETN	40	50.568	126	
RDX	40	44.347	111	
Tetryl	40	41.943	105	
m-Dinitrobenzene	40	42.885	107	
m-Nitrotoluene	40	30.88	77	
o-Nitrotoluene	40	43.984	110	
p-Nitrotoluene	40	47.734	119	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216154a

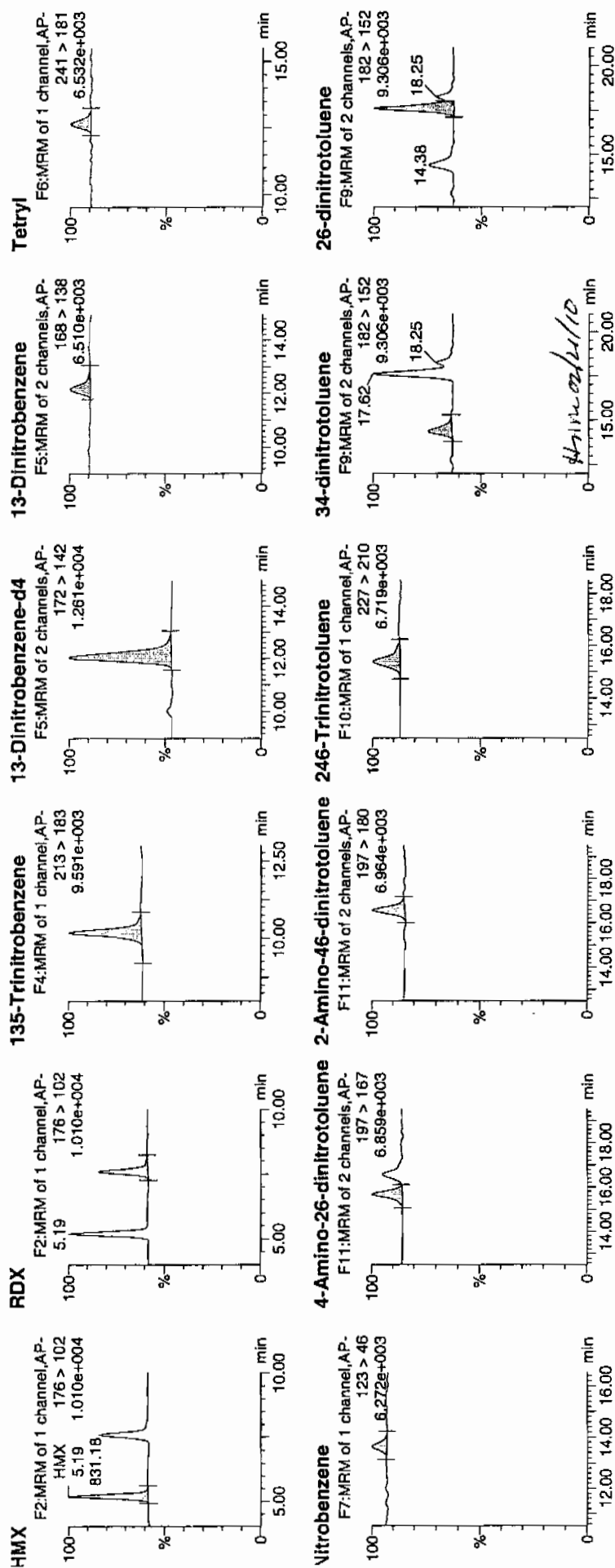
Date: 19-Feb-2010

Time: 21:04:26

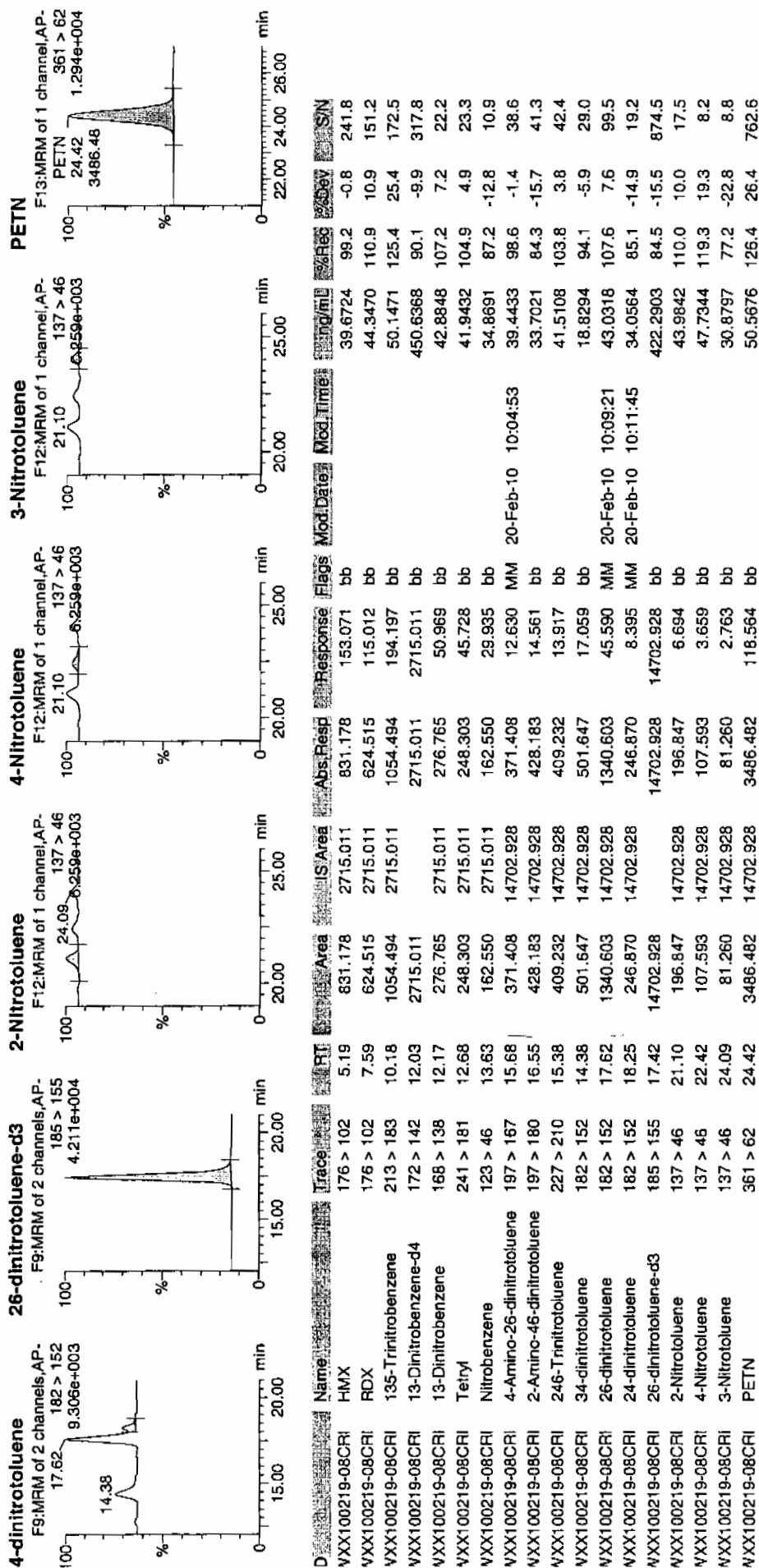
ID: WXX100219-08CRI

Vial: 1:1,C

WXX
2/20/10



Dataset: C:\MASSLYNX\New_Exp\PROX021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/19/10
 Time of Injection 2104
 Standard Number WXX100219-08CRI
 Data File EXP0216154a

HMX	99.2
RDX	110.9
135-TNB	125.4
13-DNB	107.2
Tetryl	104.9
Nitrobenzene	87.2
4A-26-DNT	98.6
2A-46-DNT	84.3
246-TNT	103.8
34-DNT(surr)	94.1
26-DNT	107.6
24-DNT	85.1
2-NT	110.0
4-NT	119.3
3-NT	77.2
PETN	126.4

*mtf
2/20/10*

Total 1641.2

Average 102.6

WXX100219-08CRI

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216165a

Analysis Date: 20-FEB-10 02:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	556.869	93	
1,3-Dinitrobenzene-d4	500	459.017	92	
2,4,6-Trinitrotoluene	600	686.791	114	
2,4-Dinitrotoluene	600	654.331	109	
2,6-Dinitrotoluene	600	632.741	105	
2,6-Dinitrotoluene-d3	500	432.19	86	
2-Amino-4,6-dinitrotoluene	600	630.547	105	
3,4-Dinitrotoluene	300	334.157	111	
4-Amino-2,6-dinitrotoluene	600	598.402	100	
HMX	600	628.779	105	
Nitrobenzene	600	589.272	98	
PETN	600	616.152	103	
RDX	600	688.147	115	
Tetryl	600	511.851	85	
m-Dinitrobenzene	600	600.417	100	
m-Nitrotoluene	600	618.203	103	
o-Nitrotoluene	600	675.613	113	
p-Nitrotoluene	600	646.307	108	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Feb 20 10:19:24 2010, Page 73 of 103

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216165a

Date: 20-Feb-2010

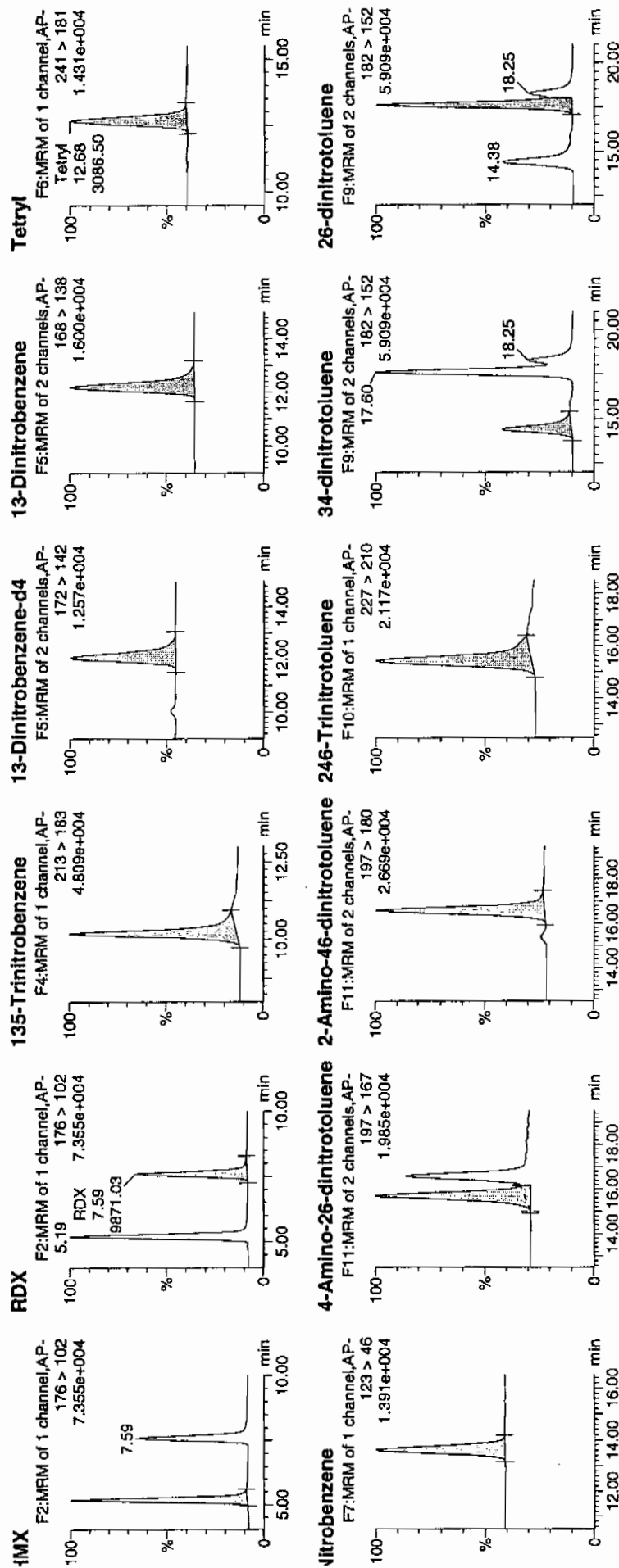
Time: 02:30:52

D: WXX100219-07CCV

Ratio: 1:1,B

Handwritten: 2/20/10

Page 438 of 1886



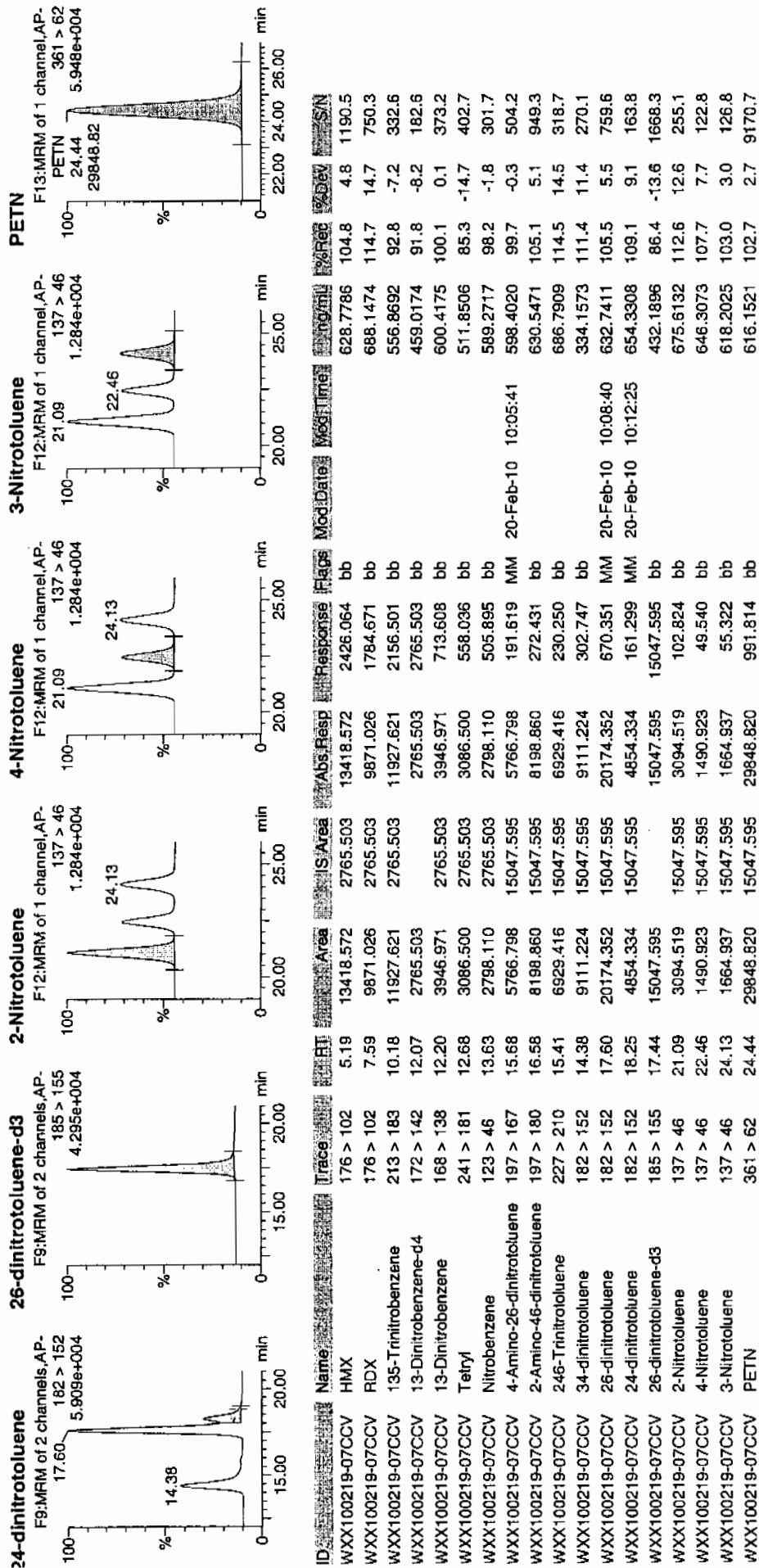
Handwritten: 4/11/10

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Printed: Sat Feb 20 10:19:24 2010, Page 74 of 103



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/20/10
 Time of Injection: 0230
 Standard Number: WXX100219-07CCV
 Data File: EXP0216165a

HMX	104.8
RDX	114.7
135-TNB	92.8
13-DNB	100.1
Tetryl	85.3
Nitrobenzene	98.2
4A-26-DNT	99.7
2A-46-DNT	105.1
246-TNT	114.5
34-DNT(surr)	111.4
26-DNT	105.5
24-DNT	109.1
2-NT	112.6
4-NT	107.7
3-NT	103.0
PETN	102.7

*104.2
2/22/10*

Total 1667.2

Average 104.2

467 ms 02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216167a

Analysis Date: 20-FEB-10 03:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	35.113	88	
2,6-Dinitrotoluene	40	42.037	105	
2,6-Dinitrotoluene-d3	500	447.009	89	
2-Amino-4,6-dinitrotoluene	40	40.822	102	
3,4-Dinitrotoluene	20	20.486	102	
4-Amino-2,6-dinitrotoluene	40	34.462	86	
HMX	40	39.712	99	
Nitrobenzene	40	40.158	100	
PETN	40	43.603	109	
RDX	40	40.632	102	
Tetryl	40	35.927	90	
m-Dinitrobenzene	40	46.565	116	
m-Nitrotoluene	40	46.564	116	
o-Nitrotoluene	40	43.88	110	
p-Nitrotoluene	40	52.931	132	*
1,3,5-Trinitrobenzene	40	56.003	140	*
1,3-Dinitrobenzene-d4	500	461.866	92	
2,4,6-Trinitrotoluene	40	35.563	89	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216167a

Date: 20-Feb-2010

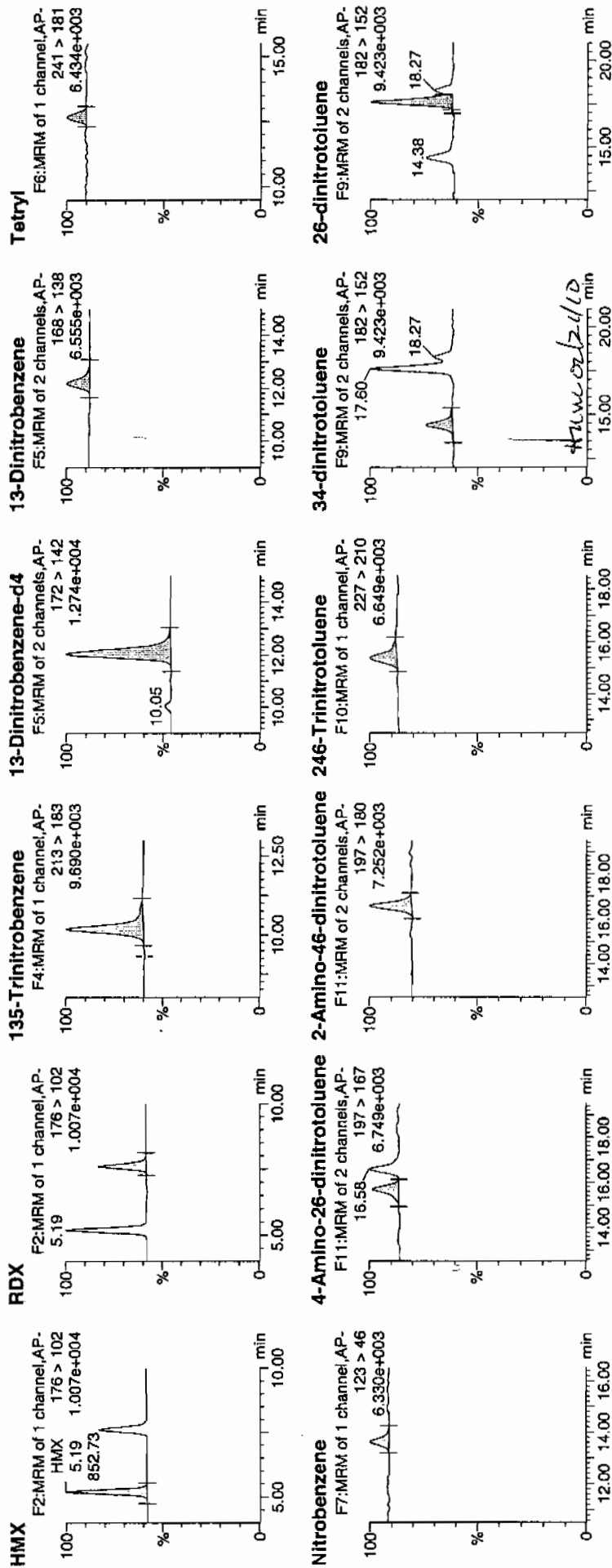
Time: 03:30:20

ID: WXX100219-08CRI

Vial: 1:1,C

2/20/10
MJP

Page 442 of 1886

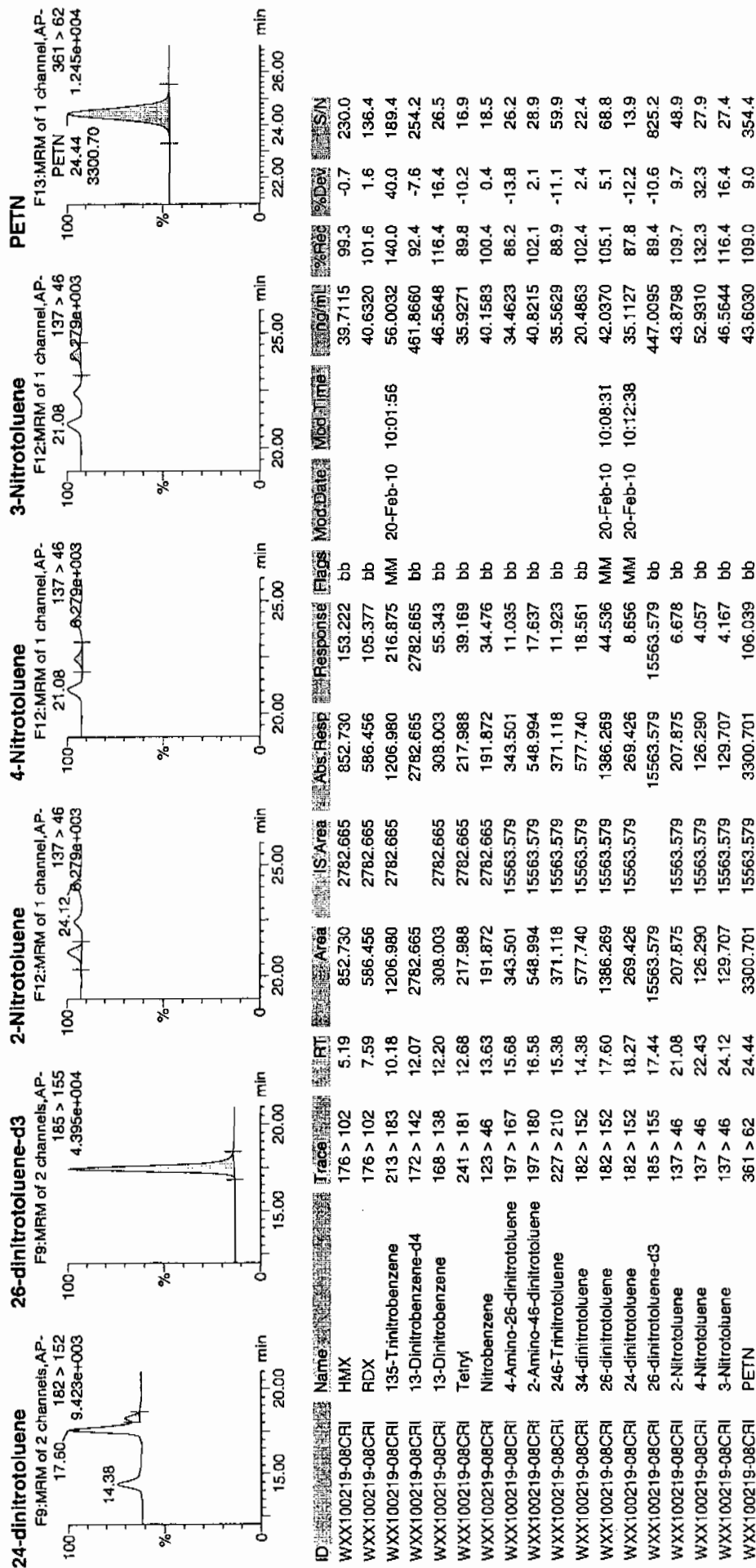


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Feb 20 10:19:24 2010, Page 78 of 103

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/20/10
 Time of Injection 0330
 Standard Number WXX100219-08CRI
 Data File EXP0216167a

HMX	99.3
RDX	101.6
135-TNB	140.0
13-DNB	116.4
Tetryl	89.8
Nitrobenzene	100.4
4A-26-DNT	86.2
2A-46-DNT	102.1
246-TNT	88.9
34-DNT(surr)	102.4
26-DNT	105.1
24-DNT	87.8
2-NT	109.7
4-NT	132.3
3-NT	116.4
PETN	109.0

*HTP
2/20/10*

Total 1687.4

Average 105.5

HTM 02/21/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216177a

Analysis Date: 20-FEB-10 08:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	401.83	80	
2,4,6-Trinitrotoluene	600	672.388	112	
2,4-Dinitrotoluene	600	632.659	105	
2,6-Dinitrotoluene	600	641.568	107	
2,6-Dinitrotoluene-d3	500	402.991	81	
2-Amino-4,6-dinitrotoluene	600	699.831	117	
3,4-Dinitrotoluene	300	342.356	114	
4-Amino-2,6-dinitrotoluene	600	569.079	95	
HMX	600	669.568	112	
Nitrobenzene	600	585.971	98	
PETN	600	541.695	90	
RDX	600	633.284	106	
Tetryl	600	484.225	81	
m-Dinitrobenzene	600	594.511	99	
m-Nitrotoluene	600	609.973	102	
o-Nitrotoluene	600	659.656	110	
p-Nitrotoluene	600	642.171	107	
1,3,5-Trinitrobenzene	600	597.11	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Sample: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216177a

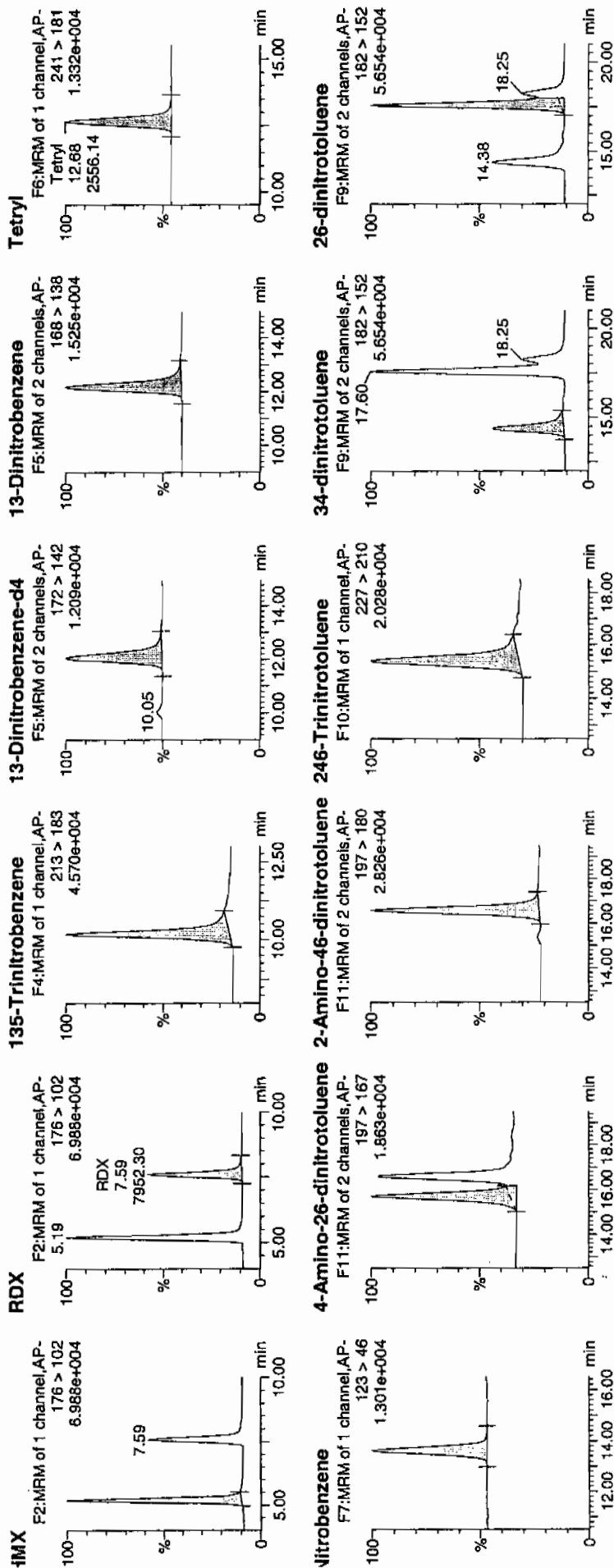
Date: 20-Feb-2010

Time: 08:26:41

D: WXX100219-07CCV

File: 1:1,B

2/20/10
MJP



2/20/10
MJP

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

ID	Name	Trace	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Int/ml	%Rec	%Dev	SN
WXX100219-07CCV	HMZ	176 > 102	5.19	12508.823	2420.959	12508.823	2583.444	bb			669.5679	111.6	11.6	1323.5
WXX100219-07CCV	RDZ	176 > 102	7.59	7952.295	2420.959	7952.295	1642.385	bb			633.2838	105.5	5.5	719.0
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11196.143	2420.959	11196.143	2312.336	bb			597.1102	99.5	-0.5	648.9
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2420.959	2420.959	2420.959	2420.959	bb			401.8301	80.4	-19.6	305.5
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3421.240	2420.959	3421.240	706.588	bb			594.5106	98.1	-0.9	492.5
WXX100219-07CCV	Tetryl	241 > 181	12.68	2556.135	2420.959	2556.135	527.918	bb			484.2252	80.7	-19.3	192.4
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2435.783	2420.959	2435.783	503.062	bb			585.9709	97.7	-2.3	263.7
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5113.692	14030.965	5113.692	182.229	MM	20-Feb-10	10:06:37	569.0788	94.8	-5.2	271.6
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8484.951	14030.965	8484.951	302.365	bb			699.8306	116.6	16.6	1227.7
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.41	6325.760	14030.965	6325.760	225.421	bb			672.3884	112.1	12.1	230.3
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	8704.100	14030.965	8704.100	310.175	bb			342.3558	114.1	14.1	271.7
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	19073.775	14030.965	19073.775	679.703	MM	20-Feb-10	10:07:59	641.5679	106.9	6.9	739.9
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4376.453	14030.965	4376.453	155.957	MM	20-Feb-10	10:13:28	632.6588	105.4	5.4	149.8
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	14030.965	14030.965	14030.965	14030.965	bb			402.9905	80.6	-19.4	938.1
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	2817.298	14030.965	2817.298	100.396	bb			659.6557	109.9	9.9	577.9
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1381.297	14030.965	1381.297	49.223	bb			642.1707	107.0	7.0	276.4
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.13	1531.785	14030.965	1531.785	54.586	bb			609.9726	101.7	1.7	298.8
WXX100219-07CCV	PETN	361 > 62	24.44	25062.178	14030.965	25062.178	893.102	bb			541.6953	90.3	-9.7	4992.2

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/20/10
 Time of Injection: 0826
 Standard Number: WXX100219-07CCV
 Data File: EXP0216177a

HMX	111.6
RDX	105.5
135-TNB	99.5
13-DNB	99.1
Tetryl	80.7
Nitrobenzene	97.7
4A-26-DNT	94.8
2A-46-DNT	116.6
246-TNT	112.1
34-DNT(surr)	114.1
26-DNT	106.9
24-DNT	105.4
2-NT	109.9
4-NT	107.0
3-NT	101.7
PETN	90.3

*MTD
2/20/10*

Total 1652.9

Average 103.3

Amount 2/21/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216179a

Analysis Date: 20-FEB-10 09:25

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	46.367	116	
m-Nitrotoluene	40	42.917	107	
o-Nitrotoluene	40	38.507	96	
p-Nitrotoluene	40	32.981	82	
1,3,5-Trinitrobenzene	40	38.029	95	
1,3-Dinitrobenzene-d4	500	467.621	94	
2,4,6-Trinitrotoluene	40	42.418	106	
2,4-Dinitrotoluene	40	35.714	89	
2,6-Dinitrotoluene	40	42.694	107	
2,6-Dinitrotoluene-d3	500	425.329	85	
2-Amino-4,6-dinitrotoluene	40	43.06	108	
3,4-Dinitrotoluene	20	23.991	120	
4-Amino-2,6-dinitrotoluene	40	41.554	104	
HMX	40	44.103	110	
Nitrobenzene	40	43.726	109	
PETN	40	42.516	106	
RDX	40	44.98	112	
Tetryl	40	33.469	84	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216179a

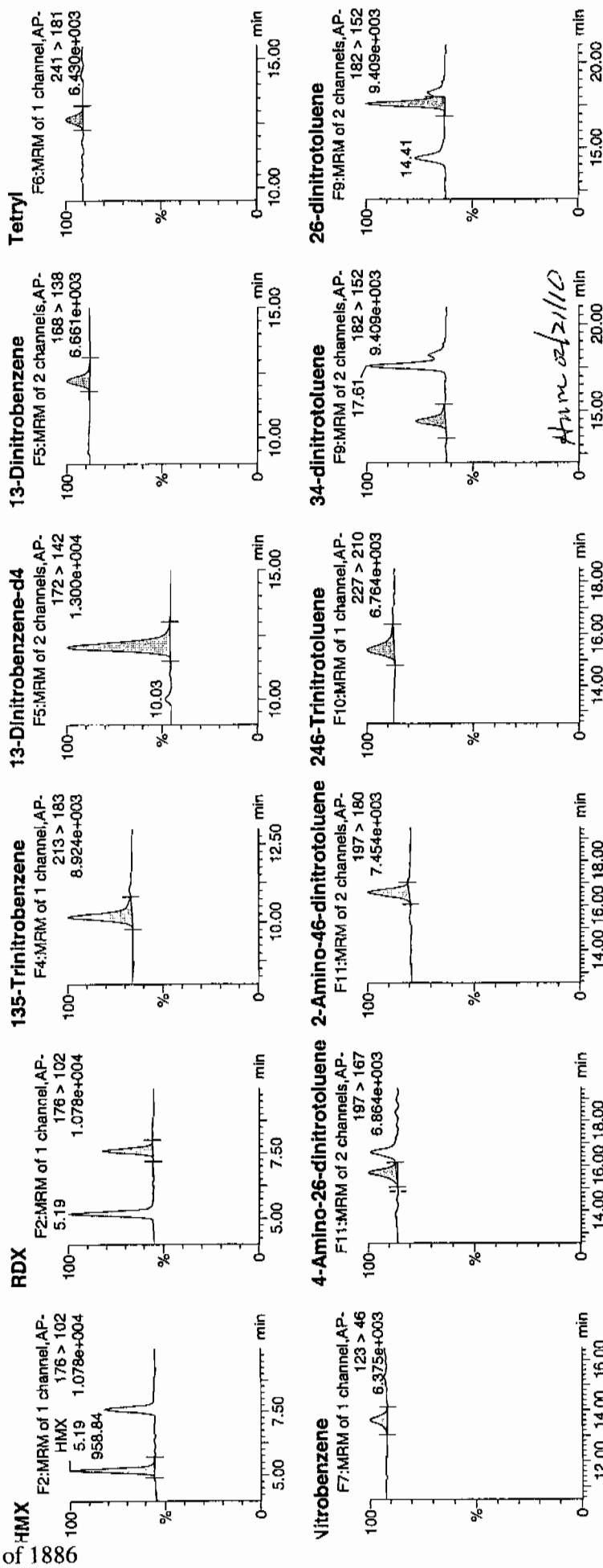
Date: 20-Feb-2010

Time: 09:25:41

ID: WXX100219-08CRI

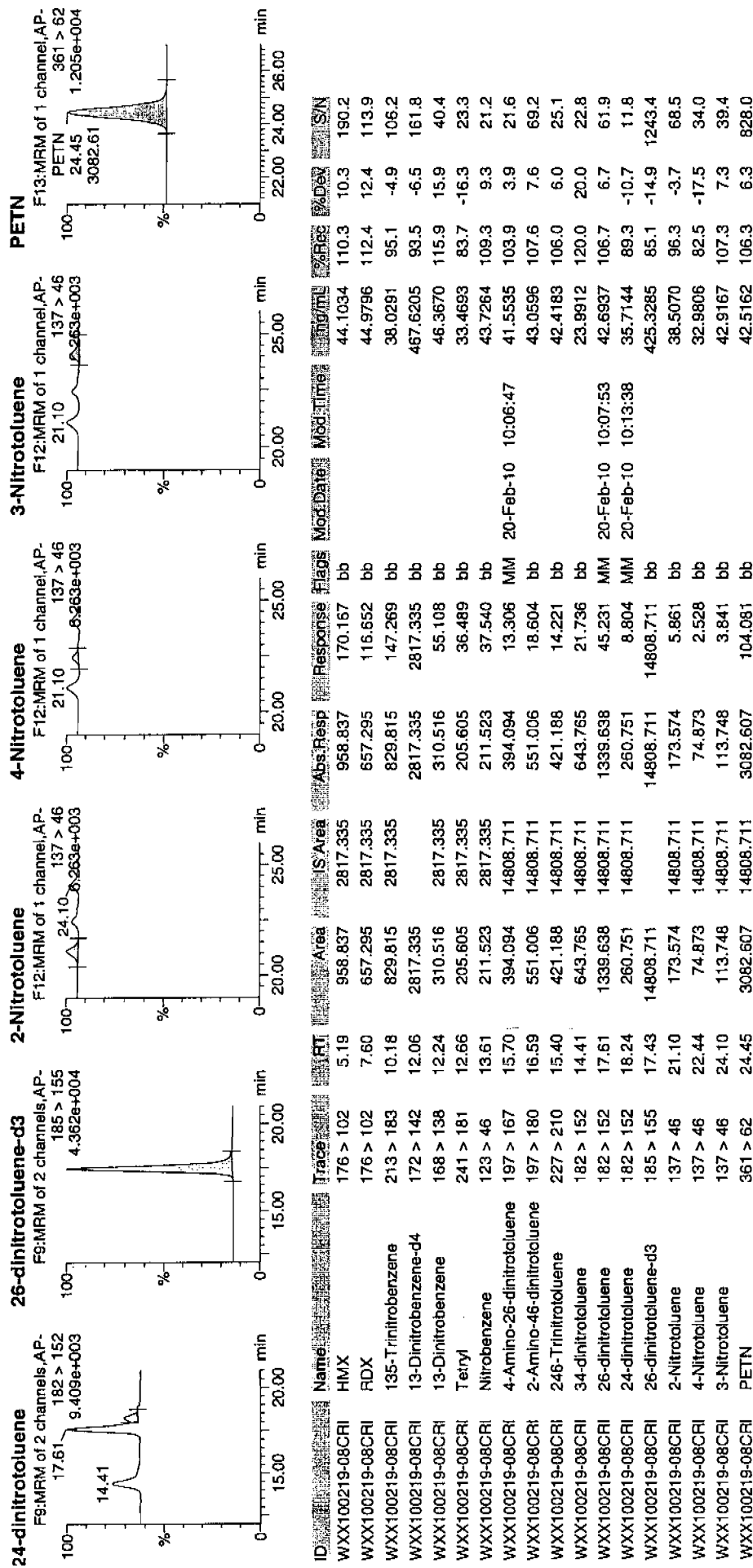
Vial: 1:1,C

Handwritten: 2/20/10



Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/20/10
 Time of Injection 0925
 Standard Number WXX100219-08CRI
 Data File EXP0216179a

HMX	110.3
RDX	112.4
135-TNB	95.1
13-DNB	115.9
Tetryl	83.7
Nitrobenzene	109.3
4A-26-DNT	103.9
2A-46-DNT	107.6
246-TNT	106.0
34-DNT(surr)	120.0
26-DNT	106.7
24-DNT	89.3
2-NT	96.3
4-NT	82.5
3-NT	107.3
PETN	106.3

*not
2/20/10*

Total 1652.6

done 02/21/10

Average 103.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216190a

Analysis Date: 20-FEB-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	515.094	86	
o-Nitrotoluene	600	568.637	95	
p-Nitrotoluene	600	543.273	91	
1,3,5-Trinitrobenzene	600	632.26	105	
1,3-Dinitrobenzene-d4	500	461.676	92	
2,4,6-Trinitrotoluene	600	610.504	102	
2,4-Dinitrotoluene	600	647.235	108	
2,6-Dinitrotoluene	600	628.302	105	
2,6-Dinitrotoluene-d3	500	453.879	91	
2-Amino-4,6-dinitrotoluene	600	629.232	105	
3,4-Dinitrotoluene	300	320.161	107	
4-Amino-2,6-dinitrotoluene	600	552.564	92	
HMX	600	598.916	100	
Nitrobenzene	600	550.216	92	
PETN	600	567.43	95	
RDX	600	754.371	126	*
Tetryl	600	519.863	87	
m-Dinitrobenzene	600	627.347	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%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216190a

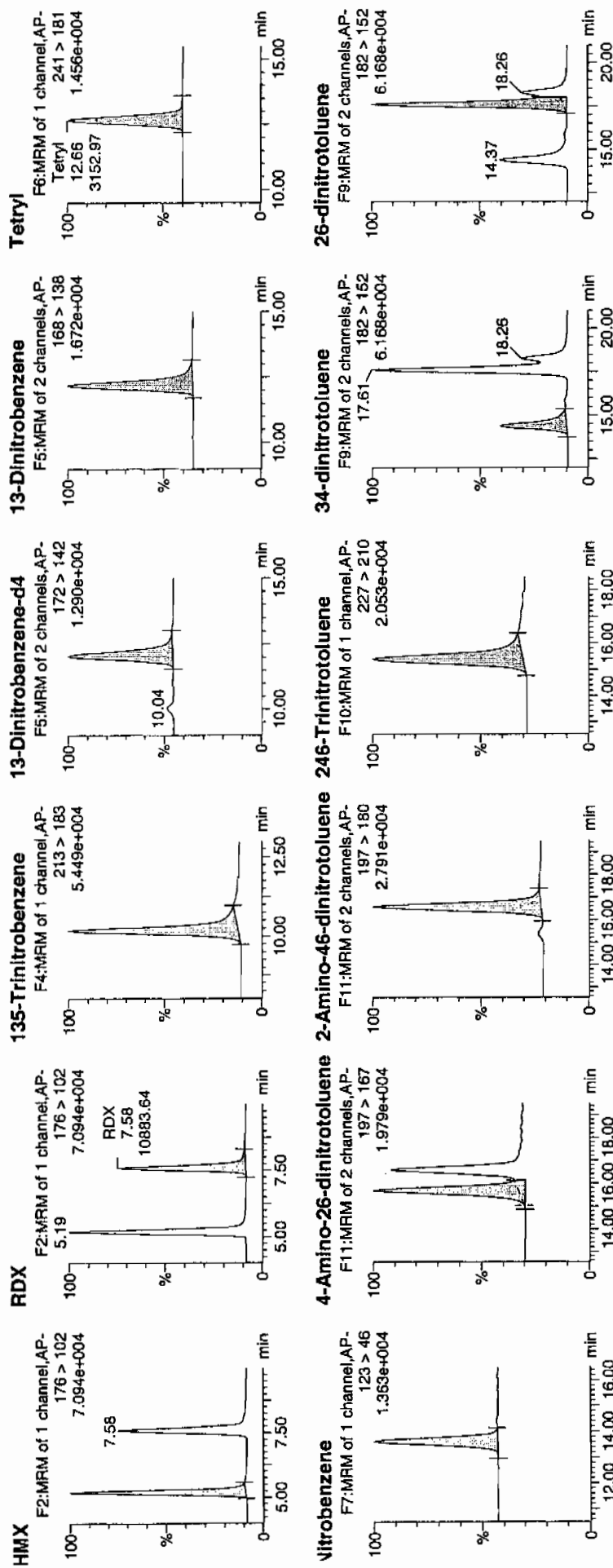
Date: 20-Feb-2010

Time: 14:52:34

ID: WXX100219-07CCV

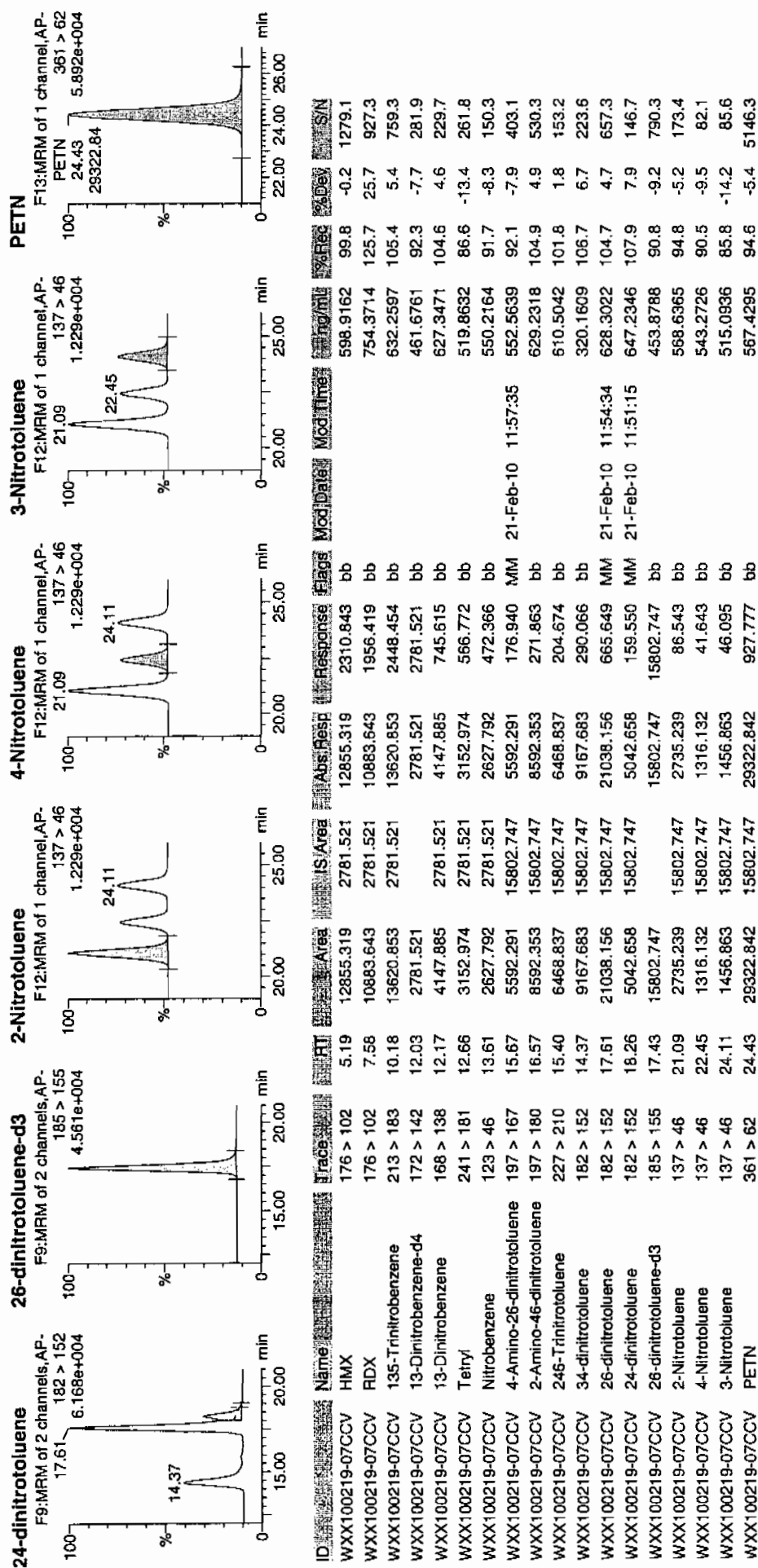
Vial: 1:1,B

10/10



4/10/10

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/20/10
 Time of Injection: 1452
 Standard Number: WXX100219-07CCV
 Data File: EXP0216190a

HMX	99.8
RDX	125.7
135-TNB	105.4
13-DNB	104.6
Tetryl	86.6
Nitrobenzene	91.7
4A-26-DNT	92.1
2A-46-DNT	104.9
246-TNT	101.8
34-DNT(surr)	106.7
26-DNT	104.7
24-DNT	107.9
2-NT	94.8
4-NT	90.5
3-NT	85.8
PETN	94.6

*1007
2/21/10*

Total 1597.6

Average

99.9

4/7/10 or 1/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216192a

Analysis Date: 20-FEB-10 15:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.869	130	
1,3-Dinitrobenzene-d4	500	476.034	95	
2,4,6-Trinitrotoluene	40	43.68	109	
2,4-Dinitrotoluene	40	46.942	117	
2,6-Dinitrotoluene	40	42.844	107	
2,6-Dinitrotoluene-d3	500	428.89	86	
2-Amino-4,6-dinitrotoluene	40	45.494	114	
3,4-Dinitrotoluene	20	21.504	108	
4-Amino-2,6-dinitrotoluene	40	35.217	88	
HMX	40	39.059	98	
Nitrobenzene	40	34.43	86	
PETN	40	46.979	117	
RDX	40	39.647	99	
Tetryl	40	41.334	103	
m-Dinitrobenzene	40	45.747	114	
m-Nitrotoluene	40	45.897	115	
o-Nitrotoluene	40	42.98	107	
p-Nitrotoluene	40	35.861	90	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216192a

Date: 20-Feb-2010

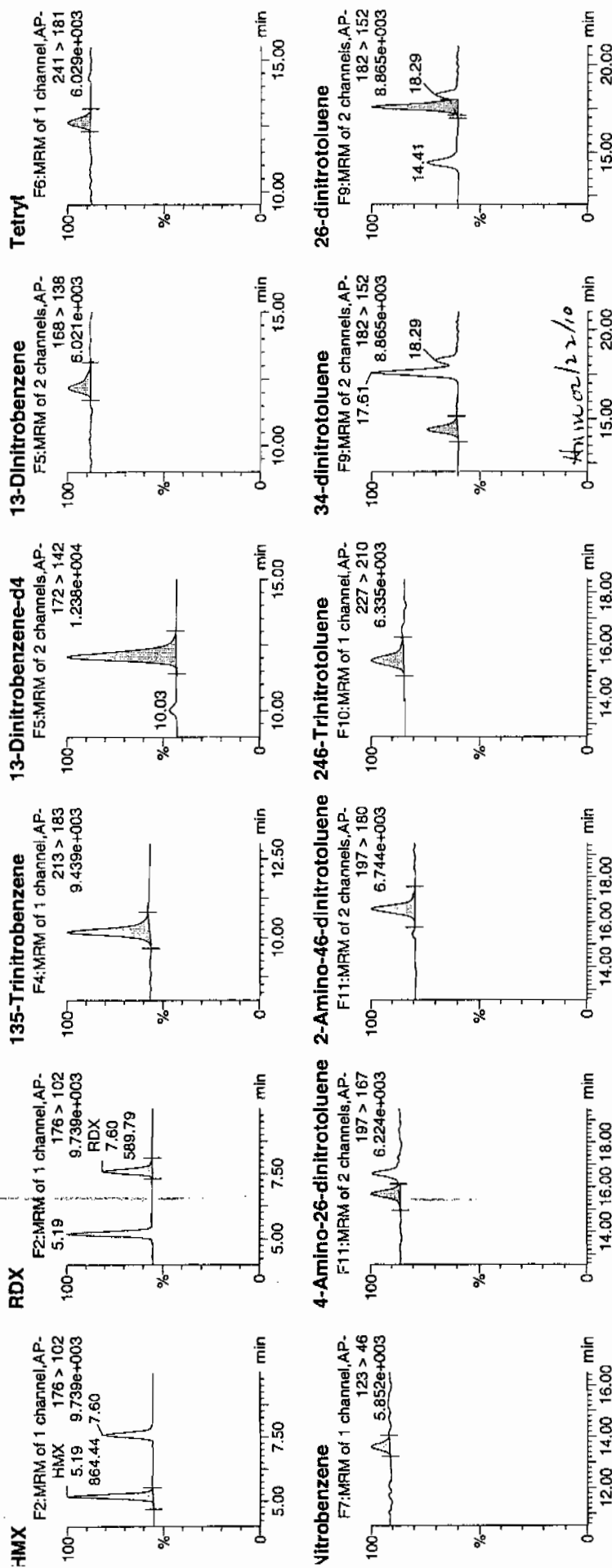
Time: 15:52:03

D: WXX100219-08CRI

Vial: 1:1,C

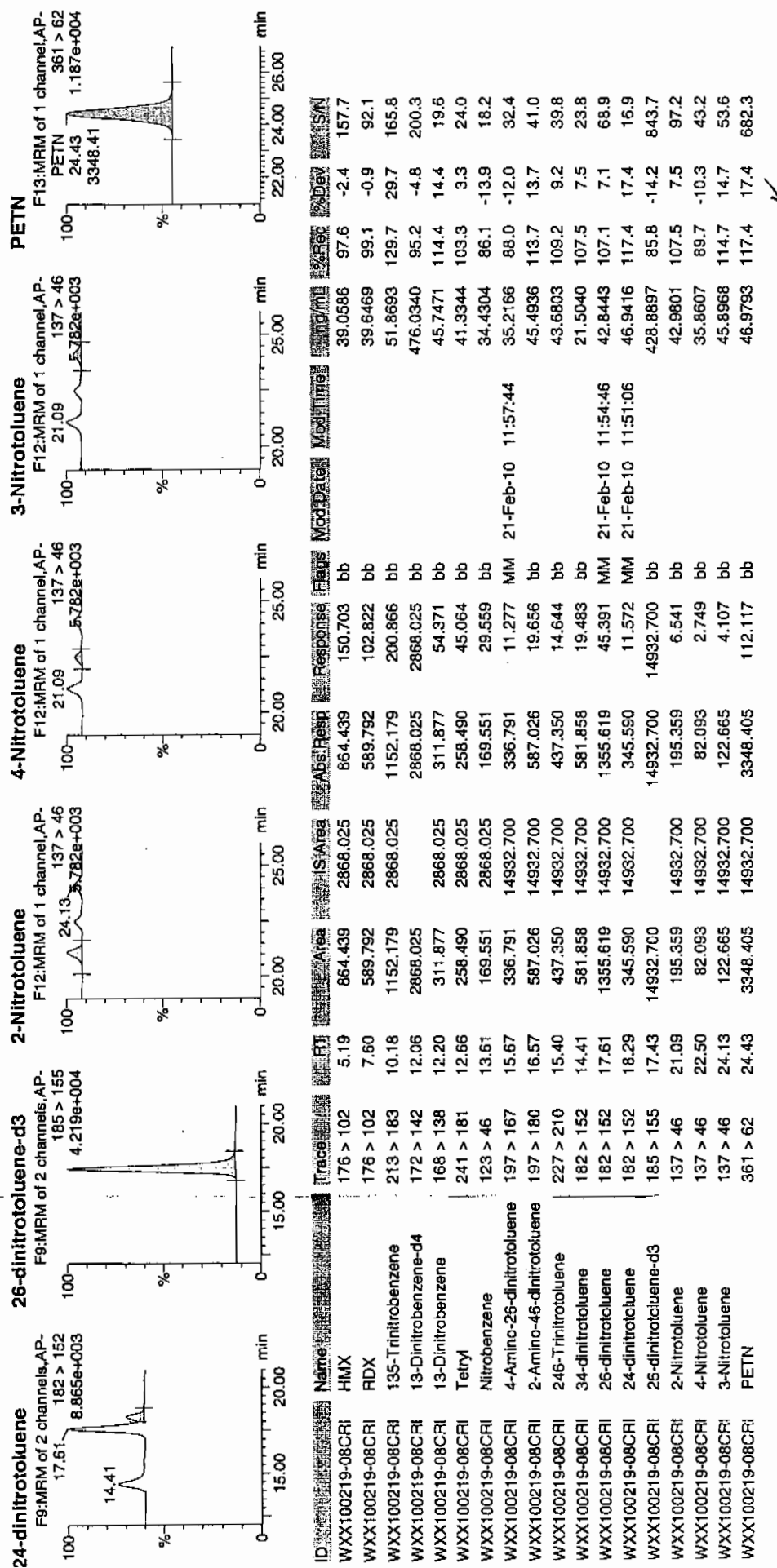
12/10

Page 458 of 1886



Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/20/10
 Time of Injection 1552
 Standard Number WXX100219-08CRI
 Data File EXP0216192a

HMX	97.6
RDX	99.1
135-TNB	129.7
13-DNB	114.4
Tetryl	103.3
Nitrobenzene	86.1
4A-26-DNT	88.0
2A-46-DNT	113.7
246-TNT	109.2
34-DNT(surr)	107.5
26-DNT	107.1
24-DNT	117.4
2-NT	107.5
4-NT	89.7
3-NT	114.7
PETN	117.4

Handwritten: 107.7
2/24/10

Total 1702.4

Average 106.4

Handwritten: 107.7
2/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216203a

Analysis Date: 20-FEB-10 21:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	611.625	102	
1,3-Dinitrobenzene-d4	500	447.544	90	
2,4,6-Trinitrotoluene	600	766.416	128	*
2,4-Dinitrotoluene	600	682.394	114	
2,6-Dinitrotoluene	600	627.061	105	
2,6-Dinitrotoluene-d3	500	373.694	75	*
2-Amino-4,6-dinitrotoluene	600	678.43	113	
3,4-Dinitrotoluene	300	394.655	132	*
4-Amino-2,6-dinitrotoluene	600	609.287	102	
HMX	600	635.385	106	
Nitrobenzene	600	597.696	100	
PETN	600	708.615	118	
RDX	600	771.67	129	*
Tetryl	600	540.565	90	
m-Dinitrobenzene	600	636.381	106	
m-Nitrotoluene	600	675.517	113	
o-Nitrotoluene	600	691.274	115	
p-Nitrotoluene	600	803.018	134	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216203a

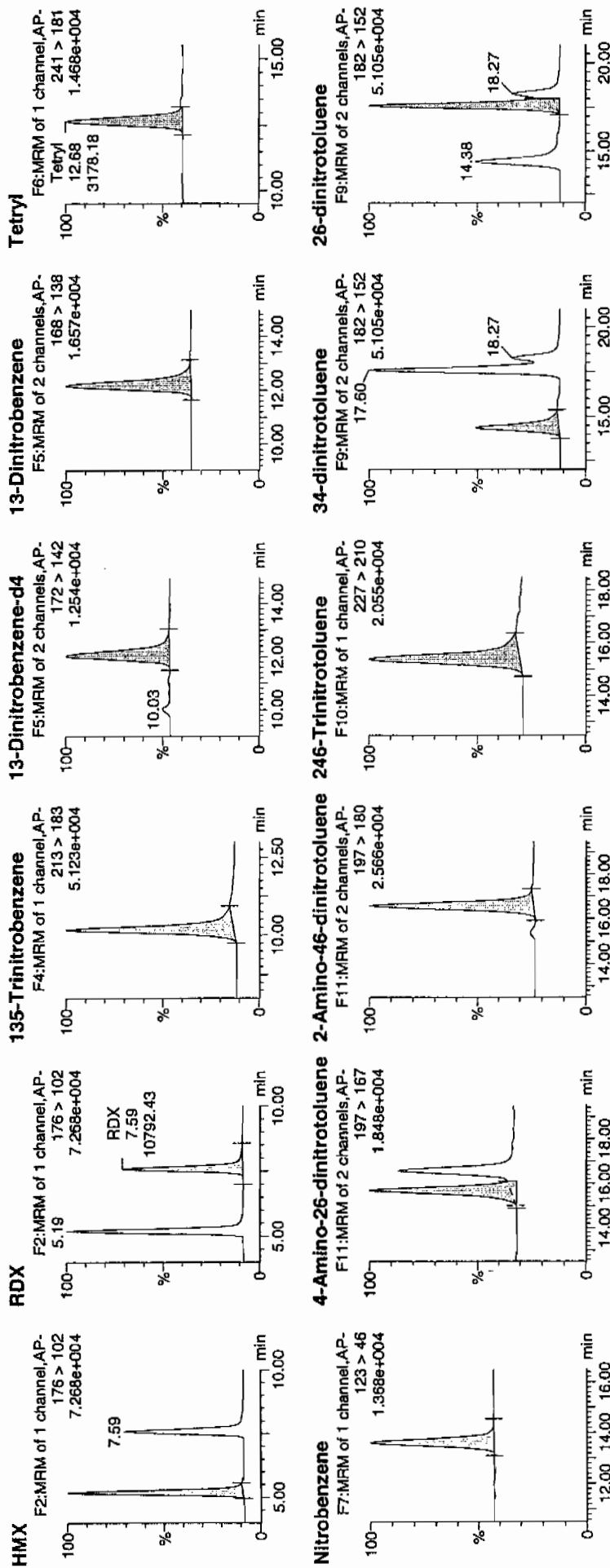
Date: 20-Feb-2010

Time: 21:17:32

ID: WXX100219-07CCV

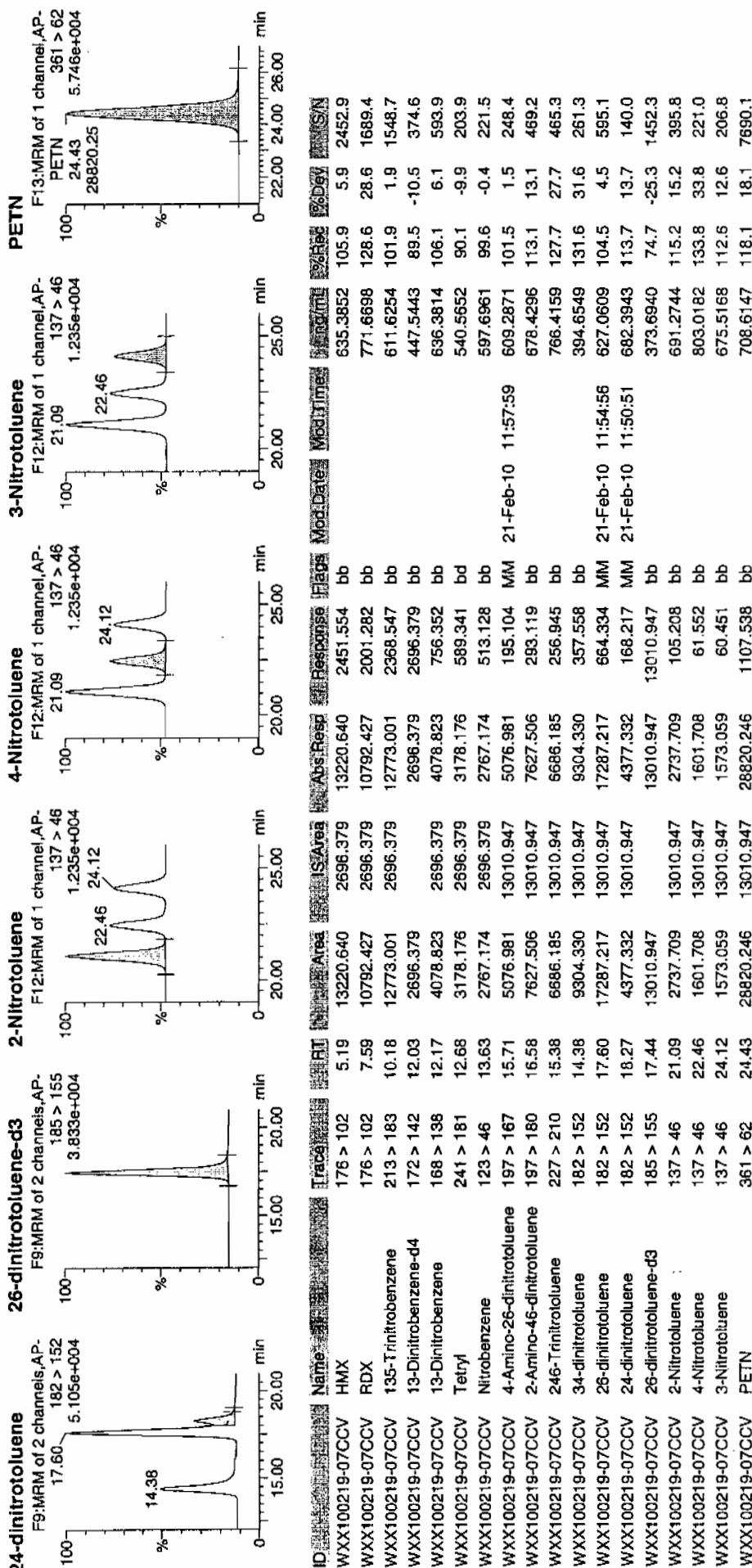
Vial: 1:1,B

2/21/10
MJP



Handwritten note: 18.27

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/20/10
 Time of Injection: 2117
 Standard Number: WXX100219-07CCV
 Data File: EXP0216203a

HMX	105.9
RDX	128.6
135-TNB	101.9
13-DNB	106.1
Tetryl	90.1
Nitrobenzene	99.6
4A-26-DNT	101.5
2A-46-DNT	113.1
246-TNT	127.7
34-DNT(surr)	131.6
26-DNT	104.5
24-DNT	113.7
2-NT	115.2
4-NT	133.8
3-NT	112.6
PETN	118.1

*mtf
2/21/10*

Total 1804.0

Average 112.8

Hum 02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216205a

Analysis Date: 20-FEB-10 22:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	39.865	100	
3,4-Dinitrotoluene	20	21.776	109	
4-Amino-2,6-dinitrotoluene	40	33.428	84	
HMX	40	44.957	112	
Nitrobenzene	40	39.149	98	
PETN	40	42.286	106	
RDX	40	39.549	99	
Tetryl	40	49.5	124	
m-Dinitrobenzene	40	41.382	103	
m-Nitrotoluene	40	37.542	94	
o-Nitrotoluene	40	37.92	95	
p-Nitrotoluene	40	45.462	114	
1,3,5-Trinitrobenzene	40	57.022	143	*
1,3-Dinitrobenzene-d4	500	453.827	91	
2,4,6-Trinitrotoluene	40	38.114	95	
2,4-Dinitrotoluene	40	36.968	92	
2,6-Dinitrotoluene	40	42.44	106	
2,6-Dinitrotoluene-d3	500	462.56	93	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216205a

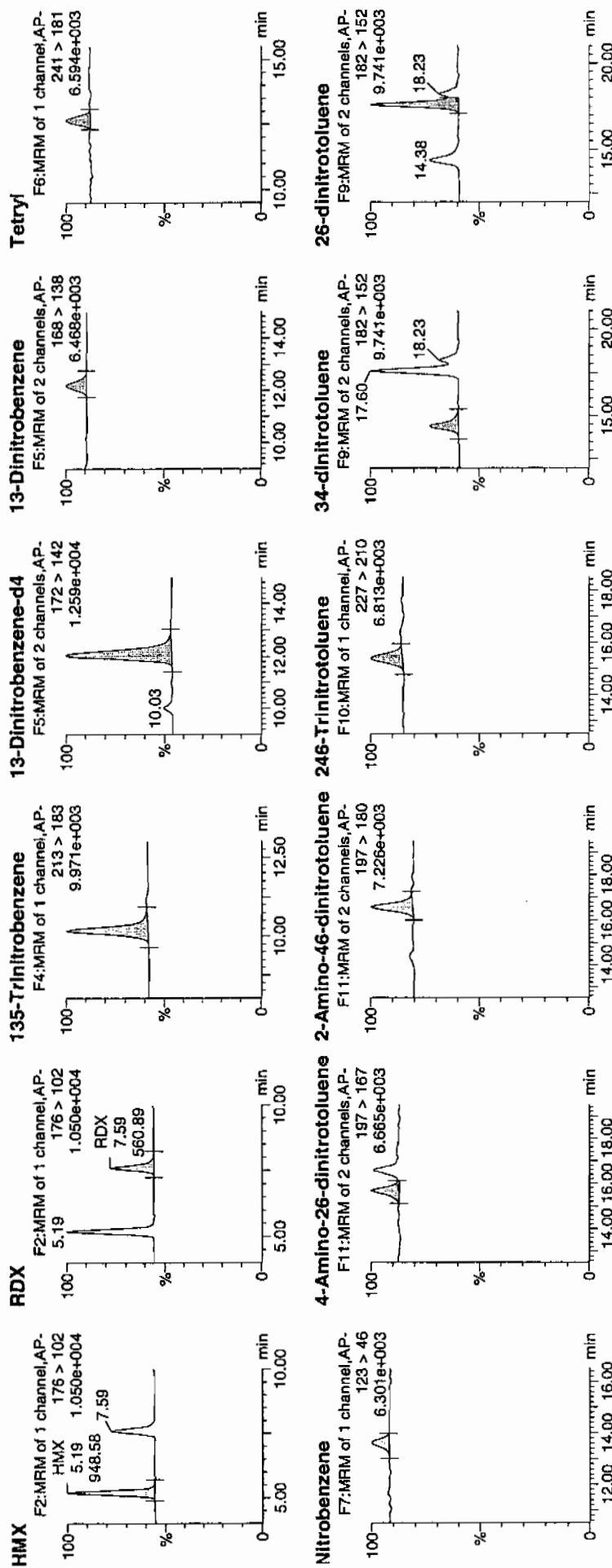
Date: 20-Feb-2010

Time: 22:16:48

ID: WXX100219-08CRI

Vial: 1:1,C

Handwritten: *1/21/10*



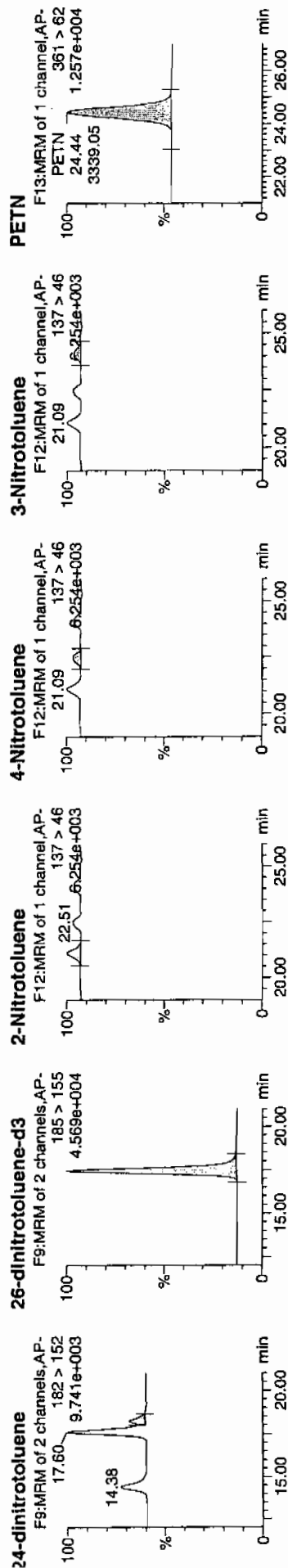
Handwritten: *1/21/10*

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Feb 21 12:01:24 2010, Page 52 of 105

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



ID	Name	Trace	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod:Date	Mod:Time	Conc:ng/ml	%Rec	%Dev	SN
WXX100219-08CRI	HMX	176 > 102	5.19	948.575	2734.234	948.575	173.463	bb			44.9574	112.4	12.4	232.2
WXX100219-08CRI	RDX	176 > 102	7.59	560.890	2734.234	560.890	102.568	bb			39.5490	98.9	-1.1	115.4
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1207.549	2734.234	1207.549	220.820	bb			57.0220	142.6	42.6	228.9
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2734.234	2734.234	2734.234	2734.234	bb			453.8274	90.8	-9.2	446.3
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.21	268.955	2734.234	268.955	49.183	bb			41.3816	103.5	3.5	48.6
WXX100219-08CRI	Tetryl	241 > 181	12.68	295.112	2734.234	295.112	53.966	db			49.4997	123.7	23.7	29.4
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	183.792	2734.234	183.792	33.609	bb			39.1486	97.9	-2.1	17.4
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	344.778	16105.001	344.778	10.704	MM	21-Feb-10	11:58:05	33.4275	83.6	-16.4	22.8
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	554.781	16105.001	554.781	17.224	bb			39.8650	99.7	-0.3	59.1
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	411.581	16105.001	411.581	12.778	bb			38.1144	95.3	-4.7	27.6
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	635.461	16105.001	635.461	19.729	bb			21.7756	108.9	8.9	38.5
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1448.252	16105.001	1448.252	44.963	MM	21-Feb-10	11:55:07	42.4402	106.1	6.1	117.7
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.23	293.529	16105.001	293.529	9.113	MM	21-Feb-10	11:50:42	36.9679	92.4	-7.6	24.0
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	16105.001	16105.001	16105.001	16105.001	bb			462.5599	92.5	-7.5	761.9
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.09	185.888	16105.001	185.888	5.771	bb			37.9195	94.8	-5.2	38.7
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.51	112.242	16105.001	112.242	3.485	bb			45.4617	113.7	13.7	21.5
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.12	108.212	16105.001	108.212	3.360	bb			37.5418	93.9	-6.1	18.8
WXX100219-08CRI	PETN	361 > 62	24.44	3339.054	16105.001	3339.054	103.665	bb			42.2856	105.7	5.7	892.6

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/20/10
 Time of Injection 2216
 Standard Number WXX100219-08CRI
 Data File EXP0216205a

HMX	112.4
RDX	98.9
135-TNB	142.6
13-DNB	103.5
Tetryl	123.7
Nitrobenzene	97.9
4A-26-DNT	83.6
2A-46-DNT	99.7
246-TNT	95.3
34-DNT(surr)	108.9
26-DNT	106.1
24-DNT	92.4
2-NT	94.8
4-NT	113.7
3-NT	93.9
PETN	105.7

WTF
2/21/10

Total 1673.1

Average 104.6

WXX 02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216216a

Analysis Date: 21-FEB-10 03:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	308.236	103	
4-Amino-2,6-dinitrotoluene	600	594.975	99	
HMX	600	710.543	118	
Nitrobenzene	600	540.945	90	
PETN	600	538.301	90	
RDX	600	735.478	123	*
Tetryl	600	581.73	97	
m-Dinitrobenzene	600	668.212	111	
m-Nitrotoluene	600	534.42	89	
o-Nitrotoluene	600	536.288	89	
p-Nitrotoluene	600	557.564	93	
1,3,5-Trinitrobenzene	600	644.022	107	
1,3-Dinitrobenzene-d4	500	490.284	98	
2,4,6-Trinitrotoluene	600	668.921	111	
2,4-Dinitrotoluene	600	642.266	107	
2,6-Dinitrotoluene	600	608.283	101	
2,6-Dinitrotoluene-d3	500	506.816	101	
2-Amino-4,6-dinitrotoluene	600	689.157	115	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qtd, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216216a

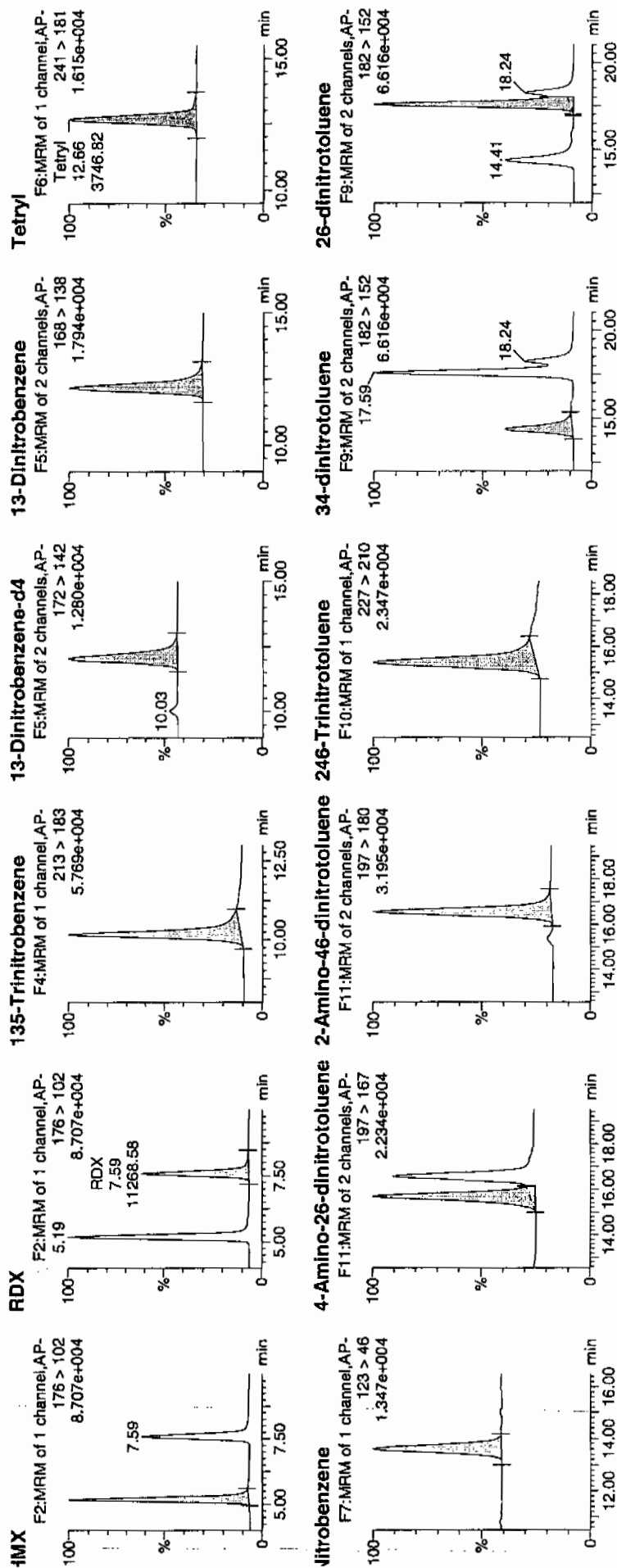
Date: 21-Feb-2010

Time: 03:43:35

D: WXX100219-07CCV

/al: 1:1,B

2/21/10
 MAF

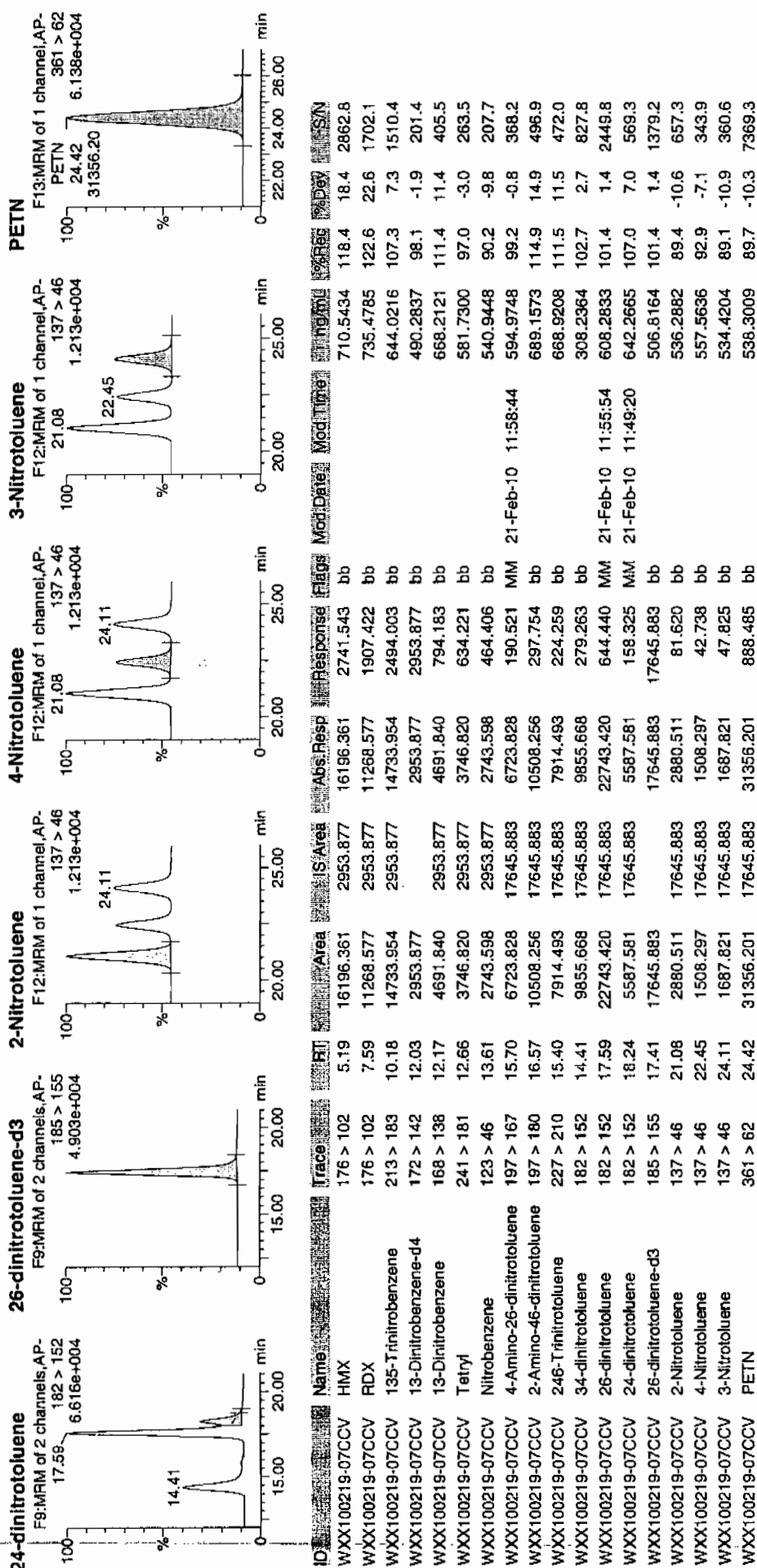


Handwritten: 2/21/10

Printed: Sun Feb 21 12:01:24 2010, Page 74 of 105

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/21/10
 Time of Injection: 0343
 Standard Number: WXX100219-07CCV
 Data File: EXP0216216a

HMX	118.4
RDX	122.6
135-TNB	107.3
13-DNB	111.4
Tetryl	97.0
Nitrobenzene	90.2
4A-26-DNT	99.2
2A-46-DNT	114.9
246-TNT	111.5
34-DNT(surr)	102.7
26-DNT	101.4
24-DNT	107.0
2-NT	89.4
4-NT	92.9
3-NT	89.1
PETN	89.7

*not
4/21/10*

Total 1644.7

Average 102.8

100% 02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216218a

Analysis Date: 21-FEB-10 04:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	49.34	123	
1,3,5-Trinitrobenzene	40	57.255	143	*
1,3-Dinitrobenzene-d4	500	494.944	99	
2,4,6-Trinitrotoluene	40	39.972	100	
2,4-Dinitrotoluene	40	42.817	107	
2,6-Dinitrotoluene	40	43.432	109	
2,6-Dinitrotoluene-d3	500	452.034	90	
2-Amino-4,6-dinitrotoluene	40	46.553	116	
3,4-Dinitrotoluene	20	23.16	116	
4-Amino-2,6-dinitrotoluene	40	37.763	94	
HMX	40	49.465	124	
Nitrobenzene	40	38.618	97	
PETN	40	48.235	121	
RDX	40	49.497	124	
Tetryl	40	44.521	111	
m-Dinitrobenzene	40	44.674	112	
m-Nitrotoluene	40	35.713	89	
o-Nitrotoluene	40	44.134	110	

Recovery Limits:

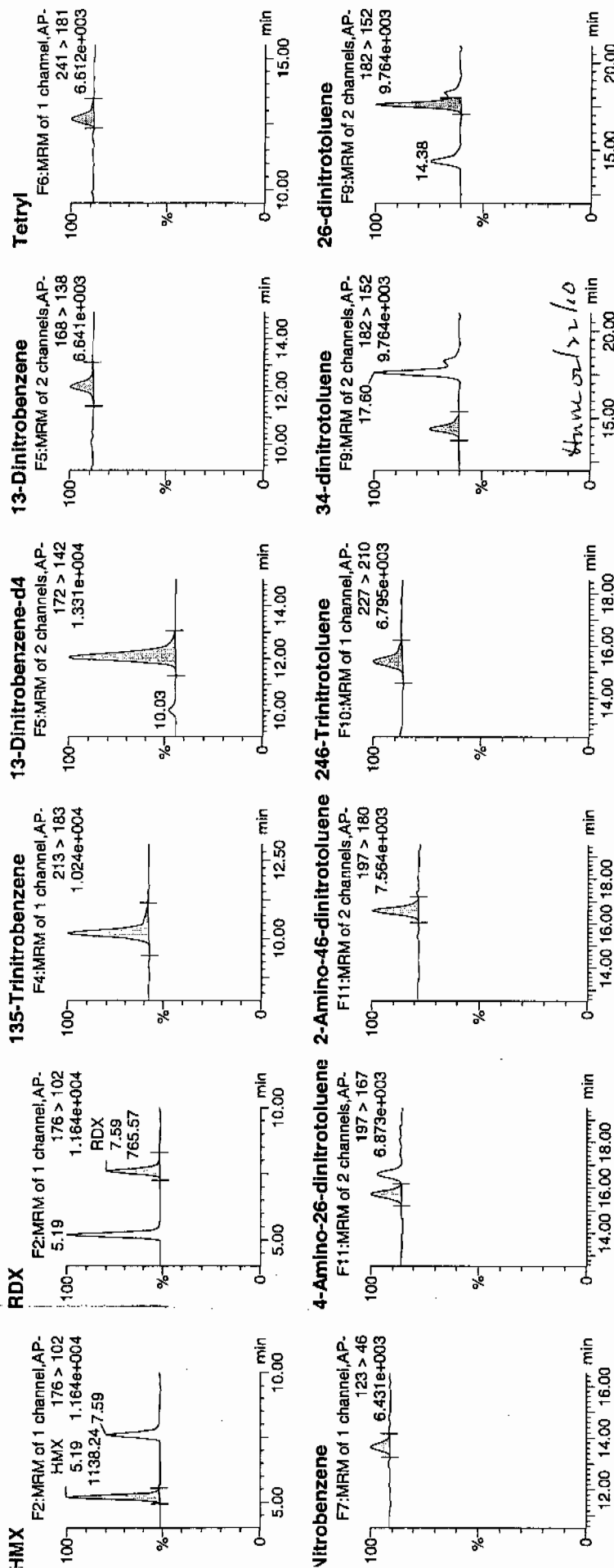
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

WXX
2/21/10

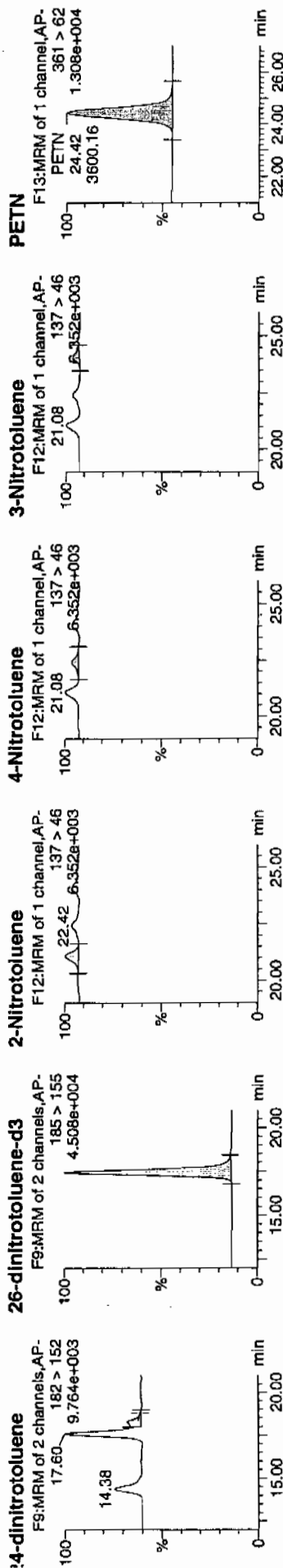


Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Printed: Sun Feb 21 12:01:24 2010, Page 78 of 105



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Norm	Rec	Dev	SN
WXX100219-08CRI	HMX	176 > 102	5.19	1138.241	2981.956	1138.241	190.855	bb			49.4651	123.7	23.7	267.4
WXX100219-08CRI	RDX	176 > 102	7.59	765.570	2981.956	765.570	128.367	bb			49.4968	123.7	23.7	155.9
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1322.337	2981.956	1322.337	221.723	bb			57.2551	143.1	43.1	116.1
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2981.956		2981.956	2981.956	bb			494.9443	99.0	-1.0	347.4
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.659	2981.956	316.659	53.096	bb			44.6739	111.7	11.7	41.5
WXX100219-08CRI	Tetryl	241 > 181	12.66	289.480	2981.956	289.480	48.539	bb			44.5214	111.3	11.3	28.6
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	197.729	2981.956	197.729	33.154	bb			38.6184	96.5	-3.5	18.6
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	380.634	15738.529	380.634	12.092	MM	21-Feb-10	11:58:49	37.7632	94.4	-5.6	23.1
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	633.111	15738.529	633.111	20.113	bb			46.5529	116.4	16.4	38.3
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	421.815	15738.529	421.815	13.401	bb			39.9717	99.9	-0.1	50.3
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	660.468	15738.529	660.468	20.983	bb			23.1595	115.8	15.8	39.8
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1448.370	15738.529	1448.370	46.014	MM	21-Feb-10	11:56:04	43.4319	108.6	8.6	113.7
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.27	332.232	15738.529	332.232	10.555	MM	21-Feb-10	11:49:10	42.8166	107.0	7.0	20.9
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15738.529		15738.529	15738.529	bb			452.0343	90.4	-9.6	1541.1
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	211.428	15738.529	211.428	6.717	bb			44.1337	110.3	10.3	32.0
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.42	119.046	15738.529	119.046	3.782	bb			49.3403	123.4	23.4	15.8
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.10	100.598	15738.529	100.598	3.196	bb			35.7129	89.3	-10.7	14.8
WXX100219-08CRI	PETN	361 > 62	24.42	3600.158	15738.529	3600.158	114.374	bb			48.2350	120.6	20.6	1290.2

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/21/10
 Time of Injection 0443
 Standard Number WXX100219-08CRI
 Data File EXP0216218a

HMX	123.7
RDX	123.7
135-TNB	143.1
13-DNB	111.7
Tetryl	111.3
Nitrobenzene	96.5
4A-26-DNT	94.4
2A-46-DNT	116.4
246-TNT	99.9
34-DNT(surr)	115.8
26-DNT	108.6
24-DNT	107.0
2-NT	110.3
4-NT	123.4
3-NT	89.3
PETN	120.6

*mtf
2/21/10*

Total 1795.7

Amie 2/21/10

Average 112.2

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216229a

Analysis Date: 21-FEB-10 10:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	592.836	99	
1,3,5-Trinitrobenzene	600	566.863	94	
1,3-Dinitrobenzene-d4	500	454.455	91	
2,4,6-Trinitrotoluene	600	668.247	111	
2,4-Dinitrotoluene	600	687.496	115	
2,6-Dinitrotoluene	600	626.065	104	
2,6-Dinitrotoluene-d3	500	414.309	83	
2-Amino-4,6-dinitrotoluene	600	672.269	112	
3,4-Dinitrotoluene	300	341.282	114	
4-Amino-2,6-dinitrotoluene	600	579.011	97	
HMX	600	587.813	98	
Nitrobenzene	600	536.201	89	
PETN	600	670.265	112	
RDX	600	653.677	109	
Tetryl	600	493.373	82	
m-Dinitrobenzene	600	620	103	
m-Nitrotoluene	600	556.754	93	
o-Nitrotoluene	600	561.023	94	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216229a

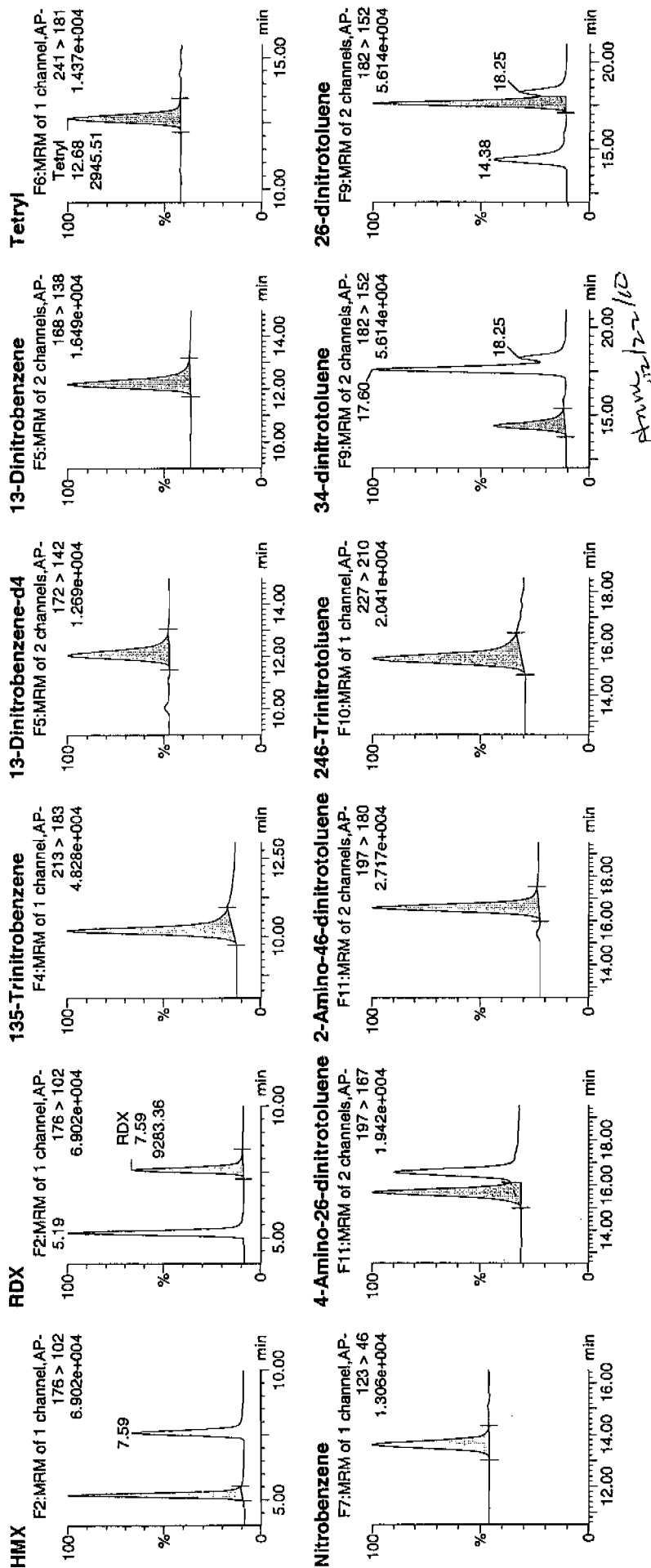
Date: 21-Feb-2010

Time: 10:09:41

ID: WXX100219-07CCV

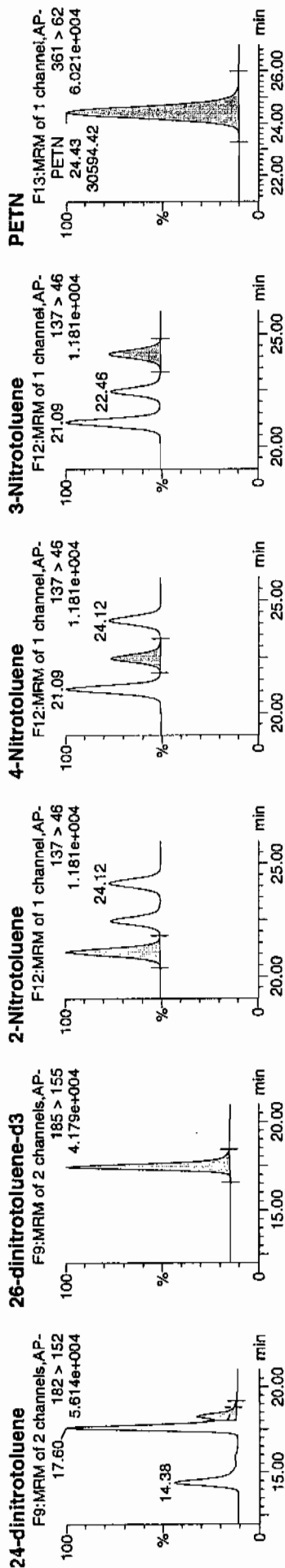
Vial: 1:1,B

WXX
2/21/10



Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	%Area	SN
WXX100219-07CCV	HMx	176 > 102	5.19	12419.642	2738.015	12419.642	2268.001	bb			587.8125	98.0	-2.0
WXX100219-07CCV	RDX	176 > 102	7.59	9283.365	2738.015	9283.365	1695.273	bb			653.6765	108.9	8.9
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	12020.999	2738.015	12020.999	2195.203	bb			566.8632	94.5	-5.5
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2738.015		2738.015	2738.015	bb			454.4550	90.9	-9.1
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.20	4035.191	2738.015	4035.191	736.883	bb			620.0002	103.3	3.3
WXX100219-07CCV	Tetyl	241 > 181	12.68	2945.507	2738.015	2945.507	537.891	bb			493.3729	82.2	-17.8
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2520.799	2738.015	2520.799	460.333	bb			536.2006	89.4	-10.6
WXX100219-07CCV	4-Amino-26-dinitrobenzene	197 > 167	15.68	5349.071	14425.036	5349.071	185.409	MM	21-Feb-10	11:59:00	579.0110	96.5	-3.5
WXX100219-07CCV	2-Amino-46-dinitrobenzene	197 > 180	16.58	8379.709	14425.036	8379.709	290.457	bb			672.2691	112.0	12.0
WXX100219-07CCV	246-Trinitrobenzene	227 > 210	15.41	6463.369	14425.036	6463.369	224.033	bb			668.2471	111.4	11.4
WXX100219-07CCV	34-dinitrobenzene	182 > 152	14.38	8920.506	14425.036	8920.506	309.202	bb			341.2824	113.8	13.8
WXX100219-07CCV	26-dinitrobenzene	182 > 152	17.60	19135.643	14425.036	19135.643	663.279	MM	21-Feb-10	11:56:12	626.0654	104.3	4.3
WXX100219-07CCV	24-dinitrobenzene	182 > 152	18.25	4889.365	14425.036	4889.365	169.475	MM	21-Feb-10	11:47:11	687.4963	114.6	14.6
WXX100219-07CCV	26-dinitrobenzene-d3	185 > 155	17.42	14425.036		14425.036	14425.036	bb			414.3088	82.9	-17.1
WXX100219-07CCV	2-Nitrobenzene	137 > 46	21.09	2463.346	14425.036	2463.346	85.384	bb			561.0229	93.5	-6.5
WXX100219-07CCV	4-Nitrobenzene	137 > 46	22.46	1310.994	14425.036	1310.994	45.442	bb			592.8362	98.8	-1.2
WXX100219-07CCV	3-Nitrobenzene	137 > 46	24.12	1437.409	14425.036	1437.409	49.823	bb			556.7542	92.8	-7.2
WXX100219-07CCV	PETN	361 > 62	24.43	30594.420	14425.036	30594.420	1060.463	bb			670.2649	111.7	11.7



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/21/10
 Time of Injection: 1009
 Standard Number: WXX100219-07CCV
 Data File: EXP0216229a

HMX	98.0
RDX	108.9
135-TNB	94.5
13-DNB	103.3
Tetryl	82.2
Nitrobenzene	89.4
4A-26-DNT	96.5
2A-46-DNT	112.0
246-TNT	111.4
34-DNT(surr)	113.8
26-DNT	104.3
24-DNT	114.6
2-NT	93.5
4-NT	98.8
3-NT	92.8
PETN	111.7

*WAF
2/21/10*

Total 1625.7

Average 101.6

Hom. on 2/21/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216231a

Analysis Date: 21-FEB-10 11:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.391	118	
1,3-Dinitrobenzene-d4	500	504.156	101	
2,4,6-Trinitrotoluene	40	49.819	125	
2,4-Dinitrotoluene	40	40.62	102	
2,6-Dinitrotoluene	40	42.669	107	
2,6-Dinitrotoluene-d3	500	421.052	84	
2-Amino-4,6-dinitrotoluene	40	54.143	135	*
3,4-Dinitrotoluene	20	27.102	136	*
4-Amino-2,6-dinitrotoluene	40	43.488	109	
HMX	40	37.278	93	
Nitrobenzene	40	29.286	73	
PETN	40	53.384	133	*
RDX	40	34.61	87	
Tetryl	40	31.424	79	
m-Dinitrobenzene	40	41.292	103	
m-Nitrotoluene	40	32.171	80	
o-Nitrotoluene	40	38.943	97	
p-Nitrotoluene	40	49.658	124	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216231a

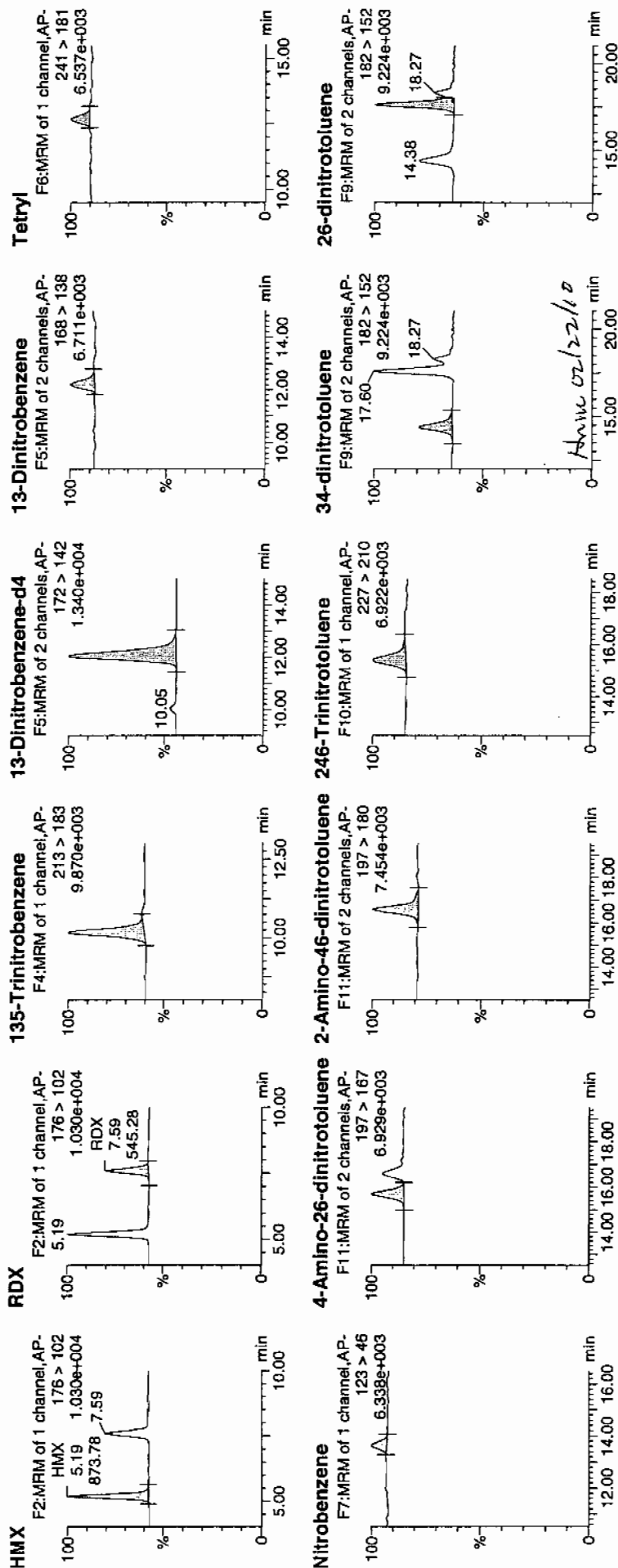
Date: 21-Feb-2010

Time: 11:09:13

ID: WXX100219-08CRI

Vial: 1:1,C

WXX
2/21/10

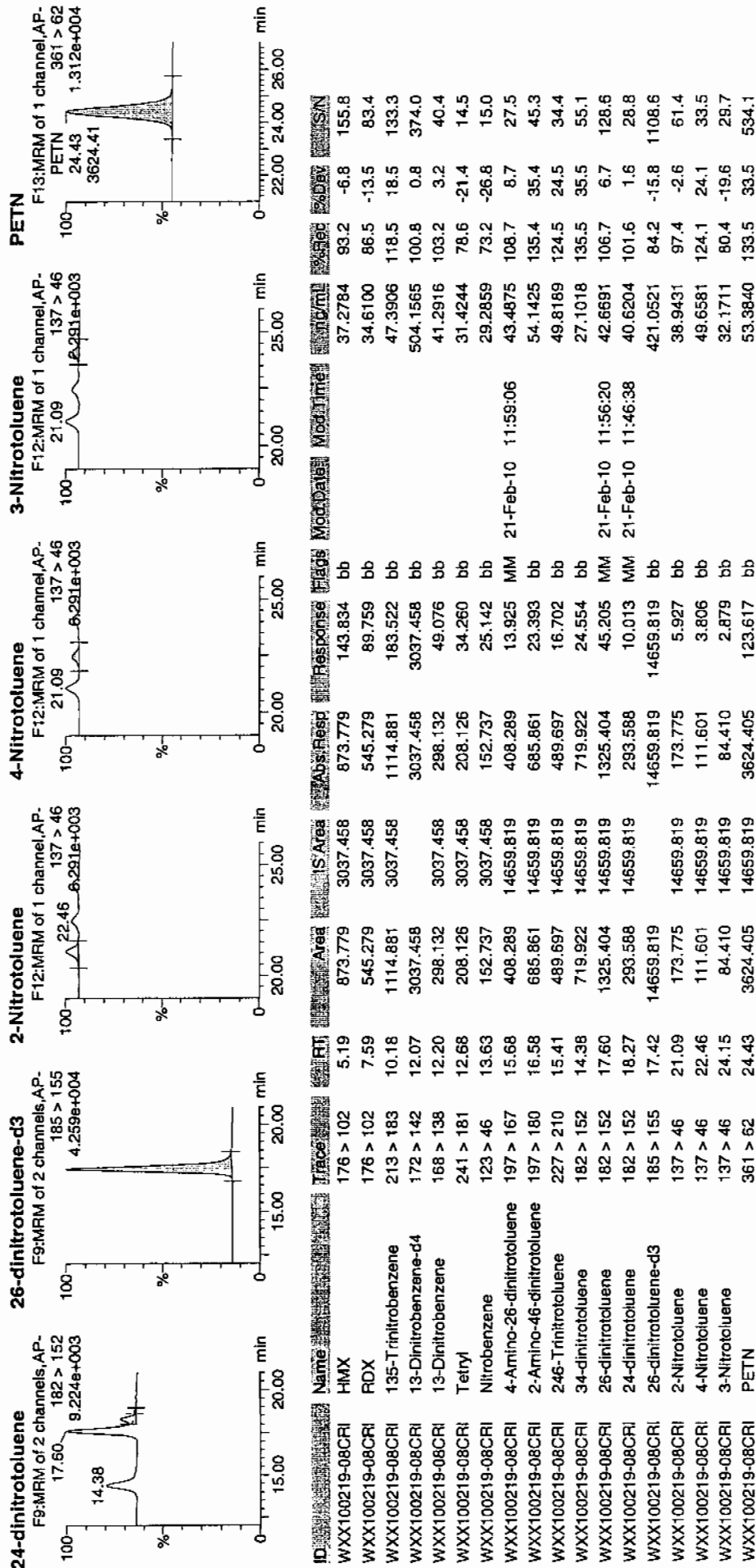


Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Feb 21 12:01:24 2010, Page 104 of 105

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/21/10
 Time of Injection 1109
 Standard Number WXX100219-08CRI
 Data File EXP0216231a

HMX		93.2
RDX		86.5
135-TNB		118.5
13-DNB		103.2
Tetryl		78.6
Nitrobenzene		73.2
4A-26-DNT		108.7
2A-46-DNT		135.4
246-TNT		124.5
34-DNT(surr)		135.5
26-DNT		106.7
24-DNT		101.6
2-NT		97.4
4-NT		124.1
3-NT		80.4
PETN		133.5

*mtt
2/21/10*

Total 1701.0

mtt 02/22/10

Average 106.3

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216242a

Analysis Date: 21-FEB-10 16:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	584.99	97	
2,6-Dinitrotoluene	600	623.059	104	
2,6-Dinitrotoluene-d3	500	461.072	92	
2-Amino-4,6-dinitrotoluene	600	658.112	110	
3,4-Dinitrotoluene	300	278.771	93	
4-Amino-2,6-dinitrotoluene	600	582.003	97	
HMX	600	565.745	94	
Nitrobenzene	600	469.692	78	*
PETN	600	625.405	104	
RDX	600	580.336	97	
Tetryl	600	474.301	79	*
m-Dinitrobenzene	600	587.126	98	
m-Nitrotoluene	600	550.045	92	
o-Nitrotoluene	600	563.172	94	
p-Nitrotoluene	600	580.846	97	
1,3,5-Trinitrobenzene	600	512.552	85	
1,3-Dinitrobenzene-d4	500	539.557	108	
2,4,6-Trinitrotoluene	600	659.343	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%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Mon Feb 22 09:28:24 2010, Page 21 of 73

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216242a

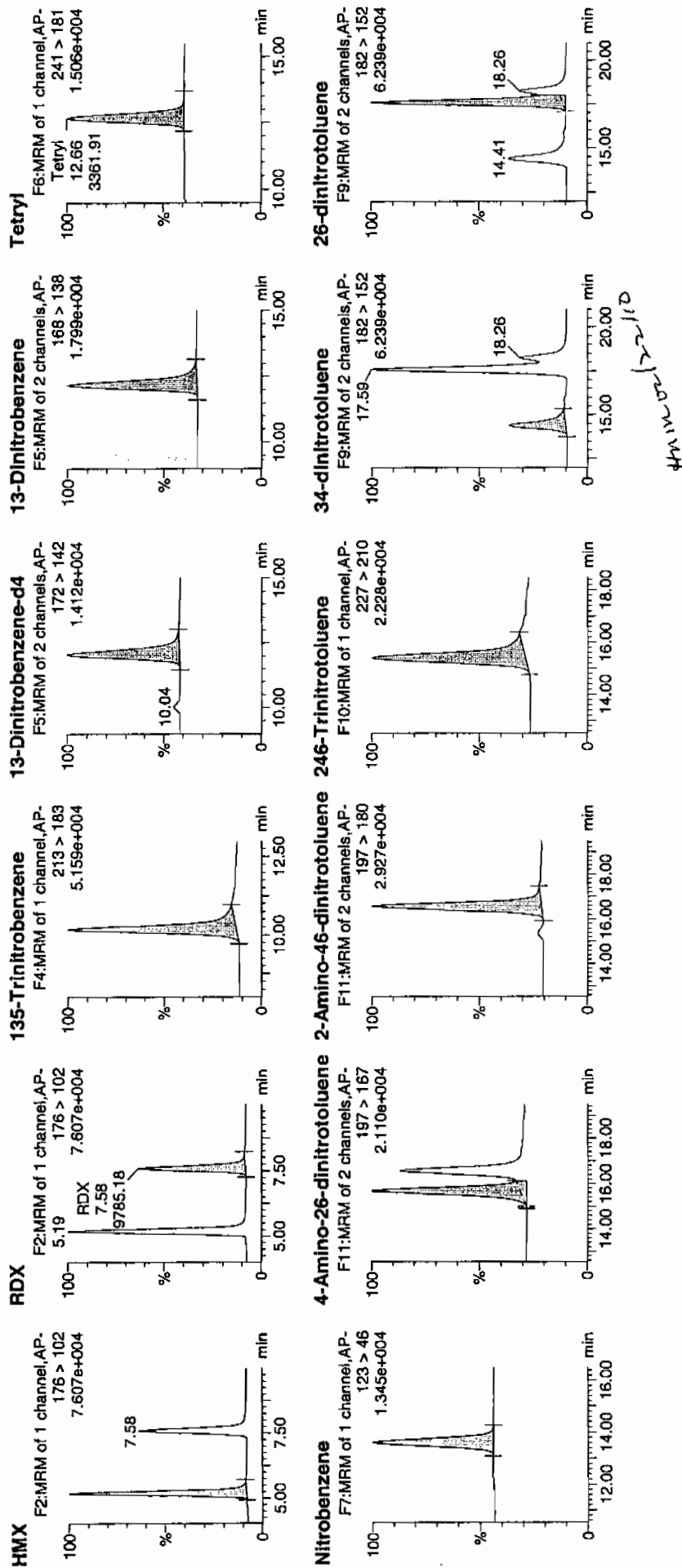
Date: 21-Feb-2010

Time: 16:36:56

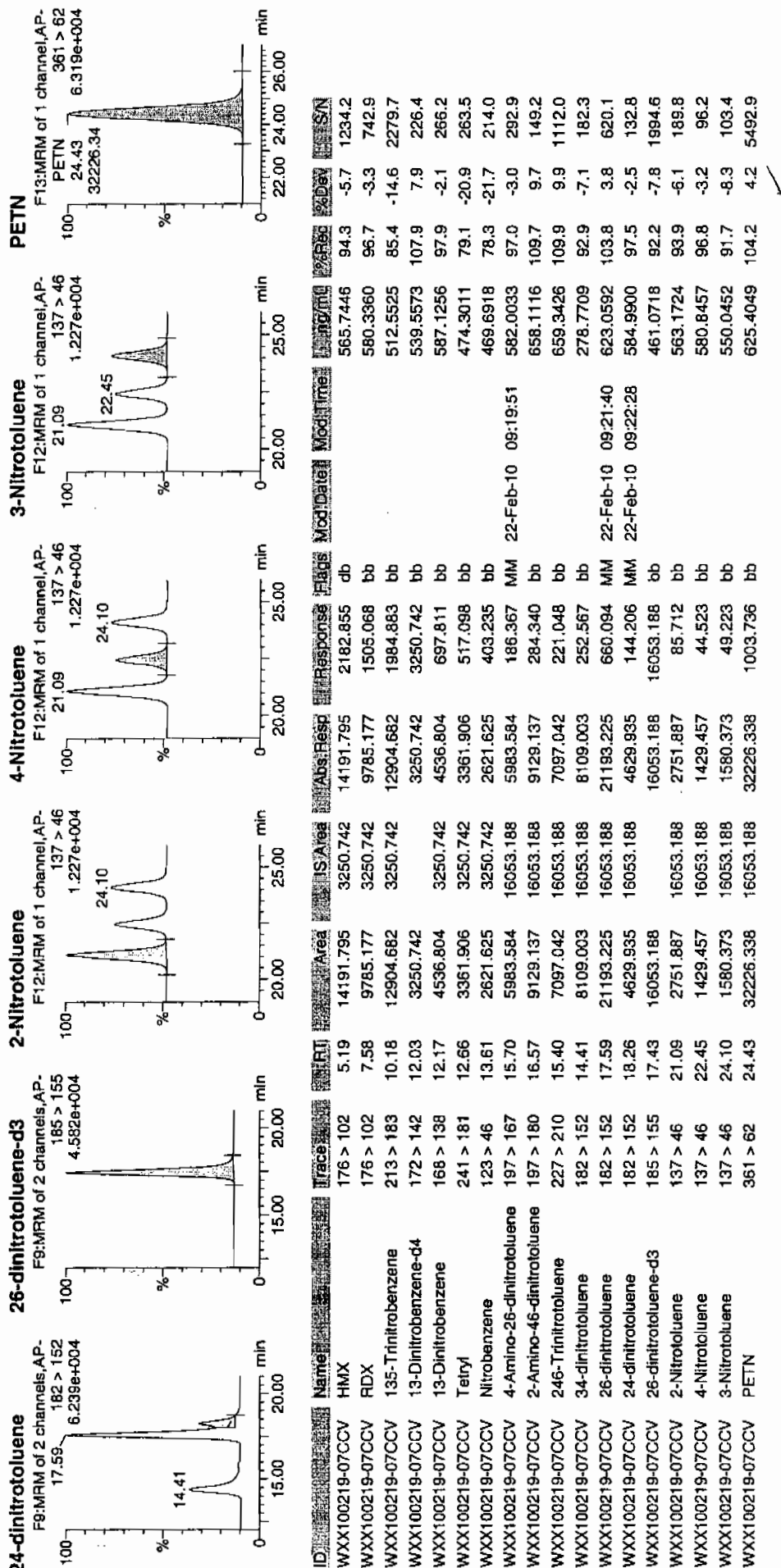
ID: WXX100219-07CCV

Vial: 1:1,B

Page 486 of 1886



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/21/10
 Time of Injection: 1636
 Standard Number: WXX100219-07CCV
 Data File: EXP0216242a

HMX	94.3
RDX	96.7
135-TNB	85.4
13-DNB	97.9
Tetryl	79.1
Nitrobenzene	78.3
4A-26-DNT	97.0
2A-46-DNT	109.7
246-TNT	109.9
34-DNT(surr)	92.9
26-DNT	103.8
24-DNT	97.5
2-NT	93.9
4-NT	96.8
3-NT	91.7
PETN	104.2

*WXX
2/22/10*

Total 1529.1

Average 95.6

Ann 02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216244a

Analysis Date: 21-FEB-10 17:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	56.072	140	*
1,3-Dinitrobenzene-d4	500	455.15	91	
2,4,6-Trinitrotoluene	40	39.246	98	
2,4-Dinitrotoluene	40	42.454	106	
2,6-Dinitrotoluene	40	42.018	105	
2,6-Dinitrotoluene-d3	500	437.373	87	
2-Amino-4,6-dinitrotoluene	40	39.639	99	
3,4-Dinitrotoluene	20	18.721	94	
4-Amino-2,6-dinitrotoluene	40	40.748	102	
HMX	40	44.454	111	
Nitrobenzene	40	41.271	103	
PETN	40	52.594	131	*
RDX	40	38.214	96	
Tetryl	40	37.583	94	
m-Dinitrobenzene	40	39.582	99	
m-Nitrotoluene	40	40.913	102	
o-Nitrotoluene	40	37.15	93	
p-Nitrotoluene	40	38.915	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216244a

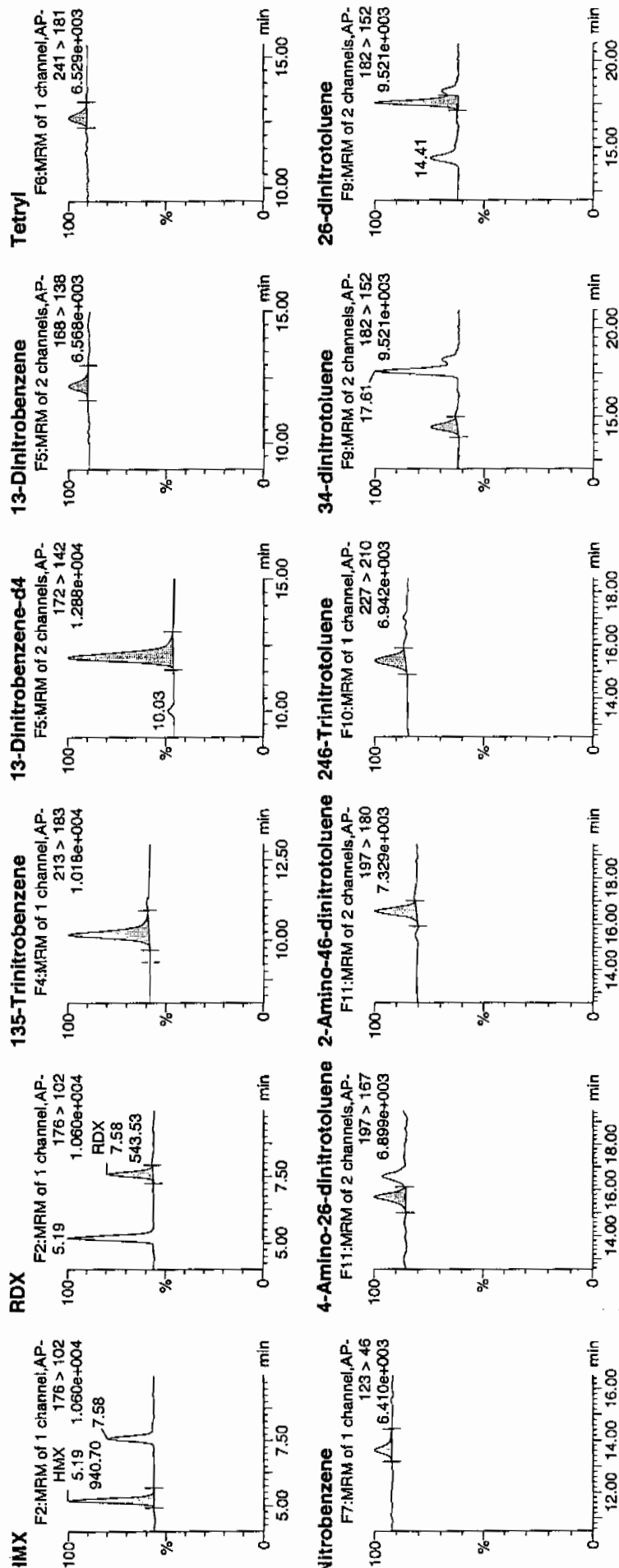
Date: 21-Feb-2010

Time: 17:36:00

ID: WXX100219-08CRI

Ratio: 1:1,C

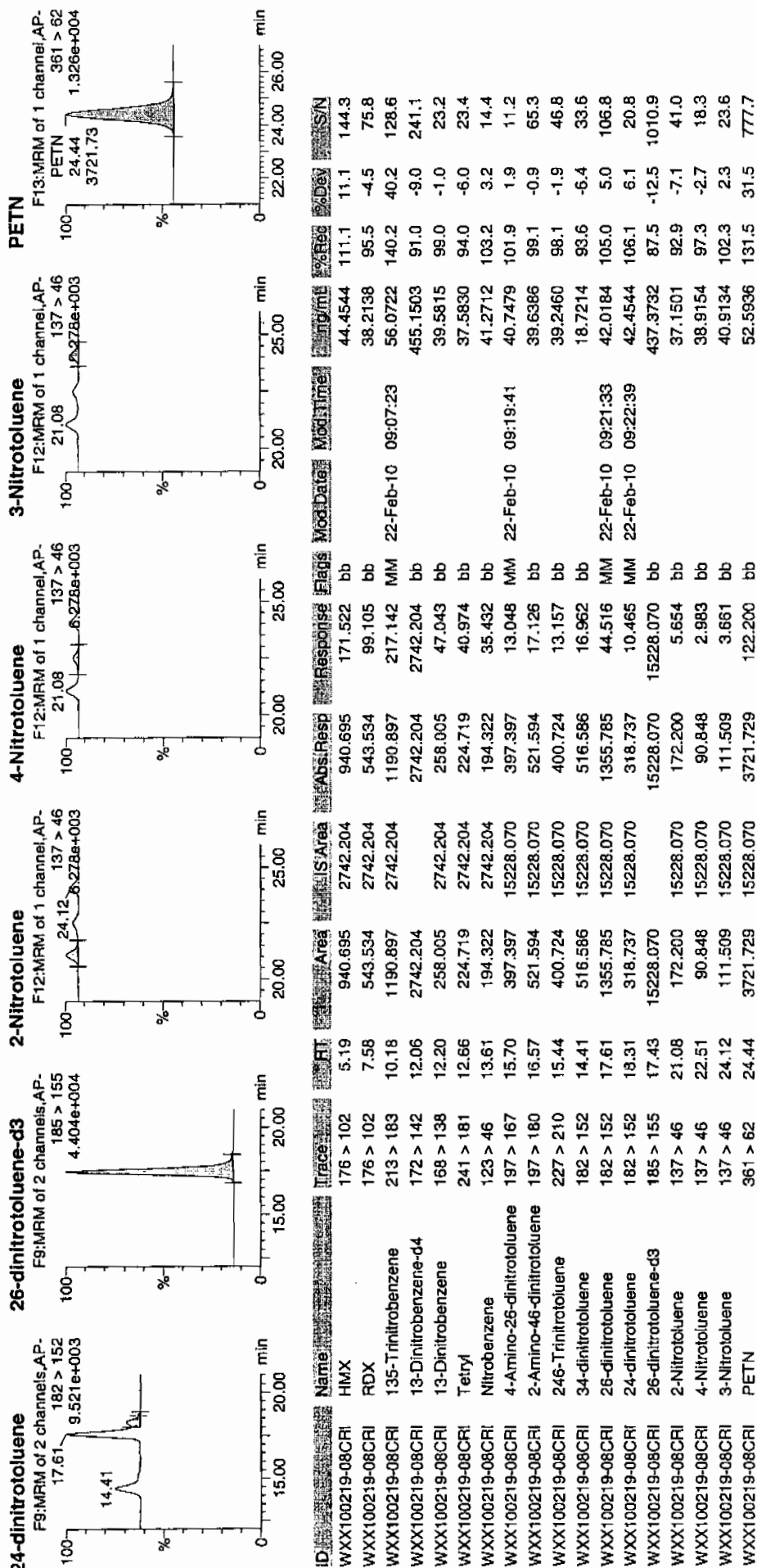
100%
2/12/10



Handwritten note: 4/11/10

Quantify Sample Report
SEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO1021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/21/10
 Time of Injection 1736
 Standard Number WXX100219-08CRI
 Data File EXP0216244a

HMX	111.1
RDX	95.5
135-TNB	140.2
13-DNB	99.0
Tetryl	94.0
Nitrobenzene	103.2
4A-26-DNT	101.9
2A-46-DNT	99.1
246-TNT	98.1
34-DNT(surr)	93.6
26-DNT	105.0
24-DNT	106.1
2-NT	92.9
4-NT	97.3
3-NT	102.3
PETN	131.5

1677
2/24/10

Total 1670.8

Average 104.4

47116.02/22/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXCCV

GEL Data File EXP0216254a

Analysis Date: 21-FEB-10 22:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	708.407	118	
RDX	600	636.066	106	
Tetryl	600	536.358	89	
m-Dinitrobenzene	600	586.351	98	
m-Nitrotoluene	600	564.673	94	
o-Nitrotoluene	600	561.207	94	
p-Nitrotoluene	600	590.476	98	
1,3,5-Trinitrobenzene	600	582.397	97	
1,3-Dinitrobenzene-d4	500	428.345	86	
2,4,6-Trinitrotoluene	600	598.191	100	
2,4-Dinitrotoluene	600	668.835	111	
2,6-Dinitrotoluene	600	633.974	106	
2,6-Dinitrotoluene-d3	500	409.828	82	
2-Amino-4,6-dinitrotoluene	600	654.223	109	
3,4-Dinitrotoluene	300	337.074	112	
4-Amino-2,6-dinitrotoluene	600	572.504	95	
HMX	600	578.684	96	
Nitrobenzene	600	587.525	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216254a

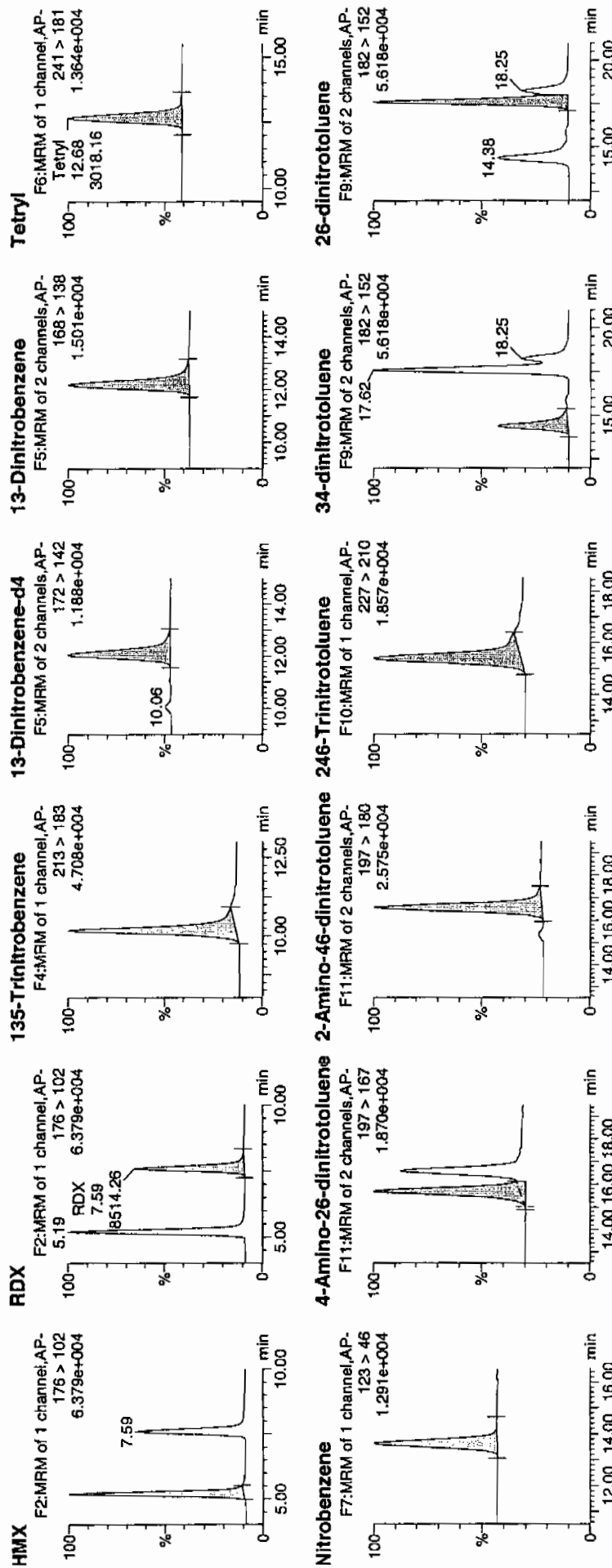
Date: 21-Feb-2010

Time: 22:33:12

ID: WXX100219-07CCV

Vial: 1:1,B

WXX
1/22/10



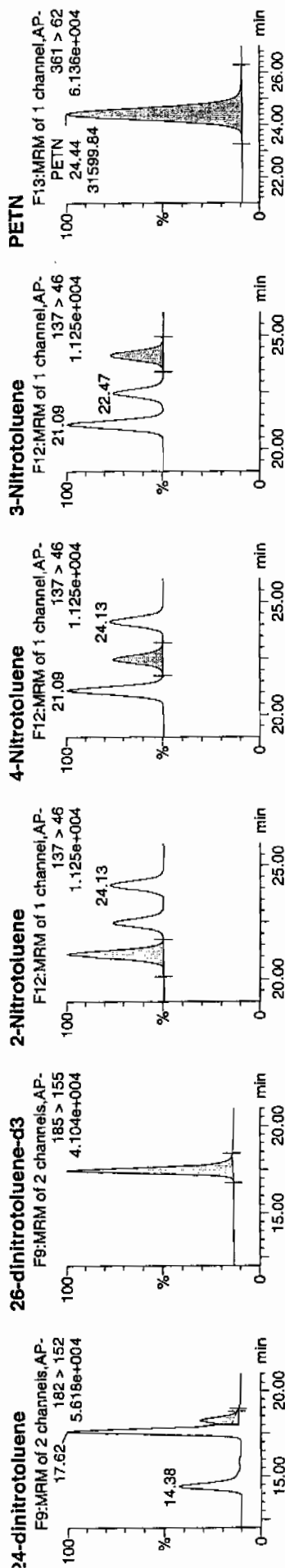
WXX
1/22/10

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Mon Feb 22 09:28:24 2010, Page 46 of 73

Dataset: C:\MASSLYN\New_Exp_PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	%Area	%Dev	SN
WXX100219-07CCV	HMX	176 > 102	5.19	11524.290	2580.705	11524.290	2232.779	bb			578.6839	96.4	-3.6	2078.3
WXX100219-07CCV	RDX	176 > 102	7.59	8514.262	2580.705	8514.262	1649.600	bb			636.0657	106.0	6.0	1300.9
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11640.827	2580.705	11640.827	2255.358	bb			582.3968	97.1	-2.9	835.1
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2580.705		2580.705	2580.705	bb			428.3447	85.7	-14.3	235.1
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.20	3596.937	2580.705	3596.937	696.890	bb			586.3514	97.7	-2.3	254.6
WXX100219-07CCV	Tetryl	241 > 181	12.68	3018.156	2580.705	3018.156	584.754	bb			536.3575	89.4	-10.6	299.7
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2603.392	2580.705	2603.392	504.396	bb			587.5247	97.9	-2.1	248.6
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5231.759	14269.044	5231.759	183.325	MM	22-Feb-10	09:19:25	572.5036	95.4	-4.6	228.0
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8066.579	14269.044	8066.579	282.660	bb			654.2227	109.0	9.0	310.5
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.41	5723.209	14269.044	5723.209	200.546	bb			598.1908	99.7	-0.3	470.4
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	8715.226	14269.044	8715.226	305.389	bb			337.0739	112.4	12.4	332.4
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.62	19167.820	14269.044	19167.820	671.657	MM	22-Feb-10	09:21:17	633.9739	105.7	5.7	924.1
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4705.208	14269.044	4705.208	164.875	MM	22-Feb-10	09:23:01	668.8346	111.5	11.5	210.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	14269.044		14269.044	14269.044	bb			409.8285	82.0	-18.0	1438.7
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	2437.506	14269.044	2437.506	85.412	bb			561.2067	93.5	-6.5	179.6
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.47	1291.653	14269.044	1291.653	45.261	bb			590.4756	98.4	-1.6	92.3
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.13	1442.088	14269.044	1442.088	50.532	bb			564.6729	94.1	-5.9	97.9
WXX100219-07CCV	PETN	361 > 62	24.44	31599.840	14269.044	31599.840	1107.287	bb			708.4066	118.1	18.1	9992.4

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/21/10
 Time of Injection: 2233
 Standard Number: WXX100219-07CCV
 Data File: EXP0216254a

HMX	96.4
RDX	106.0
135-TNB	97.1
13-DNB	97.7
Tetryl	89.4
Nitrobenzene	97.9
4A-26-DNT	95.4
2A-46-DNT	109.0
246-TNT	99.7
34-DNT(surr)	112.4
26-DNT	105.7
24-DNT	111.5
2-NT	93.5
4-NT	98.4
3-NT	94.1
PETN	118.1

*417
2/21/10*

Total 1622.3

Average 101.4

417-02-172/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216256a

Analysis Date: 21-FEB-10 23:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	37.408	94	
2,6-Dinitrotoluene	40	40.914	102	
2,6-Dinitrotoluene-d3	500	426.591	85	
2-Amino-4,6-dinitrotoluene	40	49.509	124	
3,4-Dinitrotoluene	20	21.579	108	
4-Amino-2,6-dinitrotoluene	40	45.393	113	
HMX	40	42.069	105	
Nitrobenzene	40	33.644	84	
PETN	40	51.871	130	
RDX	40	38.234	96	
Tetryl	40	39.67	99	
m-Dinitrobenzene	40	39.987	100	
m-Nitrotoluene	40	39.744	99	
o-Nitrotoluene	40	38.132	95	
p-Nitrotoluene	40	39.41	99	
1,3,5-Trinitrobenzene	40	54.816	137	*
1,3-Dinitrobenzene-d4	500	447.571	90	
2,4,6-Trinitrotoluene	40	36.221	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Identify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216256a

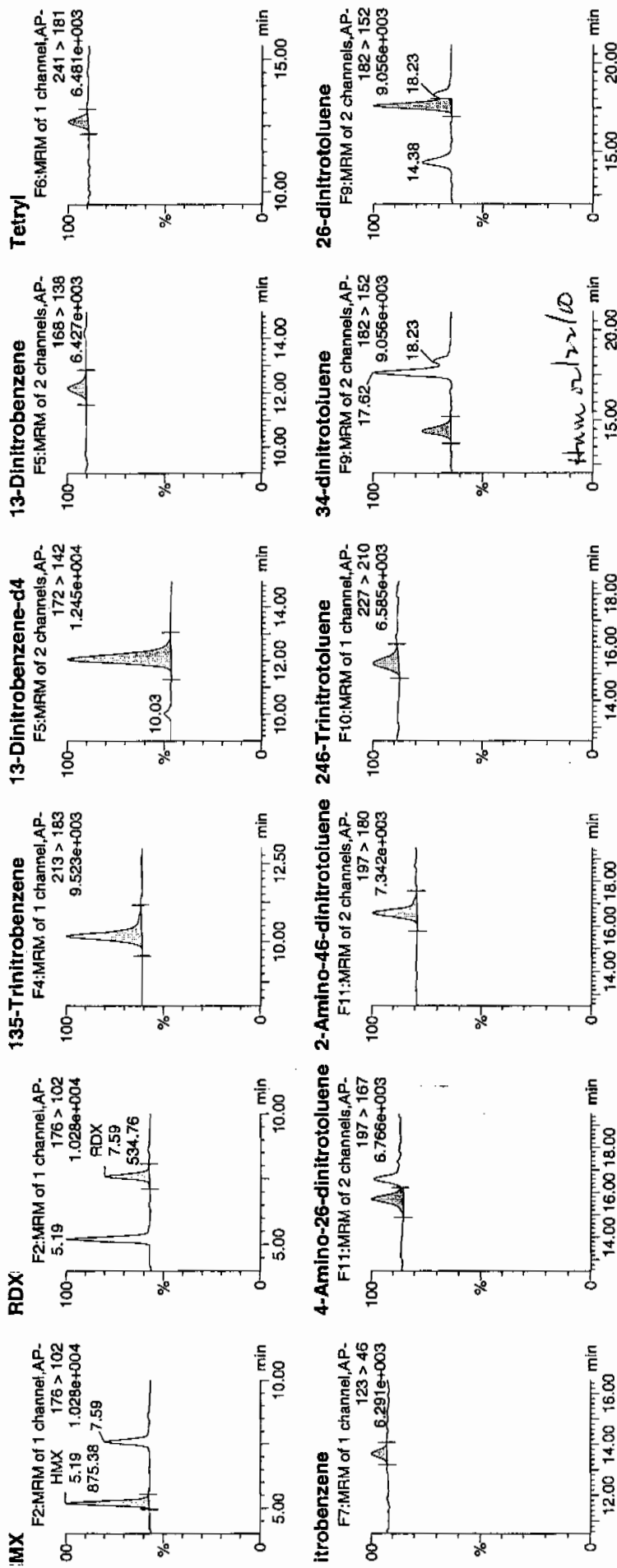
Acquire Date: 21-Feb-2010

Time: 23:32:47

Page 2: WXX100219-08CRI

Ratio: 1:1,C

4/12/10

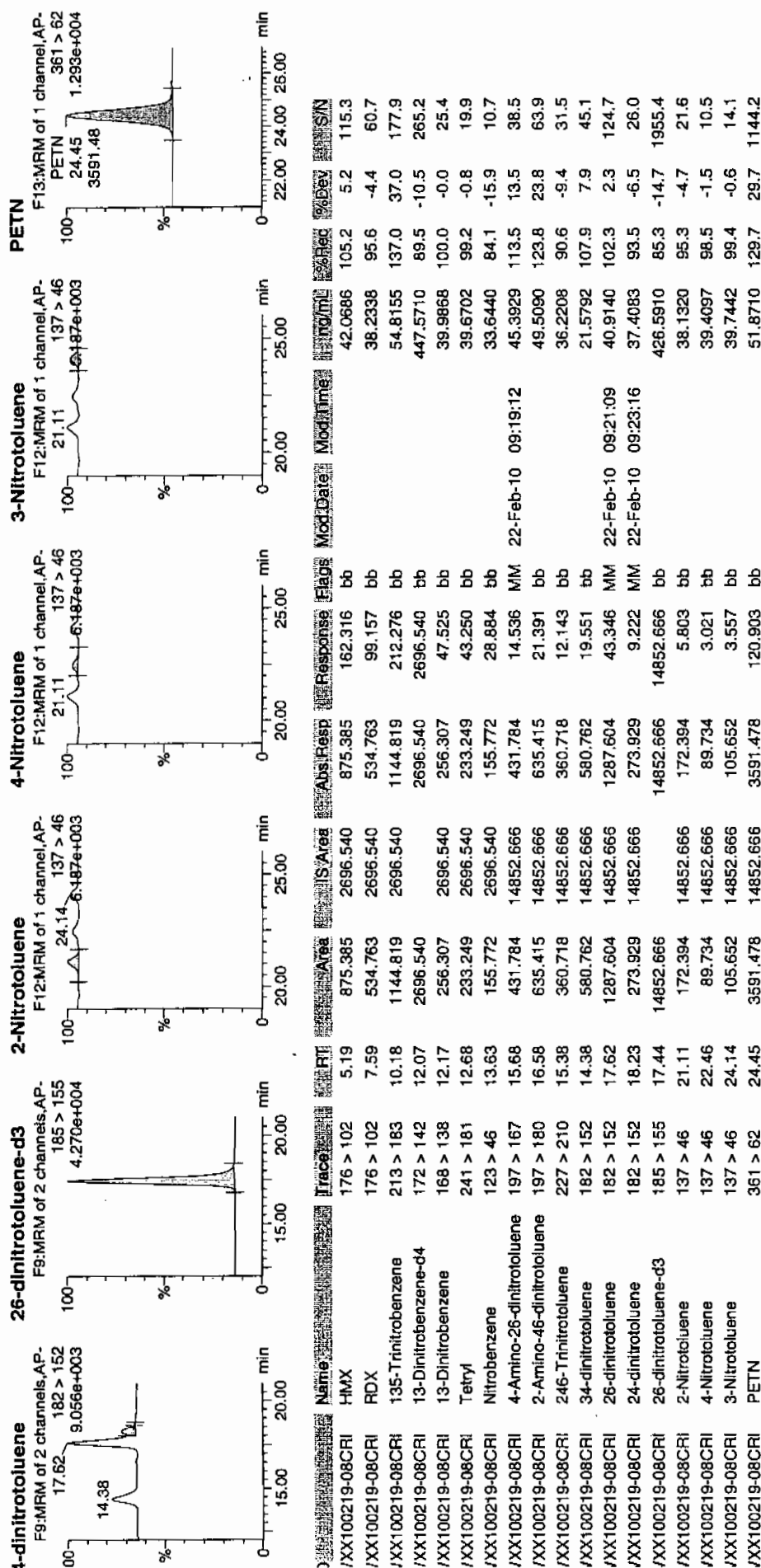


Quantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Mon Feb 22 09:28:24 2010, Page 50 of 73

atset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/21/10
 Time of Injection 2332
 Standard Number WXX100219-08CRI
 Data File EXP0216256a

HMX	105.2
RDX	95.6
135-TNB	137.0
13-DNB	100.0
Tetryl	99.2
Nitrobenzene	84.1
4A-26-DNT	113.5
2A-46-DNT	123.8
246-TNT	90.6
34-DNT(surr)	107.9
26-DNT	102.3
24-DNT	93.5
2-NT	95.3
4-NT	98.5
3-NT	99.4
PETN	129.7

*1007
4/22/10*

Total 1675.6

Average 104.7

4/11 in 10/22/10
 ICV Limits 85-115%
 CRI Limits 70-130%
 CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0216265a

Analysis Date: 22-FEB-10 03:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	594.15	99	
1,3-Dinitrobenzene-d4	500	468.615	94	
2,4,6-Trinitrotoluene	600	820.052	137	*
2,4-Dinitrotoluene	600	663.114	111	
2,6-Dinitrotoluene	600	641.119	107	
2,6-Dinitrotoluene-d3	500	409.318	82	
2-Amino-4,6-dinitrotoluene	600	731.867	122	*
3,4-Dinitrotoluene	300	322.803	108	
4-Amino-2,6-dinitrotoluene	600	644.152	107	
HMX	600	564.496	94	
Nitrobenzene	600	517.847	86	
PETN	600	685.297	114	
RDX	600	578.716	96	
Tetryl	600	493.791	82	
m-Dinitrobenzene	600	613.837	102	
m-Nitrotoluene	600	537.215	90	
o-Nitrotoluene	600	536.337	89	
p-Nitrotoluene	600	535.801	89	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216265a

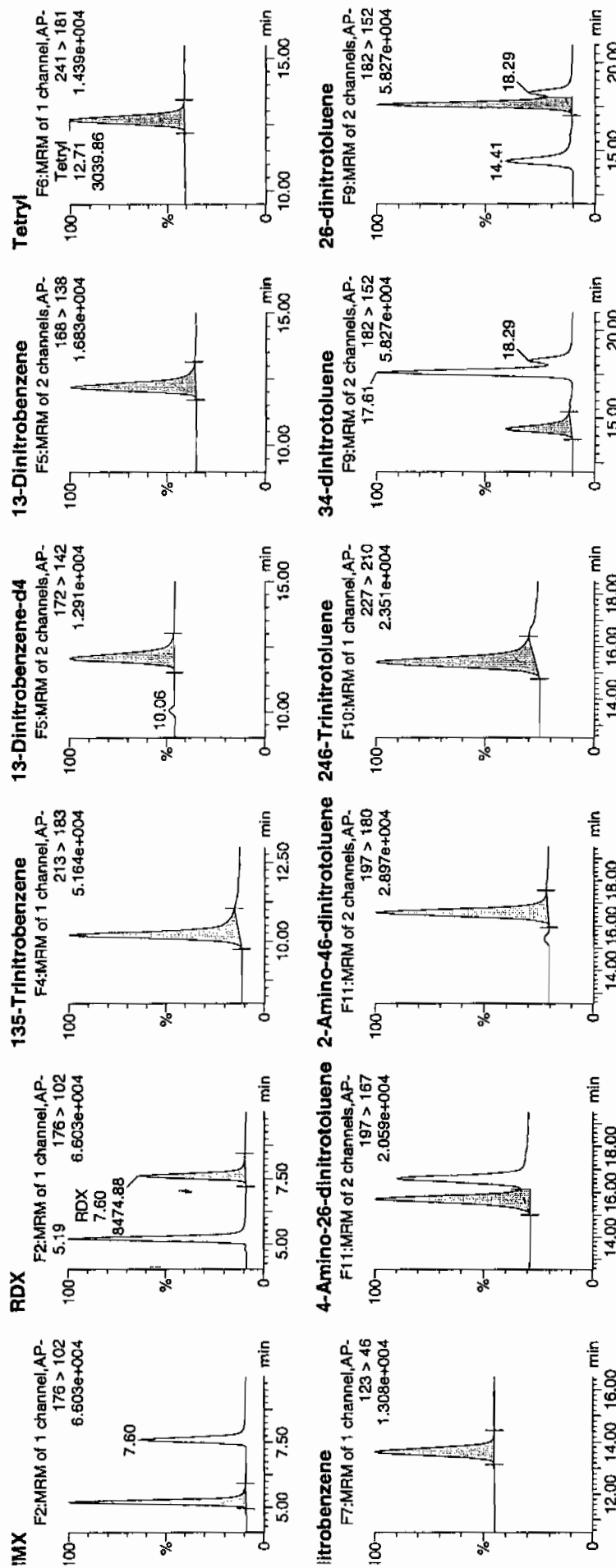
Date: 22-Feb-2010

Time: 03:59:09

Job: WXX100219-07CCV

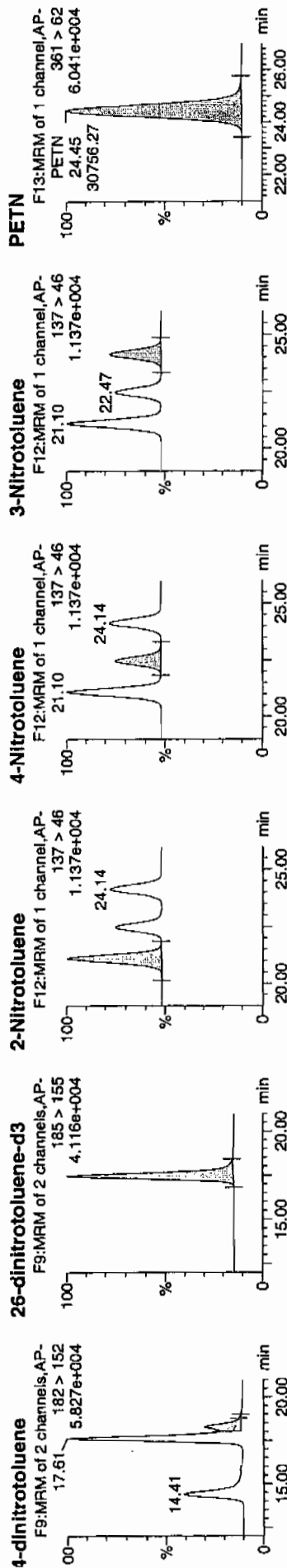
File: 1:1,B

Page 502 of 1886



Handwritten note: 11/2/10

atset: C:\MASSLYN\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010



Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Conc	Rec	Dev	SN
XX100219-07CCV HMX	176 > 102	5.19	12298.627	2823.326	12298.627	2178.039	db			584.4964	94.1	-5.9	1130.7
XX100219-07CCV RDX	176 > 102	7.50	8474.875	2823.326	8474.875	1500.867	bb			578.7161	96.5	-3.5	684.1
XX100219-07CCV 135-Trinitrobenzene	213 > 183	10.19	12992.229	2823.326	12992.229	2300.873	bb			594.1501	99.0	-1.0	254.8
XX100219-07CCV 13-Dinitrobenzene-d4	172 > 142	12.06	2823.326	2823.326	2823.326	2823.326	bb			488.6149	93.7	-6.3	192.6
XX100219-07CCV 13-Dinitrobenzene	168 > 138	12.20	4119.557	2823.326	4119.557	729.557	bb			613.8369	102.3	2.3	450.5
XX100219-07CCV Tetol	241 > 181	12.71	3039.858	2823.326	3039.858	538.347	bb			493.7912	82.3	-17.7	302.4
XX100219-07CCV Nitrobenzene	123 > 46	13.61	2510.370	2823.326	2510.370	444.577	bb			517.8472	86.3	-13.7	178.6
XX100219-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.70	5879.180	14251.270	5879.180	206.269	MM	22-Feb-10	09:18:40	644.1523	107.4	7.4	344.8
XX100219-07CCV 2-Amino-46-dinitrotoluene	197 > 180	16.59	9012.699	14251.270	9012.699	316.207	bb			731.8674	122.0	22.0	513.2
XX100219-07CCV 246-Trinitrotoluene	227 > 210	15.40	7836.100	14251.270	7836.100	274.926	bb			820.0521	136.7	36.7	258.7
XX100219-07CCV 34-dinitrotoluene	182 > 152	14.41	8335.836	14251.270	8335.836	292.459	bb			322.8025	107.6	7.6	169.6
XX100219-07CCV 26-dinitrotoluene	182 > 152	17.61	19359.709	14251.270	19359.709	679.228	MM	22-Feb-10	09:20:58	641.1192	106.9	6.9	502.9
XX100219-07CCV 24-dinitrotoluene	182 > 152	18.29	4659.153	14251.270	4659.153	163.464	MM	22-Feb-10	09:23:23	663.1140	110.5	10.5	107.7
XX100219-07CCV 26-dinitrotoluene-d3	185 > 155	17.43	14251.270	14251.270	14251.270	14251.270	bb			409.3180	81.9	-18.1	2056.6
XX100219-07CCV 2-Nitrotoluene	137 > 46	21.10	2326.585	14251.270	2326.585	81.627	bb			536.3366	89.4	-10.6	412.4
XX100219-07CCV 4-Nitrotoluene	137 > 46	22.47	1170.594	14251.270	1170.594	41.070	bb			535.8012	89.3	-10.7	198.3
XX100219-07CCV 3-Nitrotoluene	137 > 46	24.14	1370.255	14251.270	1370.255	48.075	bb			537.2147	89.5	-10.5	221.3
XX100219-07CCV PETN	361 > 62	24.45	30756.266	14251.270	30756.266	1079.071	bb			685.2972	114.2	14.2	2796.8

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/22/10
 Time of Injection: 0359
 Standard Number: WXX100219-07CCV
 Data File: EXP0216265a

HMX	94.1
RDX	96.5
135-TNB	99.0
13-DNB	102.3
Tetryl	82.3
Nitrobenzene	86.3
4A-26-DNT	107.4
2A-46-DNT	122.0
246-TNT	136.7
34-DNT(surr)	107.6
26-DNT	106.9
24-DNT	110.5
2-NT	89.4
4-NT	89.3
3-NT	89.5
PETN	114.2

*not
2/24/10*

Total 1634.0

Average 102.1

4/11/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216267a

Analysis Date: 22-FEB-10 04:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	38.427	96	
m-Nitrotoluene	40	43.204	108	
o-Nitrotoluene	40	35.199	88	
p-Nitrotoluene	40	38.622	97	
1,3,5-Trinitrobenzene	40	47.894	120	
1,3-Dinitrobenzene-d4	500	476.276	95	
2,4,6-Trinitrotoluene	40	37.735	94	
2,4-Dinitrotoluene	40	49.71	124	
2,6-Dinitrotoluene	40	40.325	101	
2,6-Dinitrotoluene-d3	500	427.247	85	
2-Amino-4,6-dinitrotoluene	40	39.296	98	
3,4-Dinitrotoluene	20	23.526	118	
4-Amino-2,6-dinitrotoluene	40	38.34	96	
HMX	40	36.072	90	
Nitrobenzene	40	27.714	69	*
PETN	40	53.209	133	*
RDX	40	35.557	89	
Tetryl	40	36.625	92	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\021610expA5.qld, Time: Mon Feb 22 09:23:34 2010

Date: 22-Feb-2010

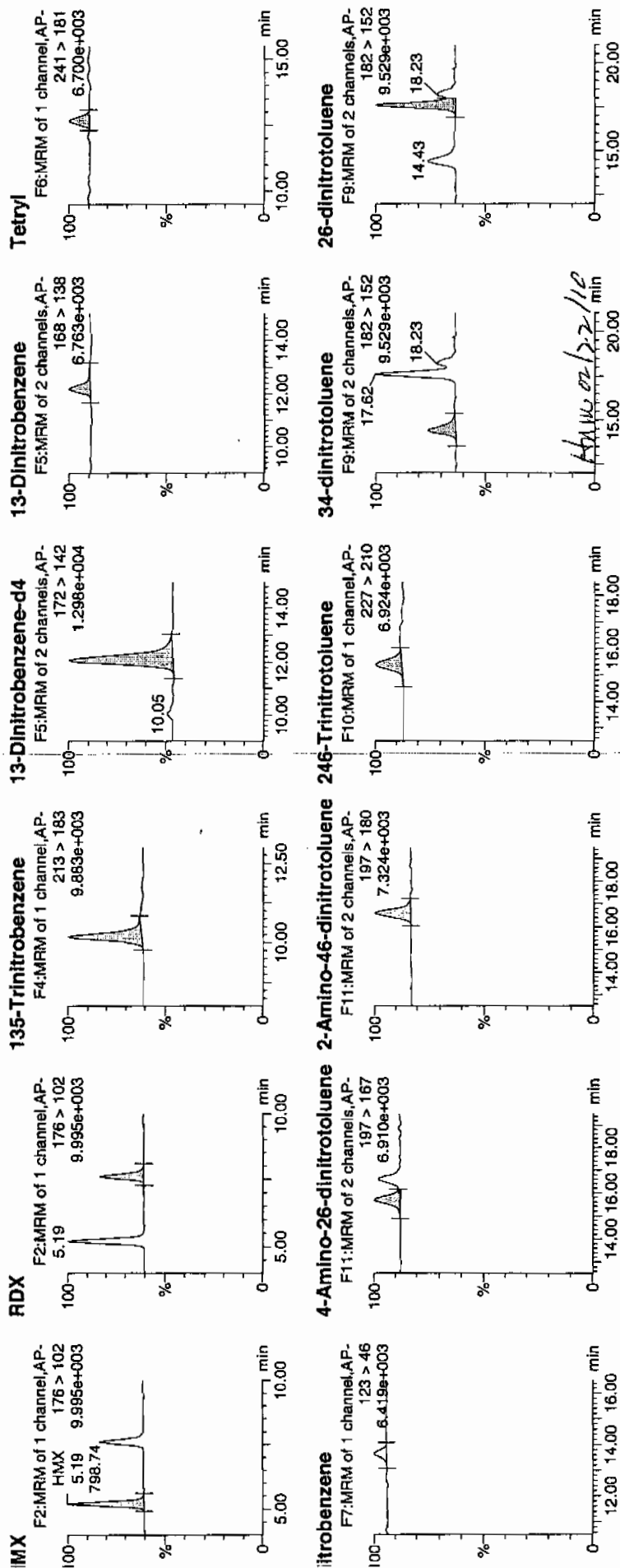
Time: 04:58:27

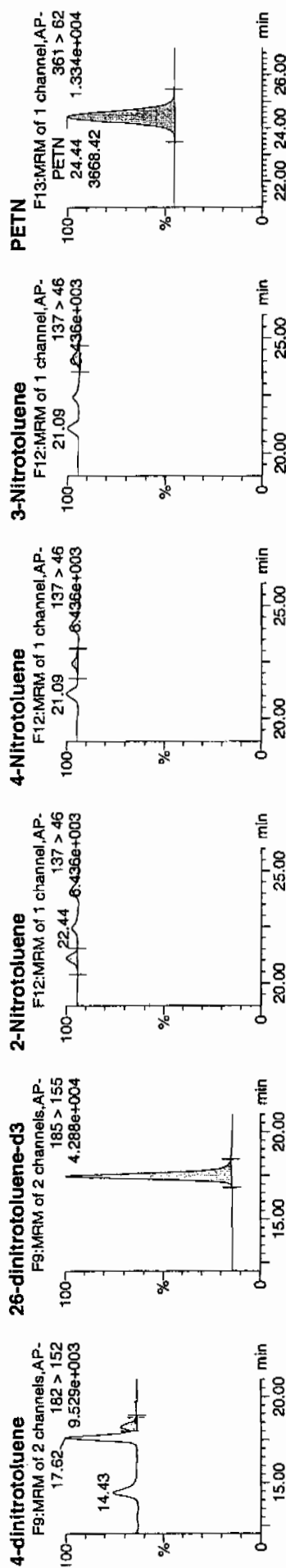
Sample ID: WXX100219-08CRI

Sample: 1:1,C

MM
2/22/10

Page 506 of 1886





Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Inj Vol	Area	Peak	SN
HM-X	176 > 102	5.19	798.738	2869.482	798.738	139.178	bb			36.0717	90.2	-9.8	147.5
RDX	176 > 102	7.59	529.215	2869.482	529.215	92.214	bb			35.5567	88.9	-11.1	85.3
135-Trinitrobenzene	213 > 183	10.18	1064.423	2869.482	1064.423	185.473	bb			47.8943	119.7	19.7	152.0
13-Dinitrobenzene-d4	172 > 142	12.07	2869.482		2869.482	2869.482	bb			476.2759	95.3	-4.7	460.3
13-Dinitrobenzene	168 > 138	12.20	262.103	2869.482	262.103	45.671	bb			38.4266	96.1	-3.9	37.1
Tetryl	241 > 181	12.68	229.157	2869.482	229.157	39.930	bb			36.6253	91.6	-8.4	15.3
Nitrobenzene	123 > 46	13.67	136.543	2869.482	136.543	23.792	bb			27.7135	69.3	-30.7	23.8
4-Amino-26-dinitrotoluene	197 > 167	15.68	365.254	14875.522	365.254	12.277	MM	22-Feb-10	09:18:20	38.3396	95.8	-4.2	23.8
2-Amino-46-dinitrotoluene	197 > 180	16.60	505.115	14875.522	505.115	16.978	bb			39.2961	98.2	-1.8	46.1
246-Trinitrotoluene	227 > 210	15.41	376.375	14875.522	376.375	12.651	bb			37.7349	94.3	-5.7	35.0
34-dinitrotoluene	182 > 152	14.43	634.129	14875.522	634.129	21.315	bb			23.5259	117.6	17.6	21.1
26-dinitrotoluene	182 > 152	17.62	1271.020	14875.522	1271.020	42.722	MM	22-Feb-10	09:20:52	40.3249	100.8	0.8	62.0
24-dinitrotoluene	182 > 152	18.23	364.571	14875.522	364.571	12.254	MM	22-Feb-10	09:23:34	49.7101	124.3	24.3	14.4
26-dinitrotoluene-d3	185 > 155	17.44	14875.522		14875.522	14875.522	bb			427.2475	85.4	-14.6	1950.1
2-Nitrotoluene	137 > 46	21.09	159.380	14875.522	159.380	5.357	bb			35.1993	88.0	-12.0	26.9
4-Nitrotoluene	137 > 46	22.44	88.075	14875.522	88.075	2.960	bb			38.6217	96.6	-3.4	14.1
3-Nitrotoluene	137 > 46	24.19	115.027	14875.522	115.027	3.866	bb			43.2044	108.0	8.0	15.3
PETN	361 > 62	24.44	3668.419	14875.522	3668.419	123.304	bb			53.2094	133.0	39.0	1395.7

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/22/10
 Time of Injection 0458
 Standard Number WXX100219-08CRI
 Data File EXP0216267a

HMX	90.2
RDX	88.9
135-TNB	119.7
13-DNB	96.1
Tetryl	91.6
Nitrobenzene	69.3
4A-26-DNT	95.8
2A-46-DNT	98.2
246-TNT	94.3
34-DNT(surr)	117.6
26-DNT	100.8
24-DNT	124.3
2-NT	88.0
4-NT	96.6
3-NT	108.0
PETN	133.0

*NTT
2/22/10*

Total 1612.4

Average 100.8

471111-02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216277a

Analysis Date: 22-FEB-10 09:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	607.649	101	
1,3-Dinitrobenzene-d4	500	458.233	92	
2,4,6-Trinitrotoluene	600	721.443	120	*
2,4-Dinitrotoluene	600	585.351	98	
2,6-Dinitrotoluene	600	625.625	104	
2,6-Dinitrotoluene-d3	500	453.695	91	
2-Amino-4,6-dinitrotoluene	600	618.335	103	
3,4-Dinitrotoluene	300	332.375	111	
4-Amino-2,6-dinitrotoluene	600	600.172	100	
HMX	600	771.475	129	*
Nitrobenzene	600	599.257	100	
PETN	600	603.965	101	
RDX	600	766.296	128	*
Tetryl	600	514.199	86	
m-Dinitrobenzene	600	623.961	104	
m-Nitrotoluene	600	593.327	99	
o-Nitrotoluene	600	577.585	96	
p-Nitrotoluene	600	595.154	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216277a

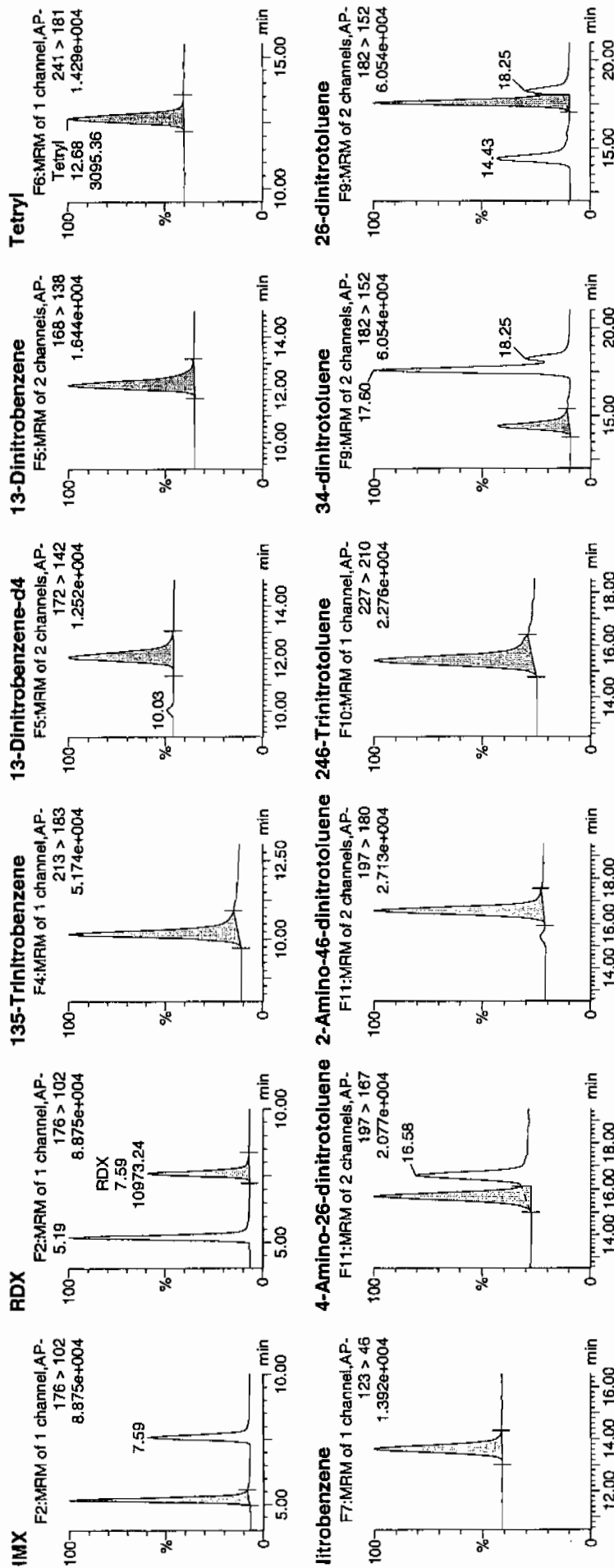
Date: 22-Feb-2010

Time: 09:55:09

D: WXX100219-07CCV

File: 1:1,B

Page 510 of 1886

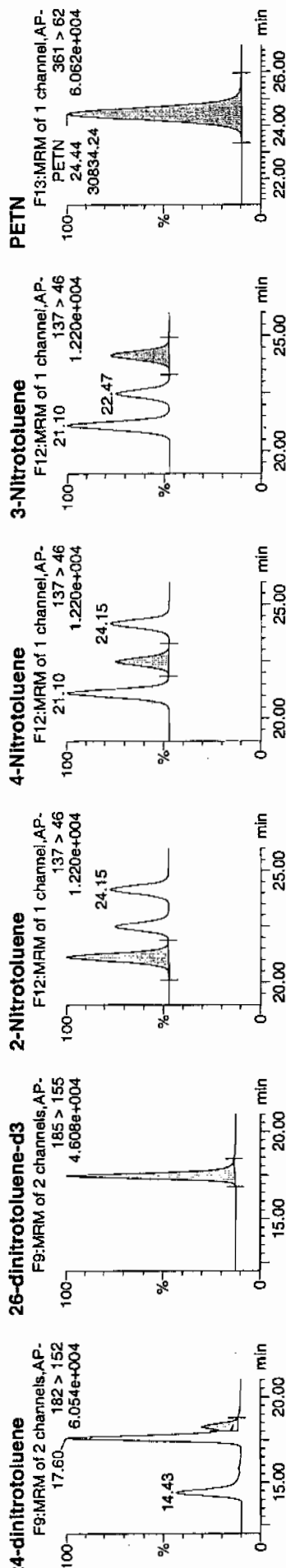


HNW 02/23/10

Printed: Tue Feb 23 09:00:06 2010, Page 20 of 103

Quantify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



D	Name	Trace	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Norm	%Rec	Index	S/N
VXX100219-07CCV	HMX	176 > 102	5.19	16435.672	2760.777	16435.672	2976.639	bb			771.4748	128.6	28.6	1689.8
VXX100219-07CCV	ROX	176 > 102	7.59	10973.239	2760.777	10973.239	1987.346	bb			766.2964	127.7	27.7	962.8
VXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	12993.030	2760.777	12993.030	2353.147	bb			607.6488	101.3	1.3	1617.2
VXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2760.777		2760.777	2760.777	bb			458.2330	91.6	-8.4	105.7
VXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	4094.727		4094.727	741.590	bb			623.9606	104.0	4.0	486.0
VXX100219-07CCV	Tetryl	241 > 181	12.68	3095.362		3095.362	560.596	bb			514.1989	85.7	-14.3	148.6
VXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2840.661		2840.661	514.468	bb			599.2568	99.9	-0.1	232.5
VXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	6071.651		6071.651	192.185	MM	23-Feb-10	08:48:23	600.1721	100.0	0.0	401.1
VXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8440.130		8440.130	267.155	bb			618.3351	103.1	3.1	359.9
VXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.41	7641.229		7641.229	241.867	bb			721.4427	120.2	20.2	185.7
VXX100219-07CCV	34-dinitrotoluene	182 > 152	14.43	9513.576		9513.576	301.132	bb			332.3753	110.8	10.8	550.9
VXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	20940.000		20940.000	662.812	MM	23-Feb-10	08:54:47	625.6246	104.3	4.3	1505.6
VXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4558.665		4558.665	144.295	MM	23-Feb-10	08:56:48	585.3507	97.6	-2.4	320.9
VXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	15796.336		15796.336	15796.336	bb			453.6946	90.7	-9.3	2794.3
VXX100219-07CCV	2-Nitrotoluene	137 > 46	21.10	2777.156		2777.156	87.905	bb			577.5851	96.3	-3.7	327.5
VXX100219-07CCV	4-Nitrotoluene	137 > 46	22.47	1441.235		1441.235	45.619	bb			595.1540	98.2	-0.8	168.3
VXX100219-07CCV	3-Nitrotoluene	137 > 46	24.15	1677.452		1677.452	53.096	bb			593.3266	98.9	-1.1	185.1
VXX100219-07CCV	PETN	361 > 62	24.44	30834.240		30834.240	975.993	bb			603.9647	100.7	0.7	8844.5

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/22/10
 Time of Injection: 0955
 Standard Number: WXX100219-07CCV
 Data File: EXP0216277a

HMX	128.6
RDX	127.7
135-TNB	101.3
13-DNB	104.0
Tetryl	85.7
Nitrobenzene	99.9
4A-26-DNT	100.0
2A-46-DNT	103.1
246-TNT	120.2
34-DNT(surr)	110.8
26-DNT	104.3
24-DNT	97.6
2-NT	96.3
4-NT	99.2
3-NT	98.9
PETN	100.7

*sum
2/23/10*

Total 1678.3

Average 104.9

sum 02/23/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216279a

Analysis Date: 22-FEB-10 10:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	53.322	133	*
1,3-Dinitrobenzene-d4	500	489.825	98	
2,4,6-Trinitrotoluene	40	39.37	98	
2,4-Dinitrotoluene	40	32.728	82	
2,6-Dinitrotoluene	40	42.223	106	
2,6-Dinitrotoluene-d3	500	510.417	102	
2-Amino-4,6-dinitrotoluene	40	48.83	122	
3,4-Dinitrotoluene	20	17.736	89	
4-Amino-2,6-dinitrotoluene	40	44.545	111	
HMX	40	48.782	122	
Nitrobenzene	40	41.032	103	
PETN	40	41.168	103	
RDX	40	41.256	103	
Tetryl	40	39.334	98	
m-Dinitrobenzene	40	41.121	103	
m-Nitrotoluene	40	30.021	75	
o-Nitrotoluene	40	32.366	81	
p-Nitrotoluene	40	32.903	82	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Sample: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216279a

Date: 22-Feb-2010

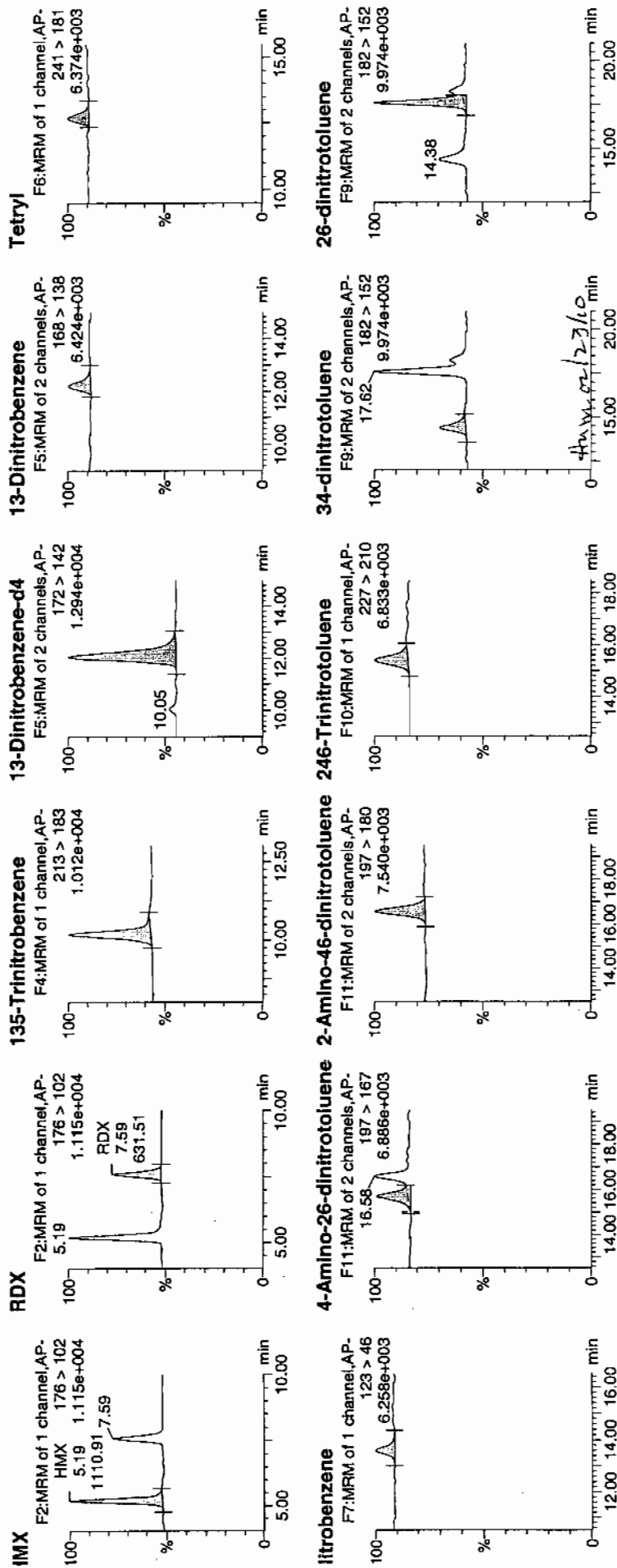
Time: 10:54:26

Job: WXX100219-08CRI

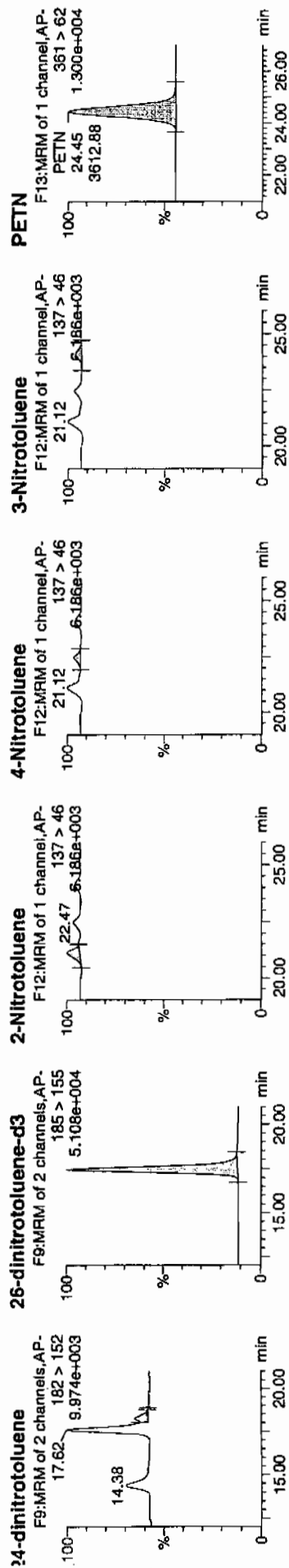
Ratio: 1:1,C

2/23/10

Page 514 of 1086



Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



ID	Name	Trace	RT	Area	Abs:Resp	Response	Flags	Mod:Date	Mod:Time	Int:mg/ml	%Rec	%Dev	S/N
NXX100219-08CRI	HMZ	176 > 102	5.19	1110.911	1110.911	188.219	bb			48.7820	122.0	22.0	280.5
NXX100219-08CRI	RDX	176 > 102	7.59	631.508	631.508	106.995	bb			41.2560	103.1	3.1	147.5
NXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1218.757	1218.757	206.491	bb			53.3218	133.3	33.3	122.6
NXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2951.111	2951.111	2951.111	bb			489.8246	98.0	-2.0	215.1
NXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.20	288.457	288.457	48.873	bb			41.1206	102.8	2.8	8.3
NXX100219-08CRI	Tetryl	241 > 181	12.68	253.104	253.104	42.883	bb			39.3337	98.3	-1.7	17.0
NXX100219-08CRI	Nitrobenzene	123 > 46	13.58	207.914	207.914	35.226	bb			41.0320	102.6	2.6	14.4
NXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	506.982	506.982	14.264	MM	23-Feb-10	08:48:32	44.5451	111.4	11.4	33.5
NXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	749.855	749.855	21.097	bb			48.8304	122.1	22.1	56.1
NXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	469.119	469.119	13.199	bb			39.3695	98.4	-1.6	66.5
NXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	571.113	571.113	16.068	bb			17.7356	88.7	-11.3	46.4
NXX100219-08CRI	26-dinitrotoluene	182 > 152	17.62	1589.904	1589.904	44.732	MM	23-Feb-10	08:54:38	42.2227	105.6	5.6	169.4
NXX100219-08CRI	24-dinitrotoluene	182 > 152	18.25	286.752	286.752	8.068	MM	23-Feb-10	08:56:56	32.7283	81.8	-18.2	27.3
NXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17771.258	17771.258	17771.258	bb			510.4174	102.1	2.1	1554.2
NXX100219-08CRI	2-Nitrotoluene	137 > 46	21.12	175.081	175.081	4.926	bb			32.3663	80.9	-19.1	66.3
NXX100219-08CRI	4-Nitrotoluene	137 > 46	22.47	89.639	89.639	2.522	bb			32.9026	82.3	-17.7	36.0
NXX100219-08CRI	3-Nitrotoluene	137 > 46	24.14	95.488	95.488	2.687	bb			30.0214	75.1	-24.9	31.3
NXX100219-08CRI	PETN	361 > 62	24.45	3612.875	3612.875	101.649	bb			41.1677	102.9	2.9	1068.9

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/22/10
 Time of Injection 1054
 Standard Number WXX100219-08CRI
 Data File EXP0216279a

HMX	122.0
RDX	103.1
135-TNB	133.3
13-DNB	102.8
Tetryl	98.3
Nitrobenzene	102.6
4A-26-DNT	111.4
2A-46-DNT	122.1
246-TNT	98.4
34-DNT(surr)	88.7
26-DNT	105.6
24-DNT	81.8
2-NT	80.9
4-NT	82.3
3-NT	75.1
PETN	102.9

*MTT
2/23/10*

Total 1611.3

Average 100.7

MTT 2/23/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216290a

Analysis Date: 22-FEB-10 16:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

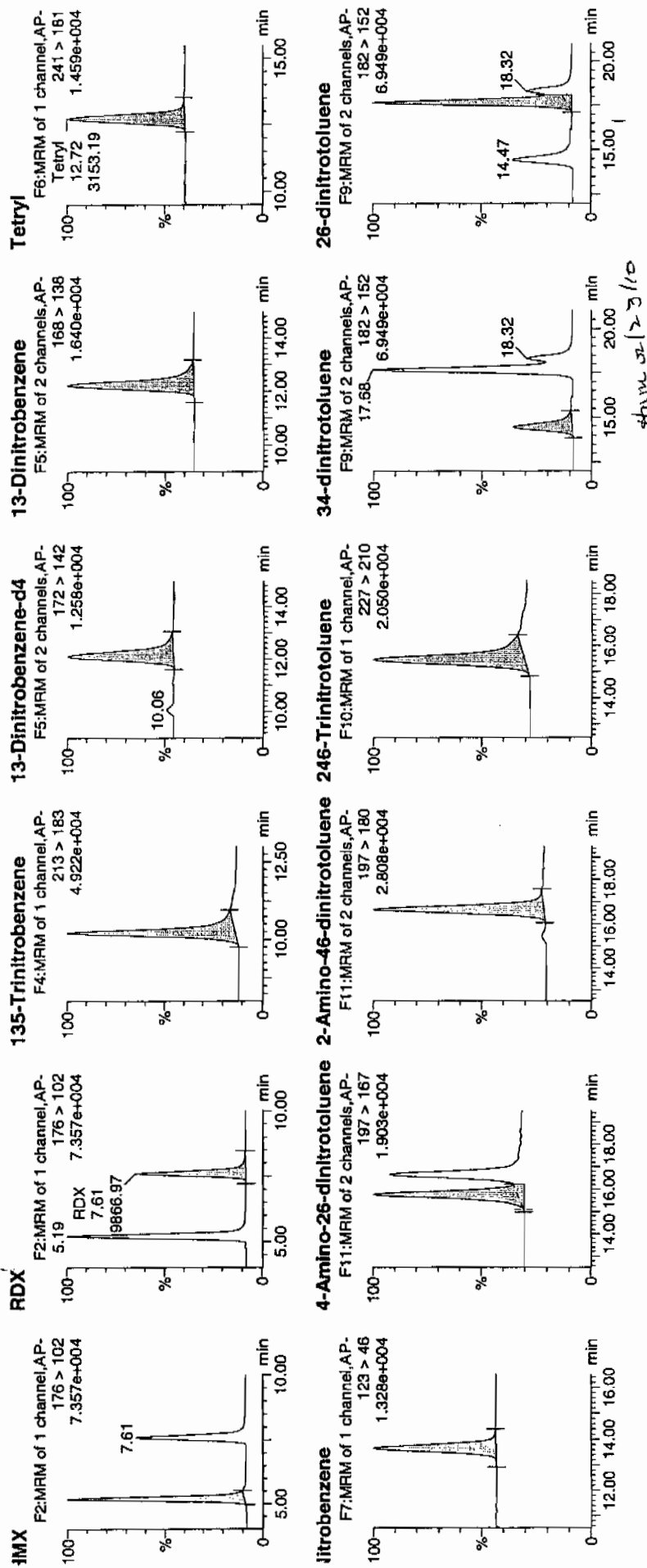
Compound	True	Found	Recovery	Q
Tetryl	600	507.24	85	
m-Dinitrobenzene	600	608.001	101	
m-Nitrotoluene	600	518.357	86	
o-Nitrotoluene	600	518.44	86	
p-Nitrotoluene	600	534.373	89	
1,3,5-Trinitrobenzene	600	555.161	93	
1,3-Dinitrobenzene-d4	500	473.197	95	
2,4,6-Trinitrotoluene	600	576.342	96	
2,4-Dinitrotoluene	600	662.555	110	
2,6-Dinitrotoluene	600	665.509	111	
2,6-Dinitrotoluene-d3	500	489.931	98	
2-Amino-4,6-dinitrotoluene	600	603.085	101	
3,4-Dinitrotoluene	300	290.639	97	
4-Amino-2,6-dinitrotoluene	600	496.085	83	
HMX	600	615.349	103	
Nitrobenzene	600	527.893	88	
PETN	600	700.802	117	
RDX	600	667.252	111	

Recovery Limits:

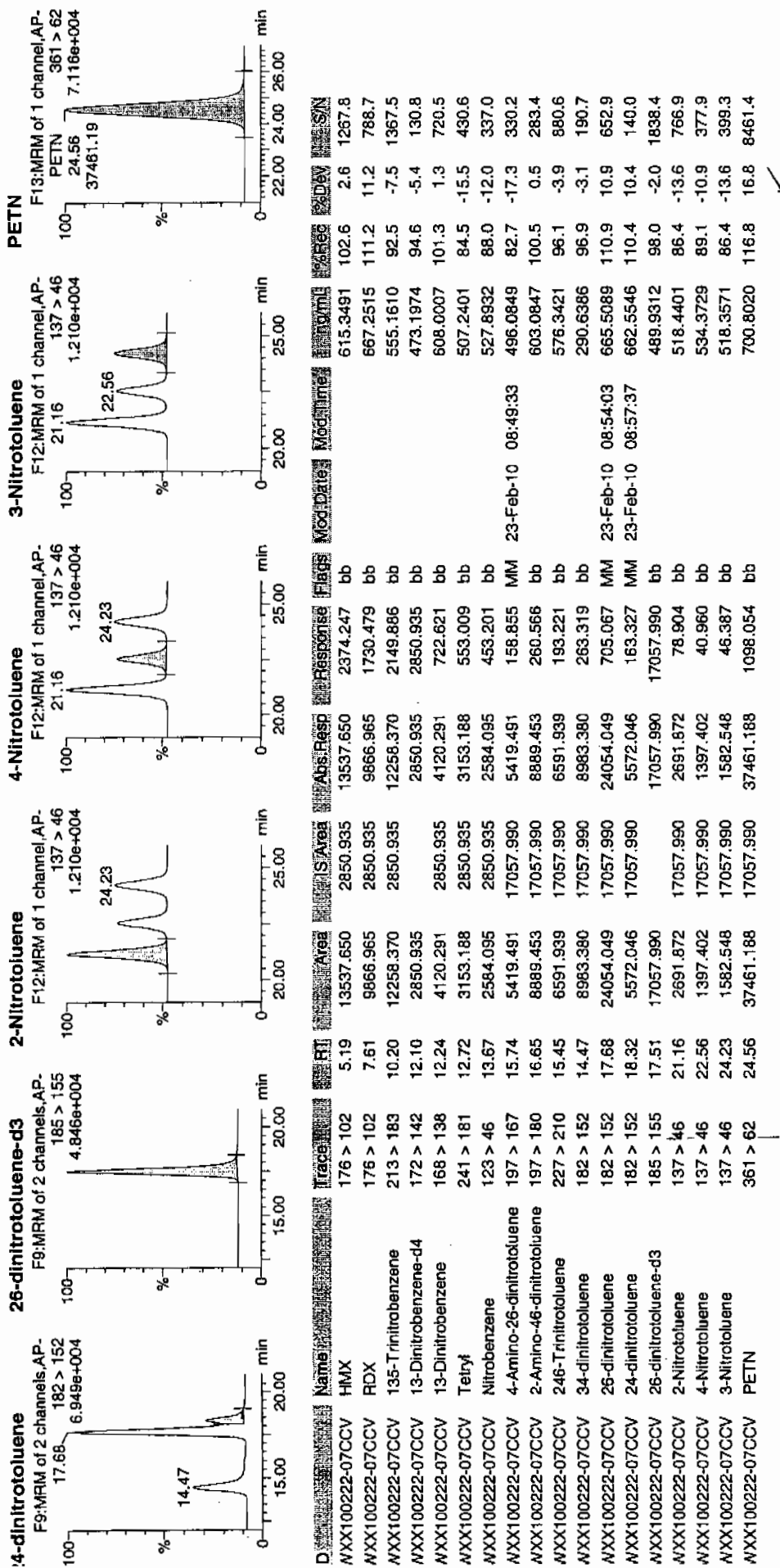
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits



Dataset: C:\MASSLYN\New_Exp_PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/22/10
 Time of Injection: 1619
 Standard Number: WXX100222-07CCV
 Data File: EXP0216290a

HMX	102.6
RDX	111.2
135-TNB	92.5
13-DNB	101.3
Tetryl	84.5
Nitrobenzene	88.0
4A-26-DNT	82.7
2A-46-DNT	100.5
246-TNT	96.1
34-DNT(surr)	96.9
26-DNT	110.9
24-DNT	110.4
2-NT	86.4
4-NT	89.1
3-NT	86.4
PETN	116.8

*not
2/23/10*

Total 1556.3

Average 97.3

Hum 02/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216292a

Analysis Date: 22-FEB-10 17:18

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	39.174	98	
3,4-Dinitrotoluene	20	19.043	95	
4-Amino-2,6-dinitrotoluene	40	40.928	102	
HMX	40	46.554	116	
Nitrobenzene	40	40.535	101	
PETN	40	61.26	153	*
RDX	40	43.078	108	
Tetryl	40	38.753	97	
m-Dinitrobenzene	40	41.57	104	
m-Nitrotoluene	40	43.711	109	
o-Nitrotoluene	40	37.667	94	
p-Nitrotoluene	40	39.826	100	
1,3,5-Trinitrobenzene	40	47.329	118	
1,3-Dinitrobenzene-d4	500	466.313	93	
2,4,6-Trinitrotoluene	40	36.061	90	
2,4-Dinitrotoluene	40	46.009	115	
2,6-Dinitrotoluene	40	43.892	110	
2,6-Dinitrotoluene-d3	500	449.04	90	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216292a

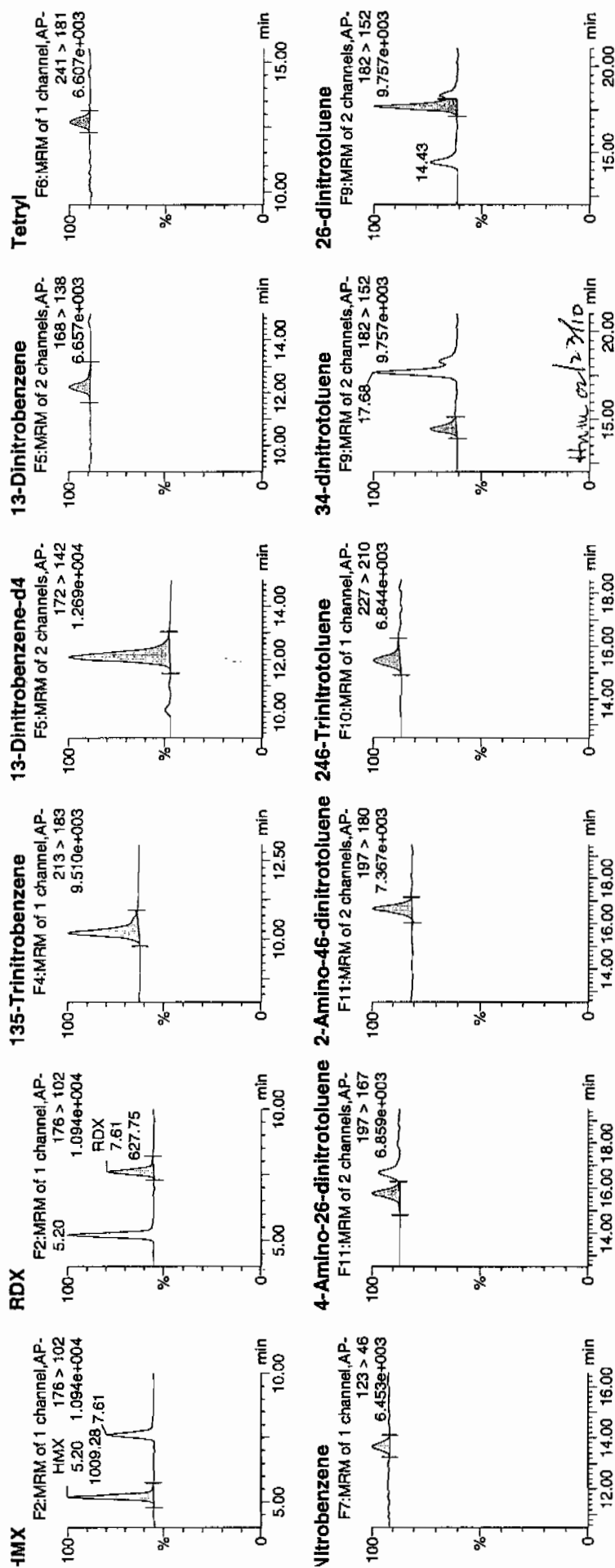
Date: 22-Feb-2010

Time: 17:18:42

D: WXX100222-08CRI

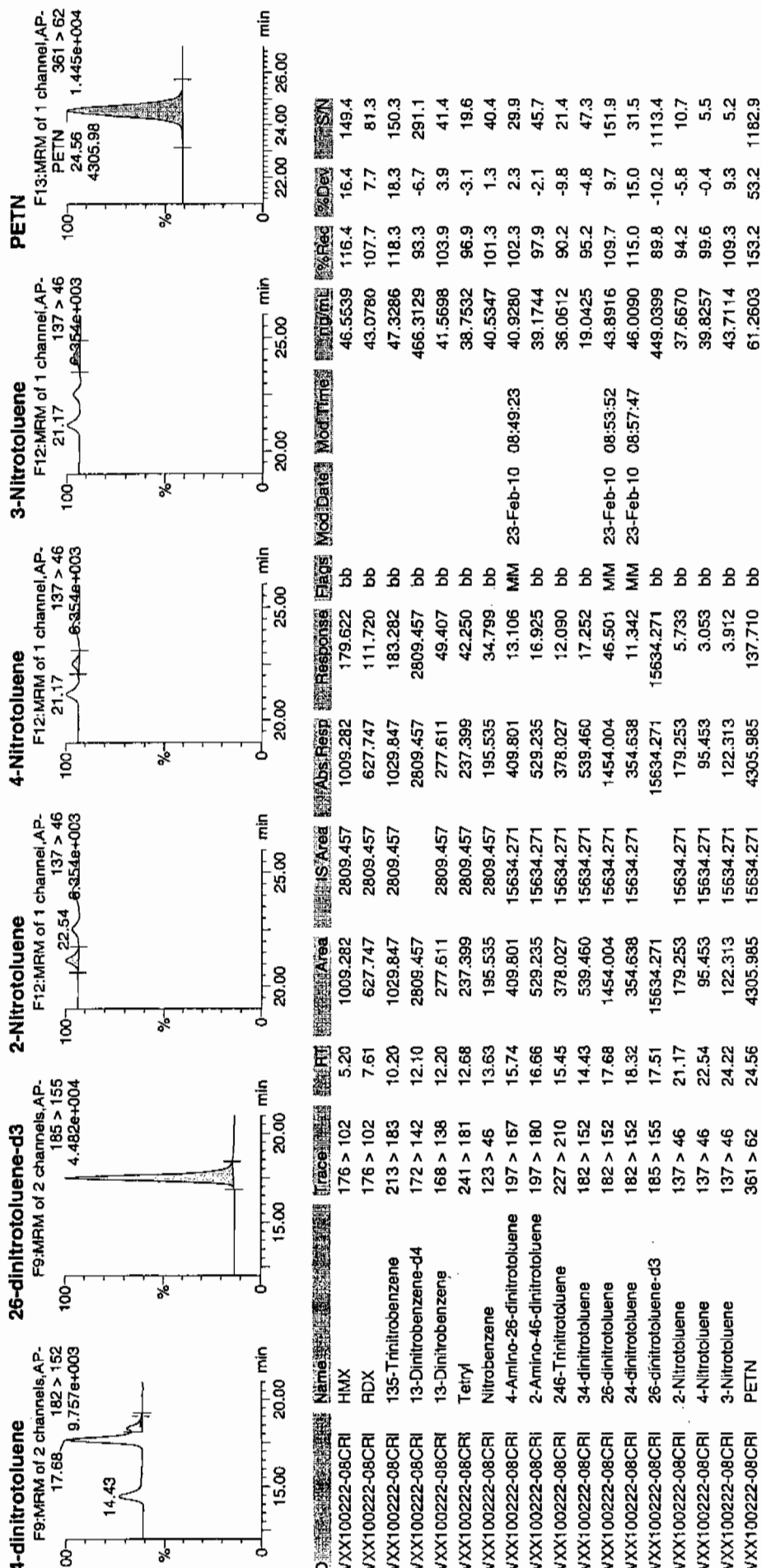
Vial: 1:1,C

100%
 100%



Quantify Sample Report
EL Laboratories, LLC / Analyst: Michael A. Penny

atset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/22/10
 Time of Injection 1718
 Standard Number WXX100222-08CRI
 Data File EXP0216292a

HMX	116.4
RDX	107.7
135-TNB	118.3
13-DNB	103.9
Tetryl	96.9
Nitrobenzene	101.3
4A-26-DNT	102.3
2A-46-DNT	97.9
246-TNT	90.2
34-DNT(surr)	95.2
26-DNT	109.7
24-DNT	115.0
2-NT	94.2
4-NT	99.6
3-NT	109.3
PETN	153.2

*WAT
2/23/10*

Total 1711.1

Average 106.9

HMM 2/23/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0225012a

Analysis Date: 25-FEB-10 15:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	38.651	97	
1,3,5-Trinitrobenzene	40	39.964	100	
1,3-Dinitrobenzene-d4	500	502.669	101	
2,4,6-Trinitrotoluene	40	38.096	95	
2,4-Dinitrotoluene	40	35.119	88	
2,6-Dinitrotoluene	40	40.537	101	
2,6-Dinitrotoluene-d3	500	497.827	100	
2-Amino-4,6-dinitrotoluene	40	33.457	84	
3,4-Dinitrotoluene	20	19.252	96	
4-Amino-2,6-dinitrotoluene	40	38.076	95	
HMX	40	38.983	97	
Nitrobenzene	40	37.646	94	
PETN	40	50.005	125	
RDX	40	36.33	91	
Tetryl	40	40.451	101	
m-Dinitrobenzene	40	42.409	106	
m-Nitrotoluene	40	36.019	90	
o-Nitrotoluene	40	38.901	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Sample: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225012a

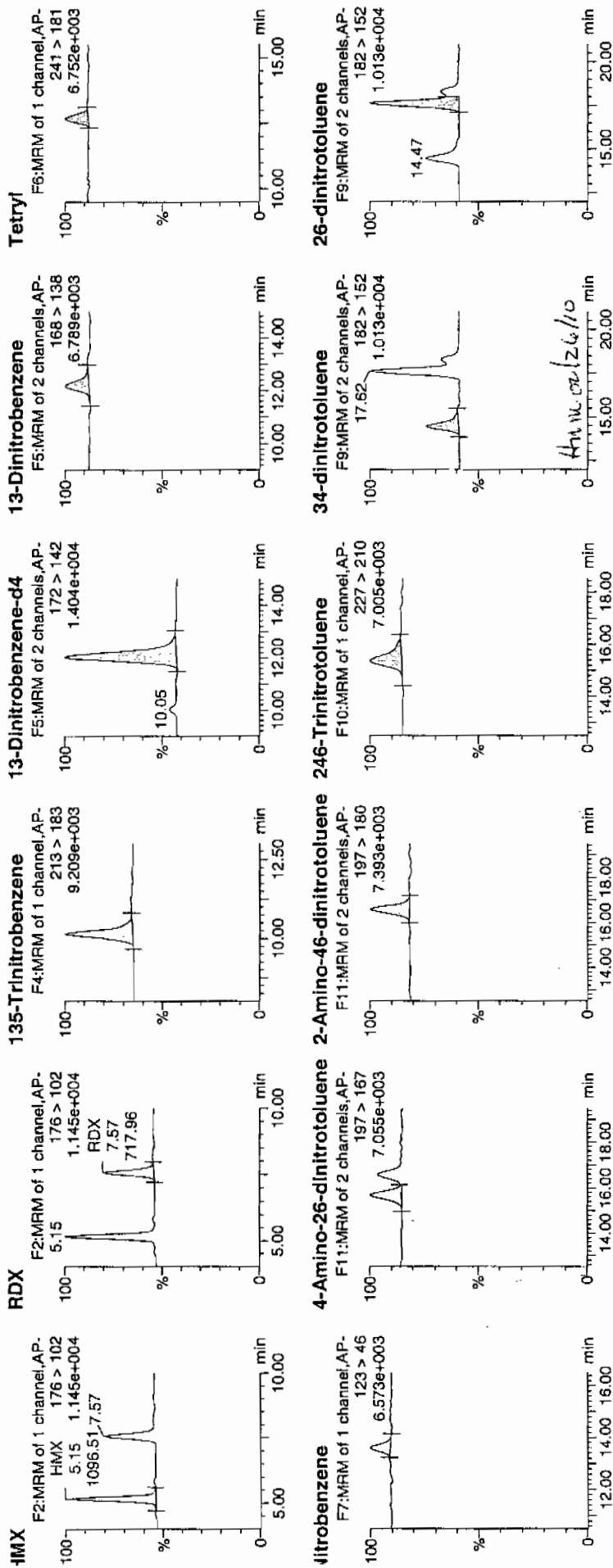
Date: 25-Feb-2010

Time: 15:27:35

D: WXX100225-08CRI

Vial: 1:1,C

AP
WJ
WJW

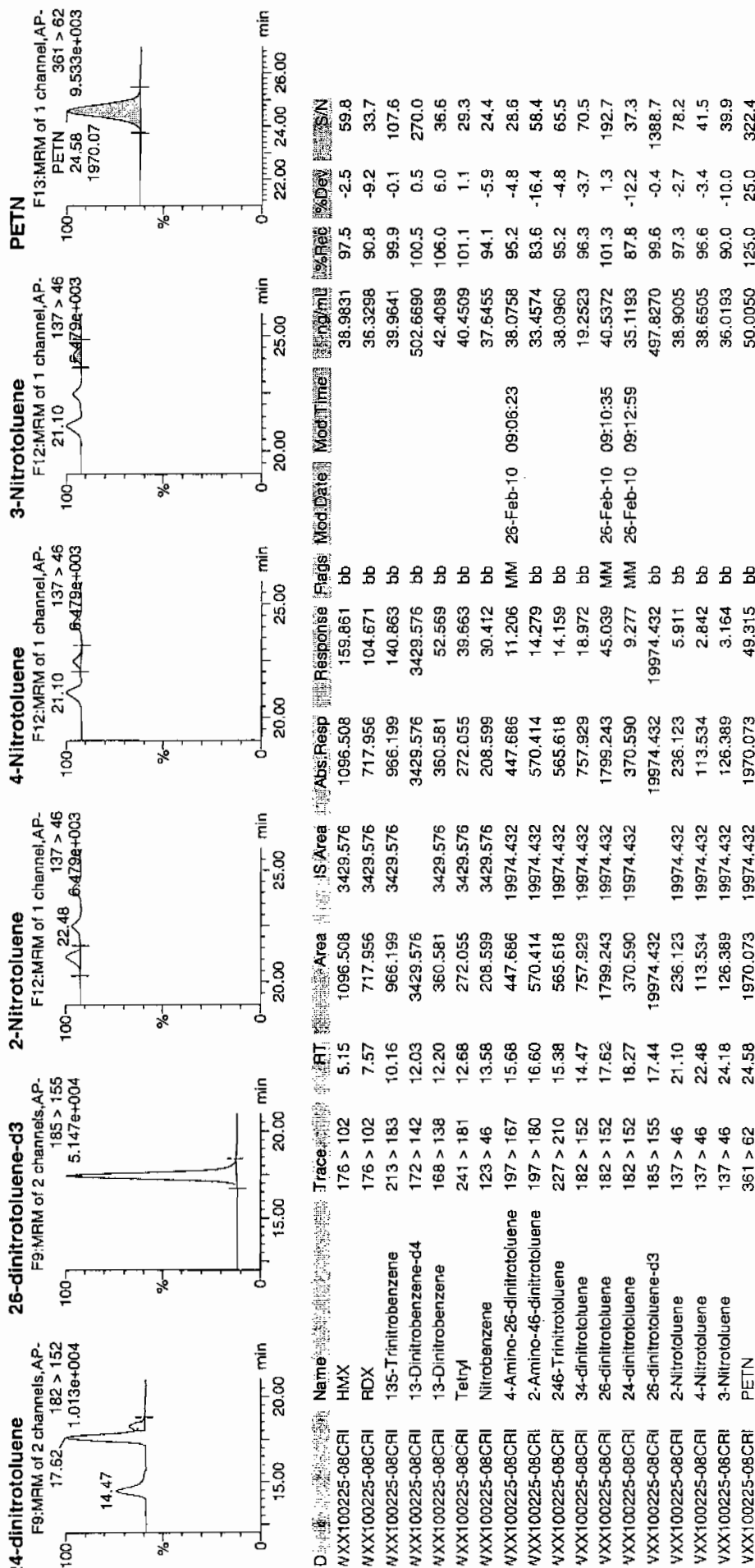


Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 26 09:17:09 2010, Page 24 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/25/10
 Time of Injection 1527
 Standard Number WXX100225-08CRI
 Data File EXP0225012a

HMX	97.5
RDX	90.8
135-TNB	99.9
13-DNB	106.0
Tetryl	101.1
Nitrobenzene	94.1
4A-26-DNT	95.2
2A-46-DNT	83.6
246-TNT	95.2
34-DNT(surr)	96.3
26-DNT	101.3
24-DNT	87.8
2-NT	97.3
4-NT	96.6
3-NT	90.0
PETN	125.0

*not
checked*

Total 1557.7

Average 97.4

Home 02/26/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0225023a

Analysis Date: 25-FEB-10 20:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	597.1	100	
Nitrobenzene	600	680.615	113	
PETN	600	658.024	110	
RDX	600	637.832	106	
Tetryl	600	646.917	108	
m-Dinitrobenzene	600	586.548	98	
m-Nitrotoluene	600	587.395	98	
o-Nitrotoluene	600	564.871	94	
p-Nitrotoluene	600	595.944	99	
1,3,5-Trinitrobenzene	600	636.82	106	
1,3-Dinitrobenzene-d4	500	452.015	90	
2,4,6-Trinitrotoluene	600	607.333	101	
2,4-Dinitrotoluene	600	623.056	104	
2,6-Dinitrotoluene	600	597.604	100	
2,6-Dinitrotoluene-d3	500	466.297	93	
2-Amino-4,6-dinitrotoluene	600	575.279	96	
3,4-Dinitrotoluene	300	303.407	101	
4-Amino-2,6-dinitrotoluene	600	532.1	89	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
IEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\1022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0225023a

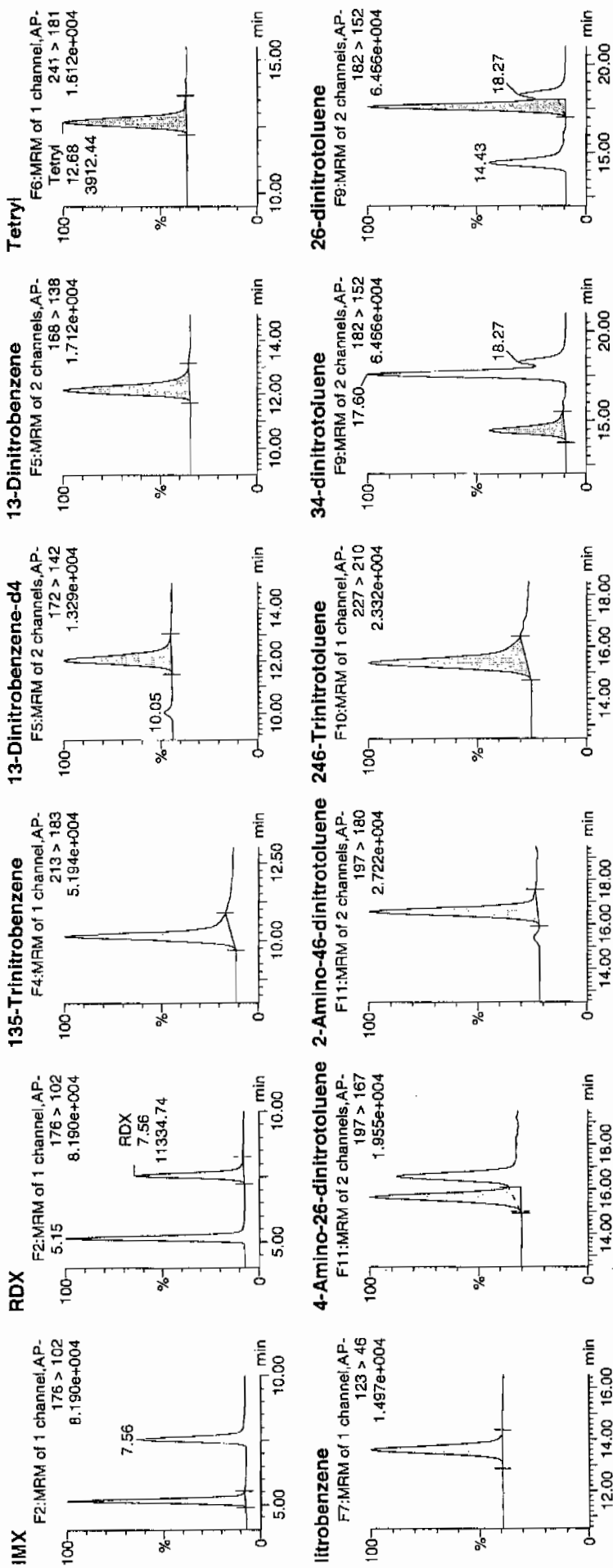
Sample Date: 25-Feb-2010

Sample Time: 20:52:10

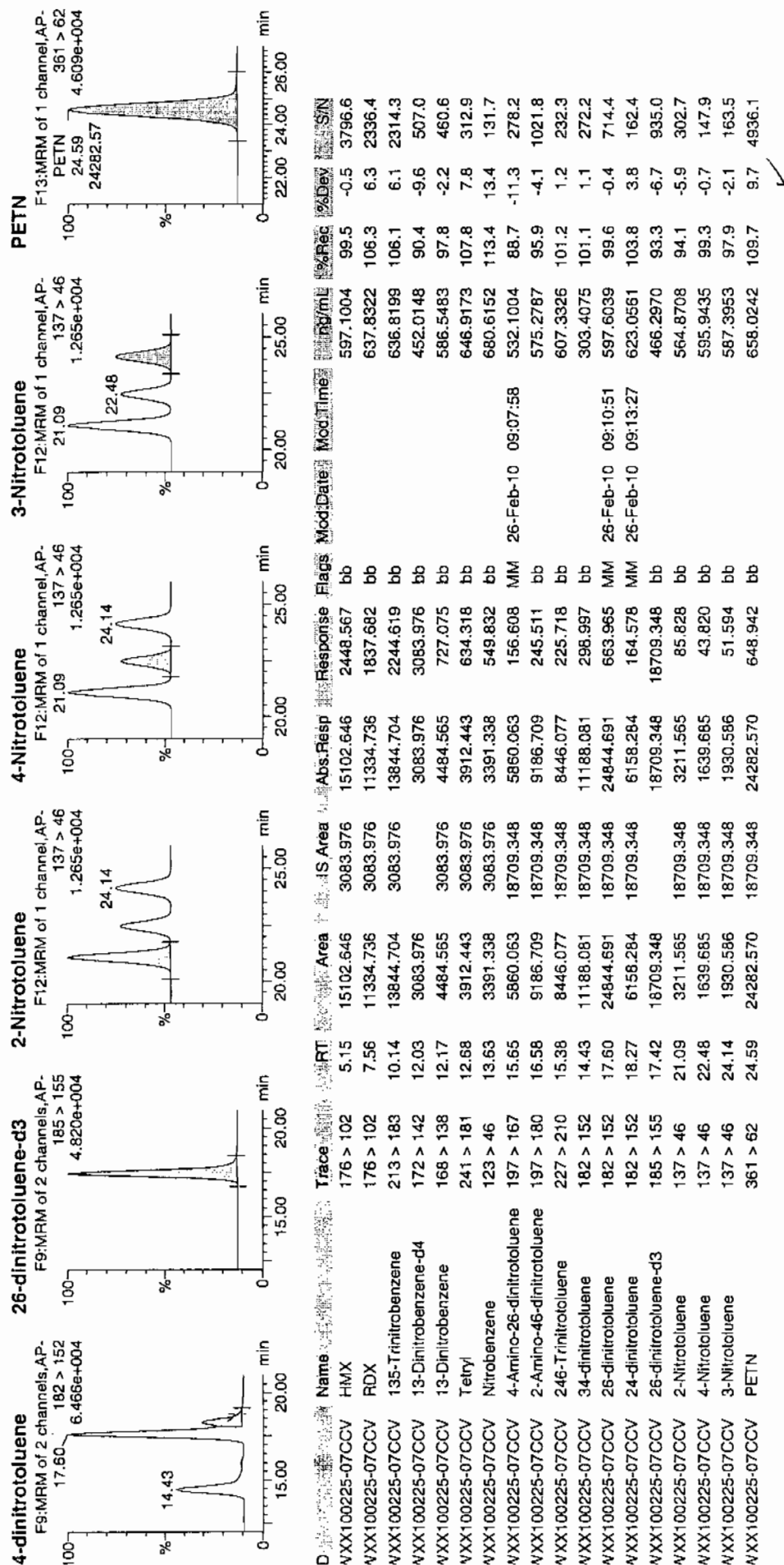
Sample ID: WXX100225-07CCV

Sample Label: 1:1,B

Handwritten: 1/1/10



Handwritten: 12-6-10



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 02/25/10
 Time of Injection: 2052
 Standard Number: WXX100225-07CCV
 Data File: EXP0225023a

HMX	99.5
RDX	106.3
135-TNB	106.1
13-DNB	97.8
Tetryl	107.8
Nitrobenzene	113.4
4A-26-DNT	88.7
2A-46-DNT	95.9
246-TNT	101.2
34-DNT(surr)	101.1
26-DNT	99.6
24-DNT	103.8
2-NT	94.1
4-NT	99.3
3-NT	97.9
PETN	109.7

*not
2/26/10*

Total 1622.2

Average 101.4

from 02/26/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0225025a

Analysis Date: 25-FEB-10 21:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.487	119	
1,3-Dinitrobenzene-d4	500	464.125	93	
2,4,6-Trinitrotoluene	40	37.754	94	
2,4-Dinitrotoluene	40	35.573	89	
2,6-Dinitrotoluene	40	43.774	109	
2,6-Dinitrotoluene-d3	500	491.142	98	
2-Amino-4,6-dinitrotoluene	40	35.064	88	
3,4-Dinitrotoluene	20	20.259	101	
4-Amino-2,6-dinitrotoluene	40	35.247	88	
HMX	40	44.871	112	
Nitrobenzene	40	48.283	121	
PETN	40	53.221	133	*
RDX	40	37.129	93	
Tetryl	40	35.445	89	
m-Dinitrobenzene	40	40.331	101	
m-Nitrotoluene	40	34.532	86	
o-Nitrotoluene	40	37.285	93	
p-Nitrotoluene	40	38.664	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0225025a

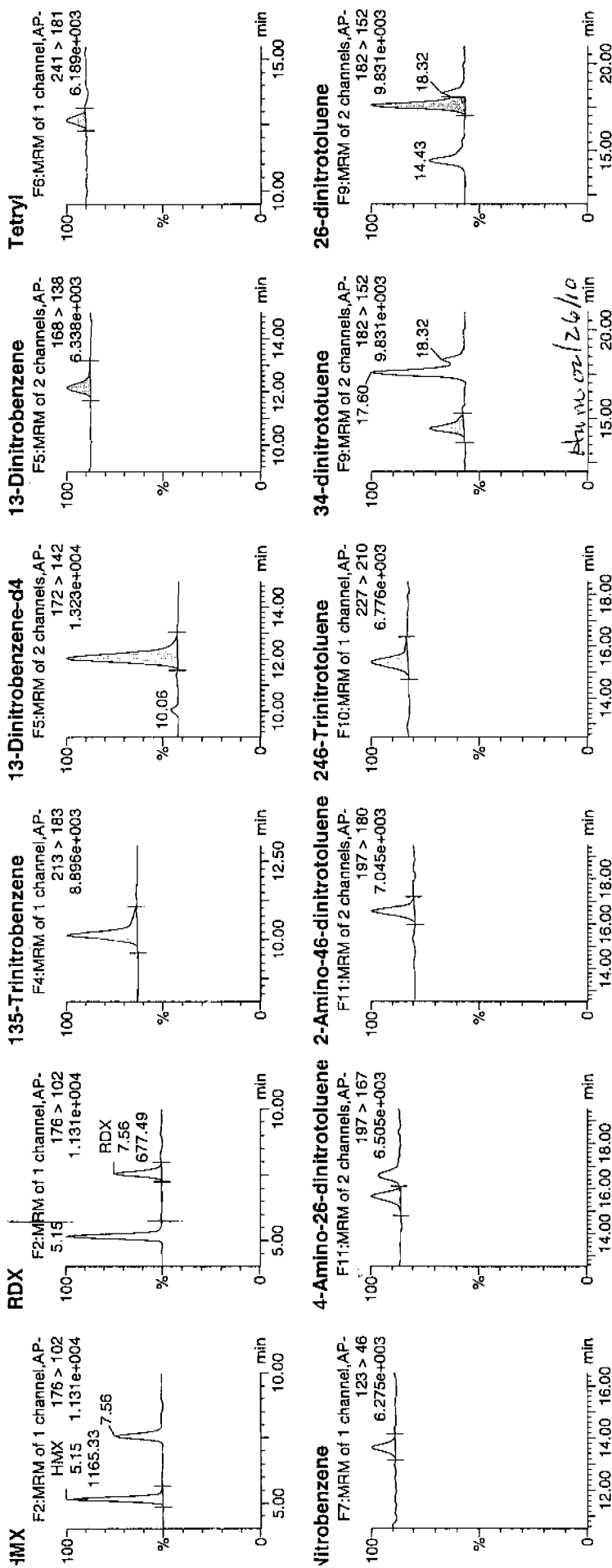
Date: 25-Feb-2010

Time: 21:51:22

D: WXX100225-08CRI

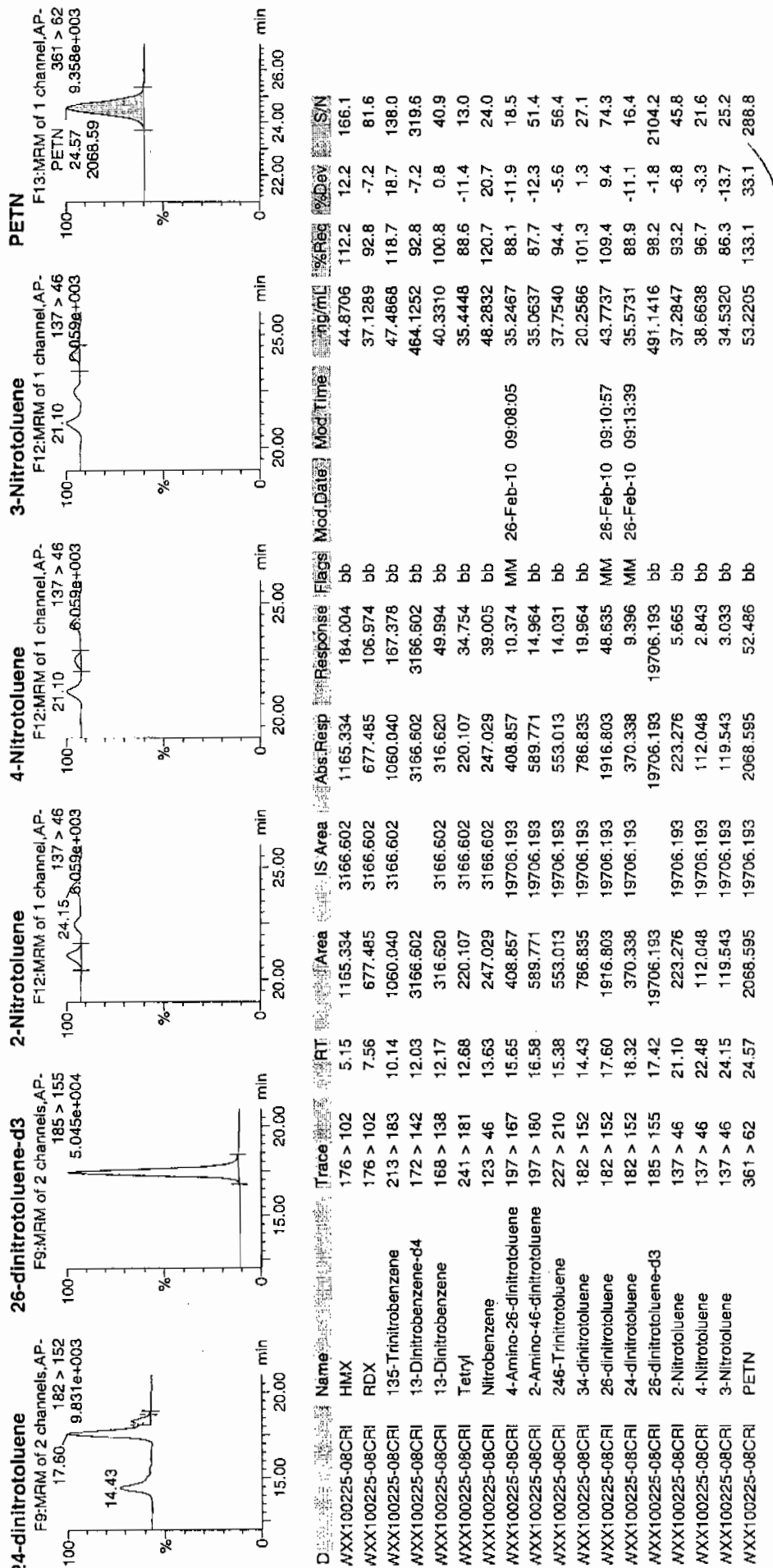
/ial: 1:1,C

1/27
 1/26/10



Quantify Sample Report JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSL\YXXNew_Exp_PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 02/25/10
 Time of Injection 2151
 Standard Number WXX100225-08CRI
 Data File EXP0225025a

HMX	112.2
RDX	92.8
135-TNB	118.7
13-DNB	100.8
Tetryl	88.6
Nitrobenzene	120.7
4A-26-DNT	88.1
2A-46-DNT	87.7
246-TNT	94.4
34-DNT(surr)	101.3
26-DNT	109.4
24-DNT	88.9
2-NT	93.2
4-NT	96.7
3-NT	86.3
PETN	133.1

*not
table*

Total 1612.9

Average 100.8

done 02/26/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02200013.wiff

Analysis Date: 20-FEB-10 12:45

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	111	111	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	51.6	103	
3,5-Dinitroaniline	100	104	104	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	115	115	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

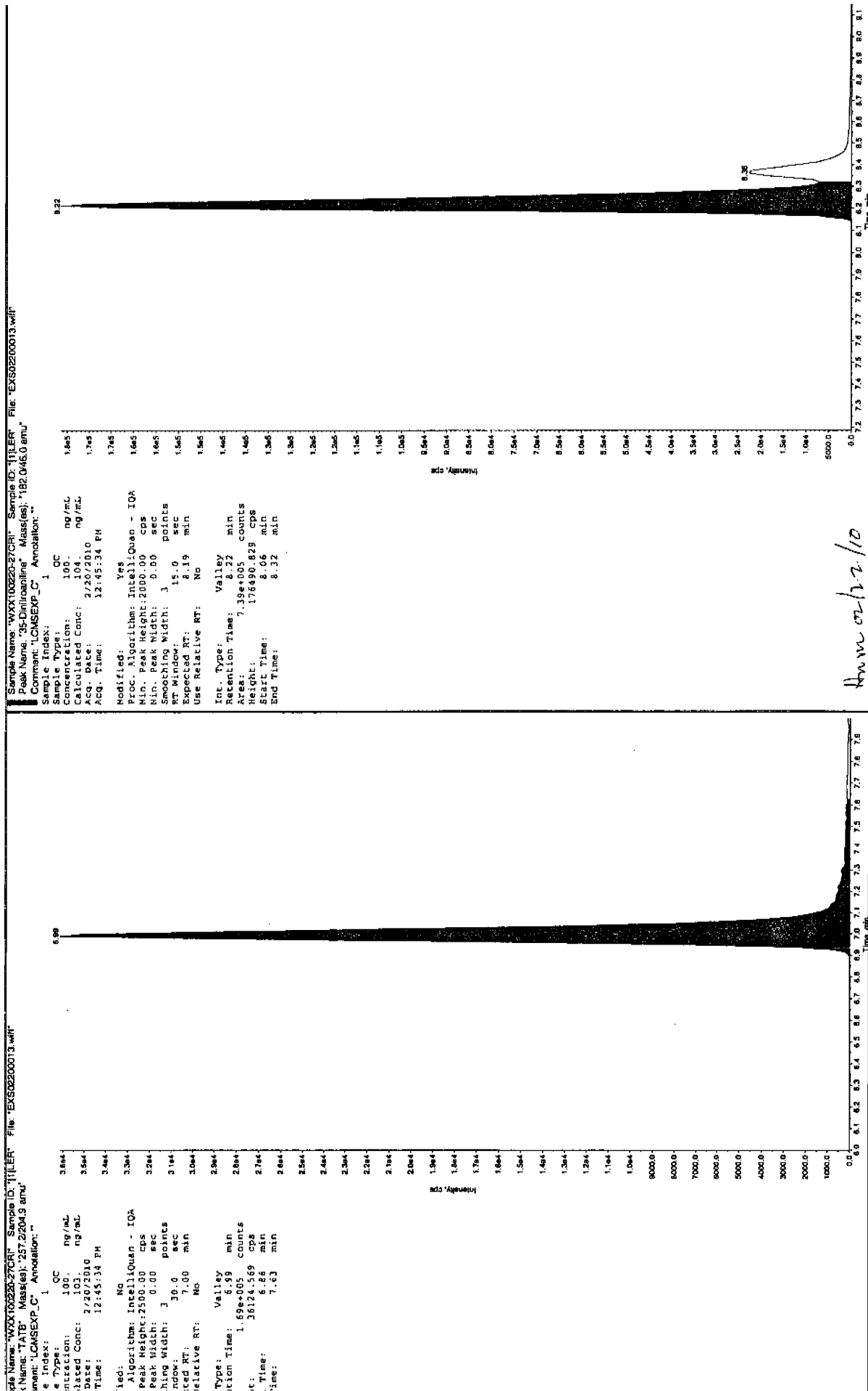
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

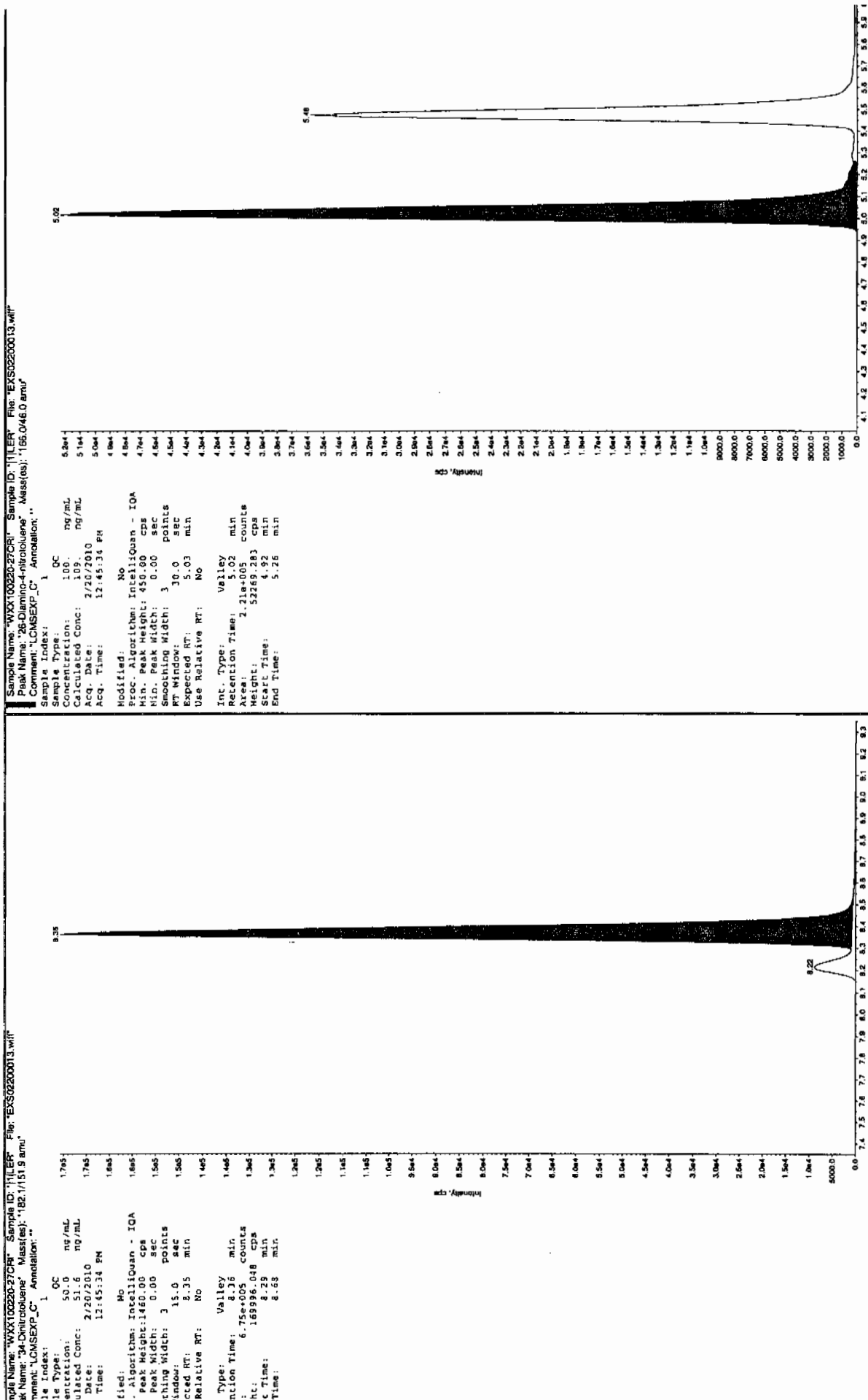
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

for 2/22/10



for 2/22/10



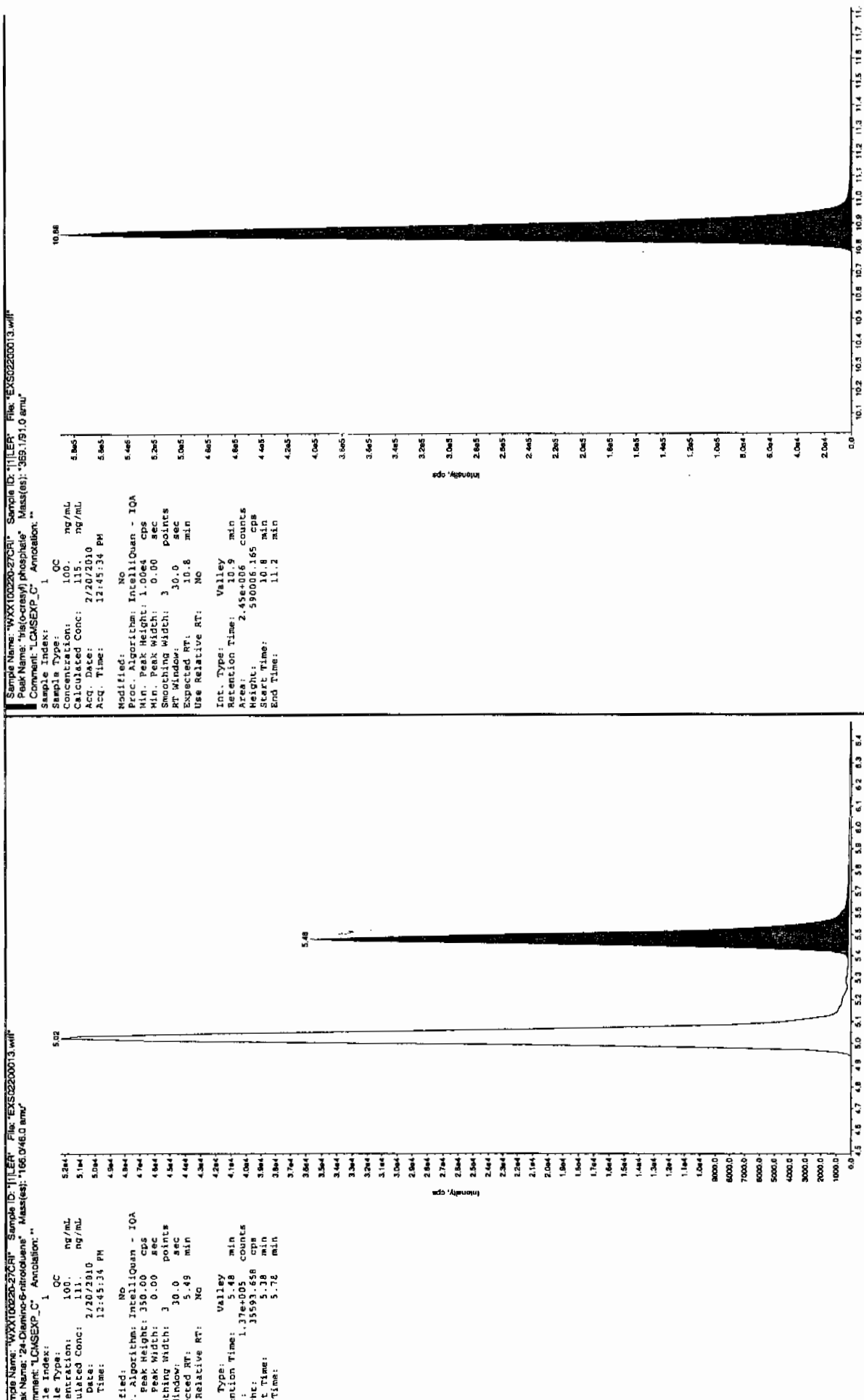
Sample Name: "WXX100220-27CR" Sample ID: "11LEP" File: "EXS0200013.wif"
 Peak Name: "28-Diamino-4-nitrofluorene" Mass(es): "156.046.0 amu"
 Comment: "LONSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 100 ng/mL
 Calculated Conc: 100 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 12:45:34 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: 5.03 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.02 min
 Area: 2.21e5 counts
 Height: 52249.283 cps
 SEC Time: 4.92 min
 End Time: 5.26 min

Sample Name: "WXX100220-27CR" Sample ID: "11LEP" File: "EXS0200013.wif"
 Peak Name: "34-Chlorofluorene" Mass(es): "182.1151.5 amu"
 Comment: "LONSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 50.0 ng/mL
 Calculated Conc: 51.6 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 12:45:34 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.35 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.35 min
 Area: 6.75e5 counts
 Height: 169996.048 cps
 SEC Time: 8.29 min
 End Time: 8.63 min

GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSENS#4

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02200024.wiff

Analysis Date: 20-FEB-10 15:38

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	582	116	
2,6-Diamino-4-nitrotoluene	500	552	110	
3,4-Dinitrotoluene	250	257	103	
3,5-Dinitroaniline	500	522	104	
TATB	500	510	102	
tris(o-cresyl) phosphate	500	492	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

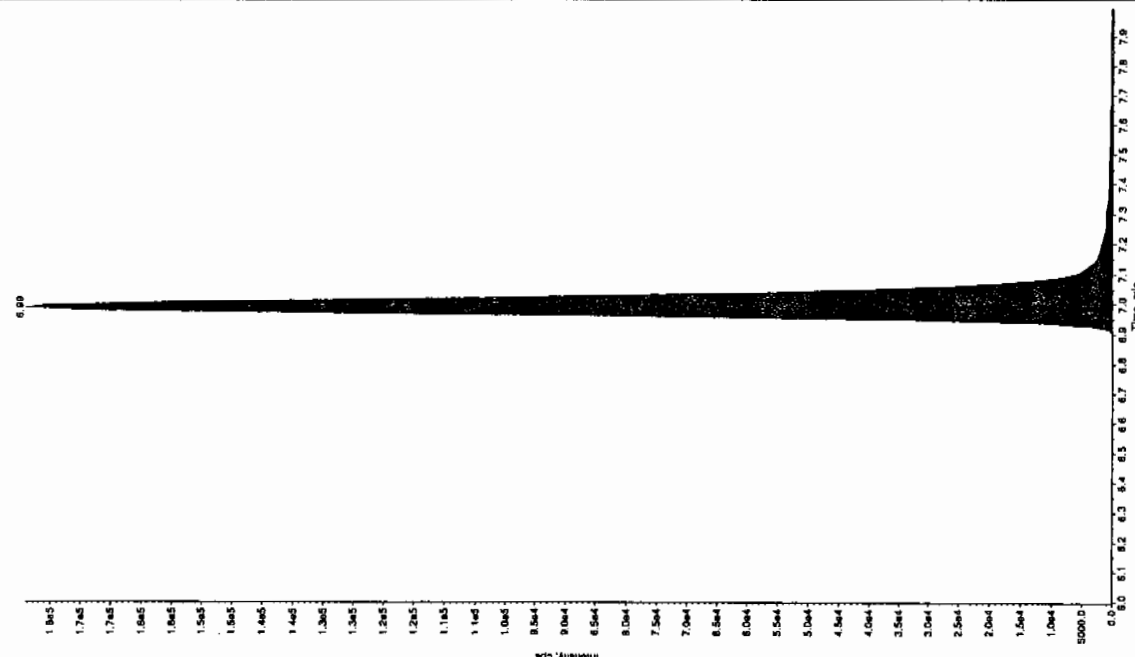
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

See 2/28/10

Sample Name: WXX100220-280CV Sample ID: 11111111 File: EXS02200024.wif
 Peak Name: 35-Dinitrophenol Mass(es): 182.046 0 amu
 Comment: LCMSEXP_C Annotation: "

Sample Index: 1
 Sample Type: QC
 Calculated Conc: 500 ng/mL
 Calculated Conc: 522 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 3:38:13 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 2000.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.22 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.22 min
 Peak Height: 3.70e+006 counts
 Peak Area: 898630.798 cps
 Start Time: 8.12 min
 End Time: 8.32 min



See 2/28/10

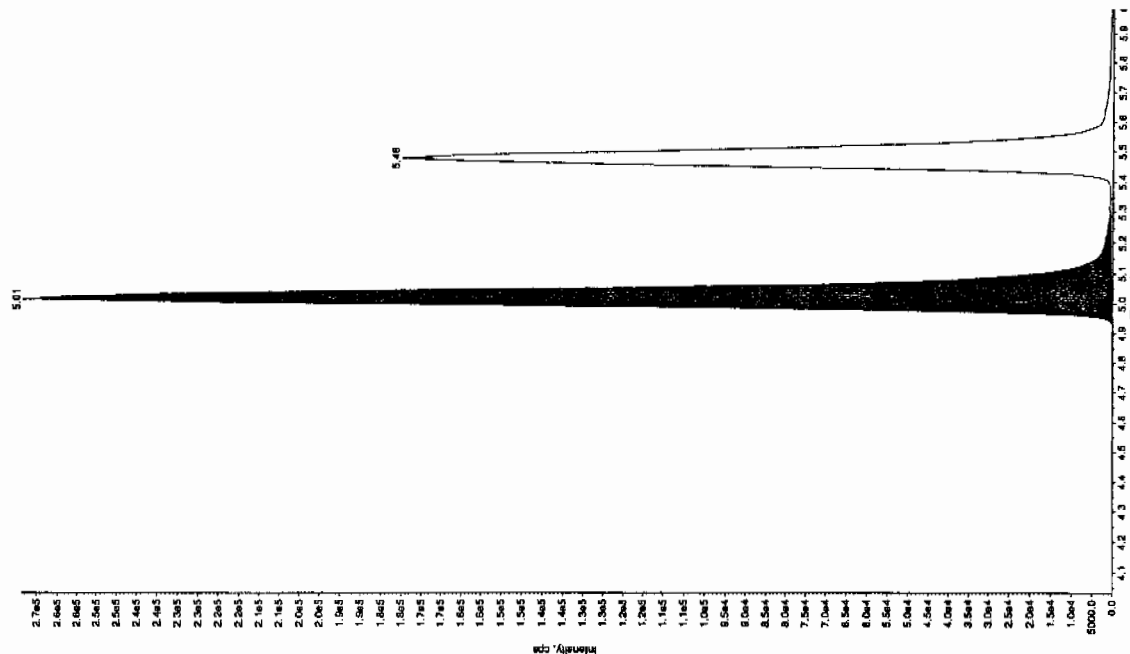
Sample Name: WXX100220-280CV Sample ID: 11111111 File: EXS02200024.wif
 Peak Name: 1A1B Mass(es): 257.220 9 amu
 Comment: LCMSEXP_C Annotation: "

Sample Index: 1
 Sample Type: QC
 Calculated Conc: 500 ng/mL
 Calculated Conc: 510 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 3:38:13 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 2500.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 7.00 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 6.99 min
 Peak Height: 8.40e+005 counts
 Peak Area: 179264.099 cps
 Start Time: 6.87 min
 End Time: 7.21 min



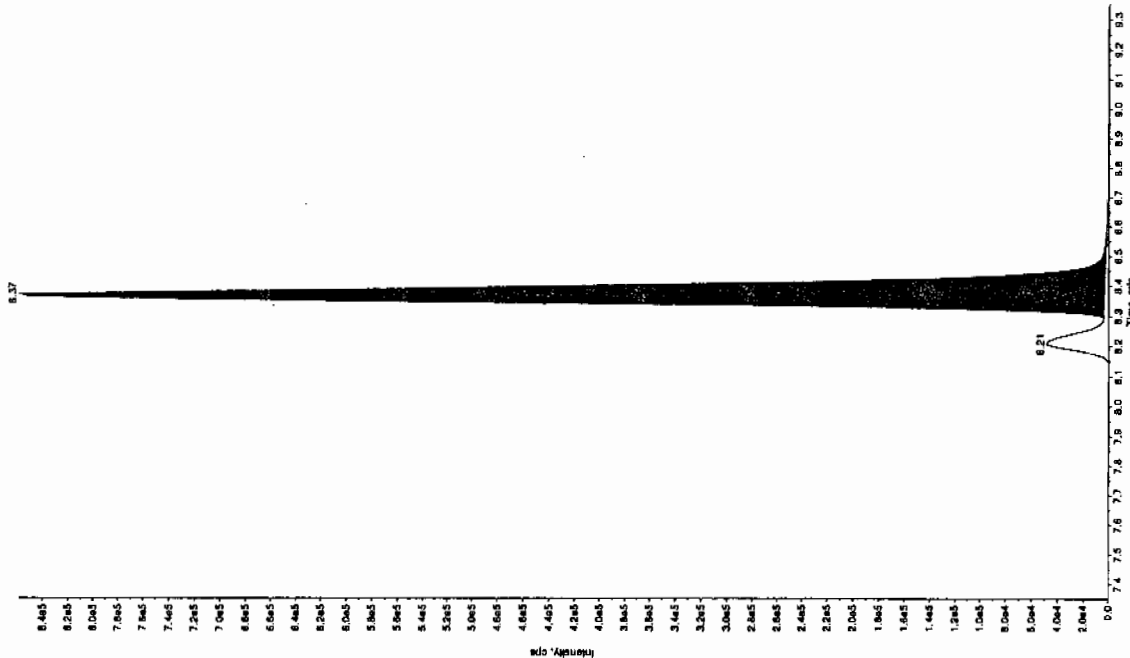
Sample Name: "WXX100220-260CV" Sample ID: "1111ER" File: "EXS02200024.wil"
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

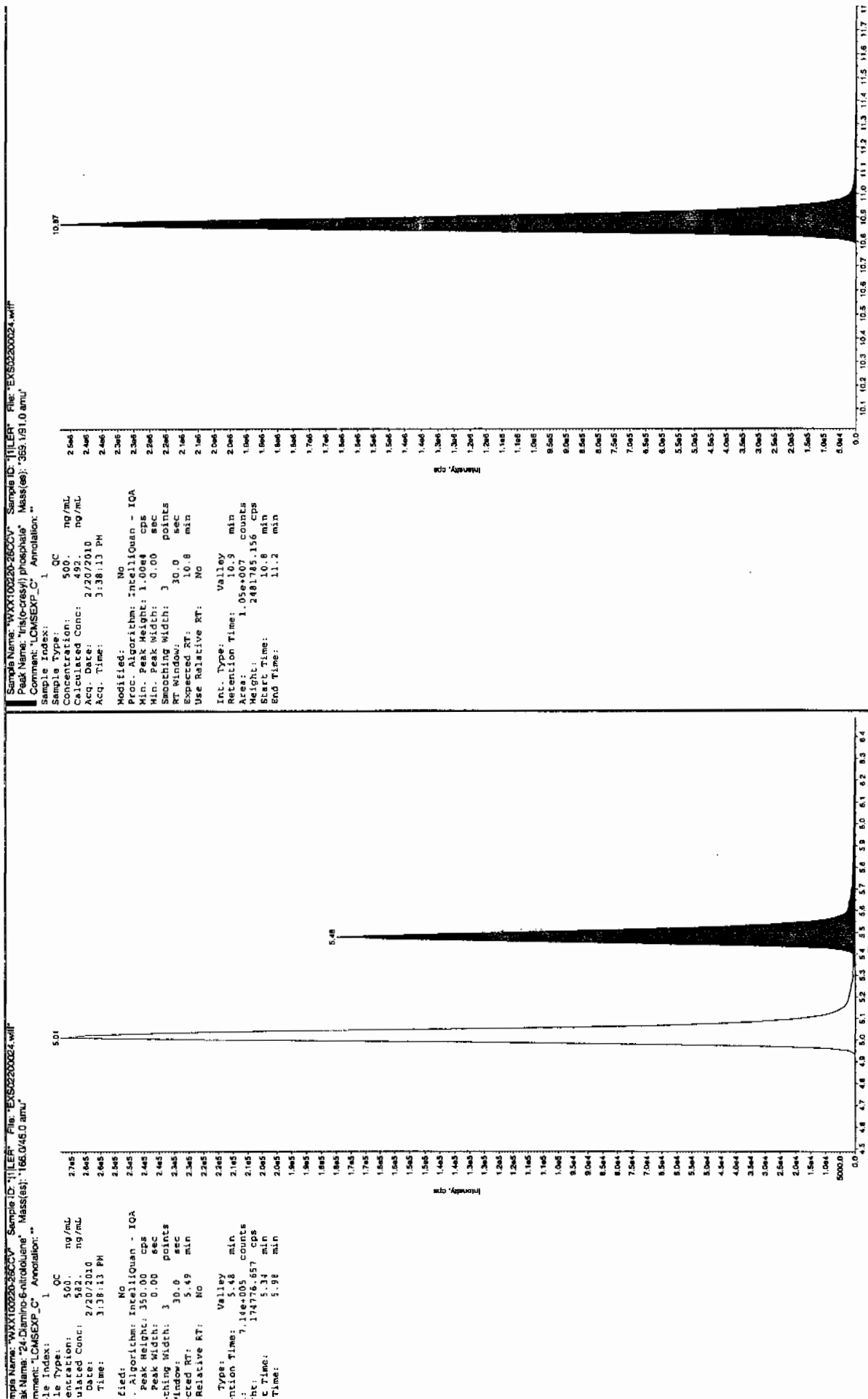
Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 532. ng/mL
 Acq. Date: 7/20/2010
 Acq. Time: 3:38:13 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.03 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.01 min
 Area: 1.11e+006 counts
 Height: 288596.954 cps
 Start Time: 4.92 min
 End Time: 5.30 min



Sample Name: "WXX100220-260CV" Sample ID: "1111ER" File: "EXS02200024.wil"
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 350. ng/mL
 Calculated Conc: 375. ng/mL
 Acq. Date: 7/20/2010
 Acq. Time: 3:38:13 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.35 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.37 min
 Area: 3.36e+006 counts
 Height: 855368.235 cps
 Start Time: 8.22 min
 End Time: 8.62 min





7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02200026.wiff

Analysis Date: 20-FEB-10 16:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
TATB	100	105	105	
tris(o-cresyl) phosphate	100	112	112	
2,4-Diamino-6-nitrotoluene	100	118	118	
2,6-Diamino-4-nitrotoluene	100	120	120	
3,4-Dinitrotoluene	50	51.8	104	
3,5-Dinitroaniline	100	108	108	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

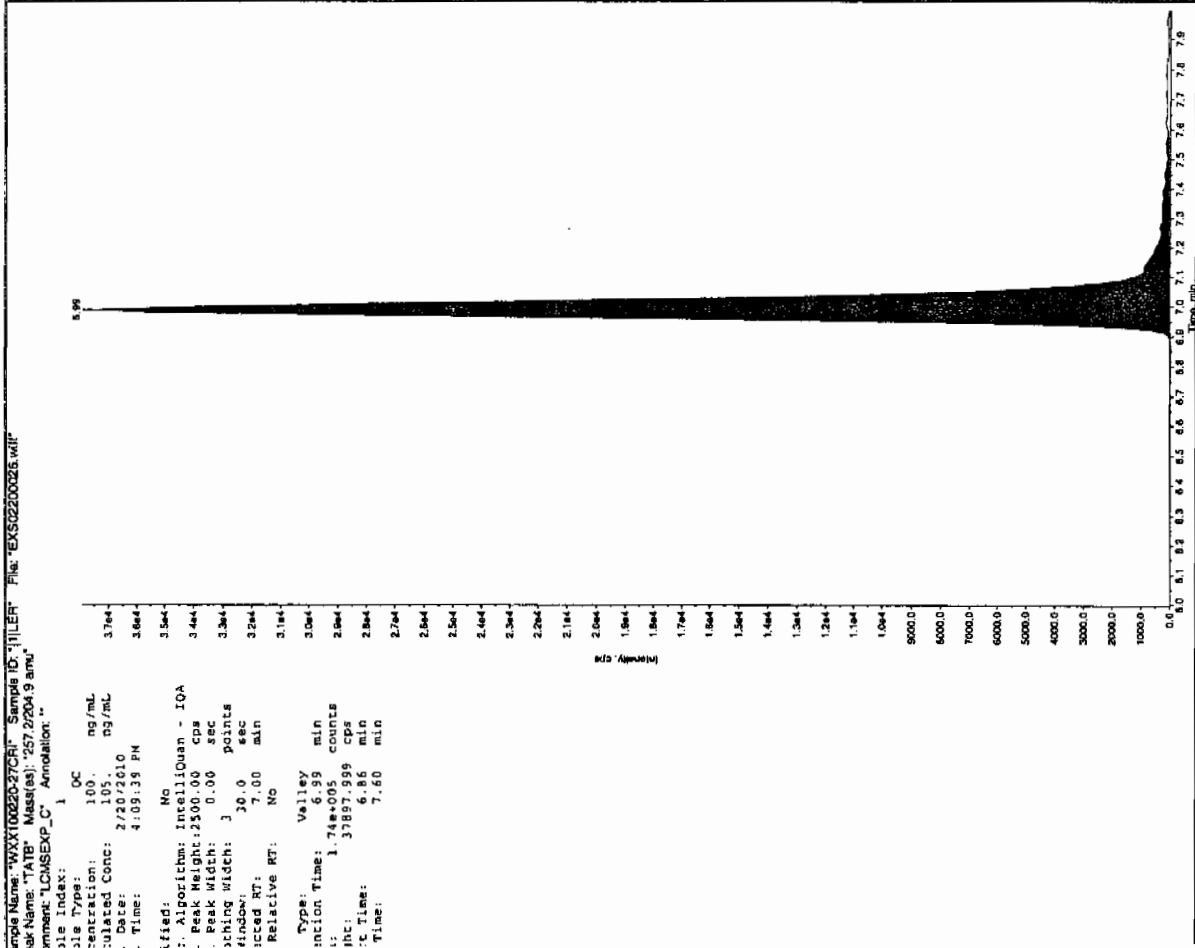
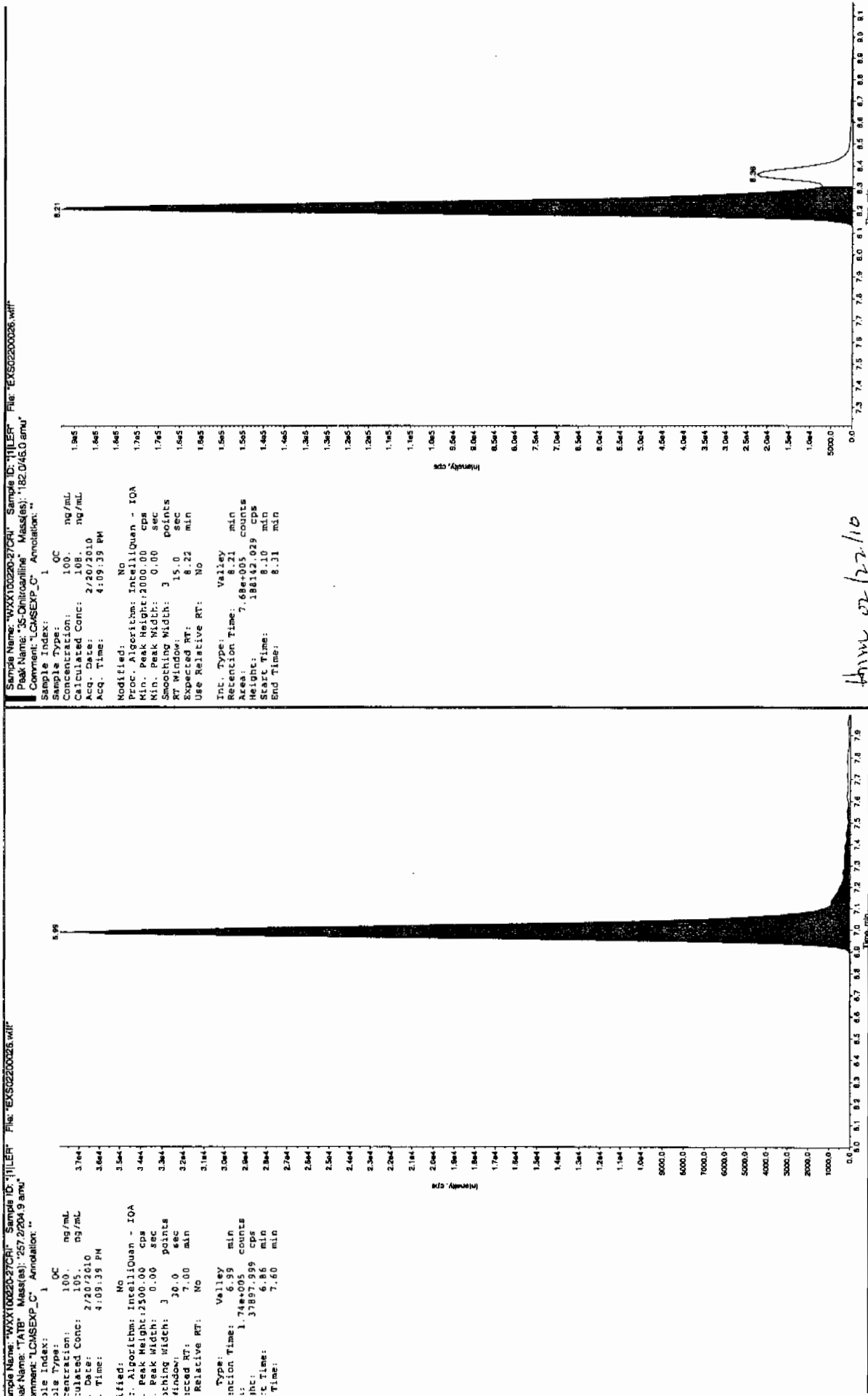
2,4-Diamino-6-nitrotoluene 50-150%

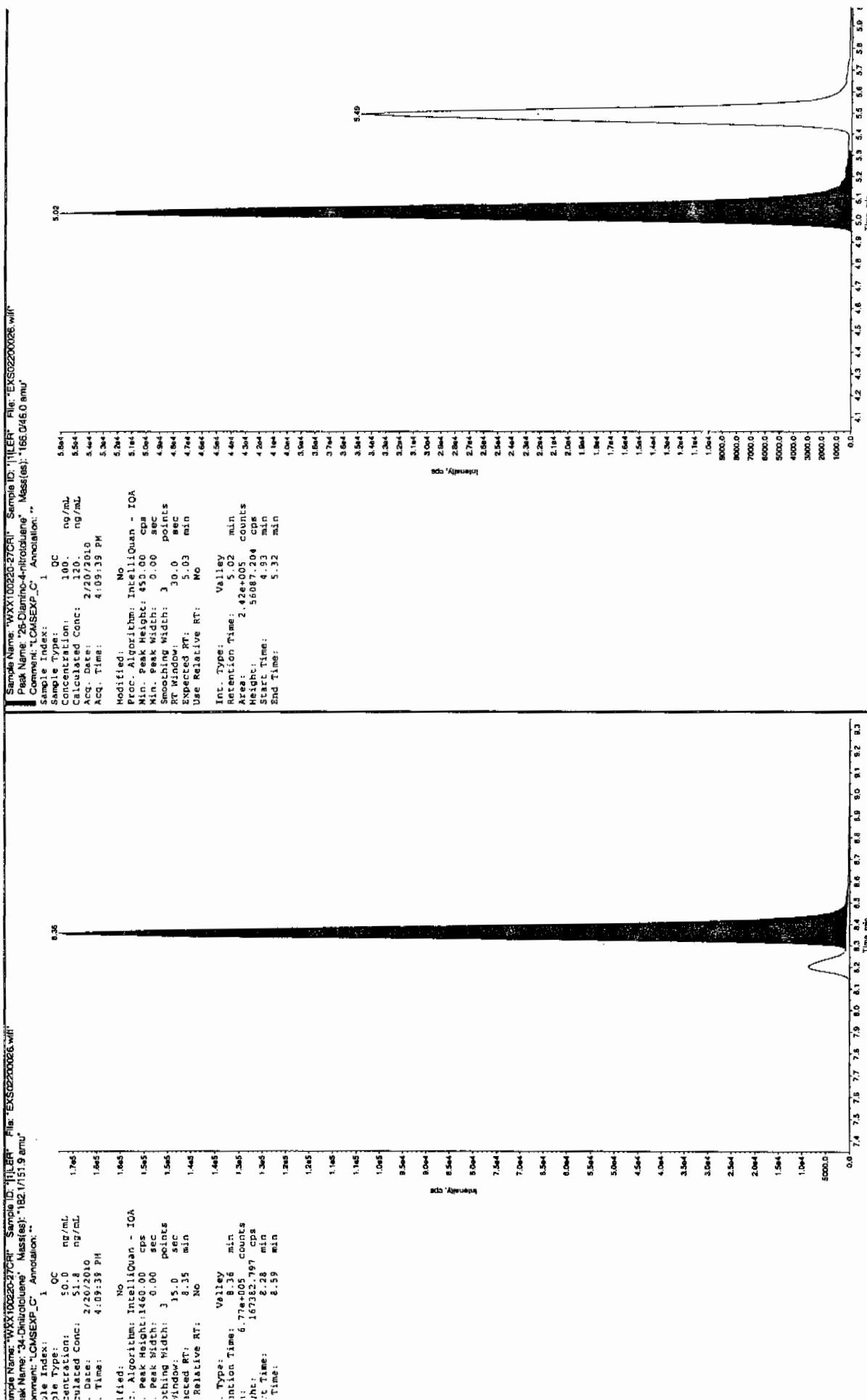
Other Target Analytes 70-130%

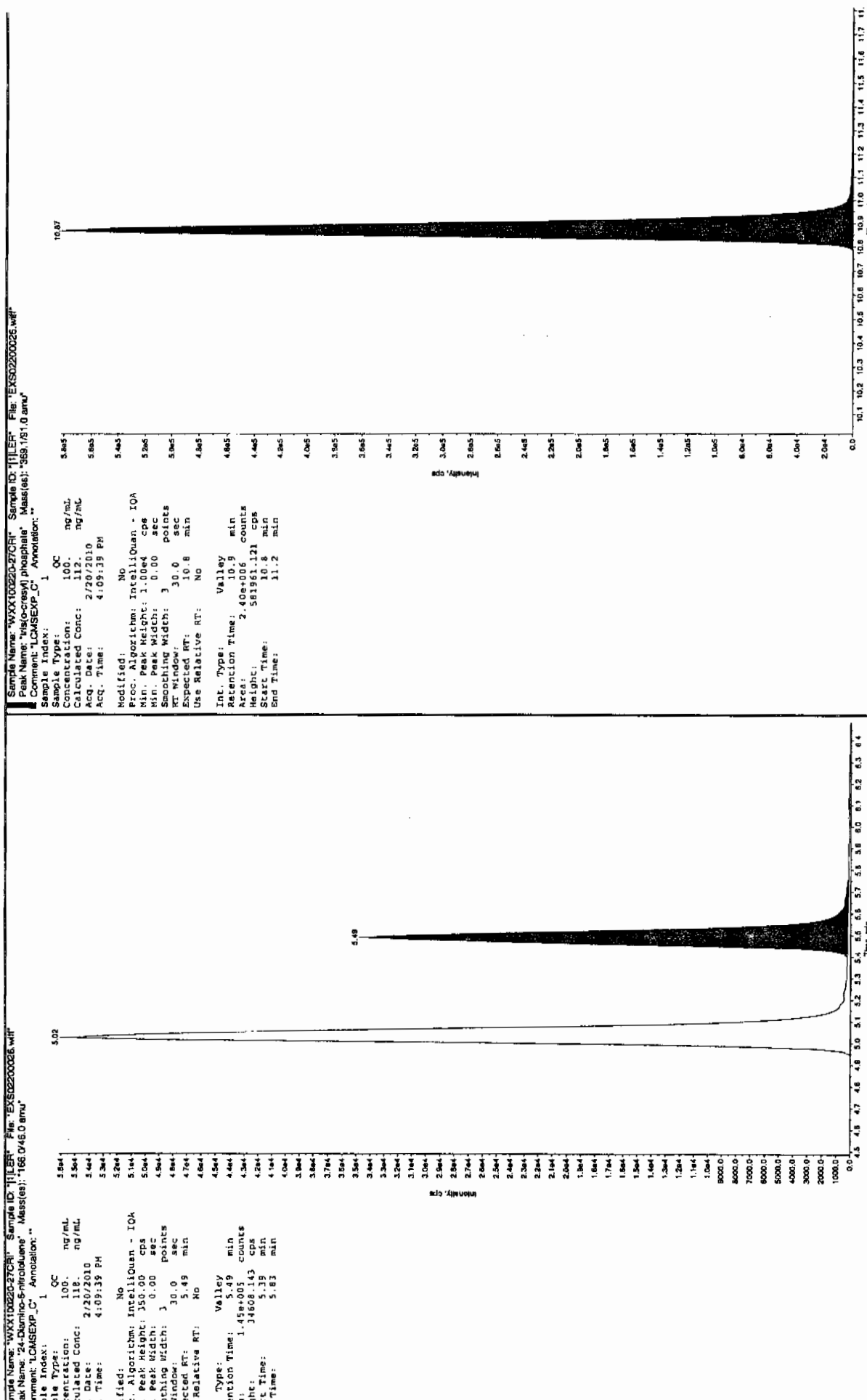
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Jan 21/22/10







7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02200037.wiff

Analysis Date: 20-FEB-10 19:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	613	123	
2,6-Diamino-4-nitrotoluene	500	565	113	
3,4-Dinitrotoluene	250	246	98	
3,5-Dinitroaniline	500	530	106	
TATB	500	499	100	
tris(o-cresyl) phosphate	500	496	99	

Recovery Limits:

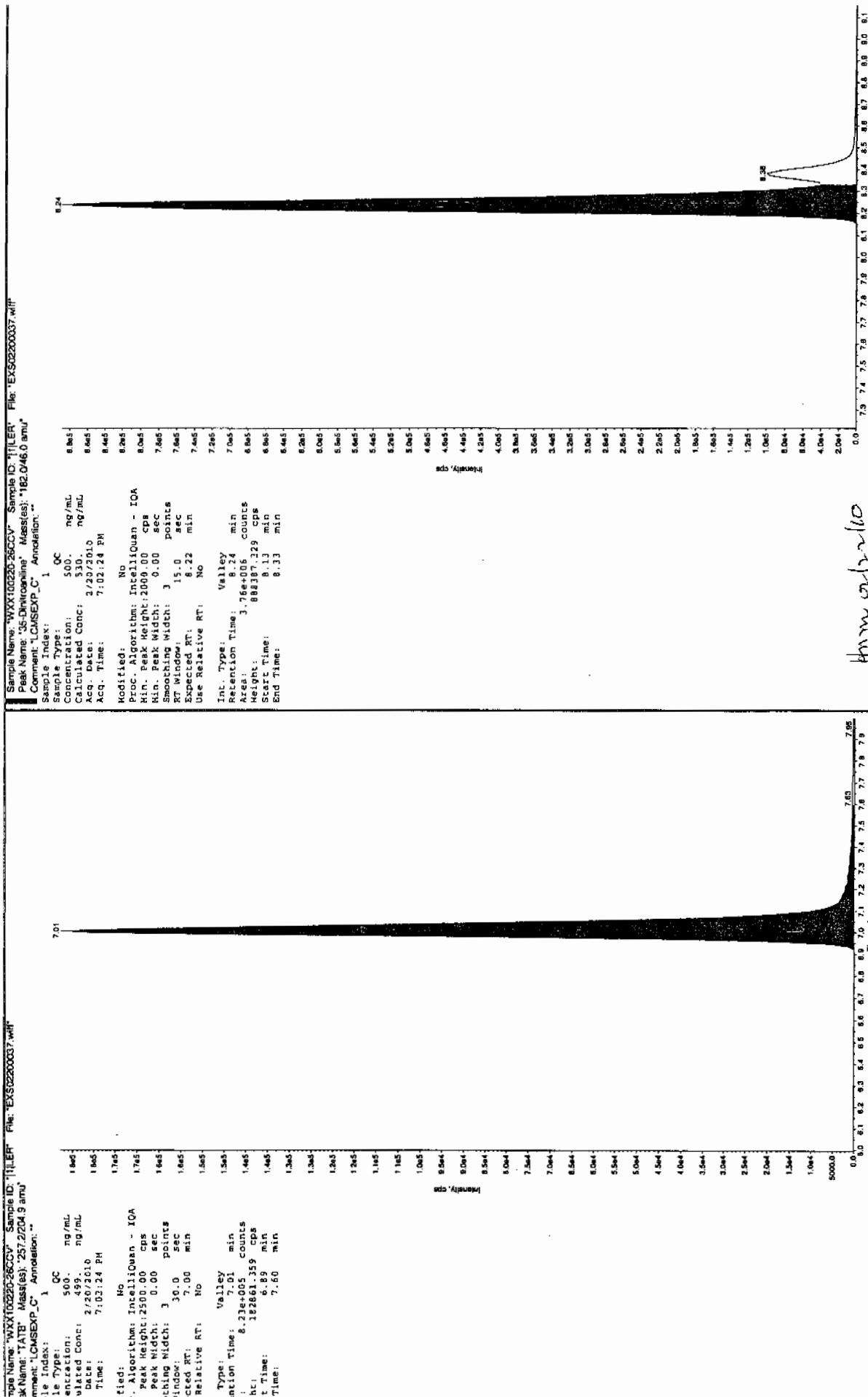
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

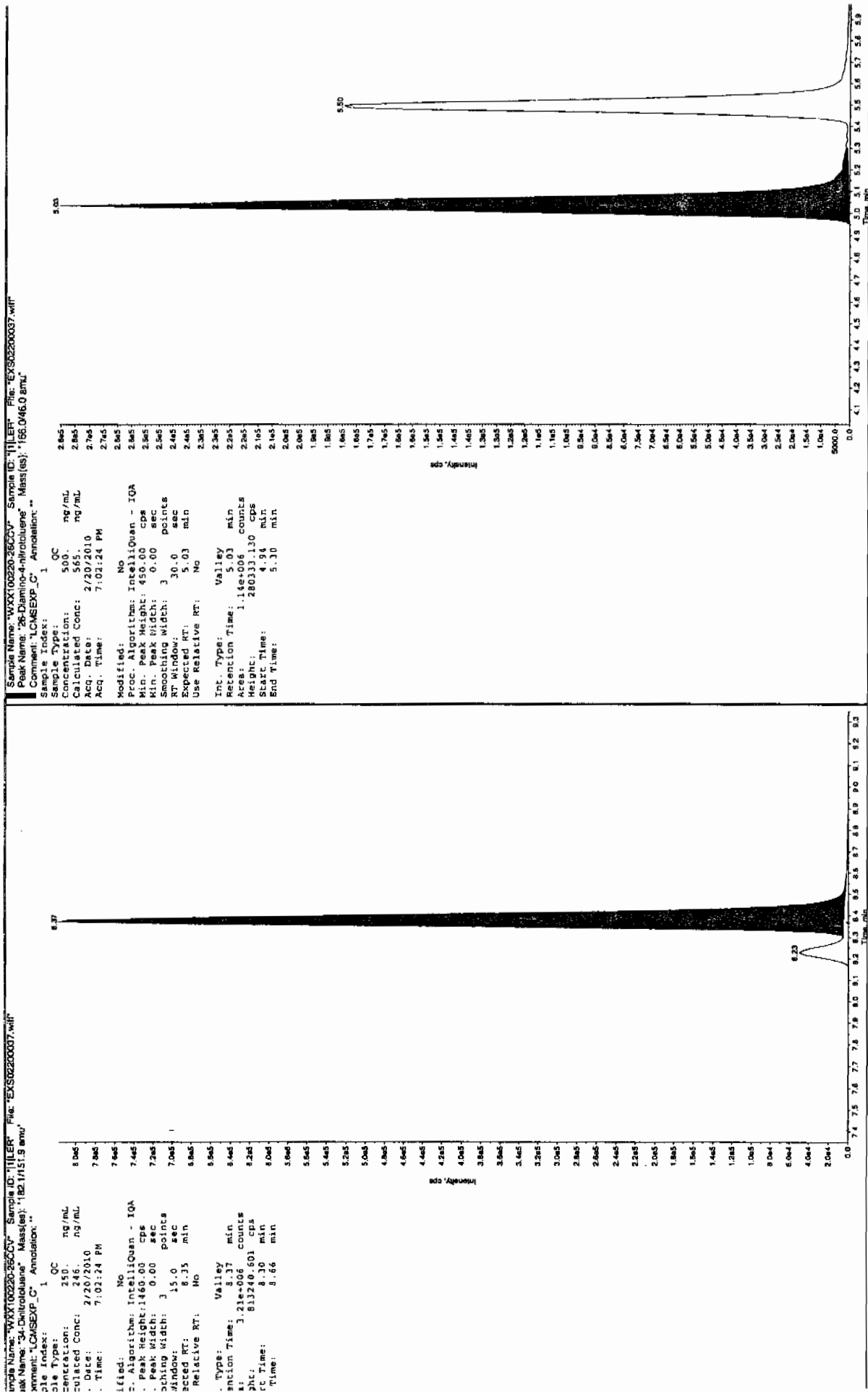
Column used to flag Recovery outside of Limits

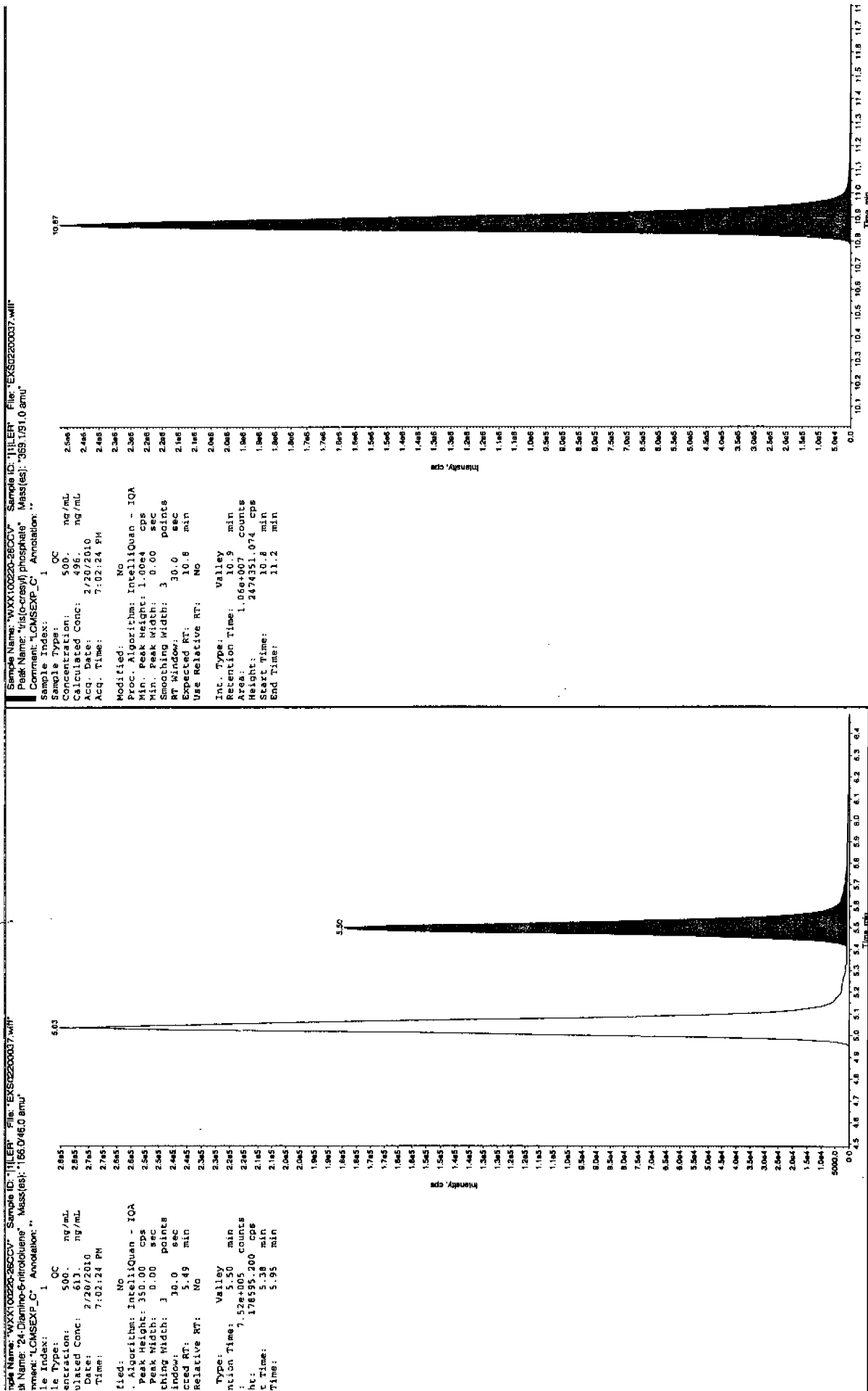
* Value outside of Recovery Limits

Jan 2/20/10



Jan 2/20/10





7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1570

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02200039.wiff

Analysis Date: 20-FEB-10 19:33

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	125	125	
2,6-Diamino-4-nitrotoluene	100	129	129	
3,4-Dinitrotoluene	50	53	106	
3,5-Dinitroaniline	100	116	116	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

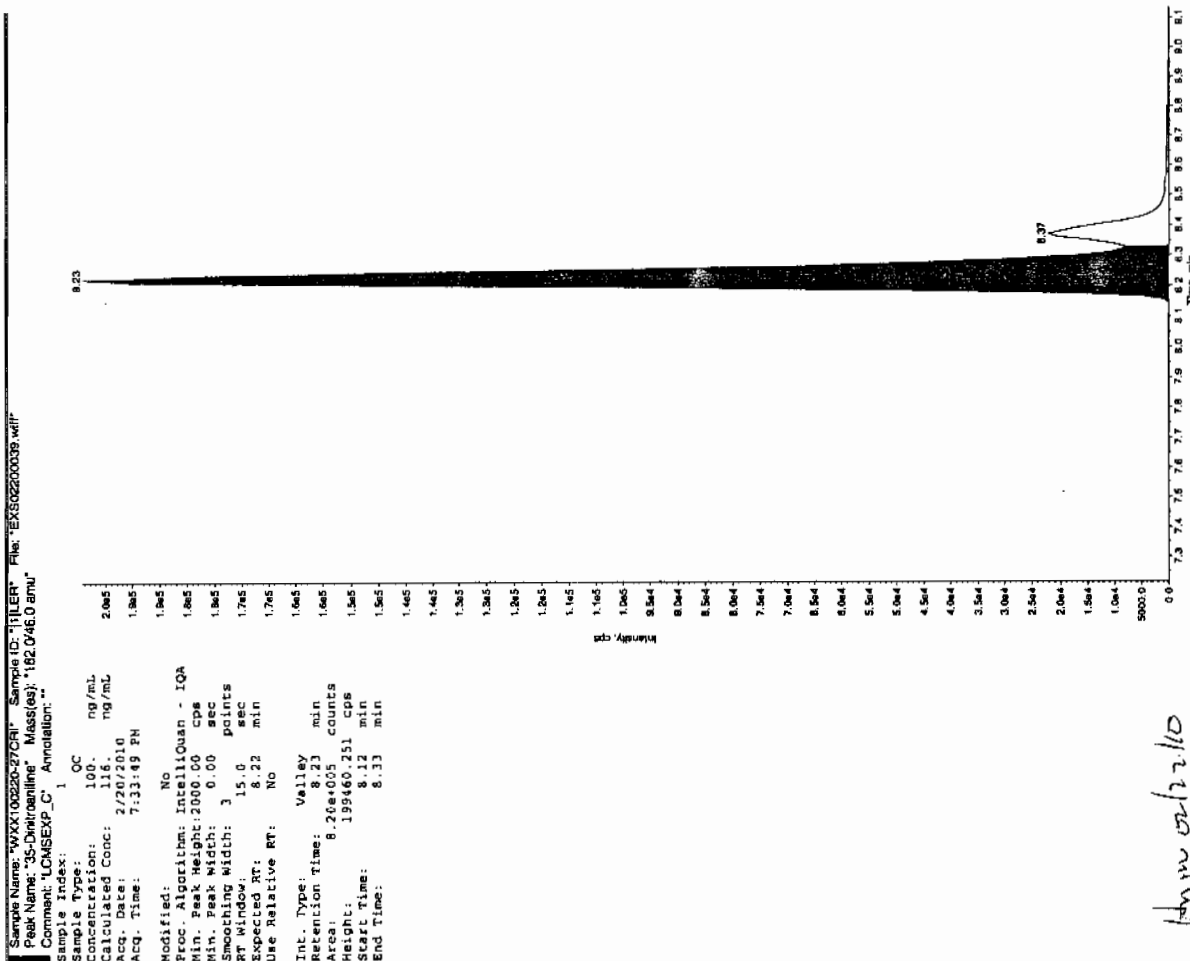
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

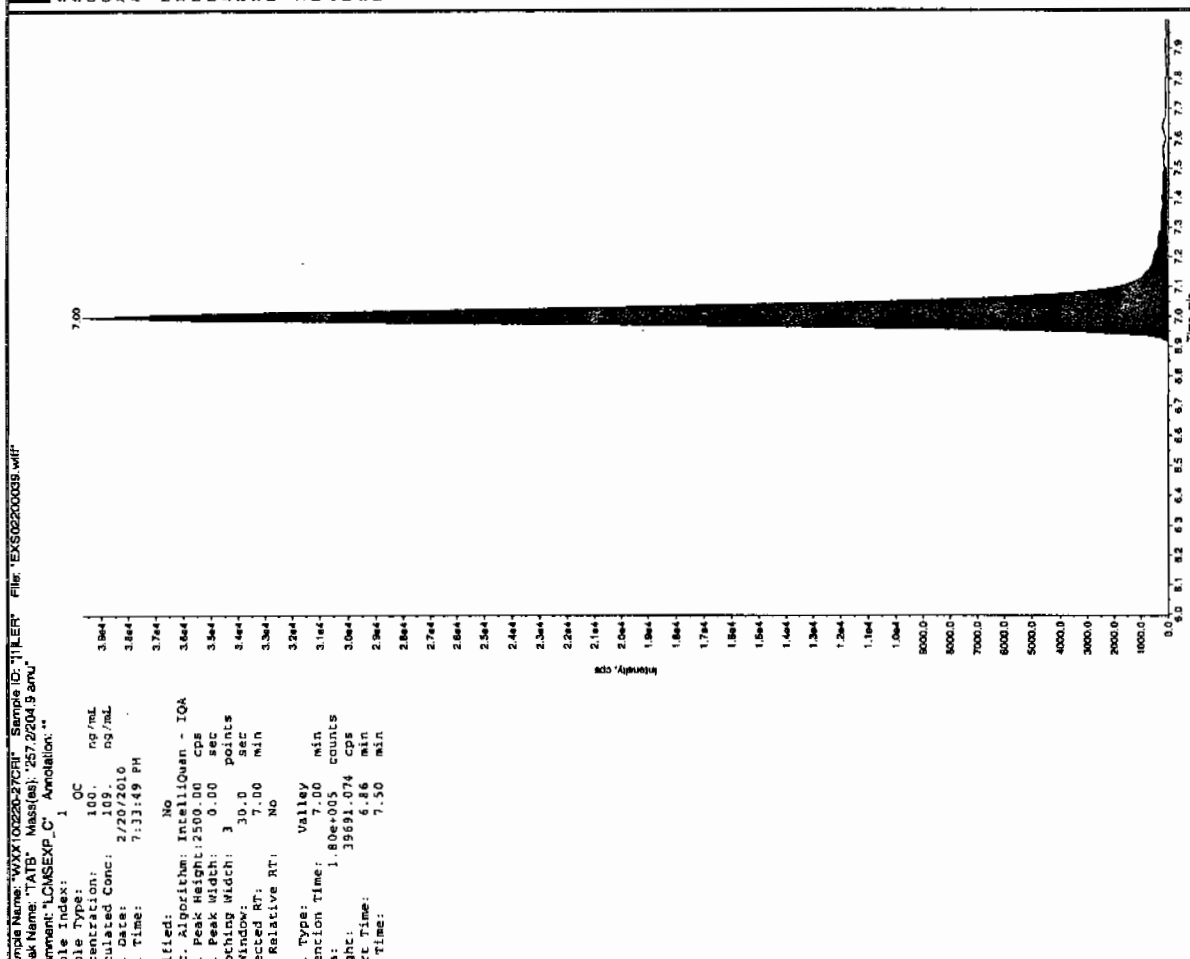
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

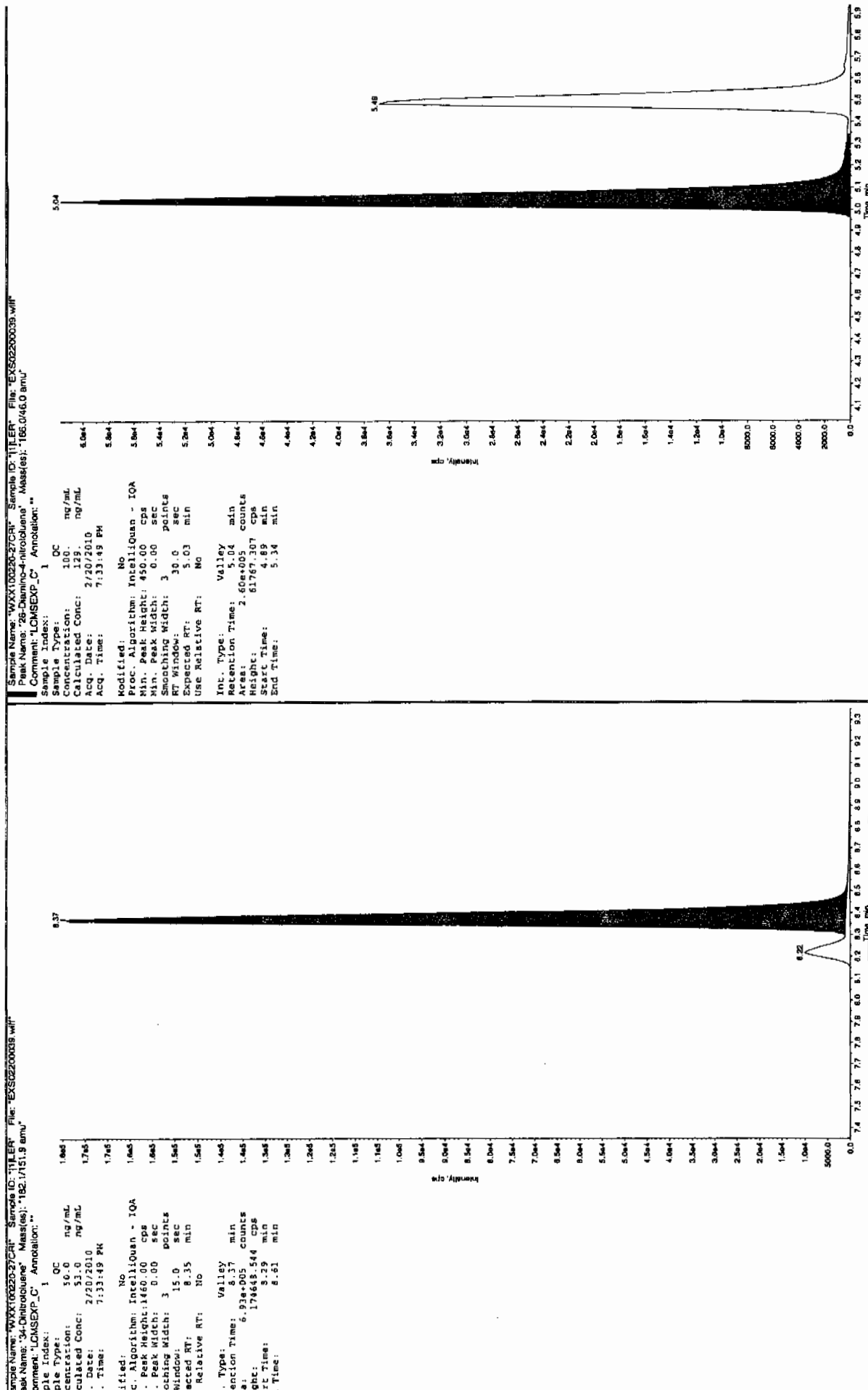
Jan 2/20/10



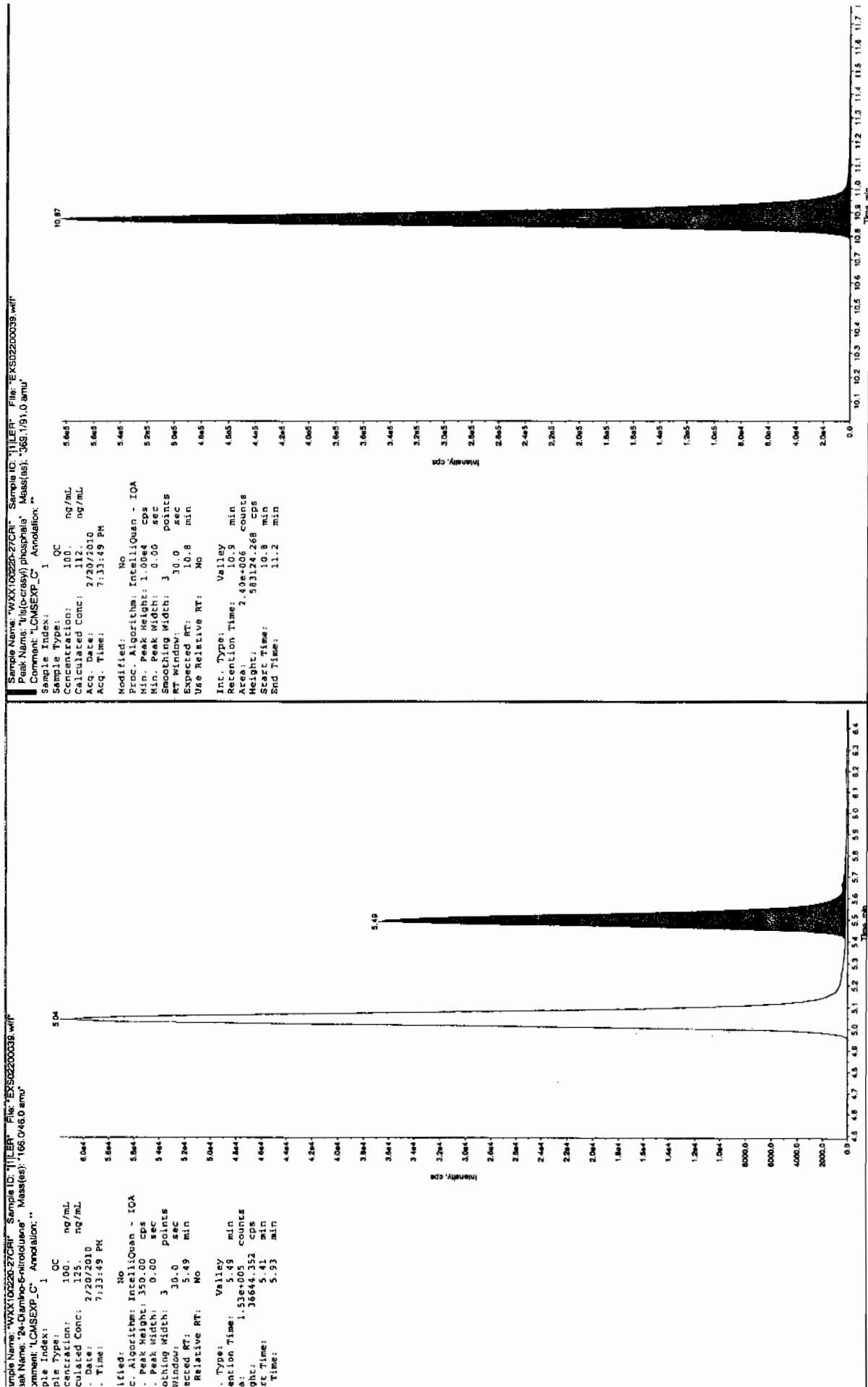
Jan 20/2/10



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



QUALITY CONTROL DATA

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 950082

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035682

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216280a

Date Analyzed: 22-FEB-10 11:23

Units: ug/kg

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

*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 25 of 103

Dataset: C:\MASSLYNX\New_Exp_PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0216280a

Date: 22-Feb-2010

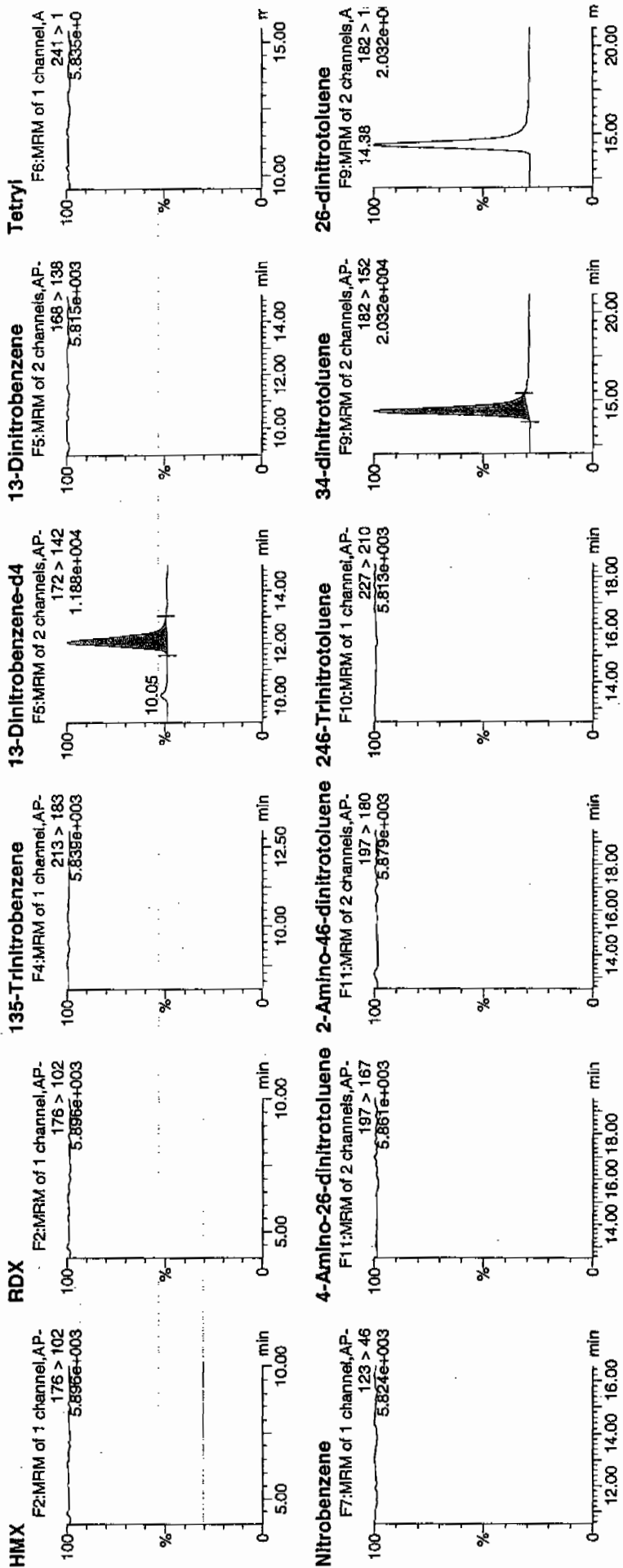
Time: 11:23:56

ID: 1202035682

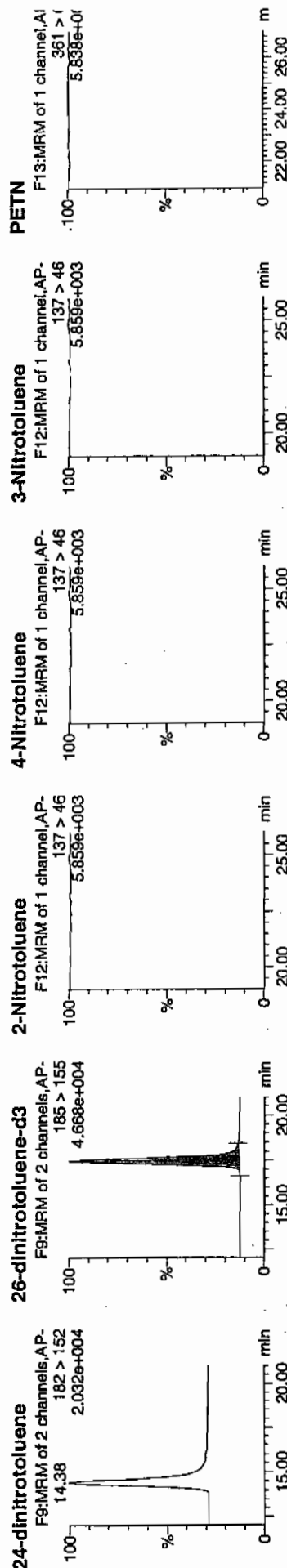
Vial: 3:3,A

10077
2/23/10

1202035682 / 1202035682 / 1202035682



10077
2/23/10



Name	Molecular Weight	Boiling Point (°C)	Density (g/cm³)	Flash Point (°C)	Log P	Water Solubility (mg/L)
HMX	176 > 102					
RDX	176 > 102					
135-Trinitrobenzene	213 > 183					
13-Dinitrobenzene-d4	172 > 142	12.07	2454.966			
13-Dinitrobenzene	168 > 138		2454.966			
Tetryl	241 > 181		2454.966			
Nitrobenzene	123 > 46		2454.966			
4-Amino-26-dinitrotoluene	197 > 167		16213.338			
2-Amino-46-dinitrotoluene	197 > 180		16213.338			
246-Trinitrotoluene	227 > 210		16213.338			
34-dinitrotoluene	182 > 152	14.38	6903.801			
26-dinitrotoluene	182 > 152		16213.338			
24-dinitrotoluene	182 > 152		16213.338			
26-dinitrotoluene-d3	185 > 155	17.44	16213.338			
2-Nitrotoluene	137 > 46		16213.338			
4-Nitrotoluene	137 > 46		16213.338			
3-Nitrotoluene	137 > 46		16213.338			
PETN	361 > 62		16213.338			

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 950082

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035682

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200014.wiff

Date Analyzed: 20-FEB-10 13:01

Units: ug/kg

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

*Concentration =

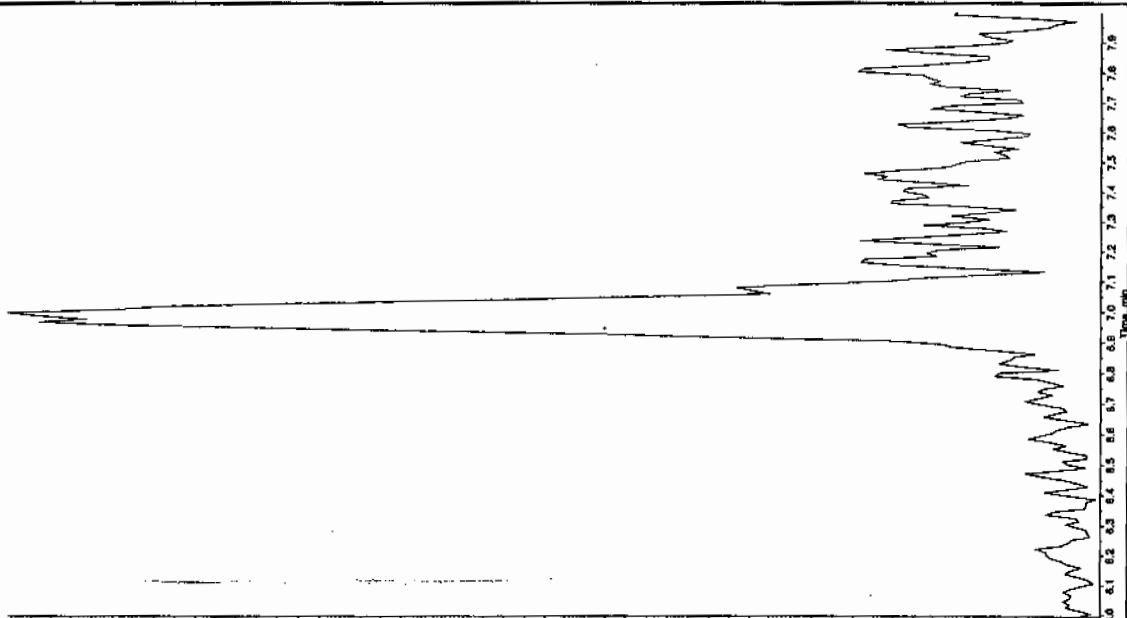
Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

See 2/23/10

Sample Name: '1202035682' Sample ID: '960832121' File: 'EX602200014.wif'
 Peak Name: 'TATB' Mass(es): '257.2204.9 amu'
 Comment: 'LCX832125' Annotation: ''

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 1:01:15 PM
 Modified: No

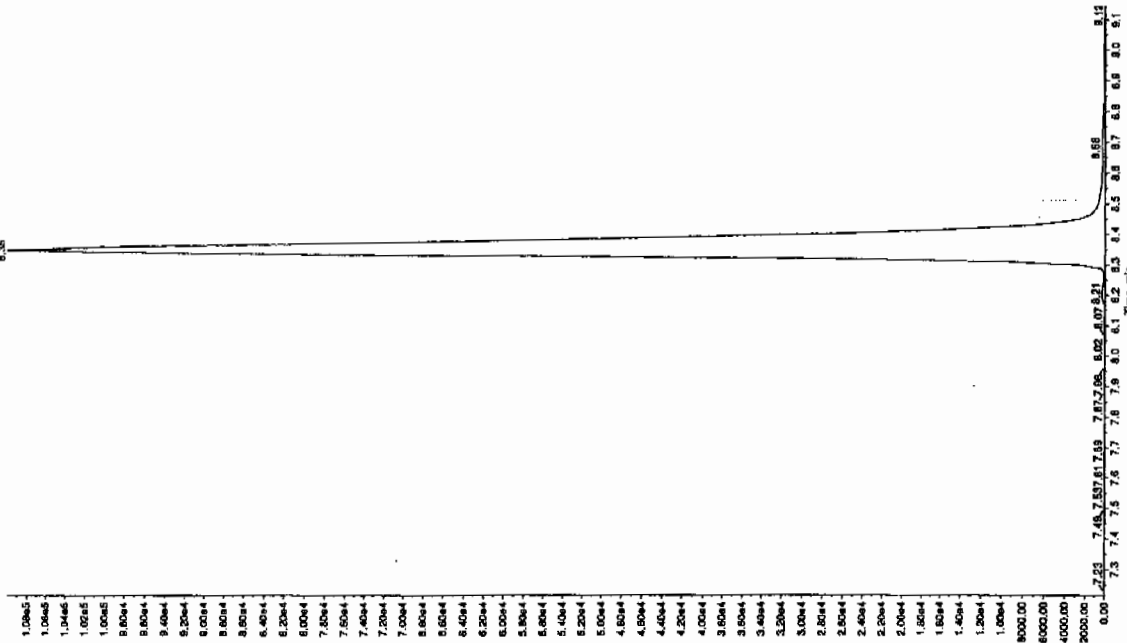
Intensity, cps



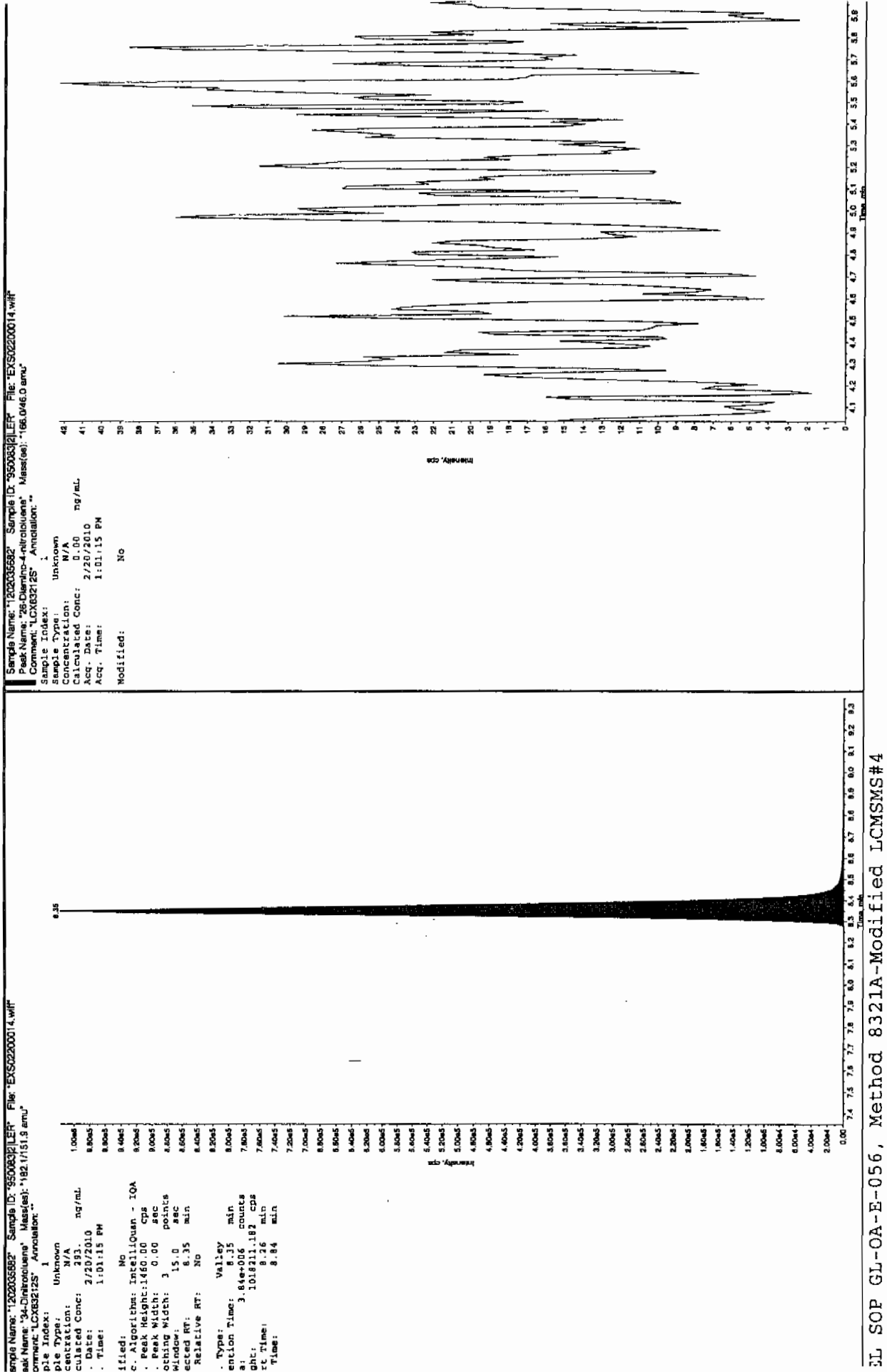
Sample Name: '1202035682' Sample ID: '960832121' File: 'EX602200014.wif'
 Peak Name: '35-Dinitroaniline' Mass(es): '182.045.0 amu'
 Comment: 'LCX832125' Annotation: ''

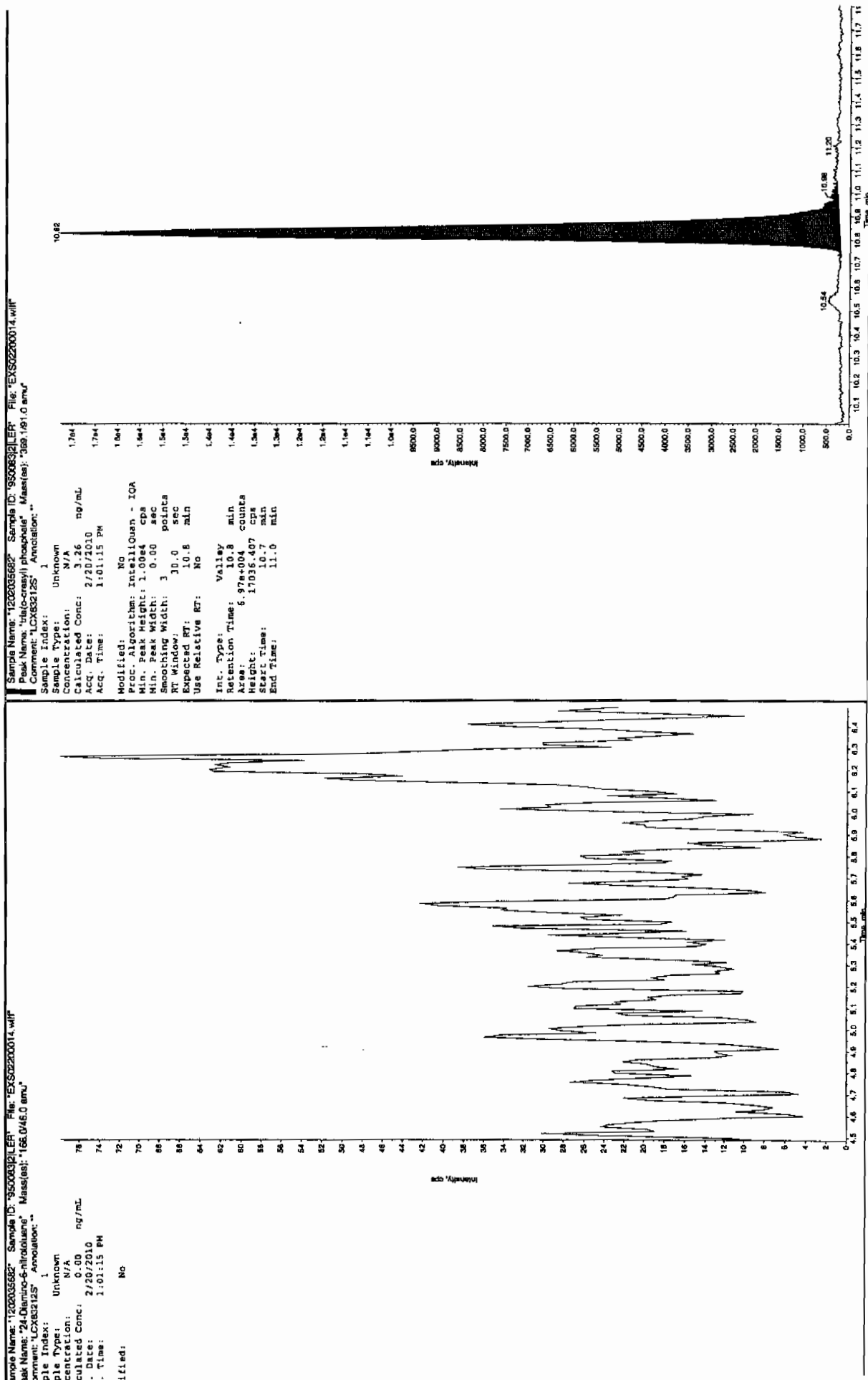
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 1:01:15 PM
 Modified: No

Intensity, cps



2/23/10





IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 950082

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035683

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216281a

Date Analyzed: 22-FEB-10 11:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5740	
121-14-2	2,4-Dinitrotoluene	5520	
121-82-4	RDX	4960	
19406-51-0	4-Amino-2,6-dinitrotoluene	5580	
2691-41-0	HMX	4420	
35572-78-2	2-Amino-4,6-dinitrotoluene	5980	
479-45-8	Tetryl	2730	
606-20-2	2,6-Dinitrotoluene	5250	
78-11-5	PETN	5430	
88-72-2	o-Nitrotoluene	4960	
98-95-3	Nitrobenzene	4500	
99-08-1	m-Nitrotoluene	4950	
99-35-4	1,3,5-Trinitrobenzene	3590	
99-65-0	m-Dinitrobenzene	5410	
99-99-0	p-Nitrotoluene	5480	

*Concentration =

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

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 23 09:00:06 2010, Page 27 of 103

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216281a

Date: 22-Feb-2010

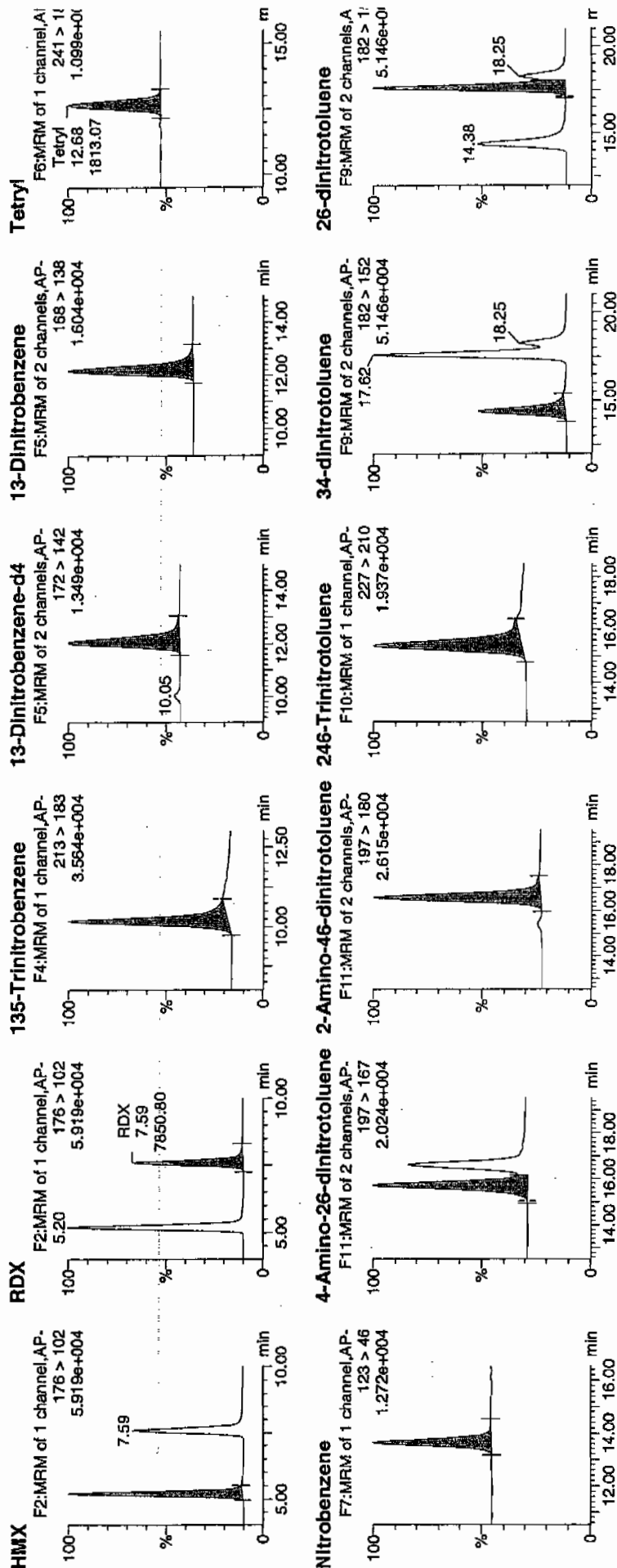
Time: 11:53:32

ID: 1202035683

Vial: 3:3, B

4/23/10

LAUF 950003 / 2002 / 1028 / 21



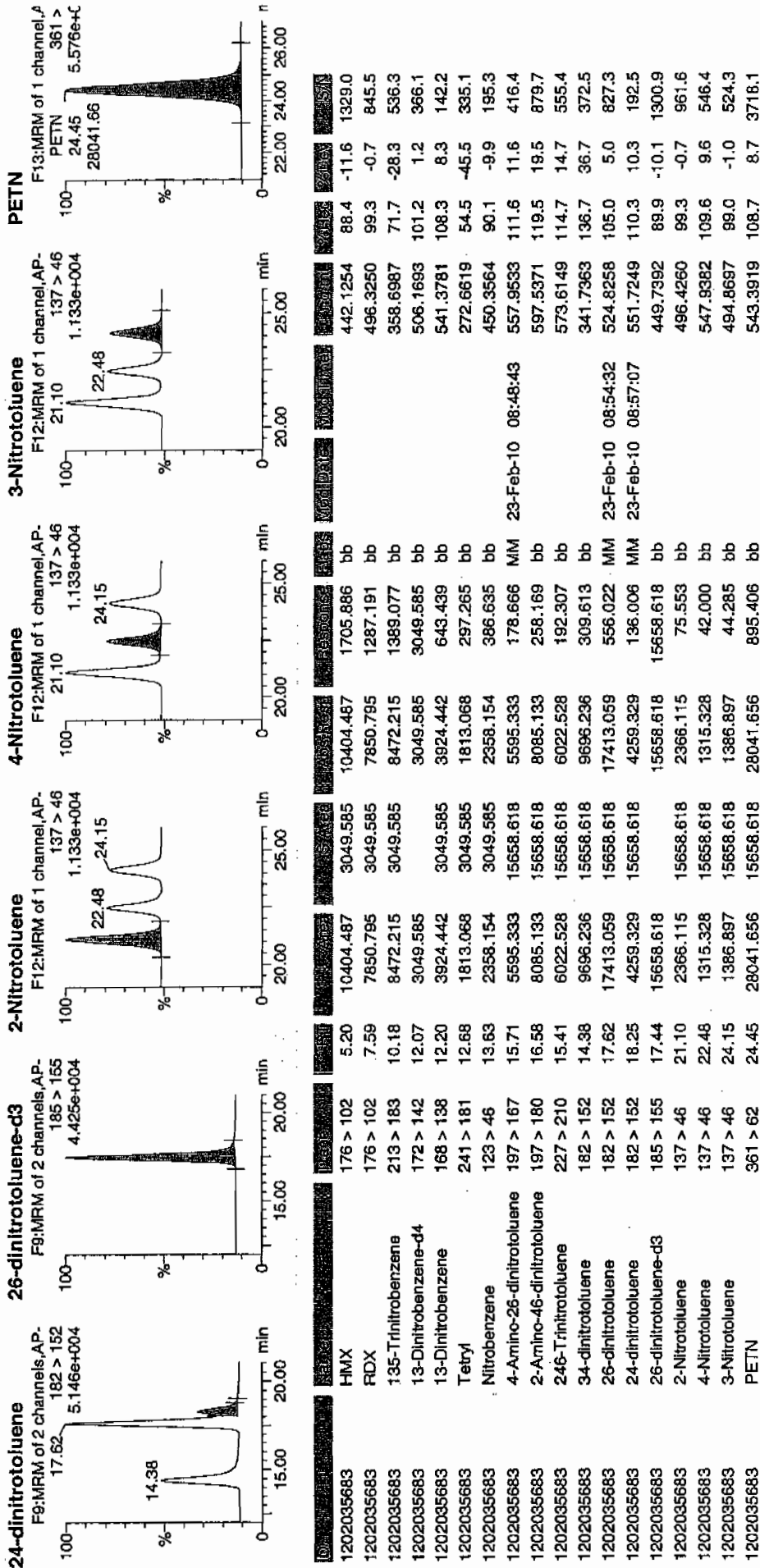
4/23/10

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New_Exp\PRO1021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Printed: Tue Feb 23 09:00:06 2010, Page 28 of 103



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 950082

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035683

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200015.wiff

Date Analyzed: 20-FEB-10 13:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5820	
59229-75-3	2,6-Diamino-4-nitrotoluene	5790	
618-87-1	3,5-Dinitroaniline	5490	
6629-29-4	2,4-Diamino-6-nitrotoluene	4930	
78-30-8	tris(o-cresyl) phosphate	5080	

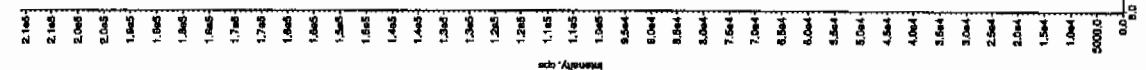
*Concentration =

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

after Jan 21/2010

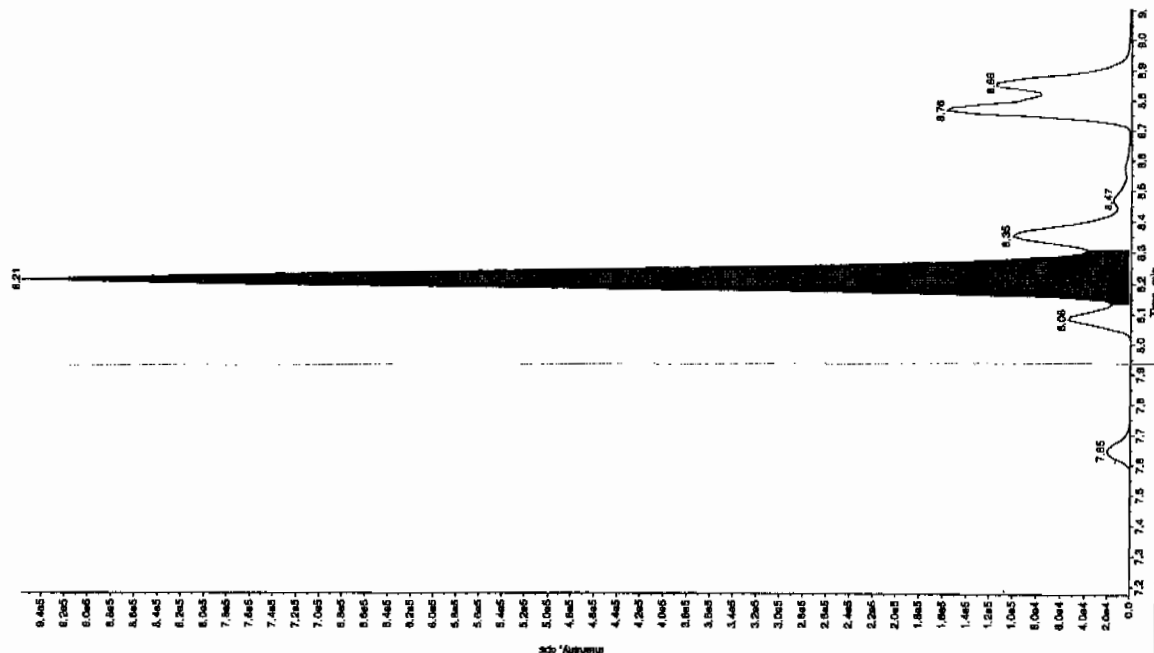
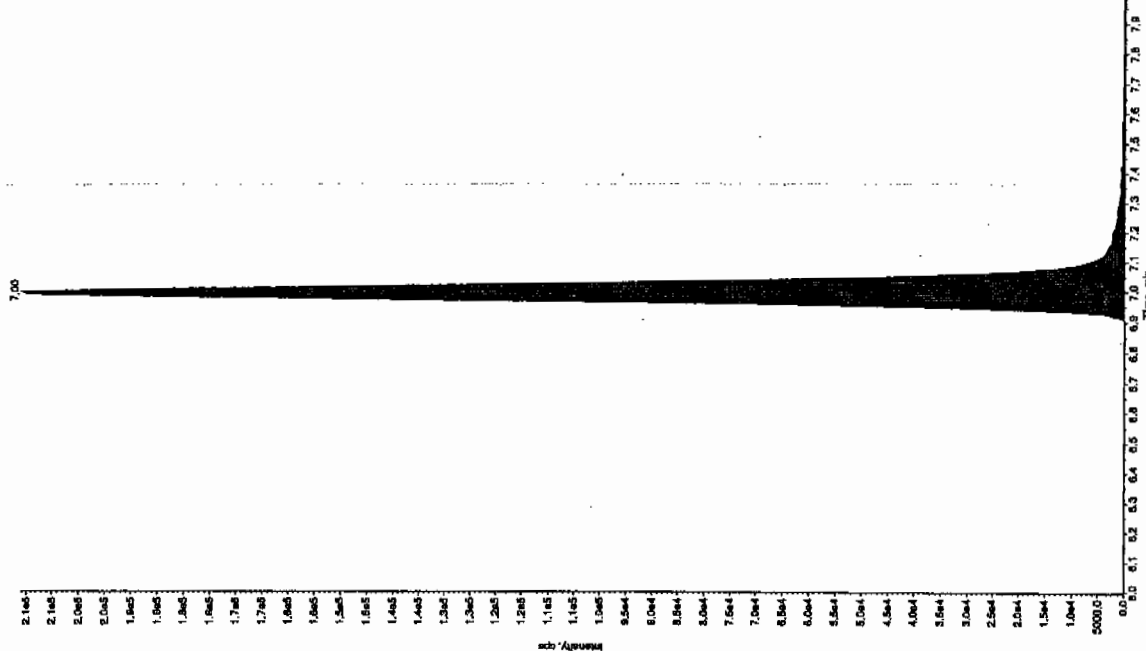
Sample Name: "120203583" Sample ID: "9500321" File: "EX0220015.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 549.0 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 1:16:56 PM
 Modified: No
 RT Window: 15.0 sec
 Expected RT: 8.17 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.21 min
 Acquisition Time: 3:58:40.00
 Start Time: 950032121
 End Time: 8:11 min

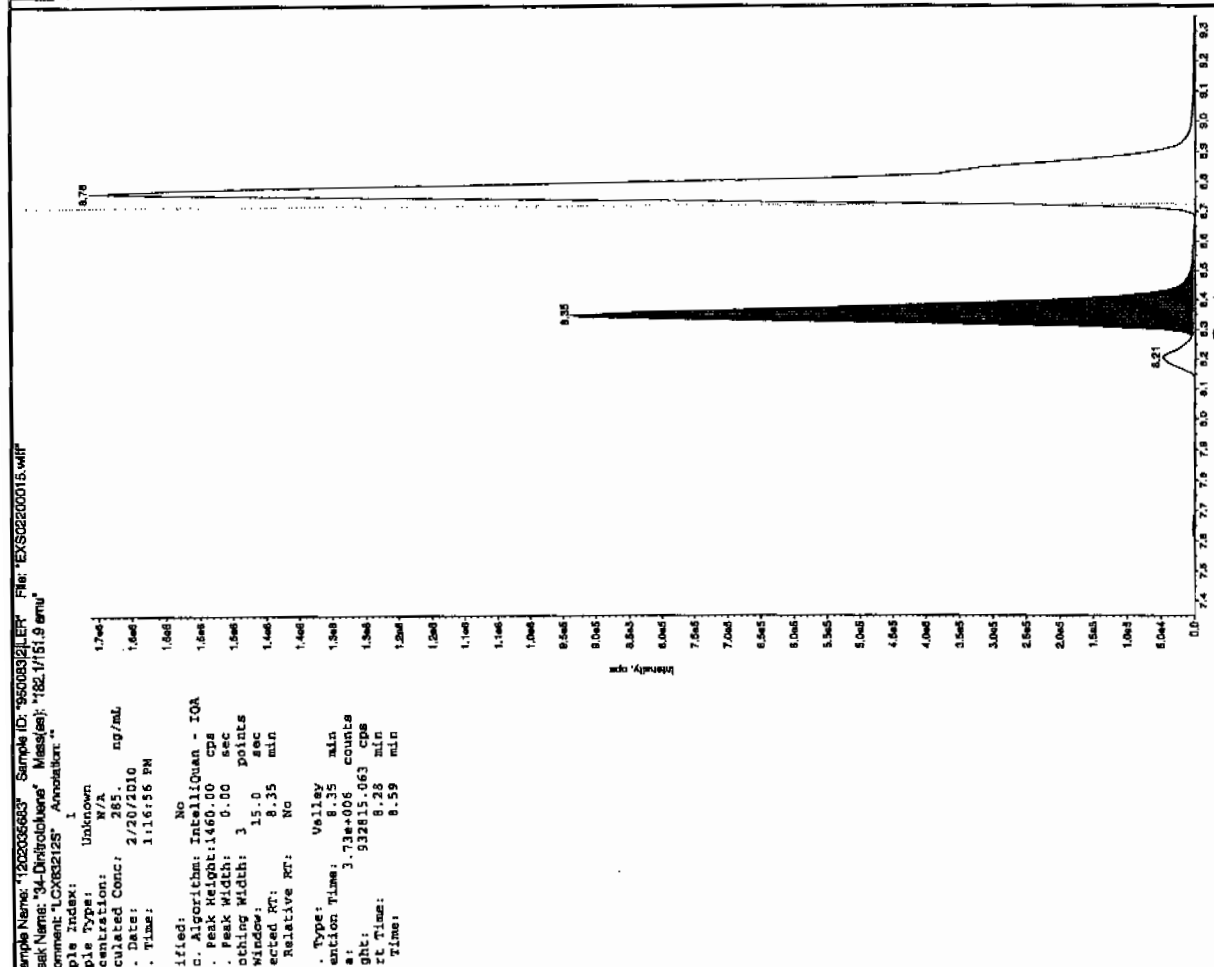
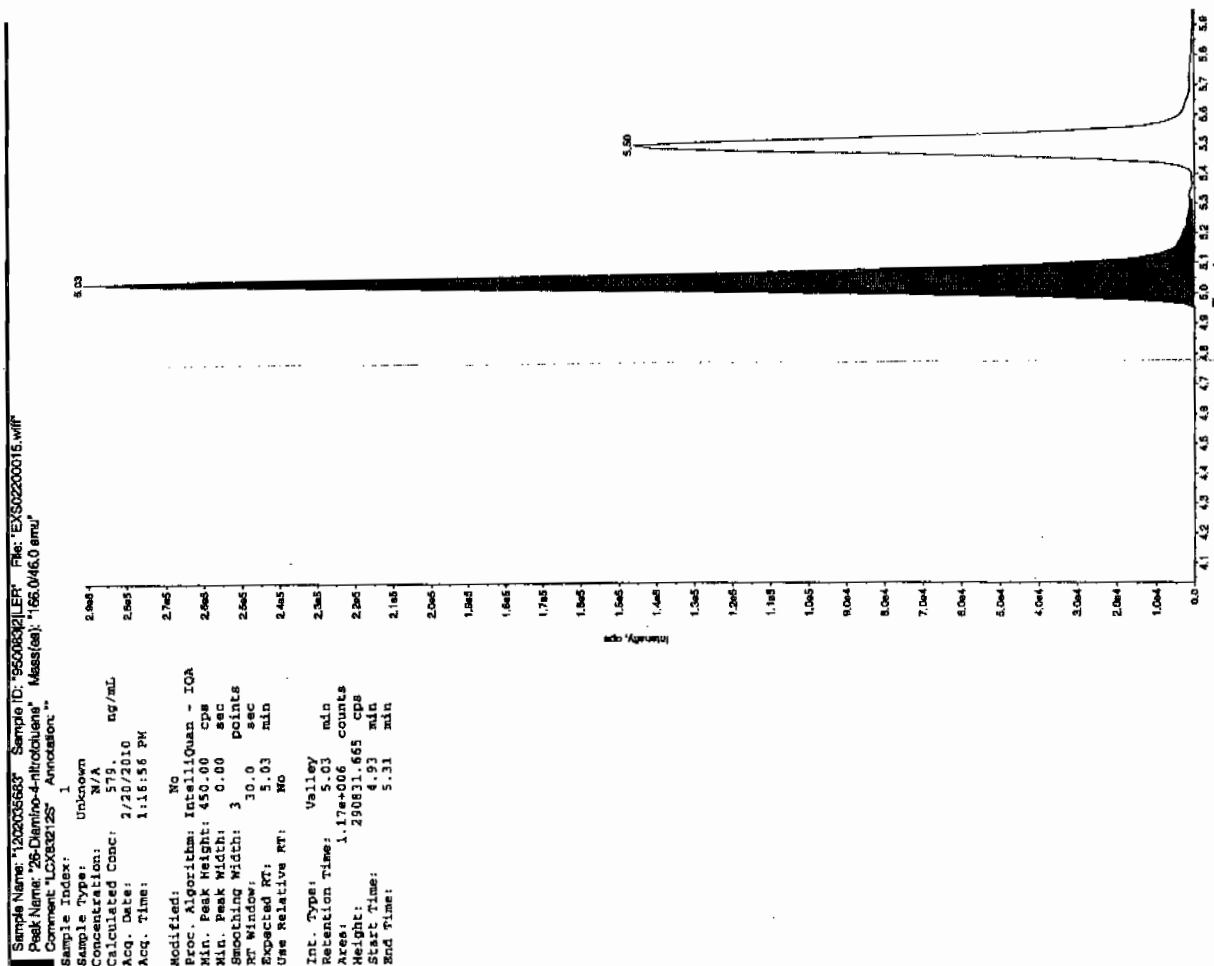


Sample Name: "120203583" Sample ID: "9500321" File: "EX0220015.wif"
 Peak Name: "35-Dinitrophenol" Mass(es): "182.046.0 amu"
 Comment: "LCX83212S" Annotation: ""

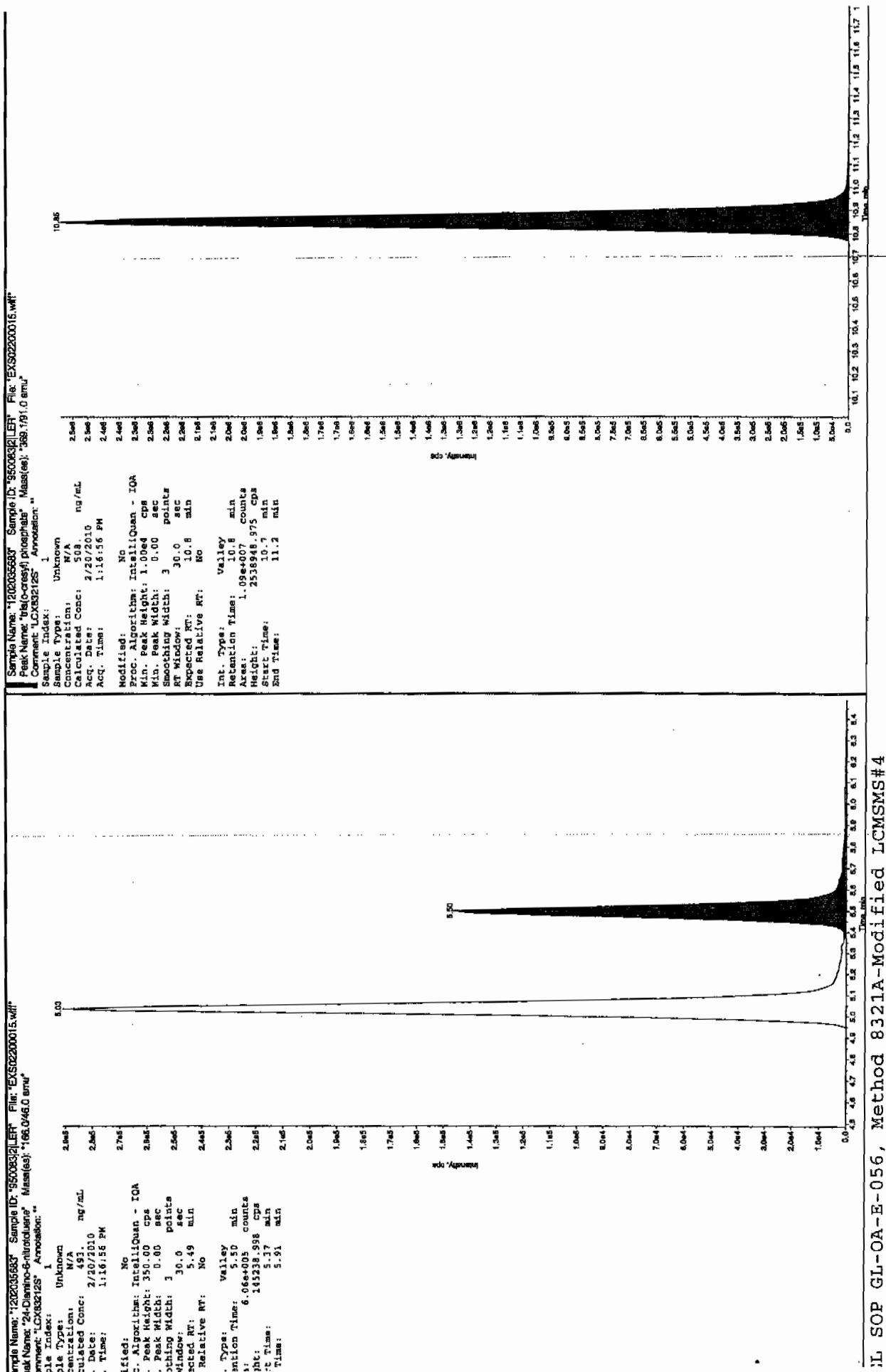
Sample Index: 1
 Sample Type: Unknown
 Concentration: 549.0 ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 1:16:56 PM
 Modified: Yes
 RT Window: 15.0 sec
 Expected RT: 8.17 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.21 min
 Acquisition Time: 3:58:40.00
 Start Time: 950032121
 End Time: 8:11 min



TL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981(246344001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035684

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0225013a

Date Analyzed: 25-FEB-10 15:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4520	
121-14-2	2,4-Dinitrotoluene	5030	
121-82-4	RDX	4540	
19406-51-0	4-Amino-2,6-dinitrotoluene	4300	
2691-41-0	HMX	4670	
35572-78-2	2-Amino-4,6-dinitrotoluene	4600	
479-45-8	Tetryl	4070	
606-20-2	2,6-Dinitrotoluene	4900	
78-11-5	PETN	5080	
88-72-2	o-Nitrotoluene	3930	
98-95-3	Nitrobenzene	4820	
99-08-1	m-Nitrotoluene	4530	
99-35-4	1,3,5-Trinitrobenzene	4640	
99-65-0	m-Dinitrobenzene	4600	
99-99-0	p-Nitrotoluene	4390	

*Concentration =

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

Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Feb 26 09:17:09 2010, Page 25 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO1022510expA.qld, Time: Fri Feb 26 09:15:44 2010

Name: C:\MASSLYNX\NEW_EXP\PRO1Data\EXP0225013a

Date: 25-Feb-2010

Time: 15:57:04

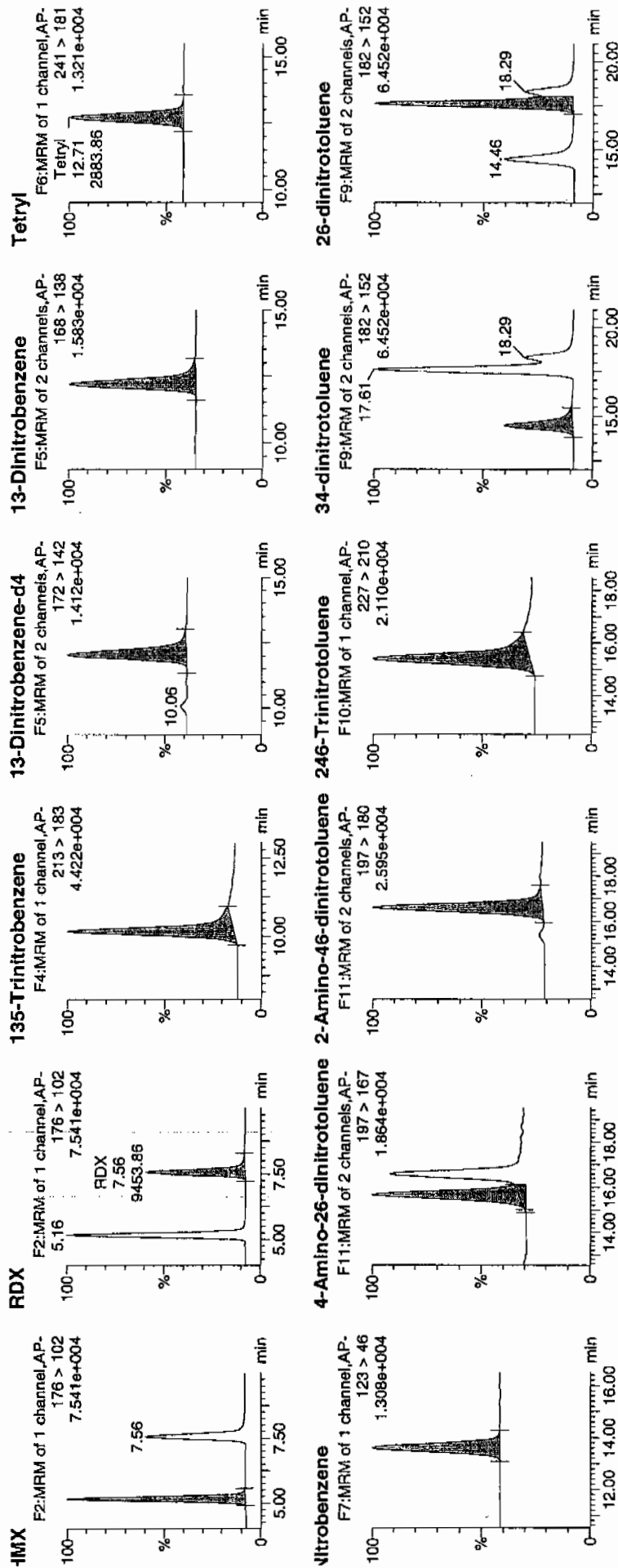
D: 1202035684

/Ial: 1:3,A

NOT
2/26/10

LAU1950083 / 8022 / 24634400128 / 21

Page 573 of 1886



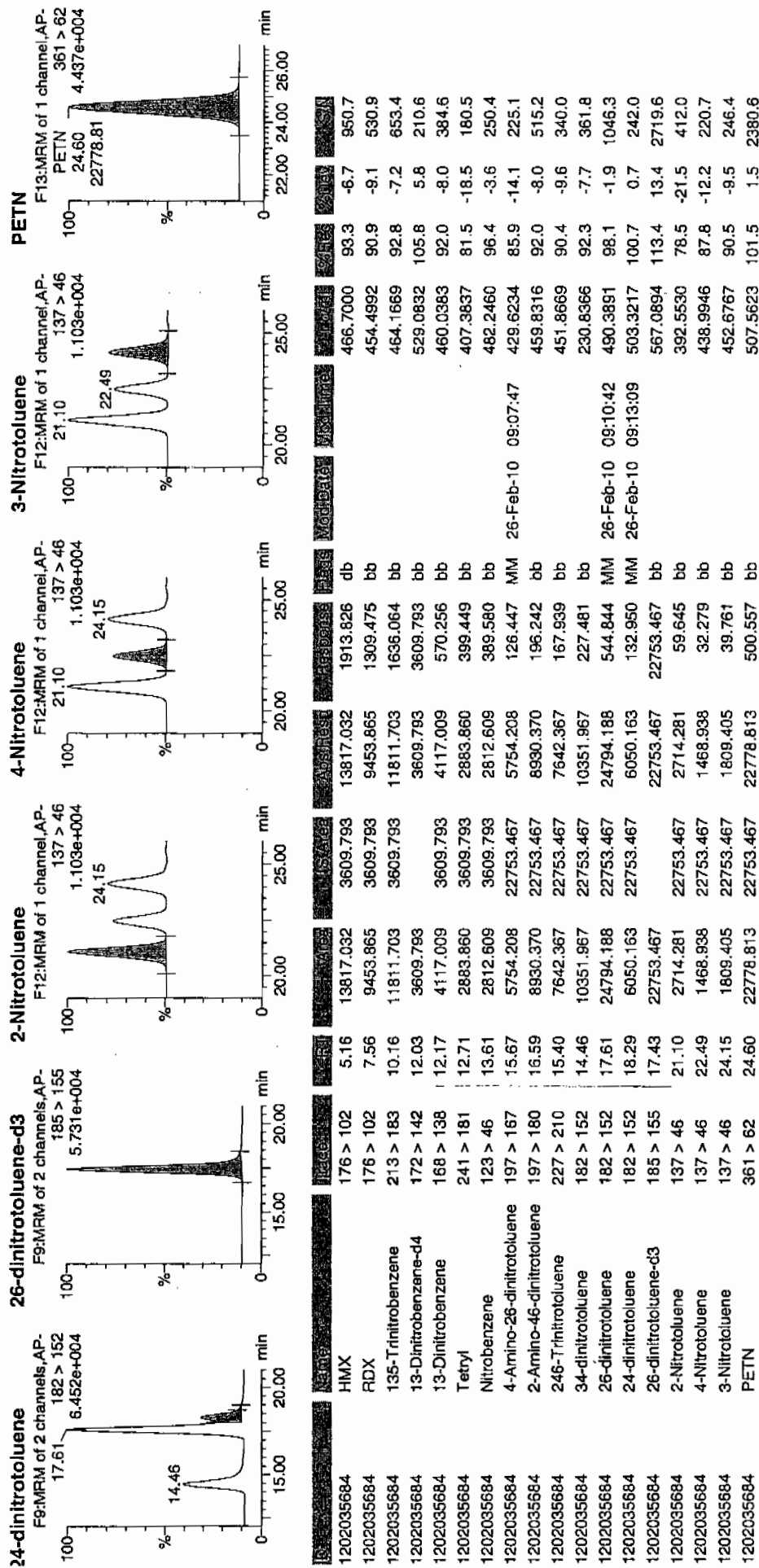
done for 110

Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Feb 26 09:17:09 2010, Page 26 of 77

Dataset: C:\MASSLYNX\New_Exp_PRO\022510expA.qld, Time: Fri Feb 26 09:15:44 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981(246344001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035684

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200019.wiff

Date Analyzed: 20-FEB-10 14:19

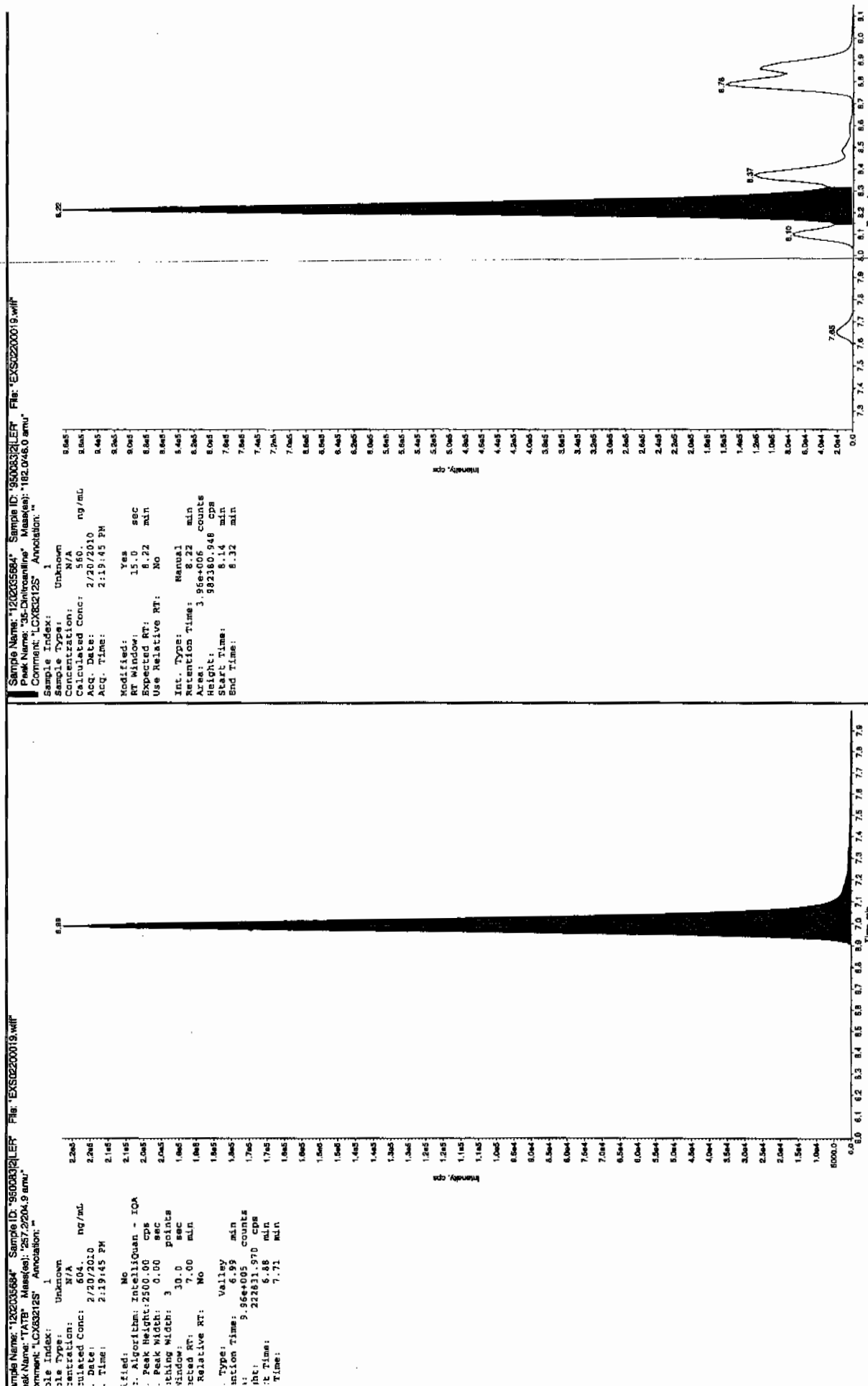
Units: ug/kg

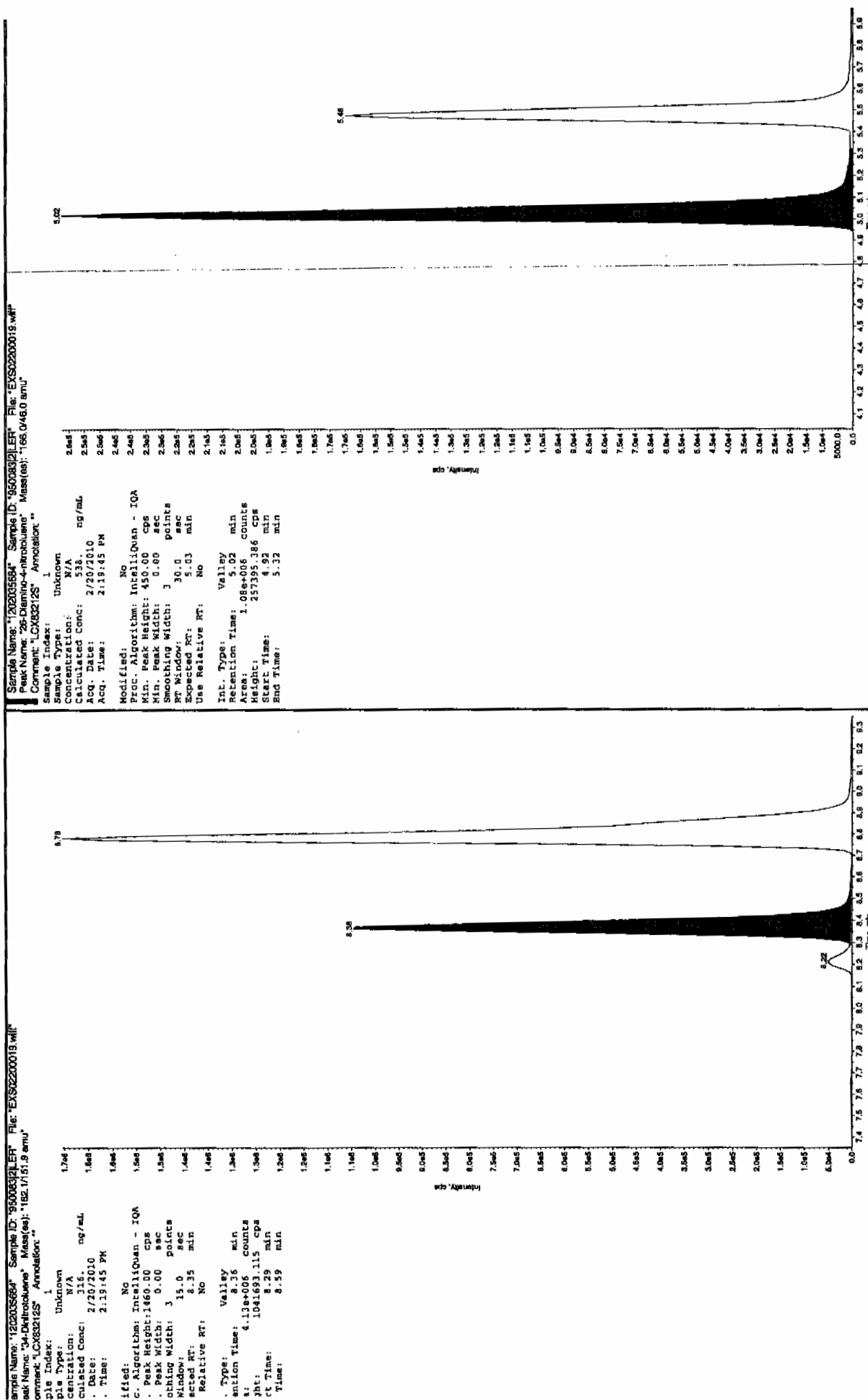
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6040	
59229-75-3	2,6-Diamino-4-nitrotoluene	5380	
618-87-1	3,5-Dinitroaniline	5600	
6629-29-4	2,4-Diamino-6-nitrotoluene	5440	
78-30-8	tris(o-cresyl) phosphate	5070	

*Concentration =

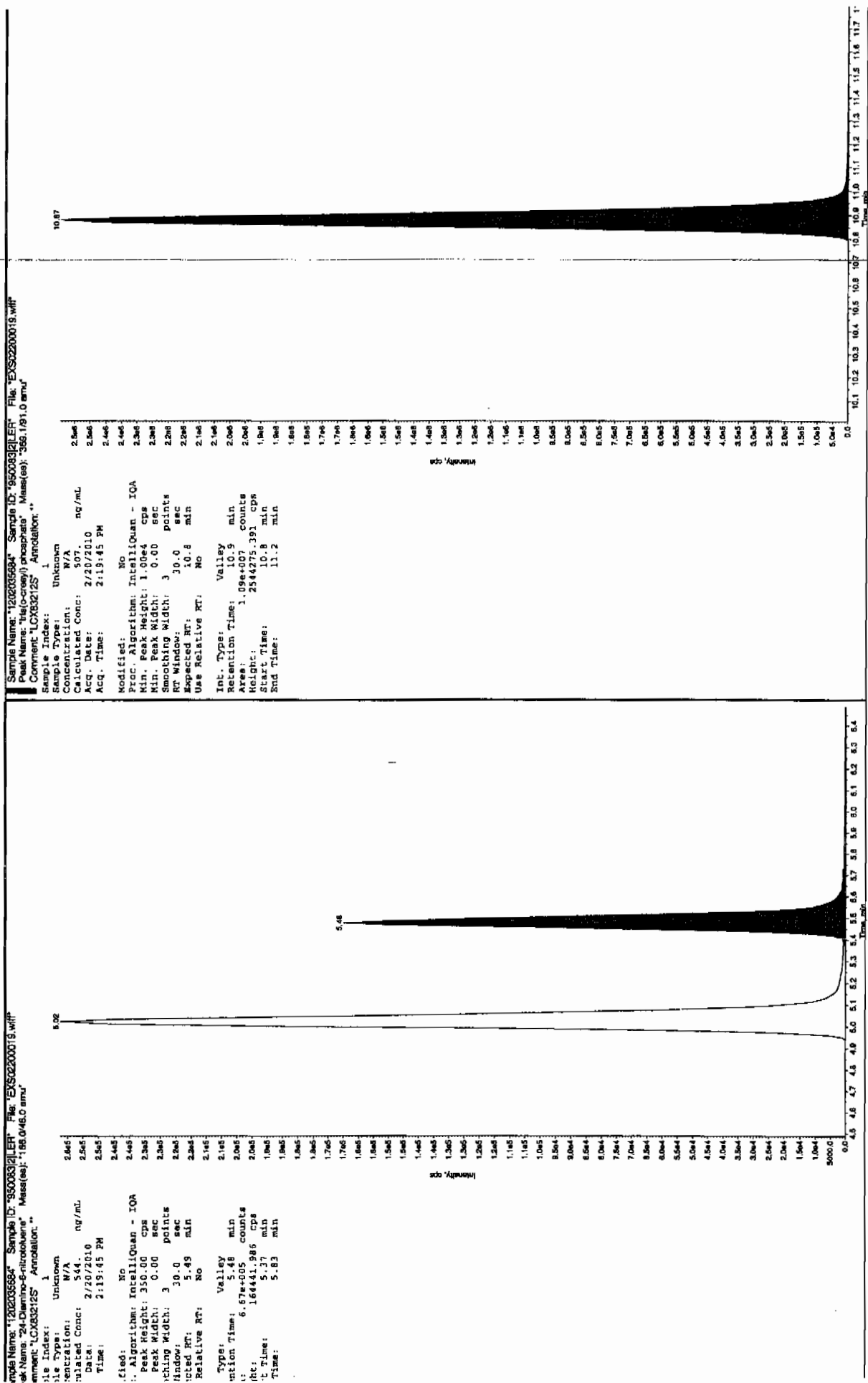
Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

after Jan 2010





IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981(246344001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035685

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216286a

Date Analyzed: 22-FEB-10 14:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5010	
121-14-2	2,4-Dinitrotoluene	5470	
121-82-4	RDX	5140	
19406-51-0	4-Amino-2,6-dinitrotoluene	4700	
2691-41-0	HMX	4460	
35572-78-2	2-Amino-4,6-dinitrotoluene	5240	
479-45-8	Tetryl	3420	
606-20-2	2,6-Dinitrotoluene	5190	
78-11-5	PETN	7030	
88-72-2	o-Nitrotoluene	4690	
98-95-3	Nitrobenzene	4450	
99-08-1	m-Nitrotoluene	4600	
99-35-4	1,3,5-Trinitrobenzene	4530	
99-65-0	m-Dinitrobenzene	5020	
99-99-0	p-Nitrotoluene	4730	

*Concentration =

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

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

Date: 22-Feb-2010

Time: 14:21:36

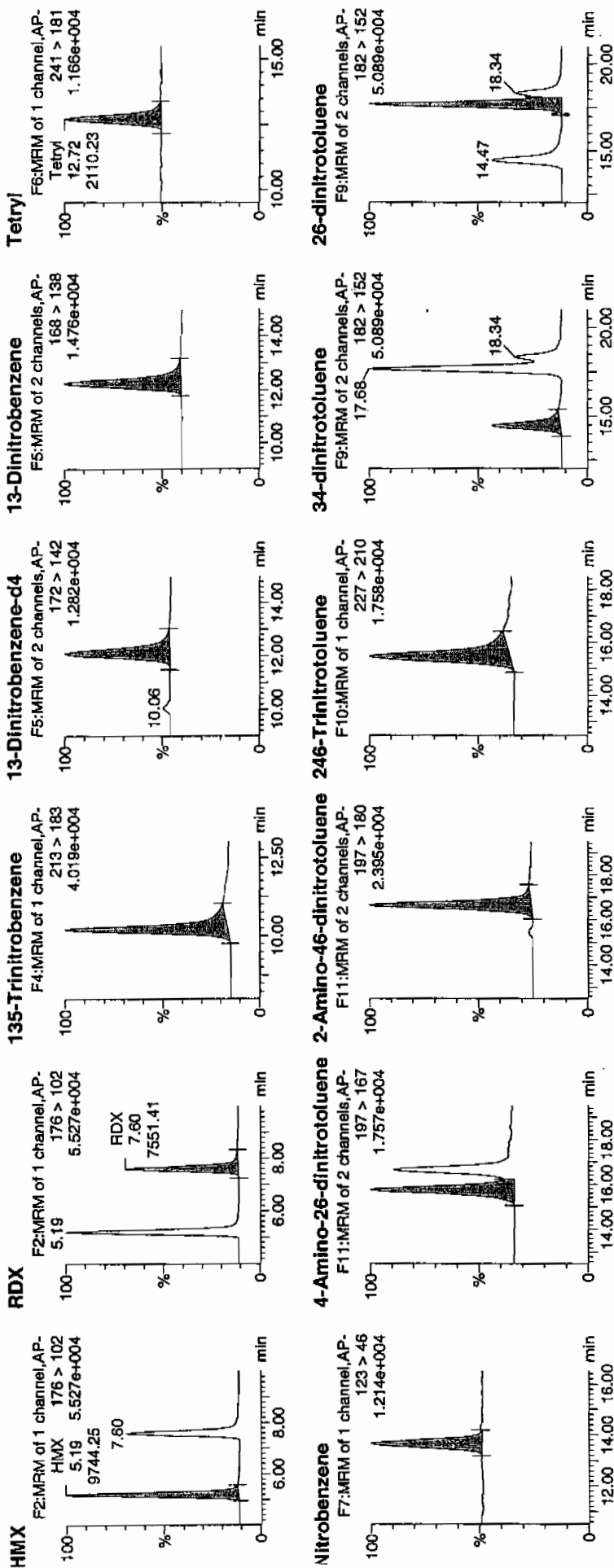
ID: 1202035685

Vial: 3:4A

4077
2/23/10

246344001MSD
121

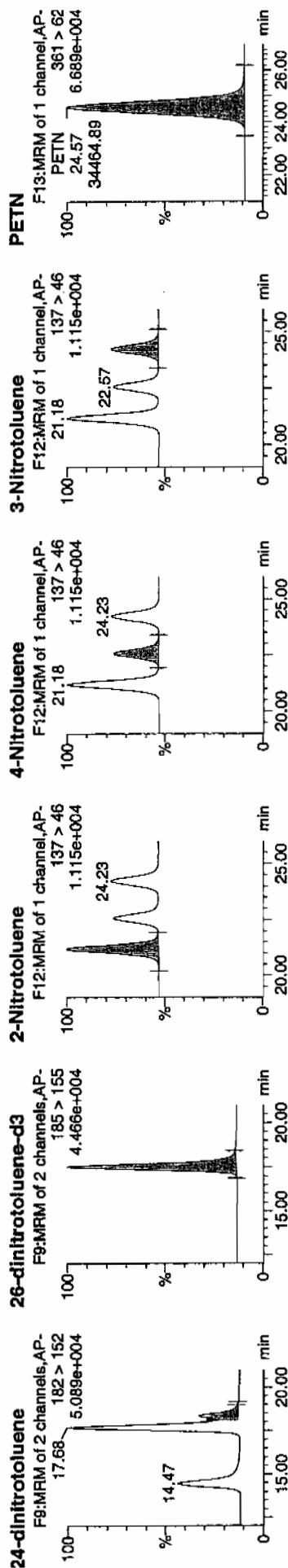
WAVE/950083
Source



4077
2/23/10

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA6.qld, Time: Tue Feb 23 08:59:22 2010

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



Location	Name	Page	IR PA	IR AVE	IR STAGE	IR TAB STAGE	IR RESID PSE	IR DATE	IR OFFLINE	IR TOTAL	IR DEC	IR DAY
1202035685	HMX	176 > 102	5.19	9744.251	2831.304	9744.251	1720.806	bb		445.9925	89.2	-10.8
1202035685	RDX	176 > 102	7.60	7551.412	2831.304	7551.412	1333.557	bb		514.2034	102.8	2.8
1202035685	135-Trinitrobenzene	213 > 183	10.21	9939.403	2831.304	9939.403	1755.269	bb		453.2599	90.7	-8.3
1202035685	13-Dinitrobenzene-d4	172 > 142	12.10	2831.304	2831.304	2831.304	2831.304	bb		469.9391	94.0	-6.0
1202035685	13-Dinitrobenzene	168 > 138	12.24	3376.889	2831.304	3376.889	596.349	bb		501.7574	100.4	0.4
1202035685	Tetryl	241 > 181	12.72	2110.229	2831.304	2110.229	372.660	bb		341.8174	68.4	-31.6
1202035685	Nitrobenzene	123 > 46	13.67	2164.749	2831.304	2164.749	382.288	bd		445.2931	89.1	-10.9
1202035685	4-Amino-26-dinitrotoluene	197 > 167	15.77	4710.121	15661.921	4710.121	150.369	MM	23-Feb-10 08:49:02	469.5830	93.9	-6.1
1202035685	2-Amino-46-dinitrotoluene	197 > 180	16.65	7091.918	15661.921	7091.918	226.406	bb		524.0223	104.8	4.8
1202035685	246-Trinitrotoluene	227 > 210	15.48	5256.554	15661.921	5256.554	167.813	bb		500.5542	100.1	0.1
1202035685	34-dinitrotoluene	182 > 152	14.47	7580.484	15661.921	7580.484	242.003	bb		267.1112	106.8	6.8
1202035685	26-dinitrotoluene	182 > 152	17.68	17219.791	15661.921	17219.791	549.734	MM	23-Feb-10 08:54:16	518.8913	103.8	3.8
1202035685	24-dinitrotoluene	182 > 152	18.34	4222.691	15661.921	4222.691	134.808	MM	23-Feb-10 08:57:27	546.8637	109.4	9.4
1202035685	26-dinitrotoluene-d3	185 > 155	17.51	15661.921	15661.921	15661.921	15661.921	bb		449.8340	90.0	-10.0
1202035685	2-Nitrotoluene	137 > 46	21.18	2236.022	15661.921	2236.022	71.384	bb		469.0327	93.8	-6.2
1202035685	4-Nitrotoluene	137 > 46	22.57	1136.193	15661.921	1136.193	36.272	bb		473.2145	94.5	-5.4
1202035685	3-Nitrotoluene	137 > 46	24.23	1288.142	15661.921	1288.142	41.123	bb		459.5352	91.9	-8.1
1202035685	PETN	361 > 62	24.57	34464.887	15661.921	34464.887	1100.276	bb		702.6287	140.5	40.5

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7981(246344001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1570

Matrix: SOIL

GEL Sample ID: 1202035685

Sample Amount 2

Moisture: 25.4

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950082

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02200020.wiff

Date Analyzed: 20-FEB-10 14:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5650	
59229-75-3	2,6-Diamino-4-nitrotoluene	4790	
618-87-1	3,5-Dinitroaniline	5620	
6629-29-4	2,4-Diamino-6-nitrotoluene	5210	
78-30-8	tris(o-cresyl) phosphate	5020	

*Concentration =

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

Before Jan 21/2010

Sample Name: "1202035685" Sample ID: "95008321ER" File: "EX0200020020.wif"

Peak Name: "35-Oxobenzilone" Mass(es): "182.046.0 amu"

Comment: "LX032125" Annotation: "1"

Sample Index: 1

Sample Type: Unknown

Sample Location: N/A

Calculated Conc: 537 ng/mL

Acq. Date: 2/20/2010

Acq. Time: 2:35:27 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.22 min

Use Relative RT: No

Int. Type: Valley

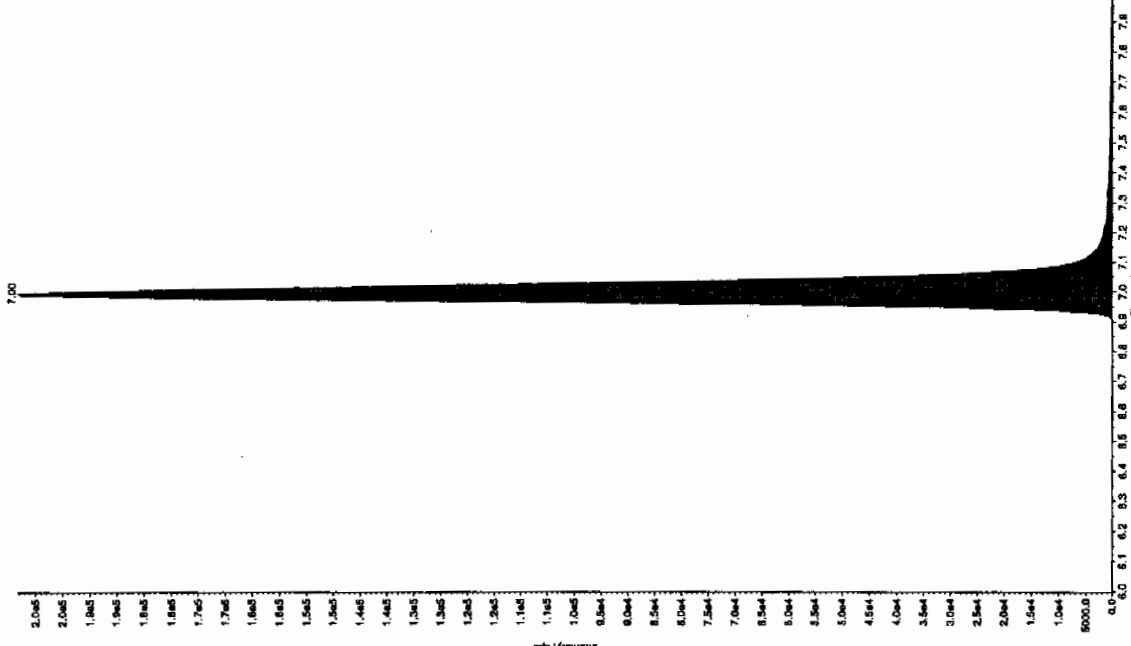
Retention Time: 8.23 min

Area: 3.81e+006 counts

Height: 95538154 cps

Scan Time: 8.15 min

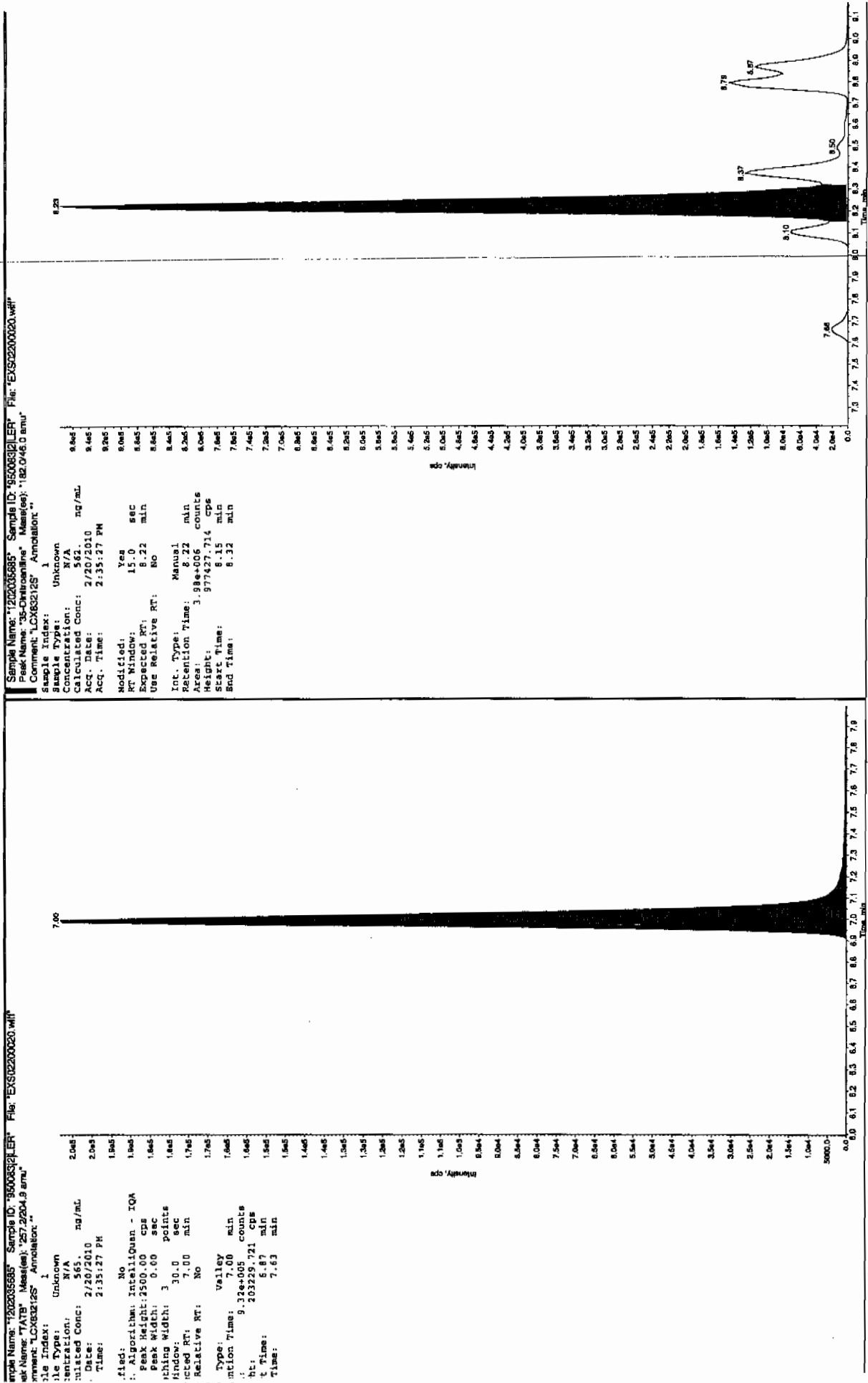
End Time: 8.32 min



Sample Name: "1202035685"	Sample ID: "95008321ER"	File: "EX0200020020.wif"
Peak Name: "35-Oxobenzilone"	Mass(es): "182.046.0 amu"	
Comment: "LX032125"	Annotation: "1"	
Sample Index: 1		
Sample Type: Unknown		
Sample Location: N/A		
Calculated Conc: 565 ng/mL		
Acq. Date: 2/20/2010		
Acq. Time: 2:35:27 PM		
Modified: No		
Proc. Algorithm: IntelliQuan - IOA		
Min. Peak Height: 2500.00 cps		
Min. Peak Width: 0.00 sec		
Smoothing Width: 3 points		
RT Window: 30.0 sec		
Expected RT: 7.00 min		
Use Relative RT: No		
Int. Type: Valley		
Retention Time: 7.00 min		
Area: 9.32e+005 counts		
Height: 20229721 cps		
Scan Time: 6.97 min		
End Time: 7.65 min		

After 02/23/10

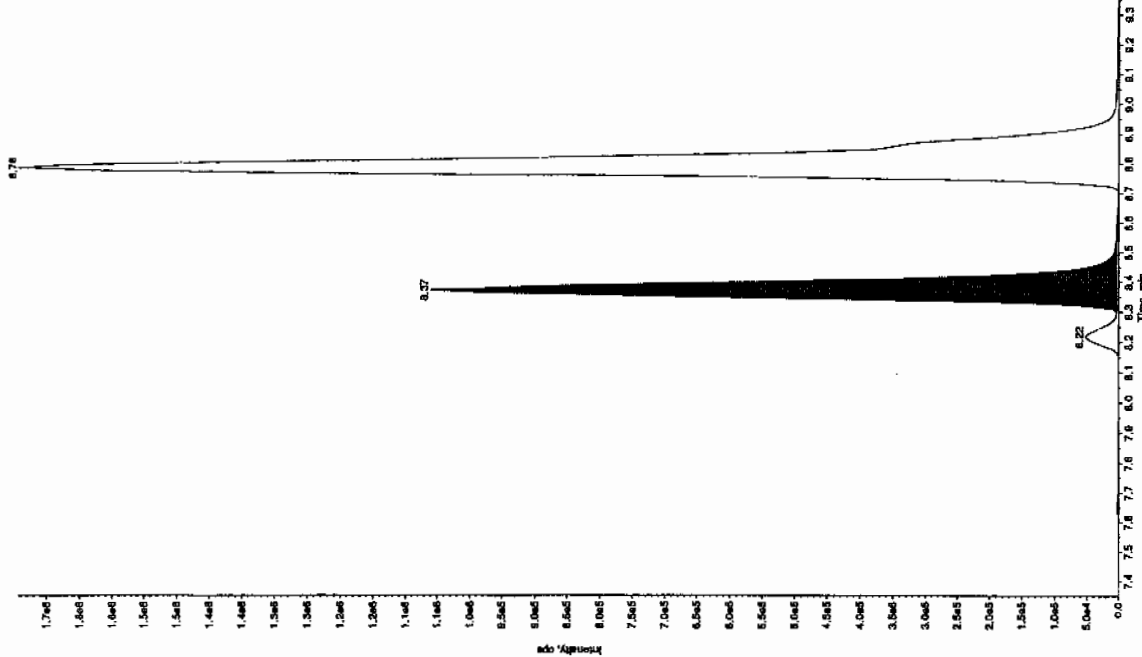
After Jan 21/2010



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

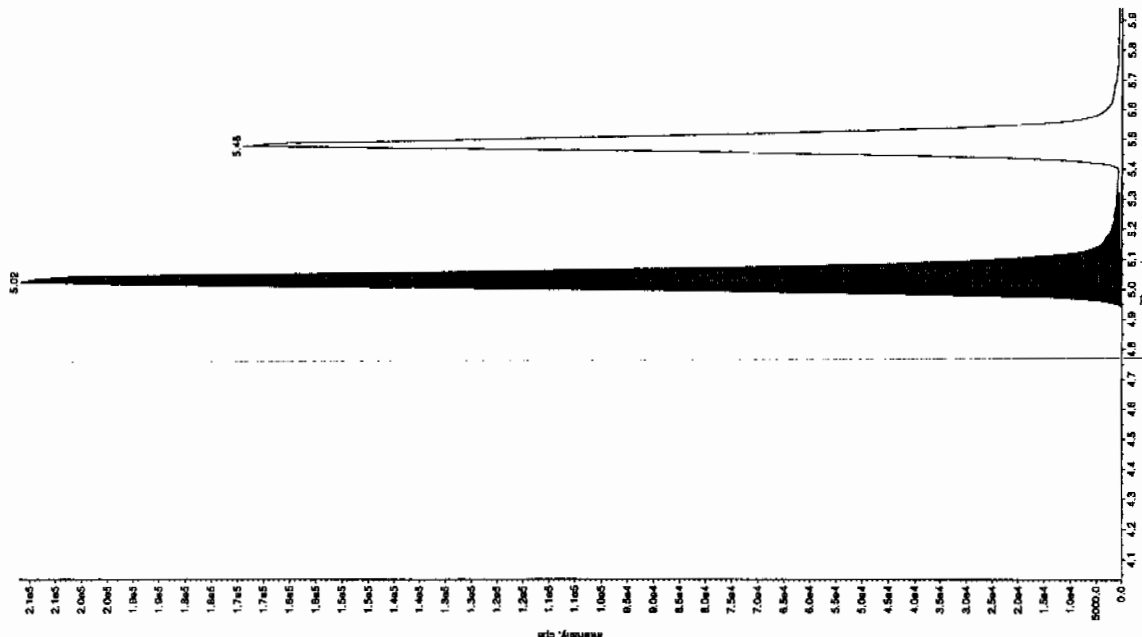
Sample Name: "1202035685" Sample ID: "9500831" File: "EX50220020.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"
 Comment: "LCX83212S" Annotation: ""

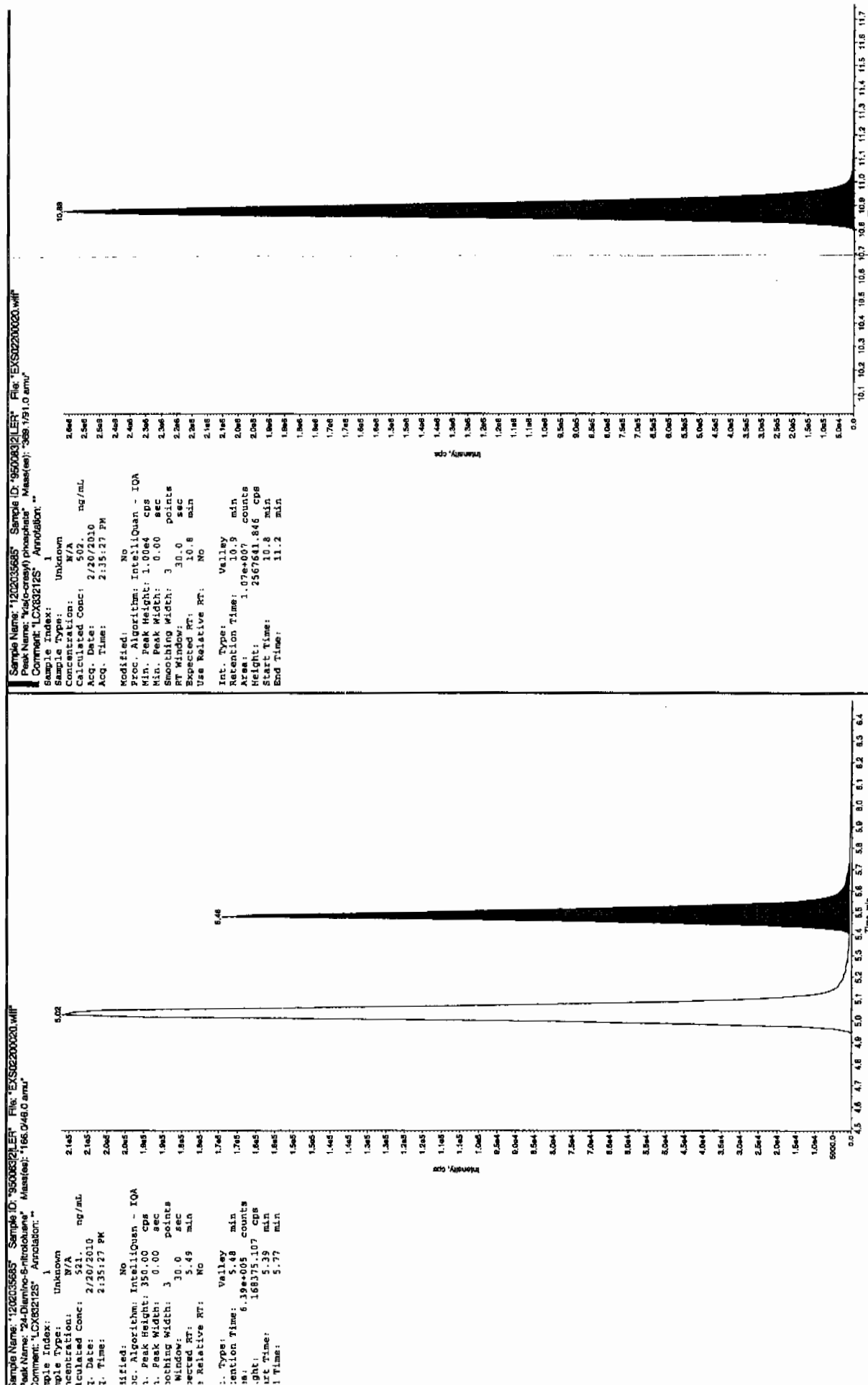
Sample Index: 1
 Sample Type: Unknown
 Concentration: 307. ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:35:27 PM
 Modified: NO
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 1490.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 15.0 sec
 RT Window: 8.35 min
 Expected RT: NO
 Use Relative RT: NO
 Int. Type: Valley
 Retention Time: 8.37 min
 Area: 4.02e+006 counts
 Height: 1057036.255 cps
 Start Time: 8.30 min
 End Time: 8.58 min



Sample Name: "1202035685" Sample ID: "9500831" File: "EX50220020.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "196.0/195.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 479. ng/mL
 Acq. Date: 2/20/2010
 Acq. Time: 2:35:27 PM
 Modified: NO
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 30.0 sec
 RT Window: 5.03 min
 Expected RT: NO
 Use Relative RT: NO
 Int. Type: Valley
 Retention Time: 5.02 min
 Area: 9.66e+005 counts
 Height: 211796.509 cps
 Start Time: 4.93 min
 End Time: 5.32 min





EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

MISCELLANEOUS DATA

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 950082
Analyst: Sirena White
Method: SW846 8330 PREP

Volatiles Manual Instrument

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035683 LCS	11-FEB-2010 15:22:00	2	10	5
246262001	11-FEB-2010 15:22:00	2	10	5
246262002	11-FEB-2010 15:22:00	2	10	5
246344001	11-FEB-2010 15:22:00	2	10	5
1202035684 MS (246344001)	11-FEB-2010 15:22:00	2	10	5
1202035685 MSD (246344001)	11-FEB-2010 15:22:00	2	10	5
246344002	11-FEB-2010 15:22:00	2	10	5
246344003	11-FEB-2010 15:22:00	2	10	5
246344004	11-FEB-2010 15:22:00	2	10	5
246344005	11-FEB-2010 15:22:00	2	10	5
246350002	11-FEB-2010 15:22:00	2	10	5
246350003	11-FEB-2010 15:22:00	2	10	5
246350004	11-FEB-2010 15:22:00	2	10	5
246350005	11-FEB-2010 15:22:00	2	10	5
246350006	11-FEB-2010 15:22:00	2	10	5
246350007	11-FEB-2010 15:22:00	2	10	5
246350008	11-FEB-2010 15:22:00	2	10	5
246350009	11-FEB-2010 15:22:00	2	10	5
246350010	11-FEB-2010 15:22:00	2	10	5
246350011	11-FEB-2010 15:22:00	2	10	5
246350012	11-FEB-2010 15:22:00	2	10	5
1202035682 MB	11-FEB-2010 15:22:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202035683	8321 Explosives LCS	IXX100125-03	.1	mL	Final Solvent: ACN
LCS	1202035683	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL	
MS	1202035684	8321 Explosives LCS	IXX100125-03	.1	mL	
MS	1202035684	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL	
MSD	1202035685	8321 Explosives LCS	IXX100125-03	.1	mL	
MSD	1202035685	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Surrogate) 100ppm	DXP100210-02	.05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/16/10
 Extr. Injection Volume: 50ul
 Sequence Number: 021610expA
 Initial Calibration Date: 02/16/10
 Method: SW846 8321A-Modified
 Int. Std.: UXX100128-01.3
 Mobile Phase Lot#: 1269631, 1263794
 Standard-Samp Reagent Lot#: 1260901, 1261217

Reviewed BY: *zhang*
 Date: 02/24/10
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100216-07,
 WXX100219-07 & WXX100222-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0216001a	XIBLK01	MAP	2/16/10 17:07			1		USE	B
EXP0216002a	XIBLK01	MAP	2/16/10 17:37			1		USE	B
EXP0216003a	WXXICAL-01	MAP	2/16/10 18:07			1		USE	I
EXP0216004a	WXXICAL-02	MAP	2/16/10 18:36			1		USE	I
EXP0216005a	WXXICAL-03	MAP	2/16/10 19:06			1		USE	I
EXP0216006a	WXXICAL-04	MAP	2/16/10 19:35			1		USE	I
EXP0216007a	WXXICAL-05	MAP	2/16/10 20:05			1		USE	I
EXP0216008a	WXXICAL-06	MAP	2/16/10 20:35			1		USE	I
EXP0216009a	XIBLK02	MAP	2/16/10 21:04			1		USE	B
EXP0216010a	WXXICV	MAP	2/16/10 21:34			1		USE	C
EXP0216011a	XIBLK03	MAP	2/16/10 22:04			1		USE	B
EXP0216012a	WXXCRI	MAP	2/16/10 22:33			1		USE	C
EXP0216013a	1202038759	MAP	2/16/10 23:03	951342	Various	2	LANL	USE	S
EXP0216014a	1202038760	MAP	2/16/10 23:33	951342	Various	2	LANL	USE	S
EXP0216015a	246569007	MAP	2/17/10 0:02	951342	10-1669	2	LANL	USE	S
EXP0216016a	1202038761	MAP	2/17/10 0:32	951342	10-1669	2	LANL	USE	S
EXP0216017a	1202038762	MAP	2/17/10 1:02	951342	10-1669	2	LANL	USE	S
EXP0216018a	246572005	MAP	2/17/10 1:32	951342	10-1678	2	LANL	USE	S
EXP0216019a	246580002	MAP	2/17/10 2:01	951342	10-1683	2	LANL	USE	S
EXP0216020a	246580003	MAP	2/17/10 2:31	951342	10-1683	2	LANL	USE	S
EXP0216021a	WXXCCV	MAP	2/17/10 3:00			1		USE	C
EXP0216022a	XIBLK04	MAP	2/17/10 3:30			1		USE	B
EXP0216023a	WXXCRI	MAP	2/17/10 3:59			1		USE	C
EXP0216024a	246595004	MAP	2/17/10 4:29	951342	10-1694	2	LANL	USE	S
EXP0216025a	1202038763	MAP	2/17/10 4:58	951342	10-1694	2	LANL	USE	S
EXP0216026a	1202038764	MAP	2/17/10 5:28	951342	10-1694	2	LANL	USE	S
EXP0216027a	WXXCCV	MAP	2/17/10 5:58			1		USE	C
EXP0216028a	XIBLK05	MAP	2/17/10 6:28			1		USE	B
EXP0216029a	WXXCRI	MAP	2/17/10 6:57			1		USE	C

EXP0216030a	1202030577	MAP	2/17/10 7:27	947919	Various	2	LANL	USE	S
EXP0216031a	1202030578	MAP	2/17/10 7:57	947919	Various	2	LANL	USE	S
EXP0216032a	245908001	MAP	2/17/10 8:27	947919	10-1486	2	LANL	USE	S
EXP0216033a	1202030579	MAP	2/17/10 8:56	947919	10-1486	2	LANL	USE	S
EXP0216034a	1202030580	MAP	2/17/10 9:26	947919	10-1486	2	LANL	USE	S
EXP0216035a	245908002	MAP	2/17/10 9:56	947919	10-1486	2	LANL	USE	S
EXP0216036a	245908005	MAP	2/17/10 10:25	947919	10-1486	2	LANL	USE	S
EXP0216037a	245908006	MAP	2/17/10 10:55	947919	10-1486	2	LANL	USE	S
EXP0216038a	245912003	MAP	2/17/10 11:25	947919	10-1486	2	LANL	USE	S
EXP0216039a	WXCCV	MAP	2/17/10 11:55	947919	10-1488	2	LANL	USE	S
EXP0216040a	XIBLK06	MAP	2/17/10 12:24			1		USE	C
EXP0216041a	WXCR1	MAP	2/17/10 12:54			1		USE	B
EXP0216042a	1202038769	MAP	2/17/10 13:23	951349	Various	2	LANL	USE	C
EXP0216043a	1202038770	MAP	2/17/10 13:53	951349	Various	2	LANL	USE	S
EXP0216044a	246554001	MAP	2/17/10 14:23	951349	10-1665	2	LANL	USE	S
EXP0216045a	1202038771	MAP	2/17/10 14:52	951349	10-1665	2	LANL	USE	S
EXP0216046a	1202038772	MAP	2/17/10 15:22	951349	10-1665	2	LANL	USE	S
EXP0216047a	246554002	MAP	2/17/10 15:52	951349	10-1665	2	LANL	USE	S
EXP0216048a	246554003	MAP	2/17/10 16:21	951349	10-1665	2	LANL	USE	S
EXP0216049a	246554004	MAP	2/17/10 16:51	951349	10-1665	2	LANL	USE	S
EXP0216050a	246554005	MAP	2/17/10 17:20	951349	10-1665	2	LANL	USE	S
EXP0216051a	246554006	MAP	2/17/10 17:50	951349	10-1665	2	LANL	USE	S
EXP0216052a	WXCCV	MAP	2/17/10 18:20			1		USE	C
EXP0216053a	XIBLK07	MAP	2/17/10 18:50			1		USE	B
EXP0216054a	WXCR1	MAP	2/17/10 19:19			1		USE	C
EXP0216055a	246557001	MAP	2/17/10 19:49	951349	10-1666	2	LANL	USE	S
EXP0216056a	246562001	MAP	2/17/10 20:19	951349	10-1668	2	LANL	USE	S
EXP0216057a	246575003	MAP	2/17/10 20:49	951349	10-1675	2	LANL	USE	S
EXP0216058a	246575004	MAP	2/17/10 21:18	951349	10-1675	2	LANL	USE	S
EXP0216059a	246582002	MAP	2/17/10 21:48	951349	10-1685	2	LANL	USE	S
EXP0216060a	246582003	MAP	2/17/10 22:17	951349	10-1685	2	LANL	USE	S
EXP0216061a	246582004	MAP	2/17/10 22:47	951349	10-1685	2	LANL	USE	S
EXP0216062a	246582005	MAP	2/17/10 23:16	951349	10-1685	2	LANL	USE	S
EXP0216063a	246582006	MAP	2/17/10 23:46	951349	10-1685	2	LANL	USE	S
EXP0216064a	246582007	MAP	2/18/10 0:15	951349	10-1685	2	LANL	USE	S
EXP0216065a	WXCCV	MAP	2/18/10 0:45			1		USE	C
EXP0216066a	XIBLK08	MAP	2/18/10 1:14			1		USE	B

EXP0216067a	WXXCRI	MAP	2/18/10 1:44	951349	10-1685	1	LANL	USE	C
EXP0216068a	246582008	MAP	2/18/10 2:14			2		USE	S
EXP0216069a	XIBLK09	MAP	2/18/10 2:43			1		USE	B
EXP0216070a	1202032097	MAP	2/18/10 3:13	948572	Various	2	LANL	DUSE	S
EXP0216071a	1202032098	MAP	2/18/10 3:43	948572	Various	2	LANL	DUSE	S
EXP0216072a	245955001	MAP	2/18/10 4:12	948572	10-1509	2	LANL	DUSE	S
EXP0216073a	245955002	MAP	2/18/10 4:42	948572	10-1509	2	LANL	DUSE	S
EXP0216074a	245959001	MAP	2/18/10 5:12	948572	10-1510	2	LANL	DUSE	S
EXP0216075a	1202032099	MAP	2/18/10 5:42	948572	10-1510	2	LANL	DUSE	S
EXP0216076a	1202032100	MAP	2/18/10 6:11	948572	10-1510	2	LANL	DUSE	S
EXP0216077a	245959002	MAP	2/18/10 6:41	948572	10-1510	2	LANL	DUSE	S
EXP0216078a	WXXCCV	MAP	2/18/10 7:10			1		USE	C
EXP0216079a	XIBLK10	MAP	2/18/10 7:40			1		USE	B
EXP0216080a	WXXCRI	MAP	2/18/10 8:10			1		USE	C
EXP0216081a	1202032097	MAP	2/18/10 8:39	948572	Various	2	LANL	USE	S
EXP0216082a	1202032098	MAP	2/18/10 9:09	948572	Various	2	LANL	USE	S
EXP0216083a	245955001	MAP	2/18/10 9:38	948572	10-1509	2	LANL	USE	S
EXP0216084a	245955002	MAP	2/18/10 10:08	948572	10-1509	2	LANL	USE	S
EXP0216085a	245959001	MAP	2/18/10 10:37	948572	10-1510	2	LANL	USE	S
EXP0216086a	1202032099	MAP	2/18/10 11:07	948572	10-1510	2	LANL	USE	S
EXP0216087a	1202032100	MAP	2/18/10 11:36	948572	10-1510	2	LANL	USE	S
EXP0216088a	245959002	MAP	2/18/10 12:06	948572	10-1510	2	LANL	USE	S
EXP0216089a	WXXCCV	MAP	2/18/10 12:36			1		USE	C
EXP0216090a	XIBLK11	MAP	2/18/10 13:05			1		USE	B
EXP0216091a	WXXCRI	MAP	2/18/10 13:35			1		USE	C
EXP0216092a	245959003	MAP	2/18/10 14:04	948572	10-1510	2	LANL	USE	S
EXP0216093a	245959004	MAP	2/18/10 14:34	948572	10-1510	2	LANL	USE	S
EXP0216094a	245959005	MAP	2/18/10 15:03	948572	10-1510	2	LANL	USE	S
EXP0216095a	245959006	MAP	2/18/10 15:33	948572	10-1510	2	LANL	USE	S
EXP0216096a	245959007	MAP	2/18/10 16:03	948572	10-1510	2	LANL	USE	S
EXP0216097a	245959008	MAP	2/18/10 16:32	948572	10-1510	2	LANL	USE	S
EXP0216098a	245959009	MAP	2/18/10 17:02	948572	10-1510	2	LANL	USE	S
EXP0216099a	245959010	MAP	2/18/10 17:32	948572	10-1510	2	LANL	USE	S
EXP0216100a	245959012	MAP	2/18/10 18:01	948572	10-1510	2	LANL	USE	S
EXP0216101a	WXXCCV	MAP	2/18/10 18:31			1		USE	C
EXP0216102a	XIBLK12	MAP	2/18/10 19:00			1		USE	B
EXP0216103a	WXXCRI	MAP	2/18/10 19:30			1		USE	C

EXP0216104a	1202023589	MAP	2/18/10 19:59	944915	Various	2	LANL	USE	S
EXP0216105a	1202023590	MAP	2/18/10 20:29	944915	Various	2	LANL	USE	S
EXP0216106a	245377001	MAP	2/18/10 20:58	944915	10-1378	2	LANL	USE	S
EXP0216107a	245377002	MAP	2/18/10 21:28	944915	10-1378	2	LANL	USE	S
EXP0216108a	245377003	MAP	2/18/10 21:57	944915	10-1378	2	LANL	USE	S
EXP0216109a	245377004	MAP	2/18/10 22:27	944915	10-1378	2	LANL	USE	S
EXP0216110a	245377005	MAP	2/18/10 22:56	944915	10-1378	2	LANL	USE	S
EXP0216111a	245377006	MAP	2/18/10 23:26	944915	10-1378	2	LANL	USE	S
EXP0216112a	245377007	MAP	2/18/10 23:56	944915	10-1378	2	LANL	USE	S
EXP0216113a	245377008	MAP	2/19/10 0:25	944915	10-1378	2	LANL	USE	S
EXP0216114a	WXXCCV	MAP	2/19/10 0:55			1		USE	C
EXP0216115a	XIBLK13	MAP	2/19/10 1:24			1		USE	B
EXP0216116a	WXXCRI	MAP	2/19/10 1:54			1		USE	C
EXP0216117a	245377009	MAP	2/19/10 2:23	944915	10-1378	2	LANL	USE	S
EXP0216118a	245377010	MAP	2/19/10 2:53	944915	10-1378	2	LANL	USE	S
EXP0216119a	245396001	MAP	2/19/10 3:23	944915	10-1394	2	LANL	USE	S
EXP0216120a	1202023591	MAP	2/19/10 3:52	944915	10-1394	2	LANL	USE	S
EXP0216121a	1202023592	MAP	2/19/10 4:22	944915	10-1394	2	LANL	USE	S
EXP0216122a	245396002	MAP	2/19/10 4:52	944915	10-1394	2	LANL	USE	S
EXP0216123a	245396003	MAP	2/19/10 5:22	944915	10-1394	2	LANL	USE	S
EXP0216124a	245396004	MAP	2/19/10 5:51	944915	10-1394	2	LANL	USE	S
EXP0216125a	247033002	MAP	2/19/10 6:21	944915	10-1821	2	LANL	USE	S
EXP0216126a	WXXCCV	MAP	2/19/10 6:51			1		USE	C
EXP0216127a	XIBLK14	MAP	2/19/10 7:21			1		USE	B
EXP0216128a	WXXCRI	MAP	2/19/10 7:51			1		USE	C
EXP0216129a	1202032113	MAP	2/19/10 8:20	948579	Various	2	LANL	USE	S
EXP0216130a	1202032114	MAP	2/19/10 8:51	948579	Various	2	LANL	USE	S
EXP0216131a	245994001	MAP	2/19/10 9:20	948579	10-1516	2	LANL	USE	S
EXP0216132a	245994002	MAP	2/19/10 9:50	948579	10-1516	2	LANL	USE	S
EXP0216133a	245994003	MAP	2/19/10 10:19	948579	10-1516	2	LANL	USE	S
EXP0216134a	245994004	MAP	2/19/10 10:49	948579	10-1516	2	LANL	USE	S
EXP0216135a	245994005	MAP	2/19/10 11:18	948579	10-1516	2	LANL	USE	S
EXP0216136a	245994006	MAP	2/19/10 11:48	948579	10-1516	2	LANL	USE	S
EXP0216137a	245994007	MAP	2/19/10 12:18	948579	10-1516	2	LANL	USE	S
EXP0216138a	245994008	MAP	2/19/10 12:47	948579	10-1516	2	LANL	USE	S
EXP0216139a	WXXCCV	MAP	2/19/10 13:16			1		USE	C
EXP0216140a	XIBLK15	MAP	2/19/10 13:46			1		USE	B

EXP0216141a	WXXCRI	MAP	2/19/10 14:38	948579	10-1516	1	LANL	USE	C
EXP0216142a	245994009	MAP	2/19/10 15:08	948579	10-1520	2	LANL	USE	S
EXP0216143a	246006001	MAP	2/19/10 15:37	948579	10-1520	500	LANL	DUSE	S
EXP0216144a	246006001	MAP	2/19/10 16:07	948579	10-1520	2	LANL	USE	S
EXP0216145a	1202032115	MAP	2/19/10 16:37	948579	10-1520	2	LANL	USE	S
EXP0216146a	1202032116	MAP	2/19/10 17:07	948579	10-1520	2	LANL	USE	S
EXP0216147a	246006002	MAP	2/19/10 17:36	948579	10-1520	2	LANL	USE	S
EXP0216148a	246006003	MAP	2/19/10 18:06	948579	10-1520	2	LANL	USE	S
EXP0216149a	246006004	MAP	2/19/10 18:35	948579	10-1520	2	LANL	USE	S
EXP0216150a	246006005	MAP	2/19/10 19:05	948579	10-1520	2	LANL	USE	S
EXP0216151a	246006006	MAP	2/19/10 19:35	948579	10-1520	2	LANL	USE	S
EXP0216152a	WXXCCV	MAP	2/19/10 20:04	948579	10-1520	1	LANL	USE	C
EXP0216153a	XIBLK16	MAP	2/19/10 20:34			1		USE	B
EXP0216154a	WXXCRI	MAP	2/19/10 21:04			1		USE	C
EXP0216155a	246006007	MAP	2/19/10 21:34	948579	10-1520	2	LANL	USE	S
EXP0216156a	246006008	MAP	2/19/10 22:04	948579	10-1520	2	LANL	USE	S
EXP0216157a	246006009	MAP	2/19/10 22:34	948579	10-1520	2	LANL	USE	S
EXP0216158a	XIBLK17	MAP	2/19/10 23:03			1		USE	B
EXP0216159a	1202040417	MAP	2/19/10 23:33	952030	Various	2	LANL	USE	S
EXP0216160a	1202040418	MAP	2/20/10 0:03	952030	Various	2	LANL	USE	S
EXP0216161a	246707005	MAP	2/20/10 0:32	952030	10-1726	2	LANL	USE	S
EXP0216162a	1202040419	MAP	2/20/10 1:02	952030	10-1726	2	LANL	USE	S
EXP0216163a	1202040420	MAP	2/20/10 1:31	952030	10-1726	2	LANL	USE	S
EXP0216164a	246764004	MAP	2/20/10 2:01	952030	10-1721	2	LANL	USE	S
EXP0216165a	WXXCCV	MAP	2/20/10 2:30			1		USE	C
EXP0216166a	XIBLK18	MAP	2/20/10 3:00			1		USE	B
EXP0216167a	WXXCRI	MAP	2/20/10 3:30			1		USE	C
EXP0216168a	1202028657	MAP	2/20/10 3:59	947074	Various	2	LANL	USE	S
EXP0216169a	1202028658	MAP	2/20/10 4:29	947074	Various	2	LANL	USE	S
EXP0216170a	245789005	MAP	2/20/10 4:59	947074	10-1466	2	LANL	USE	S
EXP0216171a	245789009	MAP	2/20/10 5:28	947074	10-1466	2	LANL	USE	S
EXP0216172a	245789013	MAP	2/20/10 5:58	947074	10-1466	2	LANL	USE	S
EXP0216173a	245789017	MAP	2/20/10 6:28	947074	10-1466	2	LANL	USE	S
EXP0216174a	245809001	MAP	2/20/10 6:57	947074	10-1480	2	LANL	USE	S
EXP0216175a	1202028659	MAP	2/20/10 7:27	947074	10-1480	2	LANL	USE	S
EXP0216176a	1202028660	MAP	2/20/10 7:57	947074	10-1480	2	LANL	USE	S
EXP0216177a	WXXCCV	MAP	2/20/10 8:26			1		USE	C

EXP0216178a	XIBLK19	MAP	2/20/10 8:56	1		USE	B
EXP0216179a	WXXCRI	MAP	2/20/10 9:25	1		USE	C
EXP0216180a	1202028685	MAP	2/20/10 9:55	2	LANL	USE	S
EXP0216181a	1202028686	MAP	2/20/10 10:25	2	LANL	USE	S
EXP0216182a	245795001	MAP	2/20/10 10:55	2	LANL	USE	S
EXP0216183a	1202028687	MAP	2/20/10 11:25	2	LANL	USE	S
EXP0216184a	1202028688	MAP	2/20/10 11:54	2	LANL	USE	S
EXP0216185a	245795002	MAP	2/20/10 12:24	2	LANL	USE	S
EXP0216186a	245795003	MAP	2/20/10 12:54	2	LANL	USE	S
EXP0216187a	245795004	MAP	2/20/10 13:23	2	LANL	USE	S
EXP0216188a	245795005	MAP	2/20/10 13:53	2	LANL	USE	S
EXP0216189a	245795006	MAP	2/20/10 14:23	2	LANL	USE	S
EXP0216190a	WXXCCV	MAP	2/20/10 14:52	1		USE	C
EXP0216191a	XIBLK20	MAP	2/20/10 15:22	1		USE	B
EXP0216192a	WXXCRI	MAP	2/20/10 15:52	1		USE	C
EXP0216193a	245795007	MAP	2/20/10 16:21	2	LANL	USE	S
EXP0216194a	245795008	MAP	2/20/10 16:51	2	LANL	USE	S
EXP0216195a	245795009	MAP	2/20/10 17:20	2	LANL	USE	S
EXP0216196a	245795010	MAP	2/20/10 17:50	2	LANL	USE	S
EXP0216197a	245795011	MAP	2/20/10 18:19	2	LANL	USE	S
EXP0216198a	245795012	MAP	2/20/10 18:49	2	LANL	USE	S
EXP0216199a	245795013	MAP	2/20/10 19:19	2	LANL	USE	S
EXP0216200a	245795014	MAP	2/20/10 19:48	2	LANL	USE	S
EXP0216201a	245795015	MAP	2/20/10 20:18	2	LANL	USE	S
EXP0216202a	245795016	MAP	2/20/10 20:48	2	LANL	USE	S
EXP0216203a	WXXCCV	MAP	2/20/10 21:17	1		USE	C
EXP0216204a	XIBLK21	MAP	2/20/10 21:47	1		USE	B
EXP0216205a	WXXCRI	MAP	2/20/10 22:16	1		USE	C
EXP0216206a	245795017	MAP	2/20/10 22:46	2	LANL	USE	S
EXP0216207a	245795018	MAP	2/20/10 23:15	2	LANL	USE	S
EXP0216208a	245795019	MAP	2/20/10 23:45	2	LANL	USE	S
EXP0216209a	XIBLK22	MAP	2/21/10 0:15	1		USE	B
EXP0216210a	1202035656	MAP	2/21/10 0:45	2	LANL	USE	S
EXP0216211a	1202035657	MAP	2/21/10 1:14	2	LANL	USE	S
EXP0216212a	246266001	MAP	2/21/10 1:44	2	LANL	USE	S
EXP0216213a	1202035658	MAP	2/21/10 2:14	2	LANL	USE	S
EXP0216214a	1202035659	MAP	2/21/10 2:44	2	LANL	USE	S

EXP0216215a	246266002	MAP	2/21/10 3:14	950070	10-1547	2	LANL	USE	S
EXP0216216a	WXXCVC	MAP	2/21/10 3:43			1		USE	C
EXP0216217a	XIBLK23	MAP	2/21/10 4:13			1		USE	B
EXP0216218a	WXXCRI	MAP	2/21/10 4:43			1		USE	C
EXP0216219a	246266003	MAP	2/21/10 5:12	950070	10-1547	2	LANL	USE	S
EXP0216220a	246266004	MAP	2/21/10 5:42	950070	10-1547	2	LANL	USE	S
EXP0216221a	246266005	MAP	2/21/10 6:12	950070	10-1547	2	LANL	USE	S
EXP0216222a	246266006	MAP	2/21/10 6:42	950070	10-1547	2	LANL	USE	S
EXP0216223a	246273002	MAP	2/21/10 7:11	950070	10-1550	2	LANL	USE	S
EXP0216224a	246273003	MAP	2/21/10 7:41	950070	10-1550	2	LANL	USE	S
EXP0216225a	246273004	MAP	2/21/10 8:10	950070	10-1550	2	LANL	USE	S
EXP0216226a	246273005	MAP	2/21/10 8:40	950070	10-1550	2	LANL	USE	S
EXP0216227a	246273006	MAP	2/21/10 9:10	950070	10-1550	2	LANL	USE	S
EXP0216228a	246273007	MAP	2/21/10 9:39	950070	10-1550	2	LANL	USE	S
EXP0216229a	WXXCVC	MAP	2/21/10 10:09			1		USE	C
EXP0216230a	XIBLK24	MAP	2/21/10 10:39			1		USE	B
EXP0216231a	WXXCRI	MAP	2/21/10 11:09			1		USE	C
EXP0216232a	246273008	MAP	2/21/10 11:38	950070	10-1550	2	LANL	USE	S
EXP0216233a	246273009	MAP	2/21/10 12:08	950070	10-1550	2	LANL	USE	S
EXP0216234a	246273010	MAP	2/21/10 12:38	950070	10-1550	2	LANL	USE	S
EXP0216235a	246273011	MAP	2/21/10 13:08	950070	10-1550	2	LANL	USE	S
EXP0216236a	246273012	MAP	2/21/10 13:37	950070	10-1550	2	LANL	USE	S
EXP0216237a	XIBLK25	MAP	2/21/10 14:07			1		USE	B
EXP0216238a	1202035670	MAP	2/21/10 14:37	950077	Various	2	LANL	USE	S
EXP0216239a	1202035671	MAP	2/21/10 15:07	950077	Various	2	LANL	USE	S
EXP0216240a	246287001	MAP	2/21/10 15:37	950077	10-1553	2	LANL	USE	S
EXP0216241a	1202035672	MAP	2/21/10 16:07	950077	10-1553	2	LANL	USE	S
EXP0216242a	WXXCVC	MAP	2/21/10 16:36			1		USE	C
EXP0216243a	XIBLK26	MAP	2/21/10 17:06			1		USE	B
EXP0216244a	WXXCRI	MAP	2/21/10 17:36			1		USE	C
EXP0216245a	1202035673	MAP	2/21/10 18:05	950077	10-1553	2	LANL	USE	S
EXP0216246a	246287002	MAP	2/21/10 18:35	950077	10-1553	2	LANL	USE	S
EXP0216247a	246287003	MAP	2/21/10 19:05	950077	10-1553	2	LANL	USE	S
EXP0216248a	246287004	MAP	2/21/10 19:35	950077	10-1553	2	LANL	USE	S
EXP0216249a	246287005	MAP	2/21/10 20:05	950077	10-1553	2	LANL	USE	S
EXP0216250a	246287006	MAP	2/21/10 20:34	950077	10-1553	2	LANL	USE	S
EXP0216251a	246287007	MAP	2/21/10 21:04	950077	10-1553	2	LANL	USE	S

EXP0216252a	246287008	MAP	2/21/10 21:34	950077	10-1553	2	LANL	USE	S
EXP0216253a	246287010	MAP	2/21/10 22:03	950077	10-1553	2	LANL	USE	S
EXP0216254a	WXXCCV	MAP	2/21/10 22:33			1		USE	C
EXP0216255a	XIBLK27	MAP	2/21/10 23:03			1		USE	B
EXP0216256a	WXXCRI	MAP	2/21/10 23:32			1		USE	C
EXP0216257a	246297002	MAP	2/22/10 0:02	950077	10-1556	2	LANL	USE	S
EXP0216258a	246297003	MAP	2/22/10 0:31	950077	10-1556	2	LANL	USE	S
EXP0216259a	246297004	MAP	2/22/10 1:01	950077	10-1556	2	LANL	USE	S
EXP0216260a	246302001	MAP	2/22/10 1:31	950077	10-1558	2	LANL	USE	S
EXP0216261a	246302002	MAP	2/22/10 2:00	950077	10-1558	2	LANL	USE	S
EXP0216262a	246302003	MAP	2/22/10 2:30	950077	10-1558	2	LANL	USE	S
EXP0216263a	246302004	MAP	2/22/10 3:00	950077	10-1558	2	LANL	USE	S
EXP0216264a	246312001	MAP	2/22/10 3:29	950077	10-1558	2	LANL	USE	S
EXP0216265a	WXXCCV	MAP	2/22/10 3:59	950077	10-1561	2	LANL	USE	S
EXP0216266a	XIBLK28	MAP	2/22/10 4:28			1		USE	C
EXP0216267a	WXXCRI	MAP	2/22/10 4:58			1		USE	B
EXP0216268a	1202035674	MAP	2/22/10 5:28	950079	10-1562	2	LANL	USE	C
EXP0216269a	1202035675	MAP	2/22/10 5:58	950079	10-1562	2	LANL	USE	S
EXP0216270a	246316001	MAP	2/22/10 6:28	950079	10-1562	2	LANL	USE	S
EXP0216271a	1202035676	MAP	2/22/10 6:58	950079	10-1562	2	LANL	USE	S
EXP0216272a	1202035677	MAP	2/22/10 7:27	950079	10-1562	2	LANL	USE	S
EXP0216273a	246316002	MAP	2/22/10 7:57	950079	10-1562	2	LANL	USE	S
EXP0216274a	246316003	MAP	2/22/10 8:26	950079	10-1562	2	LANL	USE	S
EXP0216275a	246316004	MAP	2/22/10 8:56	950079	10-1562	2	LANL	USE	S
EXP0216276a	246316005	MAP	2/22/10 9:25	950079	10-1562	2	LANL	USE	S
EXP0216277a	WXXCCV	MAP	2/22/10 9:55			1		USE	C
EXP0216278a	XIBLK29	MAP	2/22/10 10:24			1		USE	B
EXP0216279a	WXXCRI	MAP	2/22/10 10:54			1		USE	C
EXP0216280a	1202035682	MAP	2/22/10 11:23	950083	Various	2	LANL	USE	S
EXP0216281a	1202035683	MAP	2/22/10 11:53	950083	Various	2	LANL	USE	S
EXP0216282a	246262001	MAP	2/22/10 12:23	950083	10-1573	2	LANL	USE	S
EXP0216283a	246262002	MAP	2/22/10 12:52	950083	10-1573	2	LANL	USE	S
EXP0216284a	246344001	MAP	2/22/10 13:22	950083	10-1570	2	LANL	USE	S
EXP0216285a	1202035684	MAP	2/22/10 13:52	950083	10-1570	2	LANL	USE	S
EXP0216286a	1202035685	MAP	2/22/10 14:21	950083	10-1570	2	LANL	USE	S
EXP0216287a	246344002	MAP	2/22/10 14:51	950083	10-1570	2	LANL	USE	S
EXP0216288a	246344003	MAP	2/22/10 15:20	950083	10-1570	2	LANL	USE	S

D USE of use
See 12/1/10

EXP0216289a	246344004	MAP	2/22/10 15:50	950083	10-1570	2	LANL	USE	S
EXP0216290a	WXCCV	MAP	2/22/10 16:19			1		USE	C
EXP0216291a	XIBLK30	MAP	2/22/10 16:49			1		USE	B
EXP0216292a	WXCCRI	MAP	2/22/10 17:18			1		USE	C
EXP0216293a	246344005	MAP	2/22/10 17:48	950083	10-1570	2	LANL	DUSE-RA	S
EXP0216294a	246350002	MAP	2/22/10 18:17	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216295a	246350003	MAP	2/22/10 18:47	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216296a	246350004	MAP	2/22/10 19:16	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216297a	246350005	MAP	2/22/10 19:46	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216298a	246350006	MAP	2/22/10 20:15	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216299a	246350007	MAP	2/22/10 20:45	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216300a	246350008	MAP	2/22/10 21:14	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216301a	246350009	MAP	2/22/10 21:44	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216302a	246350010	MAP	2/22/10 22:13	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216303a	WXCCV	MAP	2/22/10 22:43			1		DUSE	C
EXP0216304a	XIBLK31	MAP	2/22/10 23:12			1		USE	B
EXP0216305a	WXCCRI	MAP	2/22/10 23:42			1		DUSE	C
EXP0216306a	246350011	MAP	2/23/10 0:11	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216307a	246350012	MAP	2/23/10 0:41	950083	10-1571	2	LANL	DUSE-RA	S
EXP0216308a	1202035684	MAP	2/23/10 1:10	950083	10-1570	2	LANL	DUSE-RA	S
EXP0216309a	XIBLK32	MAP	2/23/10 1:40			1		USE	B
EXP0216310a	1202035686	MAP	2/23/10 2:09	950085	Various	2	LANL	DUSE-RA	S
EXP0216311a	1202035687	MAP	2/23/10 2:39	950085	Various	2	LANL	DUSE-RA	S
EXP0216312a	246270002	MAP	2/23/10 3:08	950085	10-1574	2	LANL	DUSE-RA	S
EXP0216313a	1202035688	MAP	2/23/10 3:38	950085	10-1574	2	LANL	DUSE-RA	S
EXP0216314a	1202035689	MAP	2/23/10 4:07	950085	10-1574	2	LANL	DUSE-RA	S
EXP0216315a	246270003	MAP	2/23/10 4:37	950085	10-1574	2	LANL	DUSE-RA	S
EXP0216316a	WXCCV	MAP	2/23/10 5:06			1		USE	C
EXP0216317a	XIBLK33	MAP	2/23/10 5:36			1		USE	B
EXP0216318a	WXCCRI	MAP	2/23/10 6:05			1		USE	C
EXP0216319a	246270004	MAP	2/23/10 6:35	950085	10-1574	2	LANL	USE	S
EXP0216320a	246270005	MAP	2/23/10 7:04	950085	10-1574	2	LANL	USE	S
EXP0216321a	246275002	MAP	2/23/10 7:34	950085	10-1575	2	LANL	USE	S
EXP0216322a	246275003	MAP	2/23/10 8:04	950085	10-1575	2	LANL	USE	S
EXP0216323a	246275004	MAP	2/23/10 8:33	950085	10-1575	2	LANL	USE	S
EXP0216324a	246275005	MAP	2/23/10 9:03	950085	10-1575	2	LANL	USE	S
EXP0216325a	246275006	MAP	2/23/10 9:33	950085	10-1575	2	LANL	USE	S

EXP0216326a	246275007	MAP	2/23/10 10:02	950085	10-1575	2	LANL	USE	S
EXP0216327a	246275008	MAP	2/23/10 10:32	950085	10-1575	2	LANL	USE	S
EXP0216328a	246275009	MAP	2/23/10 11:02	950085	10-1575	2	LANL	USE	S
EXP0216329a	WXXCVC	MAP	2/23/10 11:31			1		USE	C
EXP0216330a	XIBLK34	MAP	2/23/10 12:01			1		USE	B
EXP0216331a	WXXCRI	MAP	2/23/10 12:31			1		USE	C
EXP0216332a	246344005	MAP	2/23/10 13:00	950083	10-1570	2	LANL	DUSE	S
EXP0216333a	246350002	MAP	2/23/10 13:30	950083	10-1571	2	LANL	DUSE	S
EXP0216334a	246350003	MAP	2/23/10 13:59	950083	10-1571	2	LANL	DUSE	S
EXP0216335a	246350004	MAP	2/23/10 14:29	950083	10-1571	2	LANL	DUSE	S
EXP0216336a	246350005	MAP	2/23/10 14:58	950083	10-1571	2	LANL	DUSE	S
EXP0216337a	246350006	MAP	2/23/10 15:28	950083	10-1571	2	LANL	DUSE	S
EXP0216338a	246350007	MAP	2/23/10 15:57	950083	10-1571	2	LANL	DUSE	S
EXP0216339a	246350008	MAP	2/23/10 16:27	950083	10-1571	2	LANL	DUSE	S
EXP0216340a	246350009	MAP	2/23/10 16:56	950083	10-1571	2	LANL	DUSE	S
EXP0216341a	246350010	MAP	2/23/10 17:26	950083	10-1571	2	LANL	DUSE	S
EXP0216342a	WXXCVC	MAP	2/23/10 17:55			1		DUSE	C
EXP0216343a	XIBLK35	MAP	2/23/10 18:25			1		DUSE	B
EXP0216344a	WXXCRI	MAP	2/23/10 18:54			1		DUSE	C
EXP0216345a	246350011	MAP	2/23/10 19:24	950083	10-1571	2	LANL	DUSE	S
EXP0216346a	246350012	MAP	2/23/10 19:53	950083	10-1571	2	LANL	DUSE	S
EXP0216347a	1202035684	MAP	2/23/10 20:23	950083	10-1570	2	LANL	DUSE	S
EXP0216348a	XIBLK36	MAP	2/23/10 20:52			1		DUSE	B
EXP0216349a	1202035686	MAP	2/23/10 21:22	950085	Various	2	LANL	DUSE	S
EXP0216350a	1202035687	MAP	2/23/10 21:52	950085	Various	2	LANL	DUSE	S
EXP0216351a	246270002	MAP	2/23/10 22:21	950085	10-1574	2	LANL	DUSE	S
EXP0216352a	1202035688	MAP	2/23/10 22:51	950085	10-1574	2	LANL	DUSE	S
EXP0216353a	1202035689	MAP	2/23/10 23:20	950085	10-1574	2	LANL	DUSE	S
EXP0216354a	246270003	MAP	2/23/10 23:49	950085	10-1574	2	LANL	DUSE	S
EXP0216355a	WXXCVC	MAP	2/24/10 0:19			1		DUSE	C
EXP0216356a	XIBLK37	MAP	2/24/10 0:49			1		DUSE	B
EXP0216357a	WXXCRI	MAP	2/24/10 1:18			1		DUSE	C
EXP0216358a	246275010	MAP	2/24/10 1:48	950085	10-1575	2	LANL	DUSE	S
EXP0216359a	246275011	MAP	2/24/10 2:18	950085	10-1575	2	LANL	DUSE	S
EXP0216360a	246275012	MAP	2/24/10 2:47	950085	10-1575	2	LANL	DUSE	S
EXP0216361a	246331001	MAP	2/24/10 3:17	950085	10-1577	2	LANL	DUSE	S
EXP0216362a	246331002	MAP	2/24/10 3:46	950085	10-1577	2	LANL	DUSE	S

EXP0216363a	XIBLK38	MAP	2/24/10 4:16	950089	Various	1	LANL	DUSE	B
EXP0216364a	1202035694	MAP	2/24/10 4:46	950089	Various	2	LANL	DUSE	S
EXP0216365a	1202035695	MAP	2/24/10 5:16	950089	Various	2	LANL	DUSE	S
EXP0216366a	246445001	MAP	2/24/10 5:46	950089	10-1626	2	LANL	DUSE	S
EXP0216367a	1202035696	MAP	2/24/10 6:15	950089	10-1626	2	LANL	DUSE	S
EXP0216368a	WXXCVC	MAP	2/24/10 6:45			1		DUSE	C
EXP0216369a	XIBLK39	MAP	2/24/10 7:15			1		DUSE	B
EXP0216370a	WXXCRI	MAP	2/24/10 7:45			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LOMSMS #1

Date: 02/25/10
 Extr. Injection Volume: 50uL
 Sequence Number: 022510expA
 Initial Calibration Date: 02/25/10
 Method: SW846 8321A-Modified
 Int. Std.: UXX100128-01.4
 Mobile Phase Lot#: 1272574, 1263796
 Standard-Samp Reagent Lot#: 1274562, 1261217
 Reviewed BY: *thm*
 Date: *02/26/10*
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100225-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0225001a	XIBLK01	MAP	2/25/10 10:03			1		USE	B
EXP0225002a	XIBLK01	MAP	2/25/10 10:32			1		USE	B
EXP0225003a	WXXICAL-01	MAP	2/25/10 11:02			1		USE	I
EXP0225004a	WXXICAL-02	MAP	2/25/10 11:31			1		USE	I
EXP0225005a	WXXICAL-03	MAP	2/25/10 12:01			1		USE	I
EXP0225006a	WXXICAL-04	MAP	2/25/10 12:30			1		USE	I
EXP0225007a	WXXICAL-05	MAP	2/25/10 13:00			1		USE	I
EXP0225008a	WXXICAL-06	MAP	2/25/10 13:29			1		USE	I
EXP0225009a	XIBLK02	MAP	2/25/10 13:58			1		USE	B
EXP0225010a	WXXICV	MAP	2/25/10 14:28			1		USE	C
EXP0225011a	XIBLK03	MAP	2/25/10 14:57			1		USE	B
EXP0225012a	WXXCRI	MAP	2/25/10 15:27			1		USE	C
EXP0225013a	1202035684	MAP	2/25/10 15:57	950083	10-1570	2	LANL	USE	S
EXP0225014a	246344005	MAP	2/25/10 16:26	950083	10-1570	2	LANL	USE	S
EXP0225015a	246350002	MAP	2/25/10 16:56	950083	10-1571	2	LANL	USE	S
EXP0225016a	246350003	MAP	2/25/10 17:25	950083	10-1571	2	LANL	USE	S
EXP0225017a	246350004	MAP	2/25/10 17:55	950083	10-1571	2	LANL	USE	S
EXP0225018a	246350005	MAP	2/25/10 18:24	950083	10-1571	2	LANL	USE	S
EXP0225019a	246350006	MAP	2/25/10 18:54	950083	10-1571	2	LANL	USE	S
EXP0225020a	246350007	MAP	2/25/10 19:23	950083	10-1571	2	LANL	USE	S
EXP0225021a	246350008	MAP	2/25/10 19:53	950083	10-1571	2	LANL	USE	S
EXP0225022a	246350009	MAP	2/25/10 20:22	950083	10-1571	2	LANL	USE	S
EXP0225023a	WXXCCV	MAP	2/25/10 20:52			1		USE	C
EXP0225024a	XIBLK04	MAP	2/25/10 21:21			1		USE	B
EXP0225025a	WXXCRI	MAP	2/25/10 21:51			1		USE	C
EXP0225026a	246350010	MAP	2/25/10 22:21	950083	10-1571	2	LANL	USE	S
EXP0225027a	246350011	MAP	2/25/10 22:51	950083	10-1571	2	LANL	USE	S
EXP0225028a	246350012	MAP	2/25/10 23:20	950083	10-1571	2	LANL	USE	S
EXP0225029a	XIBLK05	MAP	2/25/10 23:50			1		USE	B

EXP0225030a	1202035686	MAP	2/26/10 0:19	950085	Various	2	LANL	USE	S
EXP0225031a	1202035687	MAP	2/26/10 0:49	950085	Various	2	LANL	USE	S
EXP0225032a	246270002	MAP	2/26/10 1:18	950085	10-1574	2	LANL	DUSE-RA	S
EXP0225033a	1202035688	MAP	2/26/10 1:48	950085	10-1574	2	LANL	USE	S
EXP0225034a	1202035689	MAP	2/26/10 2:18	950085	10-1574	2	LANL	USE	S
EXP0225035a	246270003	MAP	2/26/10 2:47	950085	10-1574	2	LANL	USE	S
EXP0225036a	WXXCCV	MAP	2/26/10 3:17			1		USE	C
EXP0225037a	XIBLK06	MAP	2/26/10 3:47			1		USE	B
EXP0225038a	WXXCRI	MAP	2/26/10 4:17			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCM SMS4

Date: 02/20/10
 Extr. Injection Volume: 10uL
 Sequence Number: 022010exs
 Initial Calibration Date: 022010
 Method: 8321A-Modified
 Int. Std.: N/A
 Mobile Phase Lot#: 1263794, 1258141
 Standard-Samp Reagent Lot#: 1260901, 1261217
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100220-26

Reviewed By: *Amc*
 Date: *02/23/10*

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02200001.wiff	XIBLK01	LER	2/20/2010 9:37			1		USE	B
EXS02200002.wiff	XIBLK01	LER	2/20/2010 9:52			1		USE	B
EXS02200003.wiff	WXXICAL-19	LER	2/20/2010 10:08			1		USE	I
EXS02200004.wiff	WXXICAL-20	LER	2/20/2010 10:24			1		USE	I
EXS02200005.wiff	WXXICAL-21	LER	2/20/2010 10:40			1		USE	I
EXS02200006.wiff	WXXICAL-22	LER	2/20/2010 10:55			1		USE	I
EXS02200007.wiff	WXXICAL-23	LER	2/20/2010 11:11			1		USE	I
EXS02200008.wiff	WXXICAL-24	LER	2/20/2010 11:27			1		USE	I
EXS02200009.wiff	WXXICAL-25	LER	2/20/2010 11:42			1		USE	I
EXS02200010.wiff	XIBLK02	LER	2/20/2010 11:58			1		USE	B
EXS02200011.wiff	WXXICV	LER	2/20/2010 12:14			1		USE	C
EXS02200012.wiff	XIBLK03	LER	2/20/2010 12:29			1		USE	B
EXS02200013.wiff	WXXCRI	LER	2/20/2010 12:45			1		USE	C
EXS02200014.wiff	1202035682	LER	2/20/2010 13:01	950083	VARIOUS	2	LANL	USE	S
EXS02200015.wiff	1202035683	LER	2/20/2010 13:16	950083	VARIOUS	2	LANL	USE	S
EXS02200016.wiff	246262001	LER	2/20/2010 13:32	950083	10-1573	2	LANL	USE	S
EXS02200017.wiff	246262002	LER	2/20/2010 13:48	950083	10-1573	2	LANL	USE	S
EXS02200018.wiff	246344001	LER	2/20/2010 14:04	950083	10-1570	2	LANL	USE	S
EXS02200019.wiff	1202035684	LER	2/20/2010 14:19	950083	10-1570	2	LANL	USE	S
EXS02200020.wiff	1202035685	LER	2/20/2010 14:35	950083	10-1570	2	LANL	USE	S
EXS02200021.wiff	246344002	LER	2/20/2010 14:51	950083	10-1570	2	LANL	USE	S
EXS02200022.wiff	246344003	LER	2/20/2010 15:06	950083	10-1570	2	LANL	USE	S
EXS02200023.wiff	246344004	LER	2/20/2010 15:22	950083	10-1570	2	LANL	USE	S
EXS02200024.wiff	WXXCCV	LER	2/20/2010 15:38			1		USE	C
EXS02200025.wiff	XIBLK04	LER	2/20/2010 15:53			1		USE	B
EXS02200026.wiff	WXXCRI	LER	2/20/2010 16:09			1		USE	C
EXS02200027.wiff	246344005	LER	2/20/2010 16:25	950083	10-1570	2	LANL	USE	S
EXS02200028.wiff	246350002	LER	2/20/2010 16:41	950083	10-1571	2	LANL	USE	S
EXS02200029.wiff	246350003	LER	2/20/2010 16:56	950083	10-1571	2	LANL	USE	S
EXS02200030.wiff	246350004	LER	2/20/2010 17:12	950083	10-1571	2	LANL	USE	S

EXS02200031.wiff	246350005	LER	2/20/2010 17:28	950083	10-1571	2	LANL	USE	S
EXS02200032.wiff	246350006	LER	2/20/2010 17:43	950083	10-1571	2	LANL	USE	S
EXS02200033.wiff	246350007	LER	2/20/2010 17:59	950083	10-1571	2	LANL	USE	S
EXS02200034.wiff	246350008	LER	2/20/2010 18:15	950083	10-1571	2	LANL	USE	S
EXS02200035.wiff	246350009	LER	2/20/2010 18:30	950083	10-1571	2	LANL	USE	S
EXS02200036.wiff	246350010	LER	2/20/2010 18:46	950083	10-1571	2	LANL	USE	S
EXS02200037.wiff	WXXCCV	LER	2/20/2010 19:02			1		USE	C
EXS02200038.wiff	XIBLK05	LER	2/20/2010 19:18			1		USE	B
EXS02200039.wiff	WXXCRI	LER	2/20/2010 19:33			1		USE	C
EXS02200040.wiff	246350011	LER	2/20/2010 19:49	950083	10-1571	2	LANL	USE	S
EXS02200041.wiff	246350012	LER	2/20/2010 20:05	950083	10-1571	2	LANL	USE	S
EXS02200042.wiff	XIBLK06	LER	2/20/2010 20:20			1		USE	B
EXS02200043.wiff	1202035686	LER	2/20/2010 20:36	950085	VARIOUS	2	LANL	USE	S
EXS02200044.wiff	1202035687	LER	2/20/2010 20:52	950085	VARIOUS	2	LANL	USE	S
EXS02200045.wiff	246270002	LER	2/20/2010 21:08	950085	10-1574	2	LANL	USE	S
EXS02200046.wiff	1202035688	LER	2/20/2010 21:23	950085	10-1574	2	LANL	USE	S
EXS02200047.wiff	1202035689	LER	2/20/2010 21:39	950085	10-1574	2	LANL	USE	S
EXS02200048.wiff	246270003	LER	2/20/2010 21:55	950085	10-1574	2	LANL	USE	S
EXS02200049.wiff	246270004	LER	2/20/2010 22:10	950085	10-1574	2	LANL	USE	S
EXS02200050.wiff	WXXCCV	LER	2/20/2010 22:26			1		USE	C
EXS02200051.wiff	XIBLK07	LER	2/20/2010 22:42			1		USE	B
EXS02200052.wiff	WXXCRI	LER	2/20/2010 22:57			1		USE	C
EXS02200053.wiff	246270005	LER	2/20/2010 23:13	950085	10-1574	2	LANL	USE	S
EXS02200054.wiff	246275002	LER	2/20/2010 23:29	950085	10-1575	2	LANL	USE	S
EXS02200055.wiff	246275003	LER	2/20/2010 23:45	950085	10-1575	2	LANL	USE	S
EXS02200056.wiff	246275004	LER	2/21/2010 0:00	950085	10-1575	2	LANL	USE	S
EXS02200057.wiff	246275005	LER	2/21/2010 0:16	950085	10-1575	2	LANL	USE	S
EXS02200058.wiff	246275006	LER	2/21/2010 0:32	950085	10-1575	2	LANL	USE	S
EXS02200059.wiff	246275007	LER	2/21/2010 0:47	950085	10-1575	2	LANL	USE	S
EXS02200060.wiff	246275008	LER	2/21/2010 1:03	950085	10-1575	2	LANL	USE	S
EXS02200061.wiff	246275009	LER	2/21/2010 1:19	950085	10-1575	2	LANL	USE	S
EXS02200062.wiff	246275010	LER	2/21/2010 1:35	950085	10-1575	2	LANL	USE	S
EXS02200063.wiff	WXXCCV	LER	2/21/2010 1:50			1		USE	C
EXS02200064.wiff	XIBLK08	LER	2/21/2010 2:06			1		USE	B
EXS02200065.wiff	WXXCRI	LER	2/21/2010 2:22			1		USE	C
EXS02200066.wiff	246275011	LER	2/21/2010 2:37	950085	10-1575	2	LANL	USE	S
EXS02200067.wiff	246275012	LER	2/21/2010 2:53	950085	10-1575	2	LANL	USE	S

EXS02200068.wiff	246331001	LER	2/21/2010 3:09	950085	10-1577	2	LANL	USE	S
EXS02200069.wiff	246331002	LER	2/21/2010 3:25	950085	10-1577	2	LANL	USE	S
EXS02200070.wiff	WXXCCV	LER	2/21/2010 3:40			1		USE	C
EXS02200071.wiff	XIBLK09	LER	2/21/2010 3:56			1		USE	B
EXS02200072.wiff	WXXCRI	LER	2/21/2010 4:12			1		USE	C
EXS02200073.wiff	1202035694	LER	2/21/2010 4:27	950089	VARIOUS	2	LANL	USE	S
EXS02200074.wiff	1202035695	LER	2/21/2010 4:43	950089	VARIOUS	2	LANL	USE	S
EXS02200075.wiff	246445001	LER	2/21/2010 4:59	950089	10-1626	2	LANL	USE	S
EXS02200076.wiff	1202035696	LER	2/21/2010 5:14	950089	10-1626	2	LANL	USE	S
EXS02200077.wiff	1202035697	LER	2/21/2010 5:30	950089	10-1626	2	LANL	USE	S
EXS02200078.wiff	246445002	LER	2/21/2010 5:46	950089	10-1626	2	LANL	USE	S
EXS02200079.wiff	246445003	LER	2/21/2010 6:02	950089	10-1626	2	LANL	USE	S
EXS02200080.wiff	246449002	LER	2/21/2010 6:17	950089	10-1628	2	LANL	USE	S
EXS02200081.wiff	246449003	LER	2/21/2010 6:33	950089	10-1628	2	LANL	USE	S
EXS02200082.wiff	246449004	LER	2/21/2010 6:49	950089	10-1628	2	LANL	USE	S
EXS02200083.wiff	WXXCCV	LER	2/21/2010 7:04			1		USE	C
EXS02200084.wiff	XIBLK10	LER	2/21/2010 7:20			1		USE	B
EXS02200085.wiff	WXXCRI	LER	2/21/2010 7:36			1		USE	C
EXS02200086.wiff	246449005	LER	2/21/2010 7:51	950089	10-1628	2	LANL	USE	S
EXS02200087.wiff	246449006	LER	2/21/2010 8:07	950089	10-1628	2	LANL	USE	S
EXS02200088.wiff	246449007	LER	2/21/2010 8:23	950089	10-1628	2	LANL	USE	S
EXS02200089.wiff	246449008	LER	2/21/2010 8:39	950089	10-1628	2	LANL	USE	S
EXS02200090.wiff	246449009	LER	2/21/2010 8:54	950089	10-1628	2	LANL	USE	S
EXS02200091.wiff	246449010	LER	2/21/2010 9:10	950089	10-1628	2	LANL	USE	S
EXS02200092.wiff	246454001	LER	2/21/2010 9:26	950089	10-1630-1	2	LANL	USE	S
EXS02200093.wiff	246454002	LER	2/21/2010 9:41	950089	10-1630-1	2	LANL	USE	S
EXS02200094.wiff	246454003	LER	2/21/2010 9:57	950089	10-1630-1	2	LANL	USE	S
EXS02200095.wiff	246454004	LER	2/21/2010 10:13	950089	10-1630-1	2	LANL	USE	S
EXS02200096.wiff	WXXCCV	LER	2/21/2010 10:28			1		USE	C
EXS02200097.wiff	XIBLK11	LER	2/21/2010 10:44			1		USE	B
EXS02200098.wiff	WXXCRI	LER	2/21/2010 11:00			1		USE	C
EXS02200099.wiff	246454005	LER	2/21/2010 11:15	950089	10-1630-1	2	LANL	USE	S
EXS02200100.wiff	XIBLK12	LER	2/21/2010 11:31			1		USE	B
EXS02200101.wiff	1202035698	LER	2/21/2010 11:47	950091	VARIOUS	2	LANL	USE	S
EXS02200102.wiff	1202035699	LER	2/21/2010 12:03	950091	VARIOUS	2	LANL	USE	S
EXS02200103.wiff	246457002	LER	2/21/2010 12:18	950091	10-1632	2	LANL	USE	S
EXS02200104.wiff	1202035700	LER	2/21/2010 12:34	950091	10-1632	2	LANL	USE	S

EXS02200105.wiff	1202035701	LER	2/21/2010 12:50	950091	10-1632	2	LANL	USE	S
EXS02200106.wiff	246457003	LER	2/21/2010 13:05	950091	10-1632	2	LANL	USE	S
EXS02200107.wiff	246457004	LER	2/21/2010 13:21	950091	10-1632	2	LANL	USE	S
EXS02200108.wiff	246457005	LER	2/21/2010 13:37	950091	10-1632	2	LANL	USE	S
EXS02200109.wiff	WXXCCV	LER	2/21/2010 13:53			1		USE	C
EXS02200110.wiff	XIBLK13	LER	2/21/2010 14:08			1		USE	B
EXS02200111.wiff	WXXCRI	LER	2/21/2010 14:24			1		USE	C
EXS02200112.wiff	246457006	LER	2/21/2010 14:40	950091	10-1632	2	LANL	USE	S
EXS02200113.wiff	246457007	LER	2/21/2010 14:55	950091	10-1632	2	LANL	USE	S
EXS02200114.wiff	246457008	LER	2/21/2010 15:11	950091	10-1632	2	LANL	USE	S
EXS02200115.wiff	246457009	LER	2/21/2010 15:27	950091	10-1632	2	LANL	USE	S
EXS02200116.wiff	246457010	LER	2/21/2010 15:42	950091	10-1632	2	LANL	USE	S
EXS02200117.wiff	246457011	LER	2/21/2010 15:58	950091	10-1632	2	LANL	USE	S
EXS02200118.wiff	246457012	LER	2/21/2010 16:14	950091	10-1632	2	LANL	USE	S
EXS02200119.wiff	246463002	LER	2/21/2010 16:30	950091	10-1634	2	LANL	USE	S
EXS02200120.wiff	246463003	LER	2/21/2010 16:45	950091	10-1634	2	LANL	USE	S
EXS02200121.wiff	246463004	LER	2/21/2010 17:01	950091	10-1634	2	LANL	USE	S
EXS02200122.wiff	WXXCCV	LER	2/21/2010 17:17			1		USE	C
EXS02200123.wiff	XIBLK14	LER	2/21/2010 17:32			1		USE	B
EXS02200124.wiff	WXXCRI	LER	2/21/2010 17:48			1		USE	C
EXS02200125.wiff	246463005	LER	2/21/2010 18:04	950091	10-1634	2	LANL	USE	S
EXS02200126.wiff	246469002	LER	2/21/2010 18:20	950091	10-1637	2	LANL	USE	S
EXS02200127.wiff	WXXCCV	LER	2/21/2010 18:35			1		USE	C
EXS02200128.wiff	XIBLK15	LER	2/21/2010 18:51			1		USE	B
EXS02200129.wiff	WXXCRI	LER	2/21/2010 19:07			1		USE	C
EXS02200130.wiff	UXX100210-02.1	LER	2/21/2010 19:22	SCREEN	SOIL	2	O2SI	USE	S
EXS02200131.wiff	XIBLK16	LER	2/21/2010 19:38			1		USE	B
EXS02200132.wiff	1202035702	LER	2/21/2010 19:54	950093	10-1637	2	LANL	USE	S
EXS02200133.wiff	1202035703	LER	2/21/2010 20:09	950093	10-1637	2	LANL	USE	S
EXS02200134.wiff	246469003	LER	2/21/2010 20:25	950093	10-1637	2	LANL	USE	S
EXS02200135.wiff	1202035704	LER	2/21/2010 20:41	950093	10-1637	2	LANL	USE	S
EXS02200136.wiff	1202035705	LER	2/21/2010 20:56	950093	10-1637	2	LANL	USE	S
EXS02200137.wiff	246469004	LER	2/21/2010 21:12	950093	10-1637	2	LANL	USE	S
EXS02200138.wiff	246469005	LER	2/21/2010 21:28	950093	10-1637	2	LANL	USE	S
EXS02200139.wiff	246469006	LER	2/21/2010 21:44	950093	10-1637	2	LANL	USE	S
EXS02200140.wiff	WXXCCV	LER	2/21/2010 21:59			1		USE	C
EXS02200141.wiff	XIBLK17	LER	2/21/2010 22:15			1		USE	B

EXS02200142.wiff	WXXCRI	LER	2/21/2010 22:31	950093	10-1637	1	USE
EXS02200143.wiff	246469007	LER	2/21/2010 22:46	950093	10-1637	2	DUSE-RA
EXS02200144.wiff	246469008	LER	2/21/2010 23:02	950093	10-1637	2	DUSE-RA
EXS02200145.wiff	246469009	LER	2/21/2010 23:18	950093	10-1637	2	DUSE-RA
EXS02200146.wiff	XIBLK18	LER	2/21/2010 23:33			1	DUSE-RA
EXS02200147.wiff	1202032101	LER	2/21/2010 23:49	948575	10-1512	2	DUSE-RA
EXS02200148.wiff	1202032102	LER	2/22/2010 0:05	948575	10-1512	2	DUSE-RA
EXS02200149.wiff	245969001	LER	2/22/2010 0:21	948575	10-1512	2	DUSE-RA
EXS02200150.wiff	1202032103	LER	2/22/2010 0:36	948575	10-1512	2	DUSE-RA
EXS02200151.wiff	1202032104	LER	2/22/2010 0:52	948575	10-1512	2	DUSE-RA
EXS02200152.wiff	245969002	LER	2/22/2010 1:08	948575	10-1512	2	DUSE-RA
EXS02200153.wiff	WXXCCV	LER	2/22/2010 1:24			1	DUSE-RA
EXS02200154.wiff	XIBLK19	LER	2/22/2010 1:39			1	DUSE-RA
EXS02200155.wiff	WXXCRI	LER	2/22/2010 1:55			1	DUSE-RA
EXS02200156.wiff	245969003	LER	2/22/2010 2:11	948575	10-1512	2	DUSE-RA
EXS02200157.wiff	245969004	LER	2/22/2010 2:27	948575	10-1512	2	DUSE-RA
EXS02200158.wiff	245969005	LER	2/22/2010 2:42	948575	10-1512	2	DUSE-RA
EXS02200159.wiff	245969006	LER	2/22/2010 2:58	948575	10-1512	2	DUSE-RA
EXS02200160.wiff	245969007	LER	2/22/2010 3:14	948575	10-1512	2	DUSE-RA
EXS02200161.wiff	245969008	LER	2/22/2010 3:30	948575	10-1512	2	DUSE-RA
EXS02200162.wiff	245969009	LER	2/22/2010 3:45	948575	10-1512	2	DUSE-RA
EXS02200163.wiff	245969010	LER	2/22/2010 4:01	948575	10-1512	2	DUSE-RA
EXS02200164.wiff	245969011	LER	2/22/2010 4:17	948575	10-1512	2	DUSE-RA
EXS02200165.wiff	245969012	LER	2/22/2010 4:32	948575	10-1512	2	DUSE-RA
EXS02200166.wiff	WXXCCV	LER	2/22/2010 4:48			1	DUSE-RA
EXS02200167.wiff	XIBLK20	LER	2/22/2010 5:04			1	DUSE-RA
EXS02200168.wiff	WXXCRI	LER	2/22/2010 5:20			1	DUSE-RA
EXS02200169.wiff	245969013	LER	2/22/2010 5:35	948575	10-1512	2	DUSE-RA
EXS02200170.wiff	245969014	LER	2/22/2010 5:51	948575	10-1512	2	DUSE-RA
EXS02200171.wiff	245969015	LER	2/22/2010 6:07	948575	10-1512	2	DUSE-RA
EXS02200172.wiff	XIBLK21	LER	2/22/2010 6:23			1	DUSE-RA
EXS02200173.wiff	1202032105	LER	2/22/2010 6:38	948577	10-1514	2	DUSE-RA
EXS02200174.wiff	1202032106	LER	2/22/2010 6:54	948577	10-1514	2	DUSE-RA
EXS02200175.wiff	245979001	LER	2/22/2010 7:10	948577	10-1514	2	DUSE-RA
EXS02200176.wiff	1202032107	LER	2/22/2010 7:26	948577	10-1514	2	DUSE-RA
EXS02200177.wiff	1202032108	LER	2/22/2010 7:41	948577	10-1514	2	DUSE-RA
EXS02200178.wiff	245979002	LER	2/22/2010 7:57	948577	10-1514	2	DUSE-RA

EXS02200179.wiff	WXXCCV	LER	2/22/2010 8:13	1	DUSE-RA	C
EXS02200180.wiff	XIBLK22	LER	2/22/2010 8:29	1	DUSE-RA	B
EXS02200181.wiff	WXXCRI	LER	2/22/2010 8:44	1	DUSE-RA	C

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 796126

Revision No.:

DATA EXCEPTION REPORT

Mo. Day Yr. 26-FEB-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 8321A Modified	Matrix Type: Solid	Client Code: LANL
Batch ID: 950083	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 246262(10-1573), 246344(10-1570), 246350(10-1571) Application Issues: Failed Recovery for MSD/PSD Failed RPD for MS/MSD, or PS/PSD			
Specification and Requirements		DER Disposition:	
Exception Description: 1. The Matrix Spike Duplicate (1202035685) did not meet spike recovery limits for PETN at 141%. The recovery limits are 60-140%. 2. The MS/MSD pair (1202035684/5) did not meet RPD acceptance limits for PETN at 32.2%. The acceptance limits are 0-30%.		1. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative. 2. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.	

Originator's Name:

Michael Penny

26-FEB-10

Data Validator/Group Leader:

Herbert Maier

26-FEB-10

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1570**

Sample Analysis

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202038311	Method Blank (MB) ICP
1202038316	Laboratory Control Sample (LCS)
1202038313	246344001(RE15-10-7981L) Serial Dilution (SD)
1202038312	246344001(RE15-10-7981D) Sample Duplicate (DUP)
1202038314	246344001(RE15-10-7981S) Matrix Spike (MS)
1202038315	246344001(RE15-10-7981SD) Matrix Spike Duplicate (MSD)
1202038327	Method Blank (MB) ICP-MS
1202038332	Laboratory Control Sample (LCS)
1202038329	246344001(RE15-10-7981L) Serial Dilution (SD)
1202038328	246344001(RE15-10-7981D) Sample Duplicate (DUP)
1202038330	246344001(RE15-10-7981S) Matrix Spike (MS)
1202038331	246344001(RE15-10-7981SD) Matrix Spike Duplicate (MSD)
1202039383	Method Blank (MB) CVAA
1202039384	Laboratory Control Sample (LCS)
1202039387	246344001(RE15-10-7981L) Serial Dilution (SD)

1202039385	246344001(RE15-10-7981D) Sample Duplicate (DUP)
1202039386	246344001(RE15-10-7981S) Matrix Spike (MS)
1202039388	246344001(RE15-10-7981SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	951151, 951157 and 951598
Prep Batch :	951148, 951155 and 951597
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 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction

through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements

All CRDL standards met the advisory control limits with the exceptions of uranium and potassium, 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 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 sample was selected as the quality control (QC) sample for this SDG: 246344001 (RE15-10-7981).

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 antimony, magnesium and selenium, 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 barium, calcium, copper, lead, magnesium, potassium, vanadium, zinc, antimony and selenium, 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, iron, magnesium, manganese and potassium, 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 exception of copper, as indicated by the “*” qualifier.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 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 established criteria of less than 10% difference (%D) with the exceptions of lead, zinc and uranium, as indicated by the “E” qualifiers.

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 sample 246344005 (RE15-10-7985) required a dilution for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information**Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 797531 and 799317. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Panson Date: 3/4/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344001

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7981

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 75

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6970000	ug/Kg	*	8580	25200	25200	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-36-0	Antimony	1370	ug/Kg	N	417	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-38-2	Arsenic	2.04	mg/kg		0.268	1.34	1.34	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-39-3	Barium	94800	ug/Kg	*N	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-41-7	Beryllium	0.789	mg/kg		0.0268	0.134	0.134	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-43-9	Cadmium	631	ug/Kg	U	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-70-2	Calcium	1580000	ug/Kg	*N	10100	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-47-3	Chromium	8330	ug/Kg		189	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-48-4	Cobalt	8870	ug/Kg		189	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-50-8	Copper	11100	ug/Kg	*N	379	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-89-6	Iron	12700000	ug/Kg	*	10100	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-92-1	Lead	26400	ug/Kg	EN	316	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-95-4	Magnesium	1350000	ug/Kg	*N	10700	37900	37900	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-96-5	Manganese	292000	ug/Kg	*	252	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151
7439-97-6	Mercury	10.4	ug/kg	J	5.28	15.5	15.5	1	AV	JXL1	02/22/10 12:59	022210S1-4	951598
7440-02-0	Nickel	6.25	mg/kg		0.134	0.535	0.535	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-09-7	Potassium	1280000	ug/Kg	*N	8080	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7782-49-2	Selenium	1.34	mg/kg	UN	0.669	1.34	1.34	2	MS	BAJ	03/04/10 04:13	100303-2	951157
7440-22-4	Silver	631	ug/Kg	U	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-23-5	Sodium	109000	ug/Kg		8840	31600	31600	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-28-0	Thallium	0.225	mg/kg	J	0.0803	0.268	0.268	2	MS	BAJ	03/04/10 09:39	100303-3	951157
7440-61-1	Uranium	9.1	mg/kg	E	0.0177	0.0535	0.0535	2	MS	BAJ	03/04/10 09:39	100303-3	951157
7440-62-2	Vanadium	19300	ug/Kg	N	126	631	631	1	P	HSC	02/25/10 07:59	022410-1	951151
7440-66-6	Zinc	27200	ug/Kg	EN	417	1260	1260	1	P	HSC	02/25/10 07:59	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.531	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.501	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344002

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7983

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 75

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M+	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6310000	ug/Kg	*	8640	25400	25400	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-36-0	Antimony	1270	ug/Kg	UN	419	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-38-2	Arsenic	1.8	mg/kg		0.25	1.25	1.25	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-39-3	Barium	95500	ug/Kg	*N	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-41-7	Beryllium	0.745	mg/kg		0.025	0.125	0.125	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-43-9	Cadmium	635	ug/Kg	U	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-70-2	Calcium	1730000	ug/Kg	*N	10200	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-47-3	Chromium	15500	ug/Kg		191	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-48-4	Cobalt	4770	ug/Kg		191	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-50-8	Copper	8200	ug/Kg	*N	381	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-89-6	Iron	11200000	ug/Kg	*	10200	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-92-1	Lead	15600	ug/Kg	EN	318	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-95-4	Magnesium	1190000	ug/Kg	*N	10800	38100	38100	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-96-5	Manganese	332000	ug/Kg	*	254	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151
7439-97-6	Mercury	8.41	ug/kg	J	4.77	14	14	1	AV	JXL1	02/22/10 13:07	022210S1-4	951598
7440-02-0	Nickel	6.13	mg/kg		0.125	0.501	0.501	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-09-7	Potassium	1270000	ug/Kg	*N	8130	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7782-49-2	Selenium	1.25	mg/kg	UN	0.626	1.25	1.25	2	MS	BAJ	03/04/10 04:56	100303-2	951157
7440-22-4	Silver	635	ug/Kg	U	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-23-5	Sodium	42200	ug/Kg		8890	31800	31800	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-28-0	Thallium	0.202	mg/kg	J	0.0751	0.25	0.25	2	MS	BAJ	03/04/10 10:03	100303-3	951157
7440-61-1	Uranium	4.12	mg/kg	E	0.0165	0.0501	0.0501	2	MS	BAJ	03/04/10 10:03	100303-3	951157
7440-62-2	Vanadium	21500	ug/Kg	N	127	635	635	1	P	HSC	02/25/10 08:24	022410-1	951151
7440-66-6	Zinc	24300	ug/Kg	EN	419	1270	1270	1	P	HSC	02/25/10 08:24	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.533	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.571	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344003

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7984

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1650000	ug/Kg	*	6830	20100	20100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-36-0	Antimony	1000	ug/Kg	UN	332	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-38-2	Arsenic	0.923	mg/kg	J	0.201	1	1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-39-3	Barium	30100	ug/Kg	*N	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-41-7	Beryllium	0.180	mg/kg		0.0201	0.1	0.1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-43-9	Cadmium	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-70-2	Calcium	411000	ug/Kg	*N	8040	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-47-3	Chromium	2650	ug/Kg		151	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-48-4	Cobalt	4670	ug/Kg		151	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-50-8	Copper	2080	ug/Kg	*N	301	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-89-6	Iron	7380000	ug/Kg	*	8040	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-92-1	Lead	3790	ug/Kg	EN	251	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-95-4	Magnesium	208000	ug/Kg	*N	8540	30100	30100	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-96-5	Manganese	269000	ug/Kg	*	201	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151
7439-97-6	Mercury	11.4	ug/kg	U	3.86	11.4	11.4	1	AV	JXL1	02/22/10 13:12	022210S1-4	951598
7440-02-0	Nickel	2.29	mg/kg		0.1	0.402	0.402	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-09-7	Potassium	400000	ug/Kg	*N	6430	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7782-49-2	Selenium	1	mg/kg	UN	0.502	1	1	2	MS	BAJ	03/04/10 05:02	100303-2	951157
7440-22-4	Silver	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-23-5	Sodium	186000	ug/Kg		7030	25100	25100	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-28-0	Thallium	0.201	mg/kg	U	0.0603	0.201	0.201	2	MS	BAJ	03/04/10 10:07	100303-3	951157
7440-61-1	Uranium	0.514	mg/kg	E	0.0133	0.0402	0.0402	2	MS	BAJ	03/04/10 10:07	100303-3	951157
7440-62-2	Vanadium	3440	ug/Kg	N	100	502	502	1	P	HSC	02/25/10 08:28	022410-1	951151
7440-66-6	Zinc	16600	ug/Kg	EN	332	1000	1000	1	P	HSC	02/25/10 08:28	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.525	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.557	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344004

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7982

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/Kg	*	8060	23700	23700	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-36-0	Antimony	811	ug/Kg	JN	391	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-38-2	Arsenic	3.38	mg/kg		0.237	1.19	1.19	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-39-3	Barium	171000	ug/Kg	*N	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-41-7	Beryllium	1.26	mg/kg		0.0237	0.119	0.119	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-43-9	Cadmium	593	ug/Kg	U	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-70-2	Calcium	3370000	ug/Kg	*N	9480	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-47-3	Chromium	9790	ug/Kg		178	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-48-4	Cobalt	5000	ug/Kg		178	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-50-8	Copper	7770	ug/Kg	*N	356	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-89-6	Iron	13000000	ug/Kg	*	9480	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-92-1	Lead	11500	ug/Kg	EN	296	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-95-4	Magnesium	2170000	ug/Kg	*N	10100	35600	35600	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-96-5	Manganese	189000	ug/Kg	*	237	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151
7439-97-6	Mercury	51.7	ug/kg		4.43	13	13	1	AV	JXL1	02/22/10 13:14	022210S1-4	951598
7440-02-0	Nickel	9.25	mg/kg		0.119	0.474	0.474	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-09-7	Potassium	1500000	ug/Kg	*N	7590	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7782-49-2	Selenium	1.19	mg/kg	UN	0.593	1.19	1.19	2	MS	BAJ	03/04/10 05:08	100303-2	951157
7440-22-4	Silver	593	ug/Kg	U	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-23-5	Sodium	264000	ug/Kg		8300	29600	29600	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-28-0	Thallium	0.175	mg/kg	J	0.0711	0.237	0.237	2	MS	BAJ	03/04/10 10:10	100303-3	951157
7440-61-1	Uranium	2.34	mg/kg	E	0.0156	0.0474	0.0474	2	MS	BAJ	03/04/10 10:10	100303-3	951157
7440-62-2	Vanadium	16700	ug/Kg	N	119	593	593	1	P	HSC	02/25/10 08:35	022410-1	951151
7440-66-6	Zinc	25400	ug/Kg	EN	391	1190	1190	1	P	HSC	02/25/10 08:35	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.546	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1570

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246344005

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-7985

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 52

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6150000	ug/Kg	*	11700	34300	34300	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-36-0	Antimony	1430	ug/Kg	JN	567	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-38-2	Arsenic	2.44	mg/kg		0.371	1.86	1.86	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-39-3	Barium	195000	ug/Kg	*N	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-41-7	Beryllium	1.05	mg/kg		0.0371	0.186	0.186	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-43-9	Cadmium	297	ug/Kg	J	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-70-2	Calcium	9490000	ug/Kg	*N	13700	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-47-3	Chromium	7610	ug/Kg		258	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-48-4	Cobalt	3660	ug/Kg		258	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-50-8	Copper	25400	ug/Kg	*N	515	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-89-6	Iron	10000000	ug/Kg	*	13700	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-92-1	Lead	42800	ug/Kg	EN	429	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-95-4	Magnesium	1670000	ug/Kg	*N	14600	51500	51500	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-96-5	Manganese	539000	ug/Kg	*	343	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151
7439-97-6	Mercury	42.6	ug/kg		7.76	22.8	22.8	1	AV	JXL1	02/22/10 13:16	022210S1-4	951598
7440-02-0	Nickel	6.64	mg/kg		0.186	0.743	0.743	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-09-7	Potassium	1530000	ug/Kg	*N	11000	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7782-49-2	Selenium	1.86	mg/kg	UN	0.929	1.86	1.86	2	MS	BAJ	03/04/10 05:14	100303-2	951157
7440-22-4	Silver	859	ug/Kg	U	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-23-5	Sodium	59400	ug/Kg		12000	42900	42900	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-28-0	Thallium	0.125	mg/kg	J	0.111	0.371	0.371	2	MS	BAJ	03/04/10 10:14	100303-3	951157
7440-61-1	Uranium	57.8	mg/kg	E	0.245	0.743	0.743	20	MS	BAJ	03/04/10 10:18	100303-3	951157
7440-62-2	Vanadium	15800	ug/Kg	N	172	859	859	1	P	HSC	02/25/10 08:39	022410-1	951151
7440-66-6	Zinc	63700	ug/Kg	EN	567	1720	1720	1	P	HSC	02/25/10 08:39	022410-1	951151

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
951151	951148	SW846 3050B	0.557	g	50	mL	02/17/10	FGA
951157	951155	SW846 3050B	0.515	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.503	g	30	mL	02/19/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.ICPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	22-FEB-10 09:22	022210S1-4
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Antimony	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Barium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Cadmium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Cobalt	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Lead	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Manganese	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Potassium	2400	ug/L	2500	ug/L	96.2	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Silver	258	ug/L	250	ug/L	103.4	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24-FEB-10 13:31	022410-1
	Arsenic	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	04-MAR-10 02:59	100303-2
	Beryllium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	04-MAR-10 02:59	100303-2
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	04-MAR-10 02:59	100303-2
	Selenium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	04-MAR-10 02:59	100303-2
	Thallium	54.8	ug/L	50	ug/L	109.7	90.0 – 110.0	MS	04-MAR-10 09:09	100303-3
	Uranium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	04-MAR-10 09:09	100303-3
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	22-FEB-10 09:27	022210S1-4
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Cadmium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 13:53	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Chromium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Cobalt	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Magnesium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Potassium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Silver	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 13:53	022410-1
	Arsenic	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	04-MAR-10 03:30	100303-2
	Beryllium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	04-MAR-10 03:30	100303-2
	Nickel	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	04-MAR-10 03:30	100303-2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	04-MAR-10 03:30	100303-2
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04-MAR-10 09:26	100303-3
	Uranium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	04-MAR-10 09:26	100303-3
CCV02	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	22-FEB-10 09:47	022210S1-4
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Calcium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24-FEB-10 14:26	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.JCPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lead	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Manganese	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	24-FEB-10 14:26	022410-1
	Arsenic	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-MAR-10 03:48	100303-2
	Beryllium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	04-MAR-10 03:48	100303-2
	Nickel	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	04-MAR-10 03:48	100303-2
	Selenium	53.4	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	04-MAR-10 03:48	100303-2
	Thallium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	04-MAR-10 09:57	100303-3
	Uranium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	04-MAR-10 09:57	100303-3
CCV03	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22-FEB-10 10:07	022210S1-4
	Aluminum	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Barium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Cadmium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Chromium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Cobalt	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Copper	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Lead	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Manganese	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Potassium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Silver	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	24-FEB-10 15:04	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.JCPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	10300	ug/L	10000	ug/L	103.4	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Zinc	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	24-FEB-10 15:04	022410-1
	Arsenic	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	04-MAR-10 04:44	100303-2
	Beryllium	53	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	04-MAR-10 04:44	100303-2
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	04-MAR-10 04:44	100303-2
	Selenium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	04-MAR-10 04:44	100303-2
	Thallium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04-MAR-10 10:22	100303-3
	Uranium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	04-MAR-10 10:22	100303-3
CCV04	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	22-FEB-10 10:27	022210S1-4
	Aluminum	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Antimony	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Barium	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Cadmium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Chromium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Cobalt	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Copper	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Lead	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Manganese	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Silver	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Sodium	10400	ug/L	10000	ug/L	104.2	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Vanadium	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	24-FEB-10 15:46	022410-1
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	04-MAR-10 05:20	100303-2
	Beryllium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	04-MAR-10 05:20	100303-2

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV05	Nickel	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	04-MAR-10 05:20	100303-2
	Selenium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04-MAR-10 05:20	100303-2
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	22-FEB-10 10:47	022210S1-4
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Antimony	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Barium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Cadmium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Calcium	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Chromium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Cobalt	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Copper	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Iron	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Lead	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Magnesium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Manganese	530	ug/L	500	ug/L	105.9	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Potassium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Silver	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Sodium	10500	ug/L	10000	ug/L	104.6	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Vanadium	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
	Zinc	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:21	022410-1
CCV06	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	22-FEB-10 11:07	022210S1-4
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Antimony	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Barium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Cadmium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Chromium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	24-FEB-10 16:52	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Iron	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Lead	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Manganese	521	ug/L	500	ug/L	104.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Silver	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Vanadium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Zinc	515	ug/L	500	ug/L	103	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
CCV07										
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	22-FEB-10 11:27	022210S1-4
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Copper	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Lead	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Manganese	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24-FEB-10 17:31	022410-1
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 17:31	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.ICPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV08										
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	22-FEB-10 11:48	022210S1-4
	Aluminum	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Calcium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Copper	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Manganese	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 18:11	022410-1
CCV09										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	22-FEB-10 12:08	022210S1-4
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	24-FEB-10 18:54	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Silver	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	24-FEB-10 18:54	022410-1
CCV10										
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	22-FEB-10 12:28	022210S1-4
	Aluminum	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Antimony	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Cadmium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Chromium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 19:08	022410-1
CCV11										
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	22-FEB-10 12:49	022210S1-4
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24-FEB-10 20:12	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Calcium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Chromium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Copper	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Lead	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Magnesium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Potassium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Silver	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 20:12	022410-1
CCV12										
	Mercury	5.3	ug/L	5	ug/L	106	80.0 – 120.0	AV	22-FEB-10 13:09	022210S1-4
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Chromium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Copper	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Lead	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 21:05	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.ICPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Silver	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Vanadium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 21:05	022410-1
CCV13										
	Mercury	5.31	ug/L	5	ug/L	106.3	80.0 – 120.0	AV	22-FEB-10 13:29	022210S1-4
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Cadmium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Calcium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Lead	480	ug/L	500	ug/L	96	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Vanadium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
	Zinc	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	24-FEB-10 21:51	022410-1
CCV14										
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Antimony	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Calcium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 22:07	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.ICPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Lead	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Silver	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Sodium	9940	ug/L	10000	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Vanadium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 22:07	022410-1
CCV15										
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Calcium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Cobalt	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Copper	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	24-FEB-10 22:48	022410-1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 22:48	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,JCPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV16										
	Aluminum	538	ug/L	5000	ug/L	10.8	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Antimony	40.4	ug/L	500	ug/L	8.1	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Barium	23.2	ug/L	500	ug/L	4.7	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Cadmium	23.7	ug/L	500	ug/L	4.7	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Calcium	438	ug/L	5000	ug/L	8.8	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Chromium	23.8	ug/L	500	ug/L	4.8	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Cobalt	22.8	ug/L	500	ug/L	4.6	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Copper	13.9	ug/L	500	ug/L	2.8	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Iron	414	ug/L	5000	ug/L	8.3	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Lead	41.9	ug/L	500	ug/L	8.4	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Magnesium	423	ug/L	5000	ug/L	8.5	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Manganese	23.3	ug/L	500	ug/L	4.7	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Potassium	453	ug/L	5000	ug/L	9.1	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Silver	24.9	ug/L	500	ug/L	5	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Sodium	1010	ug/L	10000	ug/L	10.1	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Vanadium	23.9	ug/L	500	ug/L	4.8	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
	Zinc	16.3	ug/L	500	ug/L	3.3	90.0 – 110.0	P	24-FEB-10 23:11	022410-1
CCV17										
	Aluminum	34.7	ug/L	5000	ug/L	.7	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Antimony	-10.3	ug/L	500	ug/L	-2.1	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Barium	.51	ug/L	500	ug/L	.1	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Cadmium	1.51	ug/L	500	ug/L	.3	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Calcium	-16.8	ug/L	5000	ug/L	-.3	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Chromium	.92	ug/L	500	ug/L	.2	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Cobalt	.45	ug/L	500	ug/L	.1	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Copper	-9.87	ug/L	500	ug/L	-2	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Iron	-45.1	ug/L	5000	ug/L	-.9	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Lead	-6.95	ug/L	500	ug/L	-1.4	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Magnesium	-61.8	ug/L	5000	ug/L	-1.2	90.0 – 110.0	P	24-FEB-10 23:44	022410-1
	Manganese	.62	ug/L	500	ug/L	.1	90.0 – 110.0	P	24-FEB-10 23:44	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	-71	ug/L	5000	ug/L	-1.4	90.0 - 110.0	P	24-FEB-10 23:44	022410-1
	Silver	1.65	ug/L	500	ug/L	.3	90.0 - 110.0	P	24-FEB-10 23:44	022410-1
	Sodium	34.4	ug/L	10000	ug/L	.3	90.0 - 110.0	P	24-FEB-10 23:44	022410-1
	Vanadium	.34	ug/L	500	ug/L	.1	90.0 - 110.0	P	24-FEB-10 23:44	022410-1
	Zinc	-5.74	ug/L	500	ug/L	-1.2	90.0 - 110.0	P	24-FEB-10 23:44	022410-1
CCV18										
	Aluminum	12.8	ug/L	5000	ug/L	.3	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Antimony	-7.75	ug/L	500	ug/L	-1.6	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Barium	.16	ug/L	500	ug/L	0	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Cadmium	1.17	ug/L	500	ug/L	.2	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Calcium	-15.6	ug/L	5000	ug/L	-.3	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Chromium	.65	ug/L	500	ug/L	.1	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Cobalt	.11	ug/L	500	ug/L	0	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Copper	-10.3	ug/L	500	ug/L	-2.1	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Iron	-44.1	ug/L	5000	ug/L	-.9	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Lead	-7.88	ug/L	500	ug/L	-1.6	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Magnesium	-65.6	ug/L	5000	ug/L	-1.3	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Manganese	.33	ug/L	500	ug/L	.1	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Potassium	-73.7	ug/L	5000	ug/L	-1.5	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Silver	1.53	ug/L	500	ug/L	.3	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Sodium	-77.4	ug/L	10000	ug/L	-.8	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Vanadium	.11	ug/L	500	ug/L	0	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
	Zinc	-6.2	ug/L	500	ug/L	-1.2	90.0 - 110.0	P	24-FEB-10 23:58	022410-1
CCV19										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Antimony	469	ug/L	500	ug/L	93.8	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Cadmium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	25-FEB-10 00:22	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Iron	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Lead	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Silver	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Vanadium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	25-FEB-10 00:22	022410-1
CCV20	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Antimony	453	ug/L	500	ug/L	90.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Cadmium	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Calcium	4780	ug/L	5000	ug/L	95.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Chromium	472	ug/L	500	ug/L	94.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Cobalt	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Copper	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Iron	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Lead	469	ug/L	500	ug/L	93.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Magnesium	4890	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Manganese	485	ug/L	500	ug/L	97	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Potassium	4890	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Silver	480	ug/L	500	ug/L	96	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Vanadium	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	25-FEB-10 00:55	022410-1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 - 110.0	P	25-FEB-10 00:55	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV21										
	Aluminum	4850	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Antimony	452	ug/L	500	ug/L	90.4	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Barium	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Cadmium	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Calcium	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Chromium	468	ug/L	500	ug/L	93.6	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Copper	468	ug/L	500	ug/L	93.7	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Iron	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Lead	466	ug/L	500	ug/L	93.1	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Potassium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Vanadium	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
	Zinc	468	ug/L	500	ug/L	93.7	90.0 - 110.0	P	25-FEB-10 01:16	022410-1
CCV22										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Cadmium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Chromium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Cobalt	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Copper	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Lead	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Magnesium	4920	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Manganese	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	25-FEB-10 02:11	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Silver	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	25-FEB-10 02:11	022410-1
CCV23										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Copper	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Lead	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Magnesium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Potassium	4860	ug/L	5000	ug/L	97.2	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 02:26	022410-1
CCV24										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	25-FEB-10 03:05	022410-1
	Antimony	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	25-FEB-10 03:05	022410-1
	Barium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 03:05	022410-1
	Cadmium	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	25-FEB-10 03:05	022410-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	25-FEB-10 03:05	022410-1
	Chromium	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 03:05	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Magnesium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Silver	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	25-FEB-10 03:05	022410-1
CCV25	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Antimony	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Calcium	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Chromium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Copper	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Lead	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Sodium	9720	ug/L	10000	ug/L	97.2	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 03:36	022410-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	25-FEB-10 03:36	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV26										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Antimony	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Copper	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Silver	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Vanadium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	25-FEB-10 04:12	022410-1
CCV27										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Antimony	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Copper	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	25-FEB-10 04:52	022410-1
	Manganese	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25-FEB-10 04:52	022410-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV28	Potassium	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	25-FEB-10 04:52	022410-1
	Silver	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	25-FEB-10 04:52	022410-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 04:52	022410-1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	25-FEB-10 04:52	022410-1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	25-FEB-10 04:52	022410-1
CCV29	Aluminum	4770	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Antimony	468	ug/L	500	ug/L	93.6	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Cadmium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Chromium	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Cobalt	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Copper	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Iron	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Lead	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Magnesium	4800	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Potassium	4820	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Sodium	9520	ug/L	10000	ug/L	95.2	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	25-FEB-10 05:25	022410-1
CCV29	Aluminum	4760	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	25-FEB-10 05:39	022410-1
	Antimony	470	ug/L	500	ug/L	94	90.0 - 110.0	P	25-FEB-10 05:39	022410-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 05:39	022410-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	25-FEB-10 05:39	022410-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	25-FEB-10 05:39	022410-1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	25-FEB-10 05:39	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Iron	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Lead	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Magnesium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Potassium	4760	ug/L	5000	ug/L	95.2	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Sodium	9440	ug/L	10000	ug/L	94.5	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	25-FEB-10 05:39	022410-1
CCV30										
	Aluminum	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Antimony	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Calcium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Iron	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Vanadium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25-FEB-10 06:26	022410-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25-FEB-10 06:26	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3.JCPMS5.OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV31										
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Calcium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Chromium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Copper	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Lead	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Manganesec	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 07:02	022410-1
CCV32										
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Barium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Cobalt	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Lead	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	25-FEB-10 07:38	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Silver	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 07:38	022410-1
CCV33										
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Antimony	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Copper	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Lead	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	25-FEB-10 08:17	022410-1
CCV34										
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	25-FEB-10 08:46	022410-1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	25-FEB-10 08:46	022410-1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 08:46	022410-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	25-FEB-10 08:46	022410-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	25-FEB-10 08:46	022410-1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25-FEB-10 08:46	022410-1

METALS

--2a--

Initial and Continuing Calibration Verification

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Copper	495	ug/L	500	ug/L	99	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Magnesium	5030	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Manganese	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Vanadium	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	25-FEB-10 08:46	022410-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	25-FEB-10 08:46	022410-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.151	ug/L	.2	ug/L	75.5	70.0 – 130.0	AV	22-FEB-10 09:25	022210S1-4
	Nickel	2.33	ug/L	2	ug/L	116.6	70.0 – 130.0	MS	04-MAR-10 03:12	100303-2
	Arsenic	5.46	ug/L	5	ug/L	109.2	70.0 – 130.0	MS	04-MAR-10 03:12	100303-2
	Selenium	6.38	ug/L	5	ug/L	127.5	70.0 – 130.0	MS	04-MAR-10 03:12	100303-2
	Beryllium	.572	ug/L	.5	ug/L	114.4	70.0 – 130.0	MS	04-MAR-10 03:12	100303-2
	Thallium	1.3	ug/L	1	ug/L	129.6	70.0 – 130.0	MS	04-MAR-10 09:16	100303-3
	Uranium	.265	ug/L	.2	ug/L	132.5	70.0 – 130.0	MS	04-MAR-10 09:16	100303-3
PQL01										
	Aluminum	197	ug/L	200	ug/L	98.4	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Iron	89.8	ug/L	100	ug/L	89.8	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Lead	12.1	ug/L	10	ug/L	121.1	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Silver	5.18	ug/L	5	ug/L	103.7	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Antimony	9.4	ug/L	10	ug/L	94	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Cadmium	4.71	ug/L	5	ug/L	94.2	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Cobalt	4.94	ug/L	5	ug/L	98.9	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Calcium	187	ug/L	200	ug/L	93.4	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Zinc	8.53	ug/L	10	ug/L	85.3	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Copper	9.81	ug/L	10	ug/L	98.1	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Chromium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Barium	4.87	ug/L	5	ug/L	97.3	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Sodium	275	ug/L	300	ug/L	91.6	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Potassium	96.3	ug/L	150	ug/L	64.2	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Manganese	9.93	ug/L	10	ug/L	99.3	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
	Magnesium	262	ug/L	300	ug/L	87.3	70.0 – 130.0	P	24-FEB-10 13:38	022410-1
PQL02										
	Iron	102	ug/L	100	ug/L	101.7	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Lead	11.4	ug/L	10	ug/L	114.4	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Magnesium	299	ug/L	300	ug/L	99.8	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Manganese	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	24-FEB-10 18:58	022410-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	155	ug/L	150	ug/L	103.6	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Silver	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Sodium	380	ug/L	300	ug/L	126.6	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Antimony	9.95	ug/L	10	ug/L	99.5	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Aluminum	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Cadmium	4.86	ug/L	5	ug/L	97.2	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Chromium	5.38	ug/L	5	ug/L	107.5	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Cobalt	4.82	ug/L	5	ug/L	96.3	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Copper	10.8	ug/L	10	ug/L	107.5	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Vanadium	5.21	ug/L	5	ug/L	104.1	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Zinc	9.05	ug/L	10	ug/L	90.5	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
	Calcium	192	ug/L	200	ug/L	96.1	70.0 – 130.0	P	24-FEB-10 18:58	022410-1
PQL03										
	Aluminum	222	ug/L	200	ug/L	110.8	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Iron	83.2	ug/L	100	ug/L	83.2	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Lead	15.9	ug/L	10	ug/L	159.2	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Magnesium	276	ug/L	300	ug/L	92	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Manganese	10.1	ug/L	10	ug/L	101.1	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Potassium	126	ug/L	150	ug/L	83.8	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Silver	5.29	ug/L	5	ug/L	105.8	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Sodium	420	ug/L	300	ug/L	140.1	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Antimony	6.78	ug/L	10	ug/L	67.8	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Barium	4.85	ug/L	5	ug/L	97.1	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Cadmium	4.85	ug/L	5	ug/L	97.1	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Chromium	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Cobalt	4.86	ug/L	5	ug/L	97.2	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Copper	9.98	ug/L	10	ug/L	99.8	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Vanadium	4.61	ug/L	5	ug/L	92.2	70.0 – 130.0	P	24-FEB-10 22:52	022410-1
	Zinc	7.51	ug/L	10	ug/L	75.1	70.0 – 130.0	P	24-FEB-10 22:52	022410-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
PQL04	Calcium	189	ug/L	200	ug/L	94.6	70.0 - 130.0	P	24-FEB-10 22:52	022410-1
	Aluminum	201	ug/L	200	ug/L	100.4	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Lead	12.5	ug/L	10	ug/L	124.8	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Manganese	10.3	ug/L	10	ug/L	103.4	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Silver	5.47	ug/L	5	ug/L	109.5	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Antimony	8.32	ug/L	10	ug/L	83.3	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Cadmium	4.94	ug/L	5	ug/L	98.7	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Cobalt	4.98	ug/L	5	ug/L	99.7	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Vanadium	4.59	ug/L	5	ug/L	91.9	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Calcium	190	ug/L	200	ug/L	94.9	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Zinc	8.21	ug/L	10	ug/L	82.1	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Copper	10.8	ug/L	10	ug/L	108	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Chromium	5.13	ug/L	5	ug/L	102.6	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Barium	5.12	ug/L	5	ug/L	102.3	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Sodium	327	ug/L	300	ug/L	109.1	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Potassium	136	ug/L	150	ug/L	90.6	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Magnesium	274	ug/L	300	ug/L	91.3	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
	Iron	104	ug/L	100	ug/L	103.6	70.0 - 130.0	P	24-FEB-10 23:48	022410-1
PQL05	Aluminum	196	ug/L	200	ug/L	98.1	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Iron	102	ug/L	100	ug/L	101.7	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Lead	12.3	ug/L	10	ug/L	122.5	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Magnesium	267	ug/L	300	ug/L	88.9	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Manganese	10.2	ug/L	10	ug/L	101.7	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Potassium	101	ug/L	150	ug/L	67.2	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Silver	4.87	ug/L	5	ug/L	97.4	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Sodium	274	ug/L	300	ug/L	91.3	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Antimony	12	ug/L	10	ug/L	119.5	70.0 - 130.0	P	25-FEB-10 02:15	022410-1
	Barium	4.93	ug/L	5	ug/L	98.6	70.0 - 130.0	P	25-FEB-10 02:15	022410-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cadmium	4.79	ug/L	5	ug/L	95.9	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Chromium	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Cobalt	4.98	ug/L	5	ug/L	99.7	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Copper	10.1	ug/L	10	ug/L	100.8	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Vanadium	5.1	ug/L	5	ug/L	102.1	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Zinc	7.73	ug/L	10	ug/L	77.3	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
	Calcium	187	ug/L	200	ug/L	93.6	70.0 – 130.0	P	25-FEB-10 02:15	022410-1
PQL06										
	Aluminum	199	ug/L	200	ug/L	99.5	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Iron	103	ug/L	100	ug/L	103.2	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Lead	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Magnesium	281	ug/L	300	ug/L	93.5	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Manganese	10.1	ug/L	10	ug/L	100.9	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Potassium	117	ug/L	150	ug/L	78.3	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Silver	5.39	ug/L	5	ug/L	107.9	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Sodium	256	ug/L	300	ug/L	85.3	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Antimony	12.9	ug/L	10	ug/L	129.1	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Barium	5.02	ug/L	5	ug/L	100.3	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Cadmium	4.74	ug/L	5	ug/L	94.7	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Chromium	5.27	ug/L	5	ug/L	105.4	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Cobalt	4.98	ug/L	5	ug/L	99.6	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Copper	9.43	ug/L	10	ug/L	94.3	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Vanadium	5.15	ug/L	5	ug/L	103	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Zinc	7.92	ug/L	10	ug/L	79.2	70.0 – 130.0	P	25-FEB-10 05:28	022410-1
	Calcium	187	ug/L	200	ug/L	93.3	70.0 – 130.0	P	25-FEB-10 05:28	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 09:23	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 13:35	022410-1
	Antimony	3.81	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 13:35	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 13:35	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 13:35	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 13:35	022410-1
	Lead	3.11	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 13:35	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 13:35	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 13:35	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 13:35	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 13:35	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:35	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 13:35	022410-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	04-MAR-10 03:05	100303-2
	Beryllium	0.1	+/- .5	U	0.1	0.5	SOL	MS	04-MAR-10 03:05	100303-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	04-MAR-10 03:05	100303-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	04-MAR-10 03:05	100303-2
	Thallium	0.418	+/-1	J	0.3	1.0	SOL	MS	04-MAR-10 09:12	100303-3
	Uranium	0.066	+/- .2	U	0.066	0.2	SOL	MS	04-MAR-10 09:12	100303-3
CCB01										
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 09:28	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 13:56	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 13:56	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 13:56	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 13:56	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 13:56	022410-1
	Lead	9.3	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 13:56	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 13:56	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 13:56	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 13:56	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 13:56	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 13:56	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 13:56	022410-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	04-MAR-10 03:36	100303-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	04-MAR-10 03:36	100303-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	04-MAR-10 03:36	100303-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	04-MAR-10 03:36	100303-2
	Thallium	0.407	+/-1	J	0.3	1.0	SOL	MS	04-MAR-10 09:29	100303-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	04-MAR-10 09:29	100303-3
CCB02										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 09:48	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 14:30	022410-1
	Antimony	4.41	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 14:30	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 14:30	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 14:30	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 14:30	022410-1
	Lead	2.72	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 14:30	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 14:30	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 14:30	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 14:30	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 14:30	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 14:30	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 14:30	022410-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	04-MAR-10 03:54	100303-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	04-MAR-10 03:54	100303-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	04-MAR-10 03:54	100303-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	04-MAR-10 03:54	100303-2
	Thallium	0.326	+/-1	J	0.3	1.0	SOL	MS	04-MAR-10 10:00	100303-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	04-MAR-10 10:00	100303-3
CCB03	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:09	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 15:08	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 15:08	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 15:08	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 15:08	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 15:08	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 15:08	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 15:08	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 15:08	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 15:08	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 15:08	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:08	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 15:08	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	04-MAR-10 04:50	100303-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	04-MAR-10 04:50	100303-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	04-MAR-10 04:50	100303-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	04-MAR-10 04:50	100303-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	04-MAR-10 10:25	100303-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	04-MAR-10 10:25	100303-3
CCB04	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:29	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 15:50	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 15:50	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 15:50	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 15:50	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 15:50	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 15:50	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 15:50	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 15:50	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 15:50	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 15:50	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 15:50	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 15:50	022410-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	04-MAR-10 05:27	100303-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	04-MAR-10 05:27	100303-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	04-MAR-10 05:27	100303-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	04-MAR-10 05:27	100303-2
CCB05	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:49	022210S1-4

Metals
~3a~
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 16:24	022410-1
	Antimony	4.3	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 16:24	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:24	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 16:24	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:24	022410-1
	Lead	3.21	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 16:24	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 16:24	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 16:24	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 16:24	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 16:24	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:24	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 16:24	022410-1
CCB06	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:09	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 16:55	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 16:55	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:55	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 16:55	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:55	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 16:55	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 16:55	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 16:55	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 16:55	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 16:55	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:55	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 16:55	022410-1
CCB07	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:29	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 17:35	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 17:35	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 17:35	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 17:35	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 17:35	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 17:35	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 17:35	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 17:35	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 17:35	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 17:35	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 17:35	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 17:35	022410-1
CCB08	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:49	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 18:15	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 18:15	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 18:15	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 18:15	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 18:15	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 18:15	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 18:15	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 18:15	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 18:15	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 18:15	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 18:15	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 18:15	022410-1
CCB09	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 12:10	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 19:01	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 19:01	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 19:01	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 19:01	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 19:01	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 19:01	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 19:01	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 19:01	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 19:01	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 19:01	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:01	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 19:01	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB10										
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 12:30	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 19:12	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 19:12	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 19:12	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 19:12	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 19:12	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 19:12	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 19:12	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 19:12	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 19:12	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 19:12	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 19:12	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 19:12	022410-1
CCB11										
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 12:50	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 20:15	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 20:15	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 20:15	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 20:15	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 20:15	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 20:15	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 20:15	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 20:15	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 20:15	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 20:15	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 20:15	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 20:15	022410-1
CCB12	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 13:11	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 21:08	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 21:08	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 21:08	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 21:08	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 21:08	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 21:08	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 21:08	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 21:08	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 21:08	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 21:08	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:08	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 21:08	022410-1
CCB13	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 13:31	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 21:56	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 21:56	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:56	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:56	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 21:56	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 21:56	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 21:56	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 21:56	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 21:56	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 21:56	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 21:56	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 21:56	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 21:56	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:56	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 21:56	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 21:56	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 21:56	022410-1
CCB14	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 22:11	022410-1
	Antimony	3.83	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 22:11	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 22:11	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 22:11	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 22:11	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 22:11	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 22:11	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 22:11	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 22:11	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 22:11	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:11	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 22:11	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 22:56	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 22:56	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 22:56	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 22:56	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 22:56	022410-1
	Lead	6.08	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 22:56	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 22:56	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 22:56	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 22:56	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Sodium	113.17	+/-250	J	70.0	250	SOL	P	24-FEB-10 22:56	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 22:56	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 22:56	022410-1
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 23:15	022410-1
	Antimony	-5.48	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 23:15	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Cadmium	1.44	+/-5	J	1.0	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:15	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Copper	-8.82	+/-10	J	3.0	10.0	SOL	P	24-FEB-10 23:15	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:15	022410-1
	Lead	-4.97	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 23:15	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 23:15	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 23:15	022410-1
	Potassium	-80.33	+/-250	J	64.0	250	SOL	P	24-FEB-10 23:15	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
CCB17	Silver	1.53	+/-5	J	1.0	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 23:15	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:15	022410-1
	Zinc	-5.14	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 23:15	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 23:51	022410-1
	Antimony	-6.52	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 23:51	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Cadmium	1.54	+/-5	J	1.0	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:51	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Copper	-9.84	+/-10	J	3.0	10.0	SOL	P	24-FEB-10 23:51	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:51	022410-1
	Lead	-6.77	+/-10	J	2.5	10.0	SOL	P	24-FEB-10 23:51	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 23:51	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 23:51	022410-1
	Potassium	-88.69	+/-250	J	64.0	250	SOL	P	24-FEB-10 23:51	022410-1
	Silver	1.71	+/-5	J	1.0	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 23:51	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:51	022410-1
	Zinc	-5.66	+/-10	J	3.3	10.0	SOL	P	24-FEB-10 23:51	022410-1
CCB18	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 00:02	022410-1
	Antimony	-8.76	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 00:02	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Cadmium	1.18	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:02	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Copper	-10.59	+/-10		3.0	10.0	SOL	P	25-FEB-10 00:02	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB19	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:02	022410-1
	Lead	-7.41	+/-10	J	2.5	10.0	SOL	P	25-FEB-10 00:02	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 00:02	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 00:02	022410-1
	Potassium	-92.1	+/-250	J	64.0	250	SOL	P	25-FEB-10 00:02	022410-1
	Silver	1.73	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Sodium	-79.23	+/-250	J	70.0	250	SOL	P	25-FEB-10 00:02	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 00:02	022410-1
	Zinc	-6.25	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 00:02	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 00:26	022410-1
	Antimony	9.87	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 00:26	022410-1
	Barium	4.71	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:26	022410-1
	Cadmium	4.74	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:26	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:26	022410-1
	Chromium	5.66	+/-5		1.5	5.0	SOL	P	25-FEB-10 00:26	022410-1
	Cobalt	5.26	+/-5		1.5	5.0	SOL	P	25-FEB-10 00:26	022410-1
CCB20	Copper	3.91	+/-10	J	3.0	10.0	SOL	P	25-FEB-10 00:26	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:26	022410-1
	Lead	5.87	+/-10	J	2.5	10.0	SOL	P	25-FEB-10 00:26	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 00:26	022410-1
	Manganese	4.95	+/-10	J	2.0	10.0	SOL	P	25-FEB-10 00:26	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 00:26	022410-1
	Silver	3.48	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:26	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 00:26	022410-1
	Vanadium	3.65	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:26	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 00:26	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 00:59	022410-1
	Antimony	10.95	+/-10		3.3	10.0	SOL	P	25-FEB-10 00:59	022410-1
	Barium	5.33	+/-5		1.0	5.0	SOL	P	25-FEB-10 00:59	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cadmium	5.28	+/-5		1.0	5.0	SOL	P	25-FEB-10 00:59	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:59	022410-1
	Chromium	6.2	+/-5		1.5	5.0	SOL	P	25-FEB-10 00:59	022410-1
	Cobalt	5.56	+/-5		1.5	5.0	SOL	P	25-FEB-10 00:59	022410-1
	Copper	4.34	+/-10	J	3.0	10.0	SOL	P	25-FEB-10 00:59	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:59	022410-1
	Lead	7.77	+/-10	J	2.5	10.0	SOL	P	25-FEB-10 00:59	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 00:59	022410-1
	Manganese	5.28	+/-10	J	2.0	10.0	SOL	P	25-FEB-10 00:59	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 00:59	022410-1
	Silver	3.83	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:59	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 00:59	022410-1
	Vanadium	4.18	+/-5	J	1.0	5.0	SOL	P	25-FEB-10 00:59	022410-1
	Zinc	3.48	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 00:59	022410-1
CCB21	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 01:19	022410-1
	Antimony	4.77	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 01:19	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 01:19	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 01:19	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 01:19	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 01:19	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 01:19	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 01:19	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 01:19	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 01:19	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 01:19	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 01:19	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 01:19	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 01:19	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 01:19	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 01:19	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB22	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 01:19	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 02:19	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 02:19	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 02:19	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 02:19	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 02:19	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 02:19	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 02:19	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 02:19	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 02:19	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 02:19	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:19	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 02:19	022410-1
CCB23	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 02:29	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 02:29	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 02:29	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 02:29	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 02:29	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 02:29	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 02:29	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB24	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 02:29	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 02:29	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 02:29	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 02:29	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 02:29	022410-1
CCB24	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 03:09	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 03:09	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 03:09	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 03:09	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 03:09	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 03:09	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 03:09	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 03:09	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 03:09	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 03:09	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:09	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 03:09	022410-1
CCB25	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 03:39	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 03:39	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:39	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:39	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 03:39	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 03:39	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 03:39	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 03:39	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 03:39	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 03:39	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 03:39	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 03:39	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 03:39	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:39	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 03:39	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 03:39	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 03:39	022410-1
CCB26	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 04:15	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 04:15	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 04:15	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 04:15	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 04:15	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 04:15	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 04:15	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 04:15	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 04:15	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 04:15	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:15	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 04:15	022410-1
CCB27	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 04:56	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 04:56	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 04:56	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 04:56	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 04:56	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 04:56	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 04:56	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 04:56	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 04:56	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 04:56	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 04:56	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 04:56	022410-1
CCB28	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 05:32	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 05:32	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:32	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:32	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 05:32	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 05:32	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 05:32	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 05:32	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 05:32	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 05:32	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 05:32	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 05:32	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 05:32	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:32	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB29	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 05:32	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:32	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 05:32	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 05:43	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 05:43	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 05:43	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 05:43	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 05:43	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 05:43	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 05:43	022410-1
	Manganesec	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 05:43	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 05:43	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 05:43	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 05:43	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 05:43	022410-1
CCB30	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 06:29	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 06:29	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 06:29	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 06:29	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 06:29	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB31	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 06:29	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 06:29	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 06:29	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 06:29	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 06:29	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 06:29	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 06:29	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 07:06	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 07:06	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 07:06	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 07:06	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 07:06	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 07:06	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 07:06	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 07:06	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 07:06	022410-1
CCB32	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 07:06	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:06	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 07:06	022410-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 07:42	022410-1
	Antimony	4.67	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 07:42	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:42	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:42	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 07:42	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 07:42	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 07:42	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 07:42	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 07:42	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 07:42	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 07:42	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 07:42	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 07:42	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:42	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 07:42	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 07:42	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 07:42	022410-1
CCB33	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 08:21	022410-1
	Antimony	4.65	+/-10	J	3.3	10.0	SOL	P	25-FEB-10 08:21	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 08:21	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 08:21	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 08:21	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 08:21	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 08:21	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 08:21	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 08:21	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 08:21	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:21	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 08:21	022410-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB34	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 08:50	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 08:50	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 08:50	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 08:50	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 08:50	022410-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-FEB-10 08:50	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 08:50	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 08:50	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 08:50	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 08:50	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 08:50	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 08:50	022410-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1570
Contract: LANL01004
Matrix: SOIL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M</u>	<u>MDL</u>	<u>RDL</u>
1202038311	Copper	299	ug/Kg	+/-998	U	P	299	998
	Iron	7980	ug/Kg	+/-25000	U	P	7980	25000
	Lead	250	ug/Kg	+/-998	U	P	250	998
	Magnesium	8480	ug/Kg	+/-29900	U	P	8480	29900
	Manganese	200	ug/Kg	+/-998	U	P	200	998
	Potassium	6390	ug/Kg	+/-25000	U	P	6390	25000
	Silver	99.8	ug/Kg	+/-499	U	P	99.8	499
	Sodium	6990	ug/Kg	+/-25000	U	P	6990	25000
	Vanadium	99.8	ug/Kg	+/-499	U	P	99.8	499
	Cobalt	150	ug/Kg	+/-499	U	P	150	499
	Chromium	150	ug/Kg	+/-499	U	P	150	499
	Calcium	7980	ug/Kg	+/-25000	U	P	7980	25000
	Cadmium	99.8	ug/Kg	+/-499	U	P	99.8	499
	Barium	99.8	ug/Kg	+/-499	U	P	99.8	499
	Antimony	329	ug/Kg	+/-998	U	P	329	998
	Aluminum	6790	ug/Kg	+/-20000	U	P	6790	20000
	Zinc	329	ug/Kg	+/-998	U	P	329	998
1202038327	Arsenic	0.2	mg/kg	+/-1	U	MS	0.2	1
	Beryllium	0.02	mg/kg	+/-0.1	U	MS	0.02	0.1
	Nickel	0.1	mg/kg	+/-0.4	U	MS	0.1	0.4
	Selenium	0.5	mg/kg	+/-1	U	MS	0.5	1
	Thallium	0.06	mg/kg	+/-0.2	U	MS	0.06	0.2
	Uranium	0.0132	mg/kg	+/-0.04	U	MS	0.0132	0.04
1202039383	Mercury	3.86	ug/kg	+/-11.4	U	AV	3.86	11.4

METALS

-4-

Interference Check Sample

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Aluminum	498000	ug/L	500000	ug/L	99.5	80.0 – 120.0	24-FEB-10 13:41	022410-1
	Antimony	-9.01	ug/L					24-FEB-10 13:41	022410-1
	Barium	7.83	ug/L					24-FEB-10 13:41	022410-1
	Cadmium	-5.68	ug/L					24-FEB-10 13:41	022410-1
	Calcium	476000	ug/L	500000	ug/L	95.2	80.0 – 120.0	24-FEB-10 13:41	022410-1
	Chromium	-0.729	ug/L					24-FEB-10 13:41	022410-1
	Cobalt	2.59	ug/L					24-FEB-10 13:41	022410-1
	Copper	13.6	ug/L					24-FEB-10 13:41	022410-1
	Iron	185000	ug/L	200000	ug/L	92.5	80.0 – 120.0	24-FEB-10 13:41	022410-1
	Lead	11.9	ug/L					24-FEB-10 13:41	022410-1
	Magnesium	477000	ug/L	500000	ug/L	95.4	80.0 – 120.0	24-FEB-10 13:41	022410-1
	Manganese	7.46	ug/L					24-FEB-10 13:41	022410-1
	Potassium	-76.3	ug/L					24-FEB-10 13:41	022410-1
	Silver	-6.74	ug/L					24-FEB-10 13:41	022410-1
	Sodium	12.6	ug/L					24-FEB-10 13:41	022410-1
	Vanadium	-2.03	ug/L					24-FEB-10 13:41	022410-1
	Zinc	-10.2	ug/L					24-FEB-10 13:41	022410-1
ICSAB01									
	Aluminum	506000	ug/L	500000	ug/L	101	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Antimony	499	ug/L	500	ug/L	99.9	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Barium	506	ug/L	500	ug/L	101	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Cadmium	464	ug/L	500	ug/L	92.8	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Chromium	490	ug/L	500	ug/L	98	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Cobalt	439	ug/L	500	ug/L	87.8	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Copper	562	ug/L	500	ug/L	112	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Lead	487	ug/L	500	ug/L	97.4	80.0 – 120.0	24-FEB-10 13:44	022410-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	24-FEB-10 13:44	022410-1

METALS

-4-

Interference Check Sample

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (% R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	490	ug/L	500	ug/L	98	80.0 - 120.0	24-FEB-10 13:44	022410-1
	Potassium	5070	ug/L	5000	ug/L	101	80.0 - 120.0	24-FEB-10 13:44	022410-1
	Silver	258	ug/L	250	ug/L	103	80.0 - 120.0	24-FEB-10 13:44	022410-1
	Sodium	5070	ug/L	5000	ug/L	101	80.0 - 120.0	24-FEB-10 13:44	022410-1
	Vanadium	522	ug/L	500	ug/L	104	80.0 - 120.0	24-FEB-10 13:44	022410-1
	Zinc	469	ug/L	500	ug/L	93.8	80.0 - 120.0	24-FEB-10 13:44	022410-1

METALS

-4-

Interference Check Sample

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	0.125	ug/L					04-MAR-10 03:18	100303-2
	Beryllium	0.08	ug/L					04-MAR-10 03:18	100303-2
	Nickel	4.48	ug/L					04-MAR-10 03:18	100303-2
	Selenium	-1.64	ug/L					04-MAR-10 03:18	100303-2
ICSAB01									
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 - 120.0	04-MAR-10 03:24	100303-2
	Beryllium	18.0	ug/L	20	ug/L	90	80.0 - 120.0	04-MAR-10 03:24	100303-2
	Nickel	22.3	ug/L	23.31	ug/L	95.6	80.0 - 120.0	04-MAR-10 03:24	100303-2
	Selenium	19.7	ug/L	20	ug/L	98.3	80.0 - 120.0	04-MAR-10 03:24	100303-2

METALS

-4-

Interference Check Sample

SDG No: 10-1570

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Thallium	0.009	ug/L					04-MAR-10 09:19	100303-3
	Uranium	0.013	ug/L					04-MAR-10 09:19	100303-3
ICSAB01	Thallium	20.9	ug/L	20	ug/L	104	80.0 - 120.0	04-MAR-10 09:22	100303-3
	Uranium	23.3	ug/L	20	ug/L	116	80.0 - 120.0	04-MAR-10 09:22	100303-3

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1570

Client ID RE15-10-7981S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 75

Sample ID: 246344001

Spike ID: 1202038314

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		12200000		6970000		638000	816	N/A	P
Antimony	ug/Kg	75-125	39700		1370		63800	60	N	P
Barium	ug/Kg	75-125	150000		94800		63800	86.6		P
Cadmium	ug/Kg	75-125	60700		126	U	63800	95.1		P
Calcium	ug/Kg	75-125	2160000		1580000		638000	90.4		P
Chromium	ug/Kg	75-125	58600		8330		63800	78.8		P
Cobalt	ug/Kg	75-125	66600		8870		63800	90.4		P
Copper	ug/Kg	75-125	61000		11100		63800	78.3		P
Iron	ug/Kg		14100000		12700000		638000	229	N/A	P
Lead	ug/Kg	75-125	78700		26400		63800	82		P
Magnesium	ug/Kg	75-125	2160000		1350000		638000	127	N	P
Manganese	ug/Kg		365000		292000		63800	115	N/A	P
Potassium	ug/Kg	75-125	2020000		1280000		638000	116		P
Silver	ug/Kg	75-125	61200		126	U	63800	95.9		P
Sodium	ug/Kg	75-125	734000		109000		638000	97.9		P
Vanadium	ug/Kg	75-125	67600		19300		63800	75.7		P
Zinc	ug/Kg	75-125	79800		27200		63800	82.3		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1570 Client ID RE15-10-7981SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 75

Sample ID: 246344001 Spike ID: 1202038315

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Barium	ug/Kg	75-125	122000		94800		64800	42	N	P
Cadmium	ug/Kg	75-125	62800		126	U	64800	96.9		P
Calcium	ug/Kg	75-125	1610000		1580000		648000	4.24	N	P
Chromium	ug/Kg	75-125	57900		8330		64800	76.4		P
Cobalt	ug/Kg	75-125	65700		8870		64800	87.7		P
Copper	ug/Kg	75-125	59500		11100		64800	74.7	N	P
Iron	ug/Kg		8560000		12700000		648000	-632	N/A	P
Lead	ug/Kg	75-125	73900		26400		64800	73.3	N	P
Magnesium	ug/Kg	75-125	1630000		1350000		648000	43.2	N	P
Manganese	ug/Kg		231000		292000		64800	-94.3	N/A	P
Potassium	ug/Kg	75-125	1540000		1280000		648000	40.3	N	P
Silver	ug/Kg	75-125	63000		126	U	64800	97.1		P
Sodium	ug/Kg	75-125	681000		109000		648000	88.1		P
Vanadium	ug/Kg	75-125	63600		19300		64800	68.4	N	P
Zinc	ug/Kg	75-125	69700		27200		64800	65.5	N	P
Aluminum	ug/Kg		8350000		6970000		648000	213	N/A	P
Antimony	ug/Kg	75-125	44900		1370		64800	67.2	N	P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1570 Client ID RE15-10-7981S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 75

Sample ID: 246344001 Spike ID: 1202038330

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	10.2		2.04		9.7	83.7		MS
Beryllium	mg/kg	75-125	6.15		0.789		6.06	88.4		MS
Nickel	mg/kg	75-125	11.6		6.25		6.06	87.7		MS
Selenium	mg/kg	75-125	1.83		0.669	U	2.42	67.4	N	MS
Thallium	mg/kg	75-125	12.3		0.225	J	12.1	99.9		MS
Uranium	mg/kg	75-125	13.7		9.1		6.06	75.2		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1570 Client ID RE15-10-7981SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 75

Sample ID: 246344001 Spike ID: 1202038331

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Arsenic	mg/kg	75-125	10.8		2.04		10.1	87.5		MS
Beryllium	mg/kg	75-125	6.46		0.789		6.29	90.2		MS
Nickel	mg/kg	75-125	12.6		6.25		6.29	101		MS
Selenium	mg/kg	75-125	1.87		0.669	U	2.52	66.9	N	MS
Thallium	mg/kg	75-125	13.3		0.225	J	12.6	104		MS
Uranium	mg/kg	75-125	14.4		9.1		6.29	84.2		MS

METALS

-5a-

Matrix Spike Summary

SDG NO.	10-1570	Client ID	RE15-10-7981S
---------	---------	-----------	---------------

Contract:	LANL01004	Level:	Low
-----------	-----------	--------	-----

Matrix:	SOIL	% Solids:	75
---------	------	-----------	----

Sample ID:	246344001	Spike ID:	1202039386
------------	-----------	-----------	------------

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	175		10.4	J	154	107		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1570 Client ID RE15-10-7981SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 75

Sample ID: 246344001 Spike ID: 1202039388

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	181		10.4	J	153	111		AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981D

Sample ID: 246344001

Duplicate ID: 1202038312

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	6970000		6060000		13.9		P
Antimony	ug/Kg	+/-1280	1370		698 J		65		P
Barium	ug/Kg	+/-20%	94800		81100		15.6		P
Cadmium	ug/Kg		126 U		128 U				P
Calcium	ug/Kg	+/-20%	1580000		1530000		3.2		P
Chromium	ug/Kg	+/-20%	8330		9820		16.4		P
Cobalt	ug/Kg	+/-20%	8870		8760		1.23		P
Copper	ug/Kg	+/-20%	11100		8600		25	*	P
Iron	ug/Kg	+/-20%	12700000		11600000		8.47		P
Lead	ug/Kg	+/-20%	26400		31400		17.4		P
Magnesium	ug/Kg	+/-20%	1350000		1420000		5.1		P
Manganese	ug/Kg	+/-20%	292000		309000		5.86		P
Potassium	ug/Kg	+/-20%	1280000		1100000		14.8		P
Silver	ug/Kg		126 U		128 U				P
Sodium	ug/Kg	+/-31900	109000		115000		4.65		P
Vanadium	ug/Kg	+/-20%	19300		18600		3.55		P
Zinc	ug/Kg	+/-20%	27200		27200		.0241		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981SD

Sample ID: 1202038314

Duplicate ID: 1202038315

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	12200000		8350000		37.3	*	P
Antimony	ug/Kg	+/-20	39700		44900		12.3		P
Barium	ug/Kg	+/-20	150000		122000		20.6	*	P
Cadmium	ug/Kg	+/-20	60700		62800		3.39		P
Calcium	ug/Kg	+/-20	2160000		1610000		29.1	*	P
Chromium	ug/Kg	+/-20	58600		57900		1.24		P
Cobalt	ug/Kg	+/-20	66600		65700		1.29		P
Copper	ug/Kg	+/-20	61000		59500		2.56		P
Iron	ug/Kg	+/-20	14100000		8560000		49	*	P
Lead	ug/Kg	+/-20	78700		73900		6.4		P
Magnesium	ug/Kg	+/-20	2160000		1630000		28	*	P
Manganese	ug/Kg	+/-20	365000		231000		45.1	*	P
Potassium	ug/Kg	+/-20	2020000		1540000		26.9	*	P
Silver	ug/Kg	+/-20	61200		63000		2.82		P
Sodium	ug/Kg	+/-20	734000		681000		7.6		P
Vanadium	ug/Kg	+/-20	67600		63600		6.08		P
Zinc	ug/Kg	+/-20	79800		69700		13.4		P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981D

Sample ID: 246344001

Duplicate ID: 1202038328

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.21	2.04		1.95		4.7		MS
Beryllium	mg/kg	+/-20%	0.789		0.749		5.2		MS
Nickel	mg/kg	+/-20%	6.25		5.8		7.55		MS
Selenium	mg/kg		0.669 U		0.606 U				MS
Thallium	mg/kg	+/- .242	0.225 J		0.158 J		35		MS
Uranium	mg/kg	+/-20%	9.1		7.84		14.9		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981SD

Sample ID: 1202038330

Duplicate ID: 1202038331

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	10.2		10.8		6.52		MS
Beryllium	mg/kg	+/-20	6.15		6.46		4.95		MS
Nickel	mg/kg	+/-20	11.6		12.6		8.38		MS
Selenium	mg/kg	+/-20	1.83		1.87		2.64		MS
Thallium	mg/kg	+/-20	12.3		13.3		7.23		MS
Uranium	mg/kg	+/-20	13.7		14.4		5.23		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981D

Sample ID: 246344001

Duplicate ID: 1202039385

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-15.3	10.4 J		9.23 J		11.9		AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1570

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981SD

Sample ID: 1202039386

Duplicate ID: 1202039388

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	175		181		3.53		AV

.....

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1570

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202038316								
	Zinc	ug/Kg	594000	569000		95.8	80-121	P
	Aluminum	ug/Kg	10500000	8590000		81.8	56-144	P
	Antimony	ug/Kg	173000	134000		77.6	71-130	P
	Barium	ug/Kg	198000	197000		99.6	80-120	P
	Cadmium	ug/Kg	60700	58200		95.9	81-120	P
	Calcium	ug/Kg	9870000	10100000		102	83-117	P
	Chromium	ug/Kg	236000	231000		97.7	80-120	P
	Cobalt	ug/Kg	91200	90500		99.2	81-120	P
	Copper	ug/Kg	174000	184000		106	81-118	P
	Iron	ug/Kg	18000000	19600000		109	51-149	P
	Lead	ug/Kg	86000	85400		99.3	79-121	P
	Magnesium	ug/Kg	4000000	3740000		93.4	79-122	P
	Manganese	ug/Kg	558000	547000		98.1	81-119	P
	Potassium	ug/Kg	4300000	4020000		93.5	74-127	P
	Silver	ug/Kg	30100	30800		102	66-134	P
	Sodium	ug/Kg	1020000	953000		93.4	74-127	P
	Vanadium	ug/Kg	115000	123000		107	79-121	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1570

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202038332								
	Arsenic	mg/kg	104	101		96.9	78-123	MS
	Beryllium	mg/kg	77.6	72.1		92.9	84-116	MS
	Nickel	mg/kg	134	129		96.6	78-123	MS
	Selenium	mg/kg	286	290		102	77-123	MS
	Thallium	mg/kg	121	131		108	78-122	MS
	Uranium	mg/kg	2.13	2.18		102	73-127	MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1570

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202039384	Mercury	ug/kg	5150	5490		107	71.6-128.3	AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1570 Client ID RE15-10-7981L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 246344001 Serial Dilution ID: 1202038313

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	55200		54000		2.17		10	P
Antimony	10.9		16.5	U	100			P
Barium	751		705		6.13		10	P
Cadmium	1	U	5	U				P
Calcium	12600		12200		3.17		10	P
Chromium	66		62.5		5.3			P
Cobalt	70.3		66.5		5.41			P
Copper	87.6		73.5		16.1			P
Iron	100000		99500		.5		10	P
Lead	209		187		10.5	E	10	P
Magnesium	10700		10500		1.87		10	P
Manganese	2310		2170		6.06		10	P
Potassium	10200		9700		4.9		10	P
Silver	1	U	5	U				P
Sodium	867		685	J	21			P
Vanadium	153		140		8.5		10	P
Zinc	216		182		15.7	E	10	P

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1570 Client ID RE15-10-7981L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 246344001 Serial Dilution ID: 1202038329

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Arsenic	7.63		8.4	J	10.1			MS
Beryllium	2.95		3.24		9.83			MS
Nickel	23.4		25.5		8.76			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.84	J	1.5	U	100			MS
Uranium	34		38.8		14.1	E	10	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1570 **Client ID** RE15-10-7981L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 246344001 **Serial Dilution ID:** 1202039387

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.134	J	.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1570

Method Type: P

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 951148							
1202038311	MB for batch 951148	MB	S	17-FEB-10	.501g	50mL	
1202038316	LCS for batch 951148	LCS	S	17-FEB-10	.5g	50mL	
1202038314	RE15-10-7981S	MS	S	17-FEB-10	.525g	50mL	
1202038315	RE15-10-7981SD	MSD	S	17-FEB-10	.517g	50mL	
1202038312	RE15-10-7981D	DUP	S	17-FEB-10	.525g	50mL	
246344001	RE15-10-7981	SAMPLE	S	17-FEB-10	.531g	50mL	
246344002	RE15-10-7983	SAMPLE	S	17-FEB-10	.525g	50mL	
246344003	RE15-10-7984	SAMPLE	S	17-FEB-10	.525g	50mL	
246344004	RE15-10-7982	SAMPLE	S	17-FEB-10	.5g	50mL	
246344005	RE15-10-7985	SAMPLE	S	17-FEB-10	.557g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1570

Method Type: MS

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 951155							
1202038327	MB for batch 951155	MB	S	17-FEB-10	.5g	50mL	
1202038332	LCS for batch 951155	LCS	S	17-FEB-10	.507g	50mL	
1202038330	RE15-10-7981S	MS	S	17-FEB-10	.553g	50mL	
1202038331	RE15-10-7981SD	MSD	S	17-FEB-10	.533g	50mL	
1202038328	RE15-10-7981D	DUP	S	17-FEB-10	.553g	50mL	
246344001	RE15-10-7981	SAMPLE	S	17-FEB-10	.501g	50mL	
246344002	RE15-10-7983	SAMPLE	S	17-FEB-10	.533g	50mL	
246344003	RE15-10-7984	SAMPLE	S	17-FEB-10	.525g	50mL	
246344004	RE15-10-7982	SAMPLE	S	17-FEB-10	.5g	50mL	
246344005	RE15-10-7985	SAMPLE	S	17-FEB-10	.515g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1570

Method Type: AV

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 951597							
1202039383	MB for batch 951597	MB	S	19-FEB-10	.528g	30mL	
1202039384	LCS for batch 951597	LCS	S	19-FEB-10	.2g	30mL	
1202039386	RE15-10-7981S	MS	S	19-FEB-10	.523g	30mL	
1202039388	RE15-10-7981SD	MSD	S	19-FEB-10	.526g	30mL	
1202039385	RE15-10-7981D	DUP	S	19-FEB-10	.527g	30mL	
246344001	RE15-10-7981	SAMPLE	S	19-FEB-10	.518g	30mL	
246344002	RE15-10-7983	SAMPLE	S	19-FEB-10	.571g	30mL	
246344003	RE15-10-7984	SAMPLE	S	19-FEB-10	.557g	30mL	
246344004	RE15-10-7982	SAMPLE	S	19-FEB-10	.546g	30mL	
246344005	RE15-10-7985	SAMPLE	S	19-FEB-10	.503g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 04-MAR-10

End Date: 04-MAR-10

Client Sdg: 10-1570

Method MS

Data File: 100303-2

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	02:41			X		X											X	X							
S10	1	02:47			X		X											X	X							
S100	1	02:53			X		X											X	X							
ICV01	1	02:59			X		X											X	X							
ICB01	1	03:05			X		X											X	X							
CRDL01	1	03:12			X		X											X	X							
ICSA01	1	03:18			X		X											X	X							
ICSAB01	1	03:24			X		X											X	X							
CCV01	1	03:30			X		X											X	X							
CCB01	1	03:36			X		X											X	X							
LR01	1	03:42			X		X											X	X							
CCV02	1	03:48			X		X											X	X							
CCB02	1	03:54			X		X											X	X							
1202038327	2	04:00			X		X											X	X							
1202038332	40	04:07			X		X											X	X							
246344001	2	04:13			X		X											X	X							
1202038328	2	04:19			X		X											X	X							
1202038330	2	04:25			X		X											X	X							
1202038331	2	04:31			X		X											X	X							
1202038329	10	04:37			X		X											X	X							
CCV03	1	04:44			X		X											X	X							
CCB03	1	04:50			X		X											X	X							
246344002	2	04:56			X		X											X	X							
246344003	2	05:02			X		X											X	X							
246344004	2	05:08			X		X											X	X							
246344005	2	05:14			X		X											X	X							
CCV04	1	05:20			X		X											X	X							
CCB04	1	05:27			X		X											X	X							

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 04-MAR-10

End Date: 04-MAR-10

Client Sdg: 10-1570

Method MS

Data File: 100303-3

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	08:59																					X	X		
S10	1	09:02																					X	X		
S100	1	09:06																					X	X		
ICV01	1	09:09																					X	X		
ICB01	1	09:12																					X	X		
CRDL01	1	09:16																					X	X		
ICSA01	1	09:19																					X	X		
ICSAB01	1	09:22																					X	X		
CCV01	1	09:26																					X	X		
CCB01	1	09:29																					X	X		
1202038327	2	09:33																					X	X		
1202038332	40	09:36																					X	X		
246344001	2	09:39																					X	X		
1202038328	2	09:43																					X	X		
1202038330	2	09:46																					X	X		
1202038331	2	09:50																					X	X		
1202038329	10	09:53																					X	X		
CCV02	1	09:57																					X	X		
CCB02	1	10:00																					X	X		
246344002	2	10:03																					X	X		
246344003	2	10:07																					X	X		
246344004	2	10:10																					X	X		
246344005	2	10:14																					X			
246344005	20	10:18																						X		
CCV03	1	10:22																					X	X		
CCB03	1	10:25																					X	X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: HG3

Start Date: 22-FEB-10

End Date: 22-FEB-10

Client Sdg: 10-1570

Method AV

Data File: 022210S1-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:12															X									
S0.2	1	09:13															X									
S0.5	1	09:15															X									
S2.0	1	09:17															X									
S5.0	1	09:18															X									
S10.0	1	09:20															X									
ICV01	1	09:22															X									
ICB01	1	09:23															X									
CRDL01	1	09:25															X									
CCV01	1	09:27															X									
CCB01	1	09:28															X									
ZZZZZZ	1	09:30																								
ZZZZZZ	10	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:37																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	1	09:42																								
ZZZZZZ	1	09:43																								
ZZZZZZ	1	09:45																								
CCV02	1	09:47															X									
CCB02	1	09:48															X									
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:00																								
ZZZZZZ	5	10:02																								
ZZZZZZ	1	10:04																								
ZZZZZZ	1	10:05																								
CCV03	1	10:07															X									
CCB03	1	10:09															X									
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								

Page 701 of 1886

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	11:26																								
CCV07	1	11:27															X									
CCB07	1	11:29															X									
ZZZZZZ	1	11:31																								
ZZZZZZ	1	11:32																								
ZZZZZZ	1	11:34																								
ZZZZZZ	1	11:36																								
ZZZZZZ	1	11:38																								
ZZZZZZ	1	11:39																								
ZZZZZZ	1	11:41																								
ZZZZZZ	1	11:43																								
ZZZZZZ	10	11:44																								
ZZZZZZ	1	11:46																								
CCV08	1	11:48															X									
CCB08	1	11:49															X									
ZZZZZZ	1	11:51																								
ZZZZZZ	1	11:53																								
ZZZZZZ	1	11:54																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	11:58																								
ZZZZZZ	1	11:59																								
ZZZZZZ	1	12:01																								
ZZZZZZ	1	12:03																								
ZZZZZZ	1	12:05																								
ZZZZZZ	1	12:06																								
CCV09	1	12:08															X									
CCB09	1	12:10															X									
ZZZZZZ	1	12:11																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:15																								
ZZZZZZ	1	12:16																								
ZZZZZZ	1	12:18																								
ZZZZZZ	1	12:20																								
ZZZZZZ	1	12:21																								
ZZZZZZ	1	12:23																								
ZZZZZZ	1	12:25																								
ZZZZZZ	1	12:27																								
CCV10	1	12:28															X									
CCB10	1	12:30															X									
ZZZZZZ	1	12:32																								

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 24-FEB-10

End Date: 25-FEB-10

Client Sdg: 10-1570

Method P

Data File: 022410-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	13:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	13:19		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	13:22	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	13:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	13:29	X						X				X		X							X				
ICV01	1	13:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	13:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	13:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	13:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	13:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	13:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	13:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	13:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	13:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	14:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR04	1	14:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	14:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	14:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	14:33																								
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:43																								
ZZZZZZ	1	14:47																								
ZZZZZZ	5	14:50																								
ZZZZZZ	1	14:54																								
ZZZZZZ	1	14:57																								
ZZZZZZ	1	15:01																								
CCV03	1	15:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	15:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	15:11																								
ZZZZZZ	1	15:15																								
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:22																								
ZZZZZZ	1	15:25																								
ZZZZZZ	1	15:29																								
ZZZZZZ	1	15:32																								
ZZZZZZ	1	15:36																								
ZZZZZZ	1	15:39																								
ZZZZZZ	1	15:42																								
CCV04	1	15:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																									
CCB04	1	15:50	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	10	15:53																									
ZZZZZZ	10	15:57																									
ZZZZZZ	10	16:00																									
ZZZZZZ	50	16:03																									
ZZZZZZ	10	16:07																									
ZZZZZZ	10	16:10																									
ZZZZZZ	10	16:14																									
ZZZZZZ	10	16:17																									
CCV05	1	16:21	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	10	16:28																									
ZZZZZZ	10	16:31																									
ZZZZZZ	10	16:35																									
ZZZZZZ	10	16:38																									
ZZZZZZ	10	16:41																									
ZZZZZZ	10	16:45																									
ZZZZZZ	10	16:48																									
CCV06	1	16:52	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	16:55	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	16:59																									
ZZZZZZ	1	17:03																									
ZZZZZZ	1	17:06																									
ZZZZZZ	1	17:10																									
ZZZZZZ	1	17:13																									
ZZZZZZ	1	17:17																									
ZZZZZZ	5	17:20																									
ZZZZZZ	1	17:24																									
ZZZZZZ	1	17:28																									
CCV07	1	17:31	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	17:35	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:39																									
ZZZZZZ	1	17:42																									
ZZZZZZ	1	17:46																									
ZZZZZZ	1	17:50																									
ZZZZZZ	1	17:53																									
ZZZZZZ	1	17:57																									
ZZZZZZ	1	18:00																									
ZZZZZZ	1	18:04																									
ZZZZZZ	1	18:08																									

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
CCV08	1	18:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	18:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:23																								
ZZZZZZ	1	18:27																								
ZZZZZZ	1	18:31																								
ZZZZZZ	1	18:34																								
ZZZZZZ	1	18:38																								
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:46																								
ZZZZZZ	5	18:50																								
CCV09	1	18:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL02	1	18:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	19:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	100	19:05																								
CCV10	1	19:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	19:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV11	1	20:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	20:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV12	1	21:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	5	21:40																								
ZZZZZZ	50	21:44																								
ZZZZZZ	50	21:47																								
CCV13	1	21:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	21:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	50	22:00																								
ZZZZZZ	50	22:03																								
CCV14	1	22:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	22:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:14																								
ZZZZZZ	1	22:18																								
ZZZZZZ	1	22:22																								
ZZZZZZ	1	22:25																								
ZZZZZZ	1	22:30																								
ZZZZZZ	1	22:34																								
ZZZZZZ	1	22:39																								
ZZZZZZ	5	22:44																								
CCV15	1	22:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL03	1	22:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	22:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																												
CCV16	1	23:11	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB16	1	23:15	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
ZZZZZZ	1	23:18																												
ZZZZZZ	1	23:22																												
ZZZZZZ	1	23:26																												
ZZZZZZ	1	23:29																												
ZZZZZZ	1	23:33																												
ZZZZZZ	1	23:37																												
ZZZZZZ	5	23:40																												
CCV17	1	23:44	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
PQL04	1	23:48	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB17	1	23:51	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
ZZZZZZ	500	23:55																												
CCV18	1	23:58	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB18	1	00:02	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCV19	1	00:22	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB19	1	00:26	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCV20	1	00:55	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB20	1	00:59	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCV21	1	01:16	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB21	1	01:19	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
ZZZZZZ	20	01:53																												
ZZZZZZ	20	01:57																												
ZZZZZZ	20	02:00																												
ZZZZZZ	20	02:04																												
ZZZZZZ	100	02:08																												
CCV22	1	02:11	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
PQL05	1	02:15	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB22	1	02:19	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
ZZZZZZ	1000	02:22																												
CCV23	1	02:26	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB23	1	02:29	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCV24	1	03:05	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB24	1	03:09	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCV25	1	03:36	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
CCB25	1	03:39	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X				X	X		
ZZZZZZ	1	03:43																												
ZZZZZZ	1	03:47																												
ZZZZZZ	1	03:50																												
ZZZZZZ	1	03:53																												

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	03:57																								
ZZZZZZ	1	04:01																								
ZZZZZZ	5	04:04																								
ZZZZZZ	1	04:08																								
CCV26	1	04:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB26	1	04:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	04:19																								
ZZZZZZ	1	04:23																								
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:30																								
ZZZZZZ	1	04:34																								
ZZZZZZ	1	04:37																								
ZZZZZZ	1	04:41																								
ZZZZZZ	1	04:45																								
ZZZZZZ	1	04:48																								
CCV27	1	04:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB27	1	04:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	04:59																								
ZZZZZZ	1	05:03																								
ZZZZZZ	1	05:07																								
ZZZZZZ	1	05:10																								
ZZZZZZ	1	05:14																								
ZZZZZZ	1	05:18																								
ZZZZZZ	5	05:21																								
CCV28	1	05:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL06	1	05:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB28	1	05:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	500	05:36																								
CCV29	1	05:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB29	1	05:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	06:01																								
ZZZZZZ	1	06:05																								
ZZZZZZ	1	06:08																								
ZZZZZZ	1	06:12																								
ZZZZZZ	1	06:16																								
ZZZZZZ	1	06:19																								
ZZZZZZ	5	06:22																								
CCV30	1	06:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB30	1	06:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	06:33																								

Metals
-14-
Analysis Run Log

[illegible]

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1570

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
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. 10-1570

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1570

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
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: GELGEL Job No: **10-1570**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Tballium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1570**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interement Correction Factors

Lab Code: GELGEL Job No: **10-1570**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1570**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Selenium	Silicon	Silver
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1570**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1570

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1570

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1570

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA1

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

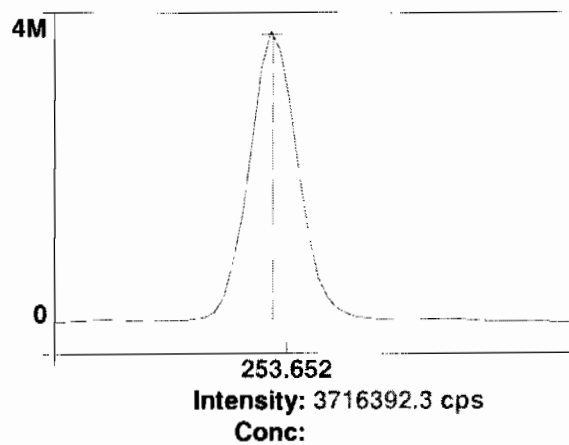
Raw Data

Method: Hg_ReAlign
Result: 030410

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

=====
Analysis Begun

Start Time: 2/24/2010 13:16:15

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022410A.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optima1\Results\Results.mdb
=====

Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 2/24/2010 12:42:43

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 2/24/2010 13:16:17

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:
=====

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	52818.3	52818.3	100 %		13:16:51
1	Al 396.153Radial†	-26.4	-26.4	[0.00] µg/L		13:16:51
1	Ca 317.933Radial†	185.7	185.6	[0.00] µg/L		13:17:11
1	Fe 238.204 Radial†	16.2	16.2	[0.00] µg/L		13:17:11

1	K 766.490 Radial†	255.7	255.5	[0.00]	µg/L	13:16:51
1	Mg 279.077 IEC†	14.6	14.6	[0.00]	µg/L	13:17:11
1	Na 589.592 Radial†	614.1	613.6	[0.00]	µg/L	13:16:51
1	Sr 421.552†	25.2	25.2	[0.00]	µg/L	13:16:51
1	Sc 361.383	1891759.5	1891759.5	99.392	%	13:18:09
1	Y 371.029	1303250.6	1303250.6	99.378	%	13:18:09
1	Ag 328.068†	-495.2	-498.2	[0.00]	µg/L	13:18:14
1	As 188.979†	-3.5	-3.5	[0.00]	µg/L	13:18:35
1	B 249.677†	449.5	452.2	[0.00]	µg/L	13:18:35
1	Ba 233.527†	-19.2	-19.3	[0.00]	µg/L	13:18:35
1	Be 313.107†	-3525.6	-3547.1	[0.00]	µg/L	13:18:14
1	Cd 226.502†	-126.6	-127.4	[0.00]	µg/L	13:18:35
1	Co 228.616†	-8.4	-8.5	[0.00]	µg/L	13:18:35
1	Cr 267.716†	-51.3	-51.6	[0.00]	µg/L	13:18:35
1	Cu 324.752†	3233.2	3253.0	[0.00]	µg/L	13:18:14
1	Mn 257.610†	-237.9	-239.3	[0.00]	µg/L	13:18:35
1	Mo 202.031†	-2.4	-2.4	[0.00]	µg/L	13:18:35
1	Ni 231.604†	286.7	288.4	[0.00]	µg/L	13:18:35
1	P 214.914†	21.1	21.2	[0.00]	µg/L	13:18:35
1	Pb 220.353†	90.0	90.5	[0.00]	µg/L	13:18:35
1	S 181.975 Axial†	17.2	17.3	[0.00]	µg/L	13:18:35
1	Sb 206.836†	24.9	25.1	[0.00]	µg/L	13:18:35
1	Se 196.026†	18.2	18.3	[0.00]	µg/L	13:18:35
1	SiO2†	1523.4	1532.7	[0.00]	µg/L	13:18:14
1	Si 251.611†	328.1	330.1	[0.00]	µg/L	13:18:35
1	Sn 189.927†	2.4	2.4	[0.00]	µg/L	13:18:35
1	Ti 334.940†	98.3	98.9	[0.00]	µg/L	13:18:14
1	Tl 190.801†	-23.0	-23.2	[0.00]	µg/L	13:18:35
1	U 409.014†	204.3	205.6	[0.00]	µg/L	13:18:14
1	V 292.402†	-11.2	-11.2	[0.00]	µg/L	13:18:14
1	Zn 213.857†	550.7	554.1	[0.00]	µg/L	13:18:35
2	Sc RADIAL	53030.8	53030.8	100	%	13:17:16
2	Al 396.153Radial†	-33.3	-33.1	[0.00]	µg/L	13:17:16
2	Ca 317.933Radial†	180.1	179.3	[0.00]	µg/L	13:17:36
2	Fe 238.204 Radial†	15.4	15.3	[0.00]	µg/L	13:17:36
2	K 766.490 Radial†	267.0	265.7	[0.00]	µg/L	13:17:16
2	Mg 279.077 IEC†	11.6	11.6	[0.00]	µg/L	13:17:36
2	Na 589.592 Radial†	563.6	560.8	[0.00]	µg/L	13:17:16
2	Sr 421.552†	30.9	30.8	[0.00]	µg/L	13:17:16
2	Sc 361.383	1911898.9	1911898.9	100.45	%	13:18:40
2	Y 371.029	1317399.4	1317399.4	100.46	%	13:18:40
2	Ag 328.068†	-529.5	-527.1	[0.00]	µg/L	13:18:46
2	As 188.979†	2.7	2.6	[0.00]	µg/L	13:19:06
2	B 249.677†	463.3	461.2	[0.00]	µg/L	13:19:06
2	Ba 233.527†	-16.0	-15.9	[0.00]	µg/L	13:19:06
2	Be 313.107†	-3594.9	-3578.8	[0.00]	µg/L	13:18:46
2	Cd 226.502†	-126.9	-126.4	[0.00]	µg/L	13:19:06
2	Co 228.616†	-7.0	-7.0	[0.00]	µg/L	13:19:06
2	Cr 267.716†	-47.0	-46.8	[0.00]	µg/L	13:19:06
2	Cu 324.752†	3238.3	3223.7	[0.00]	µg/L	13:18:46
2	Mn 257.610†	-231.9	-230.8	[0.00]	µg/L	13:19:06
2	Mo 202.031†	-2.7	-2.7	[0.00]	µg/L	13:19:06
2	Ni 231.604†	279.8	278.6	[0.00]	µg/L	13:19:06
2	P 214.914†	15.2	15.1	[0.00]	µg/L	13:19:06
2	Pb 220.353†	82.7	82.3	[0.00]	µg/L	13:19:06
2	S 181.975 Axial†	16.8	16.7	[0.00]	µg/L	13:19:06
2	Sb 206.836†	20.2	20.1	[0.00]	µg/L	13:19:06
2	Se 196.026†	13.4	13.3	[0.00]	µg/L	13:19:06
2	SiO2†	1566.3	1559.3	[0.00]	µg/L	13:18:46
2	Si 251.611†	325.1	323.6	[0.00]	µg/L	13:19:06
2	Sn 189.927†	0.7	0.7	[0.00]	µg/L	13:19:06
2	Ti 334.940†	53.1	52.9	[0.00]	µg/L	13:18:46
2	Tl 190.801†	-22.5	-22.4	[0.00]	µg/L	13:19:06
2	U 409.014†	152.7	152.0	[0.00]	µg/L	13:18:46
2	V 292.402†	-90.6	-90.1	[0.00]	µg/L	13:18:46
2	Zn 213.857†	550.9	548.4	[0.00]	µg/L	13:19:06
3	Sc RADIAL	52469.7	52469.7	99.4	%	13:17:41
3	Al 396.153Radial†	-19.7	-19.8	[0.00]	µg/L	13:17:41
3	Ca 317.933Radial†	183.8	184.8	[0.00]	µg/L	13:18:01
3	Fe 238.204 Radial†	15.7	15.8	[0.00]	µg/L	13:18:01
3	K 766.490 Radial†	219.1	220.4	[0.00]	µg/L	13:17:41

3	Mg 279.077 IEC†	11.9	12.0	[0.00] µg/L	13:18:01
3	Na 589.592 Radial†	599.7	603.2	[0.00] µg/L	13:17:41
3	Sr 421.552†	19.0	19.1	[0.00] µg/L	13:17:41
3	Sc 361.383	1906317.1	1906317.1	100.16 %	13:19:12
3	Y 371.029	1313586.1	1313586.1	100.17 %	13:19:12
3	Ag 328.068†	-471.8	-471.0	[0.00] µg/L	13:19:17
3	As 188.979†	3.4	3.4	[0.00] µg/L	13:19:37
3	B 249.677†	449.9	449.2	[0.00] µg/L	13:19:37
3	Ba 233.527†	-26.3	-26.2	[0.00] µg/L	13:19:37
3	Be 313.107†	-3494.3	-3488.8	[0.00] µg/L	13:19:17
3	Cd 226.502†	-134.5	-134.3	[0.00] µg/L	13:19:37
3	Co 228.616†	-6.8	-6.8	[0.00] µg/L	13:19:37
3	Cr 267.716†	-40.1	-40.1	[0.00] µg/L	13:19:37
3	Cu 324.752†	3245.6	3240.5	[0.00] µg/L	13:19:17
3	Mn 257.610†	-222.7	-222.3	[0.00] µg/L	13:19:37
3	Mo 202.031†	-7.1	-7.0	[0.00] µg/L	13:19:37
3	Ni 231.604†	297.4	296.9	[0.00] µg/L	13:19:37
3	P 214.914†	30.7	30.6	[0.00] µg/L	13:19:37
3	Pb 220.353†	74.9	74.8	[0.00] µg/L	13:19:37
3	S 181.975 Axial†	15.1	15.1	[0.00] µg/L	13:19:37
3	Sb 206.836†	20.3	20.2	[0.00] µg/L	13:19:37
3	Se 196.026†	15.8	15.8	[0.00] µg/L	13:19:37
3	SiO2†	1547.2	1544.7	[0.00] µg/L	13:19:17
3	Si 251.611†	351.4	350.9	[0.00] µg/L	13:19:37
3	Sn 189.927†	-1.0	-1.0	[0.00] µg/L	13:19:37
3	Ti 334.940†	79.2	79.1	[0.00] µg/L	13:19:17
3	Tl 190.801†	-19.6	-19.6	[0.00] µg/L	13:19:37
3	U 409.014†	266.2	265.7	[0.00] µg/L	13:19:17
3	V 292.402†	-41.0	-41.0	[0.00] µg/L	13:19:17
3	Zn 213.857†	543.8	543.0	[0.00] µg/L	13:19:37

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1903325.2	10397.69	0.55%	100.00 %	
Sc RADIAL	52772.9	283.27	0.54%	100 %	
Y 371.029	1311412.0	7320.68	0.56%	100.00 %	
Ag 328.068†	-498.8	28.06	5.62%	[0.00] µg/L	
Al 396.153Radial†	-26.4	6.64	25.11%	[0.00] µg/L	
As 188.979†	0.9	3.79	439.65%	[0.00] µg/L	
B 249.677†	454.2	6.26	1.38%	[0.00] µg/L	
Ba 233.527†	-20.5	5.25	25.64%	[0.00] µg/L	
Be 313.107†	-3538.2	45.64	1.29%	[0.00] µg/L	
Ca 317.933Radial†	183.2	3.44	1.88%	[0.00] µg/L	
Cd 226.502†	-129.4	4.31	3.33%	[0.00] µg/L	
Co 228.616†	-7.4	0.92	12.33%	[0.00] µg/L	
Cr 267.716†	-46.1	5.79	12.54%	[0.00] µg/L	
Cu 324.752†	3239.1	14.68	0.45%	[0.00] µg/L	
Fe 238.204 Radial†	15.8	0.42	2.68%	[0.00] µg/L	
K 766.490 Radial†	247.2	23.78	9.62%	[0.00] µg/L	
Mg 279.077 IEC†	12.7	1.63	12.85%	[0.00] µg/L	
Mn 257.610†	-230.8	8.50	3.68%	[0.00] µg/L	
Mo 202.031†	-4.1	2.59	63.91%	[0.00] µg/L	
Na 589.592 Radial†	592.5	27.95	4.72%	[0.00] µg/L	
Ni 231.604†	288.0	9.19	3.19%	[0.00] µg/L	
P 214.914†	22.3	7.83	35.08%	[0.00] µg/L	
Pb 220.353†	82.6	7.84	9.50%	[0.00] µg/L	
S 181.975 Axial†	16.4	1.12	6.82%	[0.00] µg/L	
Sb 206.836†	21.8	2.83	12.96%	[0.00] µg/L	
Se 196.026†	15.8	2.51	15.85%	[0.00] µg/L	
SiO2†	1545.6	13.33	0.86%	[0.00] µg/L	
Si 251.611†	334.9	14.21	4.24%	[0.00] µg/L	
Sn 189.927†	0.7	1.68	242.32%	[0.00] µg/L	
Sr 421.552†	25.0	5.83	23.31%	[0.00] µg/L	
Ti 334.940†	77.0	23.08	29.98%	[0.00] µg/L	
Tl 190.801†	-21.7	1.89	8.73%	[0.00] µg/L	
U 409.014†	207.8	56.91	27.39%	[0.00] µg/L	
V 292.402†	-47.4	39.86	84.02%	[0.00] µg/L	
Zn 213.857†	548.5	5.54	1.01%	[0.00] µg/L	

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/24/2010 13:19:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	54678.7	54678.7	104 %	13:20:19
1	K 766.490 Radial†	1678.1	1372.5	[1000] µg/L	13:20:19
1	Sr 421.552†	9793.4	9427.0	[100] µg/L	13:20:19
1	Sc 361.383	1898434.4	1898434.4	99.743 %	13:20:38
1	Y 371.029	1309699.4	1309699.4	99.869 %	13:20:38
1	Ag 328.068†	12271.9	12802.3	[100] µg/L	13:20:43
1	As 188.979†	46.3	45.5	[100] µg/L	13:21:03
1	B 249.677†	2652.5	2205.1	[100] µg/L	13:20:43
1	Ba 233.527†	3777.2	3807.4	[100] µg/L	13:20:43
1	Be 313.107†	151871.7	155801.2	[100] µg/L	13:20:38
1	Cd 226.502†	3551.4	3690.0	[100] µg/L	13:20:43
1	Co 228.616†	2021.0	2033.6	[100] µg/L	13:21:03
1	Cr 267.716†	4616.7	4674.7	[100] µg/L	13:20:43
1	Cu 324.752†	18053.7	14861.1	[100] µg/L	13:20:43
1	Mn 257.610†	29295.3	29601.6	[100] µg/L	13:20:43
1	Mo 202.031†	959.0	965.5	[100] µg/L	13:21:03
1	Ni 231.604†	2159.7	1877.3	[100] µg/L	13:20:43
1	P 214.914†	251.3	229.7	[500] µg/L	13:21:03
1	Pb 220.353†	475.3	394.0	[100] µg/L	13:21:03
1	S 181.975 Axial†	60.6	44.4	[200] µg/L	13:21:03
1	Sb 206.836†	132.0	110.6	[100] µg/L	13:21:03
1	Se 196.026†	82.4	66.8	[100] µg/L	13:21:03
1	SiO2†	6475.1	4946.2	[1069.5] µg/L	13:20:43
1	Si 251.611†	6319.4	6000.8	[500] µg/L	13:20:43
1	Sn 189.927†	229.2	229.1	[100] µg/L	13:21:03
1	Ti 334.940†	41483.7	41513.6	[100] µg/L	13:20:43
1	Tl 190.801†	49.6	71.4	[100] µg/L	13:21:03
1	U 409.014†	1412.3	1208.2	[100] µg/L	13:20:43
1	V 292.402†	9593.2	9665.4	[100] µg/L	13:20:43
1	Zn 213.857†	4477.6	3940.6	[100] µg/L	13:20:43
2	Sc RADIAL	55194.2	55194.2	105 %	13:20:24
2	K 766.490 Radial†	1623.2	1304.8	[1000] µg/L	13:20:24
2	Sr 421.552†	9887.0	9428.3	[100] µg/L	13:20:24
2	Sc 361.383	1888779.3	1888779.3	99.236 %	13:21:09
2	Y 371.029	1302647.0	1302647.0	99.332 %	13:21:09
2	Ag 328.068†	12347.6	12941.5	[100] µg/L	13:21:15
2	As 188.979†	51.9	51.4	[100] µg/L	13:21:35
2	B 249.677†	2676.9	2243.3	[100] µg/L	13:21:15
2	Ba 233.527†	3796.9	3846.6	[100] µg/L	13:21:15
2	Be 313.107†	152180.0	156890.2	[100] µg/L	13:21:09
2	Cd 226.502†	3511.7	3668.1	[100] µg/L	13:21:15
2	Co 228.616†	2023.8	2046.8	[100] µg/L	13:21:35
2	Cr 267.716†	4639.5	4721.4	[100] µg/L	13:21:15
2	Cu 324.752†	18103.9	15004.2	[100] µg/L	13:21:15
2	Mn 257.610†	29384.0	29841.1	[100] µg/L	13:21:15
2	Mo 202.031†	961.4	972.8	[100] µg/L	13:21:35
2	Ni 231.604†	2189.0	1917.9	[100] µg/L	13:21:15
2	P 214.914†	261.1	240.8	[500] µg/L	13:21:35
2	Pb 220.353†	466.3	387.3	[100] µg/L	13:21:35
2	S 181.975 Axial†	60.7	44.8	[200] µg/L	13:21:35
2	Sb 206.836†	129.1	108.3	[100] µg/L	13:21:35
2	Se 196.026†	80.5	65.3	[100] µg/L	13:21:35
2	SiO2†	6507.7	5012.3	[1069.5] µg/L	13:21:15
2	Si 251.611†	6363.9	6078.0	[500] µg/L	13:21:15
2	Sn 189.927†	221.1	222.1	[100] µg/L	13:21:35
2	Ti 334.940†	41615.1	41858.6	[100] µg/L	13:21:15
2	Tl 190.801†	56.2	78.4	[100] µg/L	13:21:35
2	U 409.014†	1394.0	1196.9	[100] µg/L	13:21:15
2	V 292.402†	9619.3	9740.8	[100] µg/L	13:21:15

2	Zn 213.857†	4511.0	3997.2	[100] µg/L	13:21:15
3	Sc RADIAL	54003.4	54003.4	102 %	13:20:30
3	K 766.490 Radial†	1589.7	1306.3	[1000] µg/L	13:20:30
3	Sr 421.552†	9884.7	9634.5	[100] µg/L	13:20:30
3	Sc 361.383	1905916.5	1905916.5	100.14 %	13:21:41
3	Y 371.029	1313866.9	1313866.9	100.19 %	13:21:41
3	Ag 328.068†	12358.8	12840.8	[100] µg/L	13:21:46
3	As 188.979†	50.2	49.3	[100] µg/L	13:22:07
3	B 249.677†	2664.2	2206.3	[100] µg/L	13:21:46
3	Ba 233.527†	3799.5	3814.8	[100] µg/L	13:21:46
3	Be 313.107†	151826.3	155158.2	[100] µg/L	13:21:41
3	Cd 226.502†	3530.9	3655.5	[100] µg/L	13:21:46
3	Co 228.616†	2004.5	2009.3	[100] µg/L	13:22:07
3	Cr 267.716†	4604.8	4644.7	[100] µg/L	13:21:46
3	Cu 324.752†	18178.4	14914.6	[100] µg/L	13:21:46
3	Mn 257.610†	29300.4	29491.4	[100] µg/L	13:21:46
3	Mo 202.031†	961.0	963.7	[100] µg/L	13:22:07
3	Ni 231.604†	2154.2	1863.3	[100] µg/L	13:21:46
3	P 214.914†	260.9	238.2	[500] µg/L	13:22:07
3	Pb 220.353†	476.3	393.1	[100] µg/L	13:22:07
3	S 181.975 Axial†	60.1	43.6	[200] µg/L	13:22:07
3	Sb 206.836†	124.9	102.9	[100] µg/L	13:22:07
3	Se 196.026†	81.5	65.5	[100] µg/L	13:22:07
3	SiO2†	6531.3	4976.9	[1069.5] µg/L	13:21:46
3	Si 251.611†	6315.7	5972.2	[500] µg/L	13:21:46
3	Sn 189.927†	232.6	231.6	[100] µg/L	13:22:07
3	Ti 334.940†	41534.6	41401.1	[100] µg/L	13:21:46
3	Tl 190.801†	48.3	70.0	[100] µg/L	13:22:07
3	U 409.014†	1409.0	1199.3	[100] µg/L	13:21:46
3	V 292.402†	9557.5	9592.0	[100] µg/L	13:21:46
3	Zn 213.857†	4470.9	3916.3	[100] µg/L	13:21:46

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1897710.1	8591.56	0.45%	99.705 %
Sc RADIAL	54625.4	597.21	1.09%	104 %
Y 371.029	1308737.8	5671.41	0.43%	99.796 %
Ag 328.068†	12861.5	71.87	0.56%	[100] µg/L
As 188.979†	48.8	2.99	6.12%	[100] µg/L
B 249.677†	2218.3	21.72	0.98%	[100] µg/L
Ba 233.527†	3822.9	20.83	0.54%	[100] µg/L
Be 313.107†	155949.9	875.53	0.56%	[100] µg/L
Cd 226.502†	3671.2	17.44	0.47%	[100] µg/L
Co 228.616†	2029.9	19.07	0.94%	[100] µg/L
Cr 267.716†	4680.3	38.62	0.83%	[100] µg/L
Cu 324.752†	14926.6	72.29	0.48%	[100] µg/L
K 766.490 Radial†	1327.9	38.61	2.91%	[1000] µg/L
Mn 257.610†	29644.7	178.78	0.60%	[100] µg/L
Mo 202.031†	967.4	4.83	0.50%	[100] µg/L
Ni 231.604†	1886.2	28.34	1.50%	[100] µg/L
P 214.914†	236.2	5.83	2.47%	[500] µg/L
Pb 220.353†	391.5	3.60	0.92%	[100] µg/L
S 181.975 Axial†	44.3	0.61	1.39%	[200] µg/L
Sb 206.836†	107.3	3.91	3.64%	[100] µg/L
Se 196.026†	65.9	0.83	1.26%	[100] µg/L
SiO2†	4978.4	33.05	0.66%	[1069.5] µg/L
Si 251.611†	6017.0	54.75	0.91%	[500] µg/L
Sn 189.927†	227.6	4.94	2.17%	[100] µg/L
Sr 421.552†	9496.6	119.41	1.26%	[100] µg/L
Ti 334.940†	41591.1	238.36	0.57%	[100] µg/L
Tl 190.801†	73.3	4.49	6.13%	[100] µg/L
U 409.014†	1201.5	5.95	0.50%	[100] µg/L
V 292.402†	9666.1	74.42	0.77%	[100] µg/L
Zn 213.857†	3951.4	41.54	1.05%	[100] µg/L

Sequence No.: 3
 Sample ID: S0.5
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 3
 Date Collected: 2/24/2010 13:22:15
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	53830.3	53830.3	102 %	13:22:47
1	Al 396.153Radial†	6684.0	6579.1	[5000] µg/L	13:22:47
1	Ca 317.933Radial†	5241.0	4954.9	[5000] µg/L	13:23:07
1	K 766.490 Radial†	7482.2	7088.1	[5000] µg/L	13:22:47
1	Mg 279.077 IEC†	524.5	501.5	[5000] µg/L	13:23:07
1	Sr 421.552†	49079.1	48090.0	[500] µg/L	13:22:47
1	Sc 361.383	1890769.2	1890769.2	99.340 %	13:24:07
1	Y 371.029	1298488.6	1298488.6	99.015 %	13:24:07
1	Ag 328.068†	63331.9	64251.2	[500] µg/L	13:24:12
1	As 188.979†	261.0	261.9	[500] µg/L	13:24:32
1	B 249.677†	11635.4	11258.5	[500] µg/L	13:24:12
1	Ba 233.527†	18841.6	18987.2	[500] µg/L	13:24:12
1	Be 313.107†	771006.6	779664.8	[500] µg/L	13:24:07
1	Cd 226.502†	17914.0	18162.3	[500] µg/L	13:24:12
1	Co 228.616†	10091.5	10166.0	[500] µg/L	13:24:12
1	Cr 267.716†	23011.7	23210.7	[500] µg/L	13:24:12
1	Cu 324.752†	75999.3	73264.9	[500] µg/L	13:24:12
1	Mn 257.610†	146100.6	147301.6	[500] µg/L	13:24:07
1	Mo 202.031†	4847.8	4884.0	[500] µg/L	13:24:32
1	Ni 231.604†	9494.9	9270.0	[500] µg/L	13:24:12
1	P 214.914†	1202.8	1188.4	[2500] µg/L	13:24:32
1	Pb 220.353†	1997.7	1928.4	[500] µg/L	13:24:32
1	S 181.975 Axial†	247.9	233.2	[1000] µg/L	13:24:32
1	Sb 206.836†	540.5	522.3	[500] µg/L	13:24:32
1	Se 196.026†	351.4	337.9	[500] µg/L	13:24:32
1	SiO2†	26556.7	25187.5	[5347.5] µg/L	13:24:12
1	Si 251.611†	30467.1	30334.5	[2500] µg/L	13:24:12
1	Sn 189.927†	1129.3	1136.1	[500] µg/L	13:24:32
1	Ti 334.940†	211718.2	213047.1	[500] µg/L	13:24:07
1	Tl 190.801†	328.9	352.8	[500] µg/L	13:24:32
1	U 409.014†	6067.0	5899.6	[500] µg/L	13:24:12
1	V 292.402†	47708.1	48072.4	[500] µg/L	13:24:12
1	Zn 213.857†	20314.7	19901.1	[500] µg/L	13:24:12
2	Sc RADIAL	53897.1	53897.1	102 %	13:23:12
2	Al 396.153Radial†	6746.0	6631.7	[5000] µg/L	13:23:12
2	Ca 317.933Radial†	5298.4	5004.7	[5000] µg/L	13:23:33
2	K 766.490 Radial†	7405.6	7003.9	[5000] µg/L	13:23:12
2	Mg 279.077 IEC†	531.0	507.2	[5000] µg/L	13:23:33
2	Sr 421.552†	49381.5	48326.5	[500] µg/L	13:23:12
2	Sc 361.383	1906221.4	1906221.4	100.15 %	13:24:39
2	Y 371.029	1310197.3	1310197.3	99.907 %	13:24:39
2	Ag 328.068†	63759.0	64160.9	[500] µg/L	13:24:45
2	As 188.979†	259.7	258.5	[500] µg/L	13:25:05
2	B 249.677†	11764.6	11292.6	[500] µg/L	13:24:45
2	Ba 233.527†	18961.9	18953.6	[500] µg/L	13:24:45
2	Be 313.107†	772186.9	774551.9	[500] µg/L	13:24:39
2	Cd 226.502†	18121.9	18223.8	[500] µg/L	13:24:45
2	Co 228.616†	10191.8	10183.7	[500] µg/L	13:24:45
2	Cr 267.716†	23147.1	23158.1	[500] µg/L	13:24:45
2	Cu 324.752†	76511.8	73156.5	[500] µg/L	13:24:45
2	Mn 257.610†	146343.3	146351.8	[500] µg/L	13:24:39
2	Mo 202.031†	4837.3	4834.0	[500] µg/L	13:25:05
2	Ni 231.604†	9553.0	9250.5	[500] µg/L	13:24:45
2	P 214.914†	1202.4	1178.2	[2500] µg/L	13:25:05
2	Pb 220.353†	2003.9	1918.3	[500] µg/L	13:25:05
2	S 181.975 Axial†	246.3	229.6	[1000] µg/L	13:25:05
2	Sb 206.836†	537.2	514.6	[500] µg/L	13:25:05
2	Se 196.026†	353.7	337.4	[500] µg/L	13:25:05
2	SiO2†	26792.4	25206.1	[5347.5] µg/L	13:24:45

2	Si 251.611†	30744.5	30362.9	[2500] µg/L	13:24:45
2	Sn 189.927†	1120.1	1117.7	[500] µg/L	13:25:05
2	Ti 334.940†	211850.2	211451.3	[500] µg/L	13:24:39
2	Tl 190.801†	329.9	351.1	[500] µg/L	13:25:05
2	U 409.014†	6157.2	5940.1	[500] µg/L	13:24:45
2	V 292.402†	48038.6	48013.0	[500] µg/L	13:24:45
2	Zn 213.857†	20436.0	19856.4	[500] µg/L	13:24:45
3	Sc RADIAL	53878.2	53878.2	102 %	13:23:38
3	Al 396.153Radial†	6696.1	6585.2	[5000] µg/L	13:23:38
3	Ca 317.933Radial†	5261.9	4970.7	[5000] µg/L	13:23:58
3	K 766.490 Radial†	7386.0	6987.3	[5000] µg/L	13:23:38
3	Mg 279.077 IEC†	528.2	504.6	[5000] µg/L	13:23:58
3	Sr 421.552†	49029.5	47998.7	[500] µg/L	13:23:38
3	Sc 361.383	1907337.4	1907337.4	100.21 %	13:25:12
3	Y 371.029	1311097.8	1311097.8	99.976 %	13:25:12
3	Ag 328.068†	61149.5	61519.7	[500] µg/L	13:25:17
3	As 188.979†	231.1	229.7	[500] µg/L	13:25:37
3	B 249.677†	11242.0	10764.2	[500] µg/L	13:25:17
3	Ba 233.527†	17894.3	17877.1	[500] µg/L	13:25:17
3	Be 313.107†	752242.8	754198.7	[500] µg/L	13:25:12
3	Cd 226.502†	16953.6	17047.3	[500] µg/L	13:25:17
3	Co 228.616†	9476.3	9463.8	[500] µg/L	13:25:17
3	Cr 267.716†	21198.1	21199.6	[500] µg/L	13:25:17
3	Cu 324.752†	71751.2	68361.2	[500] µg/L	13:25:17
3	Mn 257.610†	142515.3	142446.3	[500] µg/L	13:25:12
3	Mo 202.031†	4209.5	4204.7	[500] µg/L	13:25:37
3	Ni 231.604†	8957.8	8651.0	[500] µg/L	13:25:17
3	P 214.914†	1063.5	1039.0	[2500] µg/L	13:25:37
3	Pb 220.353†	1799.4	1713.0	[500] µg/L	13:25:37
3	S 181.975 Axial†	220.8	204.0	[1000] µg/L	13:25:37
3	Sb 206.836†	483.0	460.2	[500] µg/L	13:25:37
3	Se 196.026†	313.6	297.1	[500] µg/L	13:25:37
3	SiO2†	25507.6	23908.4	[5347.5] µg/L	13:25:17
3	Si 251.611†	29209.2	28812.9	[2500] µg/L	13:25:17
3	Sn 189.927†	965.7	962.9	[500] µg/L	13:25:37
3	Ti 334.940†	205690.0	205180.3	[500] µg/L	13:25:12
3	Tl 190.801†	307.8	328.9	[500] µg/L	13:25:37
3	U 409.014†	5705.5	5485.7	[500] µg/L	13:25:17
3	V 292.402†	44763.1	44716.4	[500] µg/L	13:25:17
3	Zn 213.857†	19152.3	18563.5	[500] µg/L	13:25:17

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1901442.7	9260.32	0.49%	99.901 %	
Sc RADIAL	53868.5	34.39	0.06%	102 %	
Y 371.029	1306594.6	7034.41	0.54%	99.633 %	
Ag 328.068†	63310.6	1551.65	2.45%	[500] µg/L	
Al 396.153Radial†	6598.7	28.79	0.44%	[5000] µg/L	
As 188.979†	250.0	17.68	7.07%	[500] µg/L	
B 249.677†	11105.1	295.72	2.66%	[500] µg/L	
Ba 233.527†	18606.0	631.41	3.39%	[500] µg/L	
Be 313.107†	769471.8	13471.72	1.75%	[500] µg/L	
Ca 317.933Radial†	4976.8	25.44	0.51%	[5000] µg/L	
Cd 226.502†	17811.1	662.22	3.72%	[500] µg/L	
Co 228.616†	9937.8	410.61	4.13%	[500] µg/L	
Cr 267.716†	22522.8	1146.21	5.09%	[500] µg/L	
Cu 324.752†	71594.2	2800.38	3.91%	[500] µg/L	
K 766.490 Radial†	7026.4	54.03	0.77%	[5000] µg/L	
Mg 279.077 IEC†	504.4	2.85	0.57%	[5000] µg/L	
Mn 257.610†	145366.6	2573.22	1.77%	[500] µg/L	
Mo 202.031†	4640.9	378.61	8.16%	[500] µg/L	
Ni 231.604†	9057.2	351.90	3.89%	[500] µg/L	
P 214.914†	1135.2	83.51	7.36%	[2500] µg/L	
Pb 220.353†	1853.2	121.53	6.56%	[500] µg/L	
S 181.975 Axial†	222.3	15.93	7.17%	[1000] µg/L	
Sb 206.836†	499.0	33.84	6.78%	[500] µg/L	
Se 196.026†	324.1	23.41	7.22%	[500] µg/L	
SiO2†	24767.4	743.95	3.00%	[5347.5] µg/L	
Si 251.611†	29836.8	886.86	2.97%	[2500] µg/L	

Sn 189.927†	1072.2	95.10	8.87%	[500] µg/L
Sr 421.552†	48138.4	169.19	0.35%	[500] µg/L
Ti 334.940†	209892.9	4158.51	1.98%	[500] µg/L
Tl 190.801†	344.3	13.36	3.88%	[500] µg/L
U 409.014†	5775.1	251.44	4.35%	[500] µg/L
V 292.402†	46933.9	1920.70	4.09%	[500] µg/L
Zn 213.857†	19440.3	759.71	3.91%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 2/24/2010 13:25:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	53936.1	53936.1	102	%	13:26:17
1	Al 396.153Radial†	14295.4	14013.6	[10000]	µg/L	13:26:17
1	Ca 317.933Radial†	11039.5	10618.2	[10000]	µg/L	13:26:37
1	Fe 238.204 Radial†	1170.0	1129.1	[10000]	µg/L	13:26:37
1	K 766.490 Radial†	15355.0	14776.6	[10000]	µg/L	13:26:17
1	Mg 279.077 IEC†	1106.8	1070.2	[10000]	µg/L	13:26:37
1	Na 589.592 Radial†	33970.8	32645.7	[10000]	µg/L	13:26:17
1	Sr 421.552†	104330.0	102055.1	[1000]	µg/L	13:26:17
1	Sc 361.383	1910919.6	1910919.6	100.40	%	13:27:37
1	Y 371.029	1312091.1	1312091.1	100.05	%	13:27:37
1	Ag 328.068†	133826.5	133793.4	[1000]	µg/L	13:27:42
1	As 188.979†	555.5	552.4	[1000]	µg/L	13:28:03
1	B 249.677†	24511.6	23960.0	[1000]	µg/L	13:27:42
1	Ba 233.527†	40157.4	40018.3	[1000]	µg/L	13:27:42
1	Be 313.107†	1641336.7	1638351.9	[1000]	µg/L	13:27:37
1	Cd 226.502†	38073.0	38051.0	[1000]	µg/L	13:27:42
1	Co 228.616†	21300.6	21223.4	[1000]	µg/L	13:27:42
1	Cr 267.716†	48918.9	48770.7	[1000]	µg/L	13:27:42
1	Cu 324.752†	157719.9	153854.0	[1000]	µg/L	13:27:42
1	Mn 257.610†	306466.3	305479.2	[1000]	µg/L	13:27:42
1	Mo 202.031†	10210.5	10173.9	[1000]	µg/L	13:28:03
1	Ni 231.604†	19693.4	19327.2	[1000]	µg/L	13:27:42
1	P 214.914†	2543.3	2510.9	[5000]	µg/L	13:28:03
1	Pb 220.353†	4160.1	4061.0	[1000]	µg/L	13:28:03
1	S 181.975 Axial†	495.3	477.0	[2000]	µg/L	13:28:03
1	Sb 206.836†	1137.5	1111.2	[1000]	µg/L	13:28:03
1	Se 196.026†	711.6	692.9	[1000]	µg/L	13:28:03
1	SiO2†	54558.8	52796.4	[10695]	µg/L	13:27:42
1	Si 251.611†	64236.6	63646.4	[5000]	µg/L	13:27:42
1	Sn 189.927†	2371.2	2361.1	[1000]	µg/L	13:28:03
1	Ti 334.940†	445208.8	443362.5	[1000]	µg/L	13:27:37
1	Tl 190.801†	728.3	747.1	[1000]	µg/L	13:28:03
1	U 409.014†	12913.8	12654.7	[1000]	µg/L	13:27:42
1	V 292.402†	102101.4	101743.0	[1000]	µg/L	13:27:42
1	Zn 213.857†	42158.7	41442.7	[1000]	µg/L	13:27:42
2	Sc RADIAL	54184.9	54184.9	103	%	13:26:43
2	Al 396.153Radial†	14210.5	13866.7	[10000]	µg/L	13:26:43
2	Ca 317.933Radial†	11014.0	10543.8	[10000]	µg/L	13:27:03
2	Fe 238.204 Radial†	1163.0	1117.0	[10000]	µg/L	13:27:03
2	K 766.490 Radial†	15437.3	14787.8	[10000]	µg/L	13:26:43
2	Mg 279.077 IEC†	1104.6	1063.1	[10000]	µg/L	13:27:03
2	Na 589.592 Radial†	33868.6	32393.5	[10000]	µg/L	13:26:43
2	Sr 421.552†	103901.6	101169.1	[1000]	µg/L	13:26:43
2	Sc 361.383	1907610.5	1907610.5	100.23	%	13:28:09
2	Y 371.029	1309461.4	1309461.4	99.851	%	13:28:09
2	Ag 328.068†	133599.2	133797.9	[1000]	µg/L	13:28:15
2	As 188.979†	551.8	549.7	[1000]	µg/L	13:28:35
2	B 249.677†	24455.4	23946.3	[1000]	µg/L	13:28:15
2	Ba 233.527†	40144.4	40074.7	[1000]	µg/L	13:28:15
2	Be 313.107†	1646713.0	1646552.0	[1000]	µg/L	13:28:09
2	Cd 226.502†	38070.5	38114.3	[1000]	µg/L	13:28:15
2	Co 228.616†	21336.5	21296.0	[1000]	µg/L	13:28:15
2	Cr 267.716†	49005.3	48941.3	[1000]	µg/L	13:28:15
2	Cu 324.752†	157579.5	153986.4	[1000]	µg/L	13:28:15
2	Mn 257.610†	306921.7	306463.1	[1000]	µg/L	13:28:15
2	Mo 202.031†	10251.9	10233.0	[1000]	µg/L	13:28:35
2	Ni 231.604†	19727.9	19395.6	[1000]	µg/L	13:28:15
2	P 214.914†	2541.5	2513.5	[5000]	µg/L	13:28:35
2	Pb 220.353†	4195.7	4103.8	[1000]	µg/L	13:28:35

2	S 181.975 Axial†	498.1	480.6	[2000]	µg/L	13:28:35
2	Sb 206.836†	1135.6	1111.2	[1000]	µg/L	13:28:35
2	Se 196.026†	728.5	711.1	[1000]	µg/L	13:28:35
2	SiO2†	54600.7	52932.4	[10695]	µg/L	13:28:15
2	Si 251.611†	64356.5	63877.0	[5000]	µg/L	13:28:15
2	Sn 189.927†	2393.6	2387.5	[1000]	µg/L	13:28:35
2	Ti 334.940†	446888.5	445807.6	[1000]	µg/L	13:28:09
2	Tl 190.801†	736.2	756.2	[1000]	µg/L	13:28:35
2	U 409.014†	12894.6	12657.8	[1000]	µg/L	13:28:15
2	V 292.402†	102088.0	101906.1	[1000]	µg/L	13:28:15
2	Zn 213.857†	42187.7	41544.4	[1000]	µg/L	13:28:15
3	Sc RADIAL	54070.5	54070.5	102	%	13:27:08
3	Al 396.153Radial†	14325.4	14008.1	[10000]	µg/L	13:27:08
3	Ca 317.933Radial†	11088.1	10638.8	[10000]	µg/L	13:27:28
3	Fe 238.204 Radial†	1168.4	1124.6	[10000]	µg/L	13:27:28
3	K 766.490 Radial†	15391.0	14774.4	[10000]	µg/L	13:27:08
3	Mg 279.077 IEC†	1110.1	1070.7	[10000]	µg/L	13:27:28
3	Na 589.592 Radial†	33927.6	32520.9	[10000]	µg/L	13:27:08
3	Sr 421.552†	104596.0	102061.0	[1000]	µg/L	13:27:08
3	Sc 361.383	1931682.3	1931682.3	101.49	%	13:28:41
3	Y 371.029	1326699.0	1326699.0	101.17	%	13:28:41
3	Ag 328.068†	131157.7	129731.1	[1000]	µg/L	13:28:47
3	As 188.979†	499.0	490.8	[1000]	µg/L	13:29:07
3	B 249.677†	23972.6	23166.5	[1000]	µg/L	13:28:47
3	Ba 233.527†	38784.7	38235.8	[1000]	µg/L	13:28:47
3	Be 313.107†	1622936.4	1602649.9	[1000]	µg/L	13:28:41
3	Cd 226.502†	36754.2	36344.0	[1000]	µg/L	13:28:47
3	Co 228.616†	20456.0	20163.1	[1000]	µg/L	13:28:47
3	Cr 267.716†	46180.2	45548.4	[1000]	µg/L	13:28:47
3	Cu 324.752†	151224.4	145765.3	[1000]	µg/L	13:28:47
3	Mn 257.610†	293378.7	289302.7	[1000]	µg/L	13:28:47
3	Mo 202.031†	9010.3	8882.0	[1000]	µg/L	13:29:07
3	Ni 231.604†	18927.7	18361.9	[1000]	µg/L	13:28:47
3	P 214.914†	2267.7	2212.0	[5000]	µg/L	13:29:07
3	Pb 220.353†	3791.8	3653.6	[1000]	µg/L	13:29:07
3	S 181.975 Axial†	462.0	438.9	[2000]	µg/L	13:29:07
3	Sb 206.836†	1019.6	982.8	[1000]	µg/L	13:29:07
3	Se 196.026†	665.0	639.4	[1000]	µg/L	13:29:07
3	SiO2†	53209.6	50882.9	[10695]	µg/L	13:28:47
3	Si 251.611†	62689.7	61434.6	[5000]	µg/L	13:28:47
3	Sn 189.927†	2070.9	2039.9	[1000]	µg/L	13:29:07
3	Ti 334.940†	438993.2	432471.8	[1000]	µg/L	13:28:41
3	Tl 190.801†	671.7	683.6	[1000]	µg/L	13:29:07
3	U 409.014†	12344.1	11955.1	[1000]	µg/L	13:28:47
3	V 292.402†	97134.4	95755.9	[1000]	µg/L	13:28:47
3	Zn 213.857†	40435.7	39293.6	[1000]	µg/L	13:28:47

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1916737.5	13047.91	0.68%	100.70 %
Sc RADIAL	54063.8	124.54	0.23%	102 %
Y 371.029	1316083.9	9286.58	0.71%	100.36 %
Ag 328.068†	132440.8	2346.67	1.77%	[1000] µg/L
Al 396.153Radial†	13962.8	83.28	0.60%	[10000] µg/L
As 188.979†	531.0	34.81	6.56%	[1000] µg/L
B 249.677†	23690.9	454.20	1.92%	[1000] µg/L
Ba 233.527†	39442.9	1045.77	2.65%	[1000] µg/L
Be 313.107†	1629184.6	23342.61	1.43%	[1000] µg/L
Ca 317.933Radial†	10600.3	50.00	0.47%	[10000] µg/L
Cd 226.502†	37503.1	1004.32	2.68%	[1000] µg/L
Co 228.616†	20894.2	634.14	3.04%	[1000] µg/L
Cr 267.716†	47753.5	1911.56	4.00%	[1000] µg/L
Cu 324.752†	151201.9	4708.70	3.11%	[1000] µg/L
Fe 238.204 Radial†	1123.5	6.11	0.54%	[10000] µg/L
K 766.490 Radial†	14779.6	7.19	0.05%	[10000] µg/L
Mg 279.077 IEC†	1068.0	4.26	0.40%	[10000] µg/L
Mn 257.610†	300415.0	9636.08	3.21%	[1000] µg/L
Mo 202.031†	9763.0	763.49	7.82%	[1000] µg/L
Na 589.592 Radial†	32520.0	126.10	0.39%	[10000] µg/L

Ni 231.604†	19028.2	578.10	3.04%	[1000] µg/L
P 214.914†	2412.1	173.29	7.18%	[5000] µg/L
Pb 220.353†	3939.4	248.47	6.31%	[1000] µg/L
S 181.975 Axial†	465.5	23.12	4.97%	[2000] µg/L
Sb 206.836†	1068.4	74.12	6.94%	[1000] µg/L
Se 196.026†	681.1	37.23	5.47%	[1000] µg/L
SiO2†	52203.9	1146.08	2.20%	[10695] µg/L
Si 251.611†	62986.0	1348.52	2.14%	[5000] µg/L
Sn 189.927†	2262.8	193.55	8.55%	[1000] µg/L
Sr 421.552†	101761.7	513.24	0.50%	[1000] µg/L
Ti 334.940†	440547.3	7099.65	1.61%	[1000] µg/L
Tl 190.801†	729.0	39.57	5.43%	[1000] µg/L
U 409.014†	12422.5	404.84	3.26%	[1000] µg/L
V 292.402†	99801.7	3504.70	3.51%	[1000] µg/L
Zn 213.857†	40760.3	1271.14	3.12%	[1000] µg/L

Sequence No.: 5
 Sample ID: S10
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 5
 Date Collected: 2/24/2010 13:29:15
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	53545.1	53545.1	101 %		13:29:47
1	Al 396.153Radial†	69714.7	68735.9	[50000] µg/L		13:29:47
1	Ca 317.933Radial†	53496.2	52541.6	[50000] µg/L		13:29:47
1	Fe 238.204 Radial†	2256.4	2208.1	[20000] µg/L		13:30:07
1	Mg 279.077 IEC†	5319.7	5230.3	[50000] µg/L		13:30:07
1	Na 589.592 Radial†	65961.4	64417.7	[20000] µg/L		13:29:47
1	Sc 361.383	1913034.3	1913034.3	100.51 %		13:31:07
1	Y 371.029	1306748.2	1306748.2	99.644 %		13:31:07
2	Sc RADIAL	53790.0	53790.0	102 %		13:30:12
2	Al 396.153Radial†	70166.9	68866.6	[50000] µg/L		13:30:12
2	Ca 317.933Radial†	54070.3	52864.8	[50000] µg/L		13:30:12
2	Fe 238.204 Radial†	2255.0	2196.6	[20000] µg/L		13:30:33
2	Mg 279.077 IEC†	5312.8	5199.6	[50000] µg/L		13:30:33
2	Na 589.592 Radial†	66280.0	64434.3	[20000] µg/L		13:30:12
2	Sc 361.383	1896087.5	1896087.5	99.620 %		13:31:15
2	Y 371.029	1294624.0	1294624.0	98.720 %		13:31:15
3	Sc RADIAL	53454.8	53454.8	101 %		13:30:38
3	Al 396.153Radial†	70213.5	69344.4	[50000] µg/L		13:30:38
3	Ca 317.933Radial†	54046.1	53173.5	[50000] µg/L		13:30:38
3	Fe 238.204 Radial†	2254.2	2209.7	[20000] µg/L		13:30:58
3	Mg 279.077 IEC†	5300.7	5220.3	[50000] µg/L		13:30:58
3	Na 589.592 Radial†	66310.0	64871.7	[20000] µg/L		13:30:38
3	Sc 361.383	1893483.7	1893483.7	99.483 %		13:31:22
3	Y 371.029	1292778.4	1292778.4	98.579 %		13:31:22

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib. Units
Sc 361.383	1900868.5	10616.03	0.56%	99.871 %	
Sc RADIAL	53596.6	173.44	0.32%	102 %	
Y 371.029	1298050.2	7589.01	0.58%	98.981 %	
Al 396.153Radial†	68982.3	320.30	0.46%	[50000] µg/L	
Ca 317.933Radial†	52859.9	315.96	0.60%	[50000] µg/L	
Fe 238.204 Radial†	2204.8	7.15	0.32%	[20000] µg/L	
Mg 279.077 IEC†	5216.7	15.64	0.30%	[50000] µg/L	
Na 589.592 Radial†	64574.5	257.46	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	131.3	0.00000	0.999842	
Al 396.153Radial	3	Lin Thru 0	0.0	1.380	0.00000	0.999988	
As 188.979	3	Lin Thru 0	0.0	0.5245	0.00000	0.999705	
B 249.677	3	Lin Thru 0	0.0	23.39	0.00000	0.999671	
Ba 233.527	3	Lin Thru 0	0.0	38.99	0.00000	0.999739	
Be 313.107	3	Lin Thru 0	0.0	1611	0.00000	0.999747	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.057	0.00000	0.999984	
Cd 226.502	3	Lin Thru 0	0.0	37.12	0.00000	0.999796	
Co 228.616	3	Lin Thru 0	0.0	20.69	0.00000	0.999806	
Cr 267.716	3	Lin Thru 0	0.0	47.21	0.00000	0.999739	
Cu 324.752	3	Lin Thru 0	0.0	149.6	0.00000	0.999772	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1107	0.00000	0.999971	
K 766.490 Radial	3	Lin Thru 0	0.0	1.462	0.00000	0.999770	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1044	0.00000	0.999984	
Mn 257.610	3	Lin Thru 0	0.0	298.5	0.00000	0.999916	
Mo 202.031	3	Lin Thru 0	0.0	9.667	0.00000	0.999803	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.233	0.00000	0.999996	

Ni 231.604	3	Lin Thru 0	0.0	18.85	0.00000	0.999813
P 214.914	3	Lin Thru 0	0.0	0.4767	0.00000	0.999719
Pb 220.353	3	Lin Thru 0	0.0	3.893	0.00000	0.999716
S 181.975 Axial	3	Lin Thru 0	0.0	0.2306	0.00000	0.999830
Sb 206.836	3	Lin Thru 0	0.0	1.054	0.00000	0.999646
Se 196.026	3	Lin Thru 0	0.0	0.6744	0.00000	0.999809
SiO2	3	Lin Thru 0	0.0	4.830	0.00000	0.999783
Si 251.611	3	Lin Thru 0	0.0	12.46	0.00000	0.999771
Sn 189.927	3	Lin Thru 0	0.0	2.239	0.00000	0.999777
Sr 421.552	3	Lin Thru 0	0.0	100.6	0.00000	0.999752
Ti 334.940	3	Lin Thru 0	0.0	436.2	0.00000	0.999812
Tl 190.801	3	Lin Thru 0	0.0	0.7210	0.00000	0.999749
U 409.014	3	Lin Thru 0	0.0	12.25	0.00000	0.999596
V 292.402	3	Lin Thru 0	0.0	98.60	0.00000	0.999711
Zn 213.857	3	Lin Thru 0	0.0	40.38	0.00000	0.999826

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/24/2010 13:31:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54335.1	54335.1	103 %		13:32:03
1	Al 396.153Radial†	6920.3	6747.7	4879.5 µg/L	4879.5 ppb	13:32:03
1	Ca 317.933Radial†	5308.3	4972.5	4705.6 µg/L	4705.6 ppb	13:32:23
1	Fe 238.204 Radial†	568.4	536.3	4857.2 µg/L	4857.2 ppb	13:32:23
1	K 766.490 Radial†	3843.7	3486.0	2383.8 µg/L	2383.8 ppb	13:32:03
1	Mg 279.077 IEC†	549.7	521.2	4996.5 µg/L	4996.5 ppb	13:32:23
1	Na 589.592 Radial†	8508.8	7671.6	2372.6 µg/L	2372.6 ppb	13:32:03
1	Sr 421.552†	52582.4	51045.6	507.31 µg/L	507.31 ppb	13:32:03
1	Sc 361.383	1897151.1	1897151.1	99.676 %		13:33:23
1	Y 371.029	1304410.4	1304410.4	99.466 %		13:33:23
1	Ag 328.068†	33329.6	33936.9	262.24 µg/L	262.24 ppb	13:33:28
1	As 188.979†	252.4	252.4	480.18 µg/L	480.18 ppb	13:33:48
1	B 249.677†	12513.5	12100.0	515.68 µg/L	515.68 ppb	13:33:28
1	Ba 233.527†	19747.2	19831.9	509.56 µg/L	509.56 ppb	13:33:28
1	Be 313.107†	409801.0	414672.9	257.26 µg/L	257.26 ppb	13:33:23
1	Cd 226.502†	18550.0	18739.7	504.75 µg/L	504.75 ppb	13:33:28
1	Co 228.616†	10528.4	10570.1	510.42 µg/L	510.42 ppb	13:33:28
1	Cr 267.716†	23230.7	23352.5	494.99 µg/L	494.99 ppb	13:33:28
1	Cu 324.752†	79198.6	76217.2	510.16 µg/L	510.16 ppb	13:33:28
1	Mn 257.610†	152071.9	152797.6	512.39 µg/L	512.39 ppb	13:33:23
1	Mo 202.031†	5247.2	5268.4	545.18 µg/L	545.18 ppb	13:33:48
1	Ni 231.604†	9837.3	9581.3	507.87 µg/L	507.87 ppb	13:33:28
1	P 214.914†	1226.1	1207.8	2485.3 µg/L	2485.3 ppb	13:33:48
1	Pb 220.353†	2027.3	1951.4	501.54 µg/L	501.54 ppb	13:33:48
1	S 181.975 Axial†	592.1	577.7	2505.4 µg/L	2505.4 ppb	13:33:48
1	Sb 206.836†	562.0	542.0	516.89 µg/L	516.89 ppb	13:33:48
1	Se 196.026†	1771.6	1761.6	2619.4 µg/L	2619.4 ppb	13:33:48
1	SiO2†	51061.9	49682.5	10287 µg/L	10287 ppb	13:33:28
1	Si 251.611†	59766.5	59626.2	4784.9 µg/L	4784.9 ppb	13:33:28
1	Sn 189.927†	1221.6	1224.9	547.01 µg/L	547.01 ppb	13:33:48
1	Ti 334.940†	212220.8	212834.4	487.57 µg/L	487.57 ppb	13:33:23
1	Tl 190.801†	356.2	379.1	531.68 µg/L	531.68 ppb	13:33:48
1	U 409.014†	6096.1	5908.2	481.49 µg/L	481.49 ppb	13:33:28
1	V 292.402†	50283.2	50494.3	518.53 µg/L	518.53 ppb	13:33:28
1	Zn 213.857†	21495.2	21016.7	516.93 µg/L	516.93 ppb	13:33:28
2	Sc RADIAL	53015.5	53015.5	100 %		13:32:28
2	Al 396.153Radial†	6845.2	6840.4	4946.7 µg/L	4946.7 ppb	13:32:28
2	Ca 317.933Radial†	5301.2	5093.7	4820.3 µg/L	4820.3 ppb	13:32:48
2	Fe 238.204 Radial†	568.9	550.5	4985.2 µg/L	4985.2 ppb	13:32:48
2	K 766.490 Radial†	3870.9	3606.0	2465.9 µg/L	2465.9 ppb	13:32:28
2	Mg 279.077 IEC†	547.9	532.7	5106.2 µg/L	5106.2 ppb	13:32:48
2	Na 589.592 Radial†	8426.1	7795.0	2410.8 µg/L	2410.8 ppb	13:32:28
2	Sr 421.552†	51884.3	51621.8	513.04 µg/L	513.04 ppb	13:32:28
2	Sc 361.383	1915810.0	1915810.0	100.66 %		13:33:55
2	Y 371.029	1317039.6	1317039.6	100.43 %		13:33:55
2	Ag 328.068†	32801.3	33086.4	255.68 µg/L	255.68 ppb	13:34:00
2	As 188.979†	256.7	254.2	483.61 µg/L	483.61 ppb	13:34:21
2	B 249.677†	12297.3	11763.0	501.18 µg/L	501.18 ppb	13:34:00
2	Ba 233.527†	19317.3	19211.9	493.63 µg/L	493.63 ppb	13:34:00
2	Be 313.107†	412587.7	413437.2	256.49 µg/L	256.49 ppb	13:33:55
2	Cd 226.502†	18172.8	18183.7	489.74 µg/L	489.74 ppb	13:34:00
2	Co 228.616†	10344.9	10285.0	496.63 µg/L	496.63 ppb	13:34:00
2	Cr 267.716†	22732.2	22630.2	479.68 µg/L	479.68 ppb	13:34:00
2	Cu 324.752†	78017.1	74269.6	497.16 µg/L	497.16 ppb	13:34:00
2	Mn 257.610†	153127.0	152359.9	510.94 µg/L	510.94 ppb	13:33:55
2	Mo 202.031†	5256.7	5226.5	540.86 µg/L	540.86 ppb	13:34:21
2	Ni 231.604†	9624.8	9274.1	491.58 µg/L	491.58 ppb	13:34:00
2	P 214.914†	1237.5	1207.1	2485.0 µg/L	2485.0 ppb	13:34:21
2	Pb 220.353†	2043.5	1947.6	500.59 µg/L	500.59 ppb	13:34:21

2	S 181.975 Axial†	598.0	577.7	2505.5 µg/L	2505.5 ppb	13:34:21
2	Sb 206.836†	552.5	527.1	502.80 µg/L	502.80 ppb	13:34:21
2	Se 196.026†	1768.5	1741.1	2589.3 µg/L	2589.3 ppb	13:34:21
2	SiO2†	50240.1	48367.2	10014 µg/L	10014 ppb	13:34:00
2	Si 251.611†	58887.3	58168.7	4668.0 µg/L	4668.0 ppb	13:34:00
2	Sn 189.927†	1224.6	1215.9	543.01 µg/L	543.01 ppb	13:34:21
2	Ti 334.940†	213772.7	212302.6	486.35 µg/L	486.35 ppb	13:33:55
2	Tl 190.801†	363.4	382.8	536.76 µg/L	536.76 ppb	13:34:21
2	U 409.014†	6086.2	5838.8	475.80 µg/L	475.80 ppb	13:34:00
2	V 292.402†	49414.9	49140.4	504.74 µg/L	504.74 ppb	13:34:00
2	Zn 213.857†	21065.2	20379.4	501.22 µg/L	501.22 ppb	13:34:00
3	Sc RADIAL	54127.0	54127.0	103 %		13:32:53
3	Al 396.153Radial†	6879.5	6733.9	4870.7 µg/L	4870.7 ppb	13:32:53
3	Ca 317.933Radial†	5310.7	4994.6	4726.5 µg/L	4726.5 ppb	13:33:14
3	Fe 238.204 Radial†	566.9	537.0	4862.9 µg/L	4862.9 ppb	13:33:14
3	K 766.490 Radial†	3798.9	3456.6	2363.8 µg/L	2363.8 ppb	13:32:53
3	Mg 279.077 IEC†	547.1	520.7	4990.8 µg/L	4990.8 ppb	13:33:14
3	Na 589.592 Radial†	8526.6	7720.8	2387.8 µg/L	2387.8 ppb	13:32:53
3	Sr 421.552†	52382.7	51047.2	507.33 µg/L	507.33 ppb	13:32:53
3	Sc 361.383	1887366.0	1887366.0	99.162 %		13:34:27
3	Y 371.029	1297032.5	1297032.5	98.904 %		13:34:27
3	Ag 328.068†	32539.2	33313.2	257.35 µg/L	257.35 ppb	13:34:33
3	As 188.979†	228.6	229.7	437.05 µg/L	437.05 ppb	13:34:53
3	B 249.677†	12175.2	11824.0	503.84 µg/L	503.84 ppb	13:34:33
3	Ba 233.527†	19005.4	19186.6	492.97 µg/L	492.97 ppb	13:34:33
3	Be 313.107†	402240.6	409180.1	253.85 µg/L	253.85 ppb	13:34:27
3	Cd 226.502†	17775.2	18054.9	486.28 µg/L	486.28 ppb	13:34:33
3	Co 228.616†	10071.7	10164.3	490.76 µg/L	490.76 ppb	13:34:33
3	Cr 267.716†	21888.7	22119.9	468.87 µg/L	468.87 ppb	13:34:33
3	Cu 324.752†	75953.7	73356.9	491.04 µg/L	491.04 ppb	13:34:33
3	Mn 257.610†	149337.1	150830.7	505.80 µg/L	505.80 ppb	13:34:27
3	Mo 202.031†	4625.5	4668.7	483.15 µg/L	483.15 ppb	13:34:53
3	Ni 231.604†	9409.6	9201.2	487.72 µg/L	487.72 ppb	13:34:33
3	P 214.914†	1100.0	1087.0	2232.8 µg/L	2232.8 ppb	13:34:53
3	Pb 220.353†	1863.5	1796.7	461.67 µg/L	461.67 ppb	13:34:53
3	S 181.975 Axial†	547.8	536.1	2325.1 µg/L	2325.1 ppb	13:34:53
3	Sb 206.836†	492.8	475.1	452.76 µg/L	452.76 ppb	13:34:53
3	Se 196.026†	1609.8	1607.6	2391.1 µg/L	2391.1 ppb	13:34:53
3	SiO2†	49523.2	48396.3	10020 µg/L	10020 ppb	13:34:33
3	Si 251.611†	57982.6	58138.0	4665.5 µg/L	4665.5 ppb	13:34:33
3	Sn 189.927†	1056.6	1064.9	475.55 µg/L	475.55 ppb	13:34:53
3	Ti 334.940†	208157.1	209840.3	480.71 µg/L	480.71 ppb	13:34:27
3	Tl 190.801†	331.7	356.2	499.85 µg/L	499.85 ppb	13:34:53
3	U 409.014†	5871.4	5713.2	465.57 µg/L	465.57 ppb	13:34:33
3	V 292.402†	47903.4	48355.9	496.29 µg/L	496.29 ppb	13:34:33
3	Zn 213.857†	20589.5	20215.2	497.20 µg/L	497.20 ppb	13:34:33

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1900109.1	99.831 %	0.7592			0.76%
Sc RADIAL	53825.9	102 %	1.3			1.32%
Y 371.029	1306160.8	99.600 %	0.7715			0.77%
Ag 328.068†	33445.5	258.42 µg/L	3.411	258.42 ppb	3.411	1.32%
QC value within limits for Ag 328.068 Recovery = 103.37%						
Al 396.153Radial†	6774.0	4899.0 µg/L	41.58	4899.0 ppb	41.58	0.85%
QC value within limits for Al 396.153Radial Recovery = 97.98%						
As 188.979†	245.4	466.95 µg/L	25.950	466.95 ppb	25.950	5.56%
QC value within limits for As 188.979 Recovery = 93.39%						
B 249.677†	11895.7	506.90 µg/L	7.722	506.90 ppb	7.722	1.52%
QC value within limits for B 249.677 Recovery = 101.38%						
Ba 233.527†	19410.1	498.72 µg/L	9.393	498.72 ppb	9.393	1.88%
QC value within limits for Ba 233.527 Recovery = 99.74%						
Be 313.107†	412430.1	255.87 µg/L	1.788	255.87 ppb	1.788	0.70%
QC value within limits for Be 313.107 Recovery = 102.35%						
Ca 317.933Radial†	5020.3	4750.8 µg/L	61.08	4750.8 ppb	61.08	1.29%
QC value within limits for Ca 317.933Radial Recovery = 95.02%						
Cd 226.502†	18326.1	493.59 µg/L	9.818	493.59 ppb	9.818	1.99%
QC value within limits for Cd 226.502 Recovery = 98.72%						
Co 228.616†	10339.8	499.27 µg/L	10.090	499.27 ppb	10.090	2.02%

QC value within limits for Co 228.616 Recovery = 99.85%							
Cr 267.716†	22700.9	481.18 µg/L	13.126	481.18 ppb	13.126	2.73%	
QC value within limits for Cr 267.716 Recovery = 96.24%							
Cu 324.752†	74614.6	499.45 µg/L	9.764	499.45 ppb	9.764	1.95%	
QC value within limits for Cu 324.752 Recovery = 99.89%							
Fe 238.204 Radial†	541.3	4901.8 µg/L	72.31	4901.8 ppb	72.31	1.48%	
QC value within limits for Fe 238.204 Radial Recovery = 98.04%							
K 766.490 Radial†	3516.2	2404.5 µg/L	54.10	2404.5 ppb	54.10	2.25%	
QC value within limits for K 766.490 Radial Recovery = 96.18%							
Mg 279.077 IEC†	524.9	5031.1 µg/L	65.04	5031.1 ppb	65.04	1.29%	
QC value within limits for Mg 279.077 IEC Recovery = 100.62%							
Mn 257.610†	151996.1	509.71 µg/L	3.462	509.71 ppb	3.462	0.68%	
QC value within limits for Mn 257.610 Recovery = 101.94%							
Mo 202.031†	5054.5	523.06 µg/L	34.635	523.06 ppb	34.635	6.62%	
QC value within limits for Mo 202.031 Recovery = 104.61%							
Na 589.592 Radial†	7729.1	2390.4 µg/L	19.22	2390.4 ppb	19.22	0.80%	
QC value within limits for Na 589.592 Radial Recovery = 95.62%							
Ni 231.604†	9352.2	495.72 µg/L	10.692	495.72 ppb	10.692	2.16%	
QC value within limits for Ni 231.604 Recovery = 99.14%							
P 214.914†	1167.3	2401.0 µg/L	145.69	2401.0 ppb	145.69	6.07%	
QC value within limits for P 214.914 Recovery = 96.04%							
Pb 220.353†	1898.6	487.94 µg/L	22.750	487.94 ppb	22.750	4.66%	
QC value within limits for Pb 220.353 Recovery = 97.59%							
S 181.975 Axial†	563.8	2445.3 µg/L	104.15	2445.3 ppb	104.15	4.26%	
QC value within limits for S 181.975 Axial Recovery = 97.81%							
Sb 206.836†	514.7	490.81 µg/L	33.704	490.81 ppb	33.704	6.87%	
QC value within limits for Sb 206.836 Recovery = 98.16%							
Se 196.026†	1703.4	2533.2 µg/L	124.06	2533.2 ppb	124.06	4.90%	
QC value within limits for Se 196.026 Recovery = 101.33%							
SiO2†	48815.3	10107 µg/L	155.5	10107 ppb	155.5	1.54%	
QC value within limits for SiO2 Recovery = 94.50%							
Si 251.611†	58644.3	4706.1 µg/L	68.25	4706.1 ppb	68.25	1.45%	
QC value within limits for Si 251.611 Recovery = 94.12%							
Sn 189.927†	1168.6	521.86 µg/L	40.153	521.86 ppb	40.153	7.69%	
QC value within limits for Sn 189.927 Recovery = 104.37%							
Sr 421.552†	51238.2	509.23 µg/L	3.302	509.23 ppb	3.302	0.65%	
QC value within limits for Sr 421.552 Recovery = 101.85%							
Ti 334.940†	211659.1	484.88 µg/L	3.660	484.88 ppb	3.660	0.75%	
QC value within limits for Ti 334.940 Recovery = 96.98%							
Tl 190.801†	372.7	522.76 µg/L	20.007	522.76 ppb	20.007	3.83%	
QC value within limits for Tl 190.801 Recovery = 104.55%							
U 409.014†	5820.1	474.28 µg/L	8.068	474.28 ppb	8.068	1.70%	
QC value within limits for U 409.014 Recovery = 94.86%							
V 292.402†	49330.2	506.52 µg/L	11.228	506.52 ppb	11.228	2.22%	
QC value within limits for V 292.402 Recovery = 101.30%							
Zn 213.857†	20537.1	505.12 µg/L	10.425	505.12 ppb	10.425	2.06%	
QC value within limits for Zn 213.857 Recovery = 101.02%							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/24/2010 13:35:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52807.4	52807.4	100 %		13:35:33
1	Al 396.153Radial†	-18.9	7.6	5.4782 µg/L	5.4782 ppb	13:35:33
1	Ca 317.933Radial†	166.5	-16.8	-15.944 µg/L	-15.944 ppb	13:35:53
1	Fe 238.204 Radial†	15.5	-0.2	-2.1694 µg/L	-2.1694 ppb	13:35:53
1	K 766.490 Radial†	230.1	-17.2	-11.788 µg/L	-11.788 ppb	13:35:33
1	Mg 279.077 IEC†	9.8	-2.9	-27.613 µg/L	-27.613 ppb	13:35:53
1	Na 589.592 Radial†	543.6	-49.2	-15.230 µg/L	-15.230 ppb	13:35:33
1	Sr 421.552†	35.2	10.1	0.1005 µg/L	0.1005 ppb	13:35:33
1	Sc 361.383	1897869.7	1897869.7	99.713 %		13:36:52
1	Y 371.029	1308014.3	1308014.3	99.741 %		13:36:52
1	Ag 328.068†	-477.7	19.7	0.1482 µg/L	0.1482 ppb	13:36:57
1	As 188.979†	-1.2	-2.0	-3.8624 µg/L	-3.8624 ppb	13:37:17
1	B 249.677†	426.7	-26.3	-1.1210 µg/L	-1.1210 ppb	13:37:17
1	Ba 233.527†	-13.4	7.1	0.1808 µg/L	0.1808 ppb	13:37:17
1	Be 313.107†	-3481.1	47.2	0.0292 µg/L	0.0292 ppb	13:36:57
1	Cd 226.502†	-124.2	4.8	0.1294 µg/L	0.1294 ppb	13:37:17
1	Co 228.616†	0.5	8.0	0.3850 µg/L	0.3850 ppb	13:37:17
1	Cr 267.716†	-20.1	25.9	0.5493 µg/L	0.5493 ppb	13:37:17
1	Cu 324.752†	3236.1	6.3	0.0419 µg/L	0.0419 ppb	13:36:57
1	Mn 257.610†	-196.3	33.9	0.1145 µg/L	0.1145 ppb	13:37:17
1	Mo 202.031†	-4.6	-0.6	-0.0619 µg/L	-0.0619 ppb	13:37:17
1	Ni 231.604†	299.2	12.1	0.6409 µg/L	0.6409 ppb	13:37:17
1	P 214.914†	18.1	-4.1	-8.6785 µg/L	-8.6785 ppb	13:37:17
1	Pb 220.353†	91.5	9.2	2.3556 µg/L	2.3556 ppb	13:37:17
1	S 181.975 Axial†	16.0	-0.3	-1.4844 µg/L	-1.4844 ppb	13:37:17
1	Sb 206.836†	24.1	2.4	2.2604 µg/L	2.2604 ppb	13:37:17
1	Se 196.026†	16.6	0.9	1.2874 µg/L	1.2874 ppb	13:37:17
1	SiO2†	1557.4	16.3	3.3740 µg/L	3.3740 ppb	13:36:57
1	Si 251.611†	329.6	-4.3	-0.3449 µg/L	-0.3449 ppb	13:37:17
1	Sn 189.927†	3.8	3.1	1.3796 µg/L	1.3796 ppb	13:37:17
1	Ti 334.940†	181.9	105.4	0.2436 µg/L	0.2436 ppb	13:36:57
1	Tl 190.801†	-19.6	2.1	2.9106 µg/L	2.9106 ppb	13:37:17
1	U 409.014†	190.7	-16.5	-1.3501 µg/L	-1.3501 ppb	13:36:57
1	V 292.402†	-74.2	-26.9	-0.2739 µg/L	-0.2739 ppb	13:36:57
1	Zn 213.857†	479.7	-67.4	-1.6714 µg/L	-1.6714 ppb	13:37:17
2	Sc RADIAL	53167.6	53167.6	101 %		13:35:58
2	Al 396.153Radial†	-4.7	21.8	15.785 µg/L	15.785 ppb	13:35:58
2	Ca 317.933Radial†	175.7	-8.8	-8.3055 µg/L	-8.3055 ppb	13:36:19
2	Fe 238.204 Radial†	15.0	-0.9	-7.9847 µg/L	-7.9847 ppb	13:36:19
2	K 766.490 Radial†	190.8	-57.8	-39.503 µg/L	-39.503 ppb	13:35:58
2	Mg 279.077 IEC†	5.5	-7.2	-69.258 µg/L	-69.258 ppb	13:36:19
2	Na 589.592 Radial†	515.9	-80.5	-24.895 µg/L	-24.895 ppb	13:35:58
2	Sr 421.552†	46.2	20.8	0.2067 µg/L	0.2067 ppb	13:35:58
2	Sc 361.383	1901541.4	1901541.4	99.906 %		13:37:23
2	Y 371.029	1311428.5	1311428.5	100.00 %		13:37:23
2	Ag 328.068†	-419.6	78.8	0.6003 µg/L	0.6003 ppb	13:37:28
2	As 188.979†	1.4	0.6	1.0630 µg/L	1.0630 ppb	13:37:48
2	B 249.677†	447.0	-6.7	-0.2824 µg/L	-0.2824 ppb	13:37:48
2	Ba 233.527†	-5.9	14.6	0.3741 µg/L	0.3741 ppb	13:37:48
2	Be 313.107†	-3355.8	179.3	0.1112 µg/L	0.1112 ppb	13:37:28
2	Cd 226.502†	-124.7	4.6	0.1239 µg/L	0.1239 ppb	13:37:48
2	Co 228.616†	-8.7	-1.3	-0.0623 µg/L	-0.0623 ppb	13:37:48
2	Cr 267.716†	-10.5	35.6	0.7543 µg/L	0.7543 ppb	13:37:48
2	Cu 324.752†	3263.5	27.5	0.1825 µg/L	0.1825 ppb	13:37:28
2	Mn 257.610†	-161.7	69.0	0.2328 µg/L	0.2328 ppb	13:37:48
2	Mo 202.031†	3.4	7.5	0.7728 µg/L	0.7728 ppb	13:37:48
2	Ni 231.604†	286.5	-1.3	-0.0668 µg/L	-0.0668 ppb	13:37:48
2	P 214.914†	22.9	0.6	1.2157 µg/L	1.2157 ppb	13:37:48
2	Pb 220.353†	91.6	9.2	2.3497 µg/L	2.3497 ppb	13:37:48

2	S 181.975 Axial†	17.1	0.7	3.2499 µg/L	3.2499 ppb	13:37:48
2	Sb 206.836†	26.7	4.9	4.6920 µg/L	4.6920 ppb	13:37:48
2	Se 196.026†	11.4	-4.4	-6.5222 µg/L	-6.5222 ppb	13:37:48
2	SiO2†	1613.3	69.2	14.333 µg/L	14.333 ppb	13:37:28
2	Si 251.611†	357.8	23.3	1.8678 µg/L	1.8678 ppb	13:37:48
2	Sn 189.927†	-0.0	-0.7	-0.3275 µg/L	-0.3275 ppb	13:37:48
2	Ti 334.940†	216.8	140.0	0.3263 µg/L	0.3263 ppb	13:37:28
2	Tl 190.801†	-25.5	-3.8	-5.2594 µg/L	-5.2594 ppb	13:37:48
2	U 409.014†	264.4	56.9	4.6459 µg/L	4.6459 ppb	13:37:28
2	V 292.402†	-44.8	2.6	0.0382 µg/L	0.0382 ppb	13:37:28
2	Zn 213.857†	479.6	-68.4	-1.6902 µg/L	-1.6902 ppb	13:37:48
3	Sc RADIAL	52146.6	52146.6	98.8 %		13:36:24
3	Al 396.153Radial†	-26.1	-0.0	-0.0390 µg/L	-0.0390 ppb	13:36:24
3	Ca 317.933Radial†	167.0	-14.2	-13.426 µg/L	-13.426 ppb	13:36:44
3	Fe 238.204 Radial†	15.3	-0.3	-2.3744 µg/L	-2.3744 ppb	13:36:44
3	K 766.490 Radial†	198.5	-46.3	-31.634 µg/L	-31.634 ppb	13:36:24
3	Mg 279.077 IEC†	11.9	-0.7	-6.9017 µg/L	-6.9017 ppb	13:36:44
3	Na 589.592 Radial†	536.4	-49.7	-15.365 µg/L	-15.365 ppb	13:36:24
3	Sr 421.552†	50.3	25.8	0.2568 µg/L	0.2568 ppb	13:36:24
3	Sc 361.383	1889675.3	1889675.3	99.283 %		13:37:54
3	Y 371.029	1302575.8	1302575.8	99.326 %		13:37:54
3	Ag 328.068†	-375.0	121.1	0.9268 µg/L	0.9268 ppb	13:37:59
3	As 188.979†	-4.3	-5.2	-9.9854 µg/L	-9.9854 ppb	13:38:20
3	B 249.677†	457.6	6.7	0.2899 µg/L	0.2899 ppb	13:38:20
3	Ba 233.527†	-9.3	11.1	0.2861 µg/L	0.2861 ppb	13:38:20
3	Be 313.107†	-3208.7	306.4	0.1900 µg/L	0.1900 ppb	13:37:59
3	Cd 226.502†	-116.6	12.0	0.3230 µg/L	0.3230 ppb	13:38:20
3	Co 228.616†	-1.0	6.4	0.3090 µg/L	0.3090 ppb	13:38:20
3	Cr 267.716†	-7.4	38.7	0.8196 µg/L	0.8196 ppb	13:38:20
3	Cu 324.752†	3285.1	69.7	0.4657 µg/L	0.4657 ppb	13:37:59
3	Mn 257.610†	-106.4	123.7	0.4144 µg/L	0.4144 ppb	13:38:20
3	Mo 202.031†	13.9	18.1	1.8690 µg/L	1.8690 ppb	13:38:20
3	Ni 231.604†	299.1	13.2	0.7025 µg/L	0.7025 ppb	13:38:20
3	P 214.914†	23.8	1.6	3.4384 µg/L	3.4384 ppb	13:38:20
3	Pb 220.353†	99.9	18.0	4.6297 µg/L	4.6297 ppb	13:38:20
3	S 181.975 Axial†	15.8	-0.5	-1.9564 µg/L	-1.9564 ppb	13:38:20
3	Sb 206.836†	26.3	4.7	4.4908 µg/L	4.4908 ppb	13:38:20
3	Se 196.026†	10.3	-5.4	-8.0638 µg/L	-8.0638 ppb	13:38:20
3	SiO2†	1584.0	49.8	10.315 µg/L	10.315 ppb	13:37:59
3	Si 251.611†	370.4	38.2	3.0636 µg/L	3.0636 ppb	13:38:20
3	Sn 189.927†	4.8	4.1	1.8324 µg/L	1.8324 ppb	13:38:20
3	Ti 334.940†	356.3	281.9	0.6466 µg/L	0.6466 ppb	13:37:59
3	Tl 190.801†	-19.5	2.1	2.8988 µg/L	2.8988 ppb	13:38:20
3	U 409.014†	262.9	57.0	4.6566 µg/L	4.6566 ppb	13:37:59
3	V 292.402†	13.6	61.1	0.6409 µg/L	0.6409 ppb	13:37:59
3	Zn 213.857†	488.1	-56.9	-1.4119 µg/L	-1.4119 ppb	13:38:20

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1896362.1	99.634 %		0.3192			0.32%
Sc RADIAL	52707.2	99.9 %		0.98			0.98%
Y 371.029	1307339.5	99.689 %		0.3405			0.34%
Ag 328.068†	73.2	0.5584 µg/L		0.39101	0.5584 ppb	0.39101	70.02%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	9.8	7.0748 µg/L		8.03204	7.0748 ppb	8.03204	113.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.2	-4.2616 µg/L		5.53500	-4.2616 ppb	5.53500	129.88%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-8.8	-0.3712 µg/L		0.70964	-0.3712 ppb	0.70964	191.20%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	10.9	0.2804 µg/L		0.09680	0.2804 ppb	0.09680	34.53%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	177.6	0.1101 µg/L		0.08039	0.1101 ppb	0.08039	73.01%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-13.3	-12.559 µg/L		3.8925	-12.559 ppb	3.8925	30.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	7.1	0.1921 µg/L		0.11342	0.1921 ppb	0.11342	59.04%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	4.4	0.2106 µg/L		0.23933	0.2106 ppb	0.23933	113.65%

Cr	267.716†	33.4	0.7078 µg/L	0.14101	0.7078 ppb	0.14101	19.92%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	34.5	0.2300 µg/L	0.21589	0.2300 ppb	0.21589	93.85%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Fe	238.204 Radial†	-0.5	-4.1762 µg/L	3.29985	-4.1762 ppb	3.29985	79.02%
QC value within limits for Cu 324.752 Recovery = Not calculated							
K	766.490 Radial†	-40.4	-27.641 µg/L	14.2820	-27.641 ppb	14.2820	51.67%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-3.6	-34.591 µg/L	31.7582	-34.591 ppb	31.7582	91.81%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mn	257.610†	75.5	0.2539 µg/L	0.15110	0.2539 ppb	0.15110	59.51%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mo	202.031†	8.3	0.8600 µg/L	0.96841	0.8600 ppb	0.96841	112.61%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Na	589.592 Radial†	-59.8	-18.497 µg/L	5.5419	-18.497 ppb	5.5419	29.96%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni	231.604†	8.0	0.4255 µg/L	0.42747	0.4255 ppb	0.42747	100.45%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
P	214.914†	-0.6	-1.3415 µg/L	6.45051	-1.3415 ppb	6.45051	480.85%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb	220.353†	12.1	3.1117 µg/L	1.31466	3.1117 ppb	1.31466	42.25%
QC value within limits for P 214.914 Recovery = Not calculated							
S	181.975 Axial†	-0.0	-0.0636 µg/L	2.87926	-0.0636 ppb	2.87926	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb	206.836†	4.0	3.8144 µg/L	1.34955	3.8144 ppb	1.34955	35.38%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Se	196.026†	-3.0	-4.4329 µg/L	5.01346	-4.4329 ppb	5.01346	113.10%
QC value within limits for Sb 206.836 Recovery = Not calculated							
SiO2†		45.1	9.3408 µg/L	5.54414	9.3408 ppb	5.54414	59.35%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	19.1	1.5288 µg/L	1.72933	1.5288 ppb	1.72933	113.11%
QC value within limits for SiO2 Recovery = Not calculated							
Sn	189.927†	2.2	0.9615 µg/L	1.13903	0.9615 ppb	1.13903	118.47%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sr	421.552†	18.9	0.1880 µg/L	0.07982	0.1880 ppb	0.07982	42.46%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti	334.940†	175.8	0.4055 µg/L	0.21285	0.4055 ppb	0.21285	52.49%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Tl	190.801†	0.1	0.1833 µg/L	4.71358	0.1833 ppb	4.71358	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated							
U	409.014†	32.4	2.6508 µg/L	3.46489	2.6508 ppb	3.46489	130.71%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V	292.402†	12.3	0.1351 µg/L	0.46502	0.1351 ppb	0.46502	344.30%
QC value within limits for U 409.014 Recovery = Not calculated							
Zn	213.857†	-64.2	-1.5912 µg/L	0.15554	-1.5912 ppb	0.15554	9.78%
QC value within limits for V 292.402 Recovery = Not calculated							
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/24/2010 13:38:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52785.1	52785.1	100 %		13:39:00
1	Al 396.153Radial†	235.4	261.8	189.53 µg/L	189.53 ppb	13:39:00
1	Ca 317.933Radial†	383.5	200.2	189.45 µg/L	189.45 ppb	13:39:20
1	Fe 238.204 Radial†	25.2	9.4	85.319 µg/L	85.319 ppb	13:39:20
1	K 766.490 Radial†	392.2	144.9	99.091 µg/L	99.091 ppb	13:39:00
1	Mg 279.077 IEC†	40.6	27.9	267.40 µg/L	267.40 ppb	13:39:20
1	Na 589.592 Radial†	1483.2	890.3	275.34 µg/L	275.34 ppb	13:39:00
1	Sr 421.552†	520.6	495.4	4.9238 µg/L	4.9238 ppb	13:39:00
1	Sc 361.383	1904445.8	1904445.8	100.06 %		13:40:19
1	Y 371.029	1313544.8	1313544.8	100.16 %		13:40:19
1	Ag 328.068†	182.9	681.6	5.2291 µg/L	5.2291 ppb	13:40:24
1	As 188.979†	20.7	19.8	37.758 µg/L	37.758 ppb	13:40:44
1	B 249.677†	1525.2	1070.2	45.726 µg/L	45.726 ppb	13:40:24
1	Ba 233.527†	173.1	193.4	4.9695 µg/L	4.9695 ppb	13:40:44
1	Be 313.107†	4201.9	7737.7	4.8020 µg/L	4.8020 ppb	13:40:24
1	Cd 226.502†	52.4	181.7	4.8915 µg/L	4.8915 ppb	13:40:44
1	Co 228.616†	99.8	107.1	5.1778 µg/L	5.1778 ppb	13:40:44
1	Cr 267.716†	197.6	243.6	5.1630 µg/L	5.1630 ppb	13:40:44
1	Cu 324.752†	4697.2	1455.4	9.7404 µg/L	9.7404 ppb	13:40:24
1	Mn 257.610†	2744.8	2974.0	9.9651 µg/L	9.9651 ppb	13:40:24
1	Mo 202.031†	93.5	97.5	10.088 µg/L	10.088 ppb	13:40:44
1	Ni 231.604†	389.9	101.7	5.3889 µg/L	5.3889 ppb	13:40:44
1	P 214.914†	89.3	66.9	139.47 µg/L	139.47 ppb	13:40:44
1	Pb 220.353†	127.4	44.8	11.458 µg/L	11.458 ppb	13:40:44
1	S 181.975 Axial†	38.6	22.2	96.408 µg/L	96.408 ppb	13:40:44
1	Sb 206.836†	33.6	11.8	11.235 µg/L	11.235 ppb	13:40:44
1	Se 196.026†	37.4	21.5	31.851 µg/L	31.851 ppb	13:40:44
1	SiO2†	2531.7	984.7	203.87 µg/L	203.87 ppb	13:40:24
1	Si 251.611†	1489.5	1153.7	92.582 µg/L	92.582 ppb	13:40:44
1	Sn 189.927†	25.5	24.8	11.101 µg/L	11.101 ppb	13:40:44
1	Ti 334.940†	2181.9	2103.6	4.8041 µg/L	4.8041 ppb	13:40:24
1	Tl 190.801†	-7.6	14.1	19.741 µg/L	19.741 ppb	13:40:44
1	U 409.014†	924.6	716.3	58.467 µg/L	58.467 ppb	13:40:24
1	V 292.402†	411.0	458.2	4.8080 µg/L	4.8080 ppb	13:40:24
1	Zn 213.857†	914.1	365.0	8.9822 µg/L	8.9822 ppb	13:40:44
2	Sc RADIAL	52841.1	52841.1	100 %		13:39:25
2	Al 396.153Radial†	260.7	286.8	207.64 µg/L	207.64 ppb	13:39:25
2	Ca 317.933Radial†	382.5	198.8	188.12 µg/L	188.12 ppb	13:39:46
2	Fe 238.204 Radial†	26.2	10.4	93.994 µg/L	93.994 ppb	13:39:46
2	K 766.490 Radial†	379.4	131.8	90.112 µg/L	90.112 ppb	13:39:25
2	Mg 279.077 IEC†	39.2	26.5	253.46 µg/L	253.46 ppb	13:39:46
2	Na 589.592 Radial†	1511.6	917.1	283.63 µg/L	283.63 ppb	13:39:25
2	Sr 421.552†	525.9	500.2	4.9712 µg/L	4.9712 ppb	13:39:25
2	Sc 361.383	1917144.4	1917144.4	100.73 %		13:40:50
2	Y 371.029	1320978.8	1320978.8	100.73 %		13:40:50
2	Ag 328.068†	206.5	703.8	5.3985 µg/L	5.3985 ppb	13:40:55
2	As 188.979†	14.4	13.5	25.673 µg/L	25.673 ppb	13:41:15
2	B 249.677†	1534.9	1069.6	45.698 µg/L	45.698 ppb	13:40:55
2	Ba 233.527†	174.1	193.4	4.9674 µg/L	4.9674 ppb	13:41:15
2	Be 313.107†	4331.3	7838.3	4.8644 µg/L	4.8644 ppb	13:40:55
2	Cd 226.502†	61.7	190.6	5.1285 µg/L	5.1285 ppb	13:41:15
2	Co 228.616†	92.3	99.1	4.7867 µg/L	4.7867 ppb	13:41:15
2	Cr 267.716†	206.9	251.5	5.3306 µg/L	5.3306 ppb	13:41:15
2	Cu 324.752†	4747.9	1474.6	9.8700 µg/L	9.8700 ppb	13:40:55
2	Mn 257.610†	2794.7	3005.4	10.072 µg/L	10.072 ppb	13:40:55
2	Mo 202.031†	90.5	93.9	9.7154 µg/L	9.7154 ppb	13:41:15
2	Ni 231.604†	388.4	97.6	5.1745 µg/L	5.1745 ppb	13:41:15
2	P 214.914†	94.7	71.7	149.51 µg/L	149.51 ppb	13:41:15
2	Pb 220.353†	133.6	50.0	12.819 µg/L	12.819 ppb	13:41:15

2	S 181.975 Axial†	39.4	22.7	98.582 µg/L	98.582 ppb	13:41:15
2	Sb 206.836†	29.7	7.7	7.3748 µg/L	7.3748 ppb	13:41:15
2	Se 196.026†	34.1	18.1	26.745 µg/L	26.745 ppb	13:41:15
2	SiO2†	2540.8	976.9	202.27 µg/L	202.27 ppb	13:40:55
2	Si 251.611†	1485.1	1139.5	91.445 µg/L	91.445 ppb	13:41:15
2	Sn 189.927†	25.1	24.2	10.841 µg/L	10.841 ppb	13:41:15
2	Ti 334.940†	2287.0	2193.6	5.0114 µg/L	5.0114 ppb	13:40:55
2	Tl 190.801†	-13.8	8.0	11.258 µg/L	11.258 ppb	13:41:15
2	U 409.014†	847.7	633.8	51.733 µg/L	51.733 ppb	13:40:55
2	V 292.402†	407.3	451.8	4.7342 µg/L	4.7342 ppb	13:40:55
2	Zn 213.857†	903.0	348.0	8.5621 µg/L	8.5621 ppb	13:41:15
3	Sc RADIAL	53136.3	53136.3	101 %		13:39:51
3	Al 396.153Radial†	241.6	266.4	192.88 µg/L	192.88 ppb	13:39:51
3	Ca 317.933Radial†	378.8	193.0	182.63 µg/L	182.63 ppb	13:40:11
3	Fe 238.204 Radial†	25.9	10.0	90.216 µg/L	90.216 ppb	13:40:11
3	K 766.490 Radial†	395.8	145.9	99.782 µg/L	99.782 ppb	13:39:51
3	Mg 279.077 IEC†	40.6	27.6	264.87 µg/L	264.87 ppb	13:40:11
3	Na 589.592 Radial†	1461.1	858.6	265.53 µg/L	265.53 ppb	13:39:51
3	Sr 421.552†	522.5	493.9	4.9091 µg/L	4.9091 ppb	13:39:51
3	Sc 361.383	1891921.8	1891921.8	99.401 %		13:41:21
3	Y 371.029	1305129.1	1305129.1	99.521 %		13:41:21
3	Ag 328.068†	141.7	641.4	4.9219 µg/L	4.9219 ppb	13:41:26
3	As 188.979†	11.9	11.1	21.100 µg/L	21.100 ppb	13:41:47
3	B 249.677†	1506.3	1061.2	45.341 µg/L	45.341 ppb	13:41:26
3	Ba 233.527†	159.9	181.3	4.6591 µg/L	4.6591 ppb	13:41:47
3	Be 313.107†	3980.7	7542.9	4.6811 µg/L	4.6811 ppb	13:41:26
3	Cd 226.502†	23.4	152.9	4.1135 µg/L	4.1135 ppb	13:41:47
3	Co 228.616†	92.7	100.6	4.8631 µg/L	4.8631 ppb	13:41:47
3	Cr 267.716†	178.3	225.5	4.7791 µg/L	4.7791 ppb	13:41:47
3	Cu 324.752†	4678.5	1467.6	9.8228 µg/L	9.8228 ppb	13:41:26
3	Mn 257.610†	2661.8	2908.7	9.7471 µg/L	9.7471 ppb	13:41:26
3	Mo 202.031†	83.1	87.6	9.0688 µg/L	9.0688 ppb	13:41:47
3	Ni 231.604†	381.5	95.8	5.0773 µg/L	5.0773 ppb	13:41:47
3	P 214.914†	92.6	70.8	147.73 µg/L	147.73 ppb	13:41:47
3	Pb 220.353†	128.9	47.1	12.059 µg/L	12.059 ppb	13:41:47
3	S 181.975 Axial†	35.7	19.6	84.846 µg/L	84.846 ppb	13:41:47
3	Sb 206.836†	31.6	10.0	9.5750 µg/L	9.5750 ppb	13:41:47
3	Se 196.026†	33.1	17.4	25.816 µg/L	25.816 ppb	13:41:47
3	SiO2†	2513.2	982.8	203.49 µg/L	203.49 ppb	13:41:26
3	Si 251.611†	1405.1	1078.7	86.567 µg/L	86.567 ppb	13:41:47
3	Sn 189.927†	26.3	25.7	11.509 µg/L	11.509 ppb	13:41:47
3	Ti 334.940†	2209.8	2146.1	4.9017 µg/L	4.9017 ppb	13:41:26
3	Tl 190.801†	-6.3	15.4	21.493 µg/L	21.493 ppb	13:41:47
3	U 409.014†	837.8	635.1	51.837 µg/L	51.837 ppb	13:41:26
3	V 292.402†	396.7	446.5	4.6743 µg/L	4.6743 ppb	13:41:26
3	Zn 213.857†	870.7	327.5	8.0530 µg/L	8.0530 ppb	13:41:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1904504.0	100.06 %	0.663			0.66%
Sc RADIAL	52920.8	100 %	0.4			0.36%
Y 371.029	1313217.6	100.14 %	0.605			0.60%
Ag 328.068†	675.6	5.1832 µg/L	0.24158	5.1832 ppb	0.24158	4.66%
QC value within limits for Ag 328.068 Recovery = 103.66%						
Al 396.153Radial†	271.6	196.69 µg/L	9.637	196.69 ppb	9.637	4.90%
QC value within limits for Al 396.153Radial Recovery = 98.34%						
As 188.979†	14.8	28.177 µg/L	8.6067	28.177 ppb	8.6067	30.55%
QC value within limits for As 188.979 Recovery = 93.92%						
B 249.677†	1067.0	45.588 µg/L	0.2145	45.588 ppb	0.2145	0.47%
QC value within limits for B 249.677 Recovery = 91.18%						
Ba 233.527†	189.4	4.8653 µg/L	0.17860	4.8653 ppb	0.17860	3.67%
QC value within limits for Ba 233.527 Recovery = 97.31%						
Be 313.107†	7706.3	4.7825 µg/L	0.09321	4.7825 ppb	0.09321	1.95%
QC value within limits for Be 313.107 Recovery = 95.65%						
Ca 317.933Radial†	197.3	186.73 µg/L	3.613	186.73 ppb	3.613	1.94%
QC value within limits for Ca 317.933Radial Recovery = 93.37%						
Cd 226.502†	175.1	4.7112 µg/L	0.53101	4.7112 ppb	0.53101	11.27%
QC value within limits for Cd 226.502 Recovery = 94.22%						
Co 228.616†	102.3	4.9425 µg/L	0.20732	4.9425 ppb	0.20732	4.19%

QC value within limits for Co 228.616	Recovery = 98.85%			
Cr 267.716†	240.2	5.0909 µg/L	0.28270	5.0909 ppb 0.28270 5.55%
QC value within limits for Cr 267.716	Recovery = 101.82%			
Cu 324.752†	1465.8	9.8111 µg/L	0.06559	9.8111 ppb 0.06559 0.67%
QC value within limits for Cu 324.752	Recovery = 98.11%			
Fe 238.204 Radial†	9.9	89.843 µg/L	4.3491	89.843 ppb 4.3491 4.84%
QC value within limits for Fe 238.204 Radial	Recovery = 89.84%			
K 766.490 Radial†	140.9	96.329 µg/L	5.3945	96.329 ppb 5.3945 5.60%
QC value less than the lower limit for K 766.490 Radial	Recovery = 64.22%			
Mg 279.077 IEC†	27.3	261.91 µg/L	7.425	261.91 ppb 7.425 2.83%
QC value within limits for Mg 279.077 IEC	Recovery = 87.30%			
Mn 257.610†	2962.7	9.9281 µg/L	0.16563	9.9281 ppb 0.16563 1.67%
QC value within limits for Mn 257.610	Recovery = 99.28%			
Mo 202.031†	93.0	9.6239 µg/L	0.51555	9.6239 ppb 0.51555 5.36%
QC value within limits for Mo 202.031	Recovery = 96.24%			
Na 589.592 Radial†	888.6	274.83 µg/L	9.058	274.83 ppb 9.058 3.30%
QC value within limits for Na 589.592 Radial	Recovery = 91.61%			
Ni 231.604†	98.3	5.2136 µg/L	0.15941	5.2136 ppb 0.15941 3.06%
QC value within limits for Ni 231.604	Recovery = 104.27%			
P 214.914†	69.8	145.57 µg/L	5.354	145.57 ppb 5.354 3.68%
QC value within limits for P 214.914	Recovery = 97.05%			
Pb 220.353†	47.3	12.112 µg/L	0.6821	12.112 ppb 0.6821 5.63%
QC value within limits for Pb 220.353	Recovery = 121.12%			
S 181.975 Axial†	21.5	93.279 µg/L	7.3832	93.279 ppb 7.3832 7.92%
QC value within limits for S 181.975 Axial	Recovery = 93.28%			
Sb 206.836†	9.8	9.3950 µg/L	1.93650	9.3950 ppb 1.93650 20.61%
QC value within limits for Sb 206.836	Recovery = 93.95%			
Se 196.026†	19.0	28.137 µg/L	3.2497	28.137 ppb 3.2497 11.55%
QC value within limits for Se 196.026	Recovery = 93.79%			
SiO2†	981.5	203.21 µg/L	0.834	203.21 ppb 0.834 0.41%
QC value within limits for SiO2	Recovery = 95.40%			
Si 251.611†	1124.0	90.198 µg/L	3.1958	90.198 ppb 3.1958 3.54%
QC value within limits for Si 251.611	Recovery = 90.20%			
Sn 189.927†	24.9	11.150 µg/L	0.3365	11.150 ppb 0.3365 3.02%
QC value within limits for Sn 189.927	Recovery = 111.50%			
Sr 421.552†	496.5	4.9347 µg/L	0.03247	4.9347 ppb 0.03247 0.66%
QC value within limits for Sr 421.552	Recovery = 98.69%			
Ti 334.940†	2147.8	4.9057 µg/L	0.10370	4.9057 ppb 0.10370 2.11%
QC value within limits for Ti 334.940	Recovery = 98.11%			
Tl 190.801†	12.5	17.497 µg/L	5.4742	17.497 ppb 5.4742 31.29%
QC value within limits for Tl 190.801	Recovery = 87.49%			
U 409.014†	661.7	54.012 µg/L	3.8584	54.012 ppb 3.8584 7.14%
QC value within limits for U 409.014	Recovery = 108.02%			
V 292.402†	452.2	4.7388 µg/L	0.06697	4.7388 ppb 0.06697 1.41%
QC value within limits for V 292.402	Recovery = 94.78%			
Zn 213.857†	346.9	8.5324 µg/L	0.46532	8.5324 ppb 0.46532 5.45%
QC value within limits for Zn 213.857	Recovery = 85.32%			

QC Failed. Continue with analysis.

Sequence No.: 9
 Sample ID: IC5A
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 103
 Date Collected: 2/24/2010 13:41:55
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: IC5A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51567.3	51567.3	97.7 %		13:42:35
1	Al 396.153Radial†	673858.2	689639.1	499840 µg/L	499840 ppb	13:42:29
1	Ca 317.933Radial†	495025.1	506415.3	479230 µg/L	479230 ppb	13:42:29
1	Fe 238.204 Radial†	20130.4	20585.2	186020 µg/L	186020 ppb	13:42:35
1	K 766.490 Radial†	121.4	-123.0	-84.090 µg/L	-84.090 ppb	13:42:35
1	Mg 279.077 IEC†	48906.5	50037.2	479100 µg/L	479100 ppb	13:42:35
1	Na 589.592 Radial†	611.8	33.5	10.368 µg/L	10.368 ppb	13:42:35
1	Sr 421.552†	364.2	347.7	3.4553 µg/L	3.4553 ppb	13:42:35
1	Sc 361.383	1766216.9	1766216.9	92.796 %		13:43:04
1	Y 371.029	1209497.1	1209497.1	92.229 %		13:43:04
1	Ag 328.068†	-2700.0	-2410.7	-6.8010 µg/L	-6.8010 ppb	13:43:09
1	As 188.979†	-19.5	-21.9	-55.909 µg/L	-55.909 ppb	13:43:30
1	B 249.677†	897.8	513.3	-75.114 µg/L	-75.114 ppb	13:43:09
1	Ba 233.527†	271.4	313.0	7.9855 µg/L	7.9855 ppb	13:43:30
1	Be 313.107†	-4216.9	-1006.0	-0.6348 µg/L	-0.6348 ppb	13:43:09
1	Cd 226.502†	405.1	565.9	-5.7833 µg/L	-5.7833 ppb	13:43:30
1	Co 228.616†	48.3	59.5	2.8121 µg/L	2.8121 ppb	13:43:30
1	Cr 267.716†	-73.5	-33.1	-0.7161 µg/L	-0.7161 ppb	13:43:30
1	Cu 324.752†	1271.6	-1868.8	13.364 µg/L	13.364 ppb	13:43:09
1	Mn 257.610†	322.1	578.0	7.5046 µg/L	7.5046 ppb	13:43:09
1	Mo 202.031†	-102.5	-106.4	-3.9338 µg/L	-3.9338 ppb	13:43:30
1	Ni 231.604†	135.4	-142.1	-5.1229 µg/L	-5.1229 ppb	13:43:30
1	P 214.914†	96.5	81.7	165.12 µg/L	165.12 ppb	13:43:30
1	Pb 220.353†	51.5	-27.1	13.337 µg/L	13.337 ppb	13:43:30
1	S 181.975 Axial†	27.4	13.2	57.212 µg/L	57.212 ppb	13:43:30
1	Sb 206.836†	42.2	23.7	-19.403 µg/L	-19.403 ppb	13:43:30
1	Se 196.026†	25.1	11.3	-34.961 µg/L	-34.961 ppb	13:43:30
1	SiO2†	1305.1	-139.1	-28.804 µg/L	-28.804 ppb	13:43:30
1	Si 251.611†	435.6	134.5	10.795 µg/L	10.795 ppb	13:43:30
1	Sn 189.927†	-60.0	-65.4	5.1193 µg/L	5.1193 ppb	13:43:30
1	Ti 334.940†	10923.4	11694.4	-3.3894 µg/L	-3.3894 ppb	13:43:09
1	Tl 190.801†	-28.8	-9.3	7.0251 µg/L	7.0251 ppb	13:43:30
1	U 409.014†	1533.8	1445.1	62.911 µg/L	62.911 ppb	13:43:09
1	V 292.402†	-2170.0	-2291.0	-1.3048 µg/L	-1.3048 ppb	13:43:09
1	Zn 213.857†	1456.1	1020.6	-10.681 µg/L	-10.681 ppb	13:43:30
2	Sc RADIAL	51632.1	51632.1	97.8 %		13:42:45
2	Al 396.153Radial†	670103.9	684936.1	496440 µg/L	496440 ppb	13:42:40
2	Ca 317.933Radial†	489349.4	499978.2	473140 µg/L	473140 ppb	13:42:40
2	Fe 238.204 Radial†	20100.5	20528.9	185510 µg/L	185510 ppb	13:42:45
2	K 766.490 Radial†	158.8	-84.8	-58.020 µg/L	-58.020 ppb	13:42:45
2	Mg 279.077 IEC†	48865.0	49931.9	478090 µg/L	478090 ppb	13:42:45
2	Na 589.592 Radial†	623.5	44.8	13.841 µg/L	13.841 ppb	13:42:45
2	Sr 421.552†	386.0	369.5	3.6719 µg/L	3.6719 ppb	13:42:45
2	Sc 361.383	1754087.6	1754087.6	92.159 %		13:43:35
2	Y 371.029	1201454.6	1201454.6	91.615 %		13:43:35
2	Ag 328.068†	-2710.0	-2441.8	-7.0743 µg/L	-7.0743 ppb	13:43:41
2	As 188.979†	-10.4	-12.2	-37.080 µg/L	-37.080 ppb	13:44:01
2	B 249.677†	871.9	491.9	-75.766 µg/L	-75.766 ppb	13:43:41
2	Ba 233.527†	261.4	304.2	7.7576 µg/L	7.7576 ppb	13:44:01
2	Be 313.107†	-4125.4	-938.2	-0.5929 µg/L	-0.5929 ppb	13:43:41
2	Cd 226.502†	408.6	572.7	-5.5431 µg/L	-5.5431 ppb	13:44:01
2	Co 228.616†	37.9	48.6	2.2829 µg/L	2.2829 ppb	13:44:01
2	Cr 267.716†	-82.1	-43.0	-0.9258 µg/L	-0.9258 ppb	13:44:01
2	Cu 324.752†	1270.4	-1860.6	13.348 µg/L	13.348 ppb	13:43:41
2	Mn 257.610†	325.2	583.7	7.4965 µg/L	7.4965 ppb	13:43:41
2	Mo 202.031†	-84.1	-87.2	-1.9664 µg/L	-1.9664 ppb	13:44:01
2	Ni 231.604†	144.6	-131.0	-4.5440 µg/L	-4.5440 ppb	13:44:01
2	P 214.914†	100.8	87.0	175.78 µg/L	175.78 ppb	13:44:01
2	Pb 220.353†	38.1	-41.2	9.5333 µg/L	9.5333 ppb	13:44:01

2	S 181.975 Axial†	36.9	23.7	102.64 µg/L	102.64 ppb	13:44:01
2	Sb 206.836†	58.7	41.9	-1.5758 µg/L	-1.5758 ppb	13:44:01
2	Se 196.026†	19.5	5.3	-42.575 µg/L	-42.575 ppb	13:44:01
2	SiO2†	1310.2	-123.9	-25.656 µg/L	-25.656 ppb	13:44:01
2	Si 251.611†	419.4	120.2	9.6491 µg/L	9.6491 ppb	13:44:01
2	Sn 189.927†	-63.1	-69.1	3.4117 µg/L	3.4117 ppb	13:44:01
2	Ti 334.940†	11096.8	11963.9	-2.7893 µg/L	-2.7893 ppb	13:43:41
2	Tl 190.801†	-21.0	-1.0	18.762 µg/L	18.762 ppb	13:44:01
2	U 409.014†	1561.8	1486.9	66.770 µg/L	66.770 ppb	13:43:41
2	V 292.402†	-2220.2	-2361.7	-2.0634 µg/L	-2.0634 ppb	13:43:41
2	Zn 213.857†	1468.6	1045.0	-9.9982 µg/L	-9.9982 ppb	13:44:01
3	Sc RADIAL	51888.4	51888.4	98.3 %		13:42:56
3	Al 396.153Radial†	673418.8	684924.6	496430 µg/L	496430 ppb	13:42:51
3	Ca 317.933Radial†	493871.6	502107.1	475160 µg/L	475160 ppb	13:42:51
3	Fe 238.204 Radial†	20003.7	20329.0	183700 µg/L	183700 ppb	13:42:56
3	K 766.490 Radial†	118.1	-127.1	-86.883 µg/L	-86.883 ppb	13:42:56
3	Mg 279.077 IEC†	48636.9	49453.2	473510 µg/L	473510 ppb	13:42:56
3	Na 589.592 Radial†	626.0	44.1	13.635 µg/L	13.635 ppb	13:42:56
3	Sr 421.552†	381.6	363.0	3.6081 µg/L	3.6081 ppb	13:42:56
3	Sc 361.383	1771517.5	1771517.5	93.075 %		13:44:07
3	Y 371.029	1214131.1	1214131.1	92.582 %		13:44:07
3	Ag 328.068†	-2635.4	-2332.6	-6.3595 µg/L	-6.3595 ppb	13:44:12
3	As 188.979†	-12.4	-14.2	-41.086 µg/L	-41.086 ppb	13:44:33
3	B 249.677†	829.0	436.5	-77.192 µg/L	-77.192 ppb	13:44:12
3	Ba 233.527†	263.8	303.9	7.7492 µg/L	7.7492 ppb	13:44:33
3	Be 313.107†	-4150.4	-921.0	-0.5819 µg/L	-0.5819 ppb	13:44:12
3	Cd 226.502†	399.8	558.8	-5.7118 µg/L	-5.7118 ppb	13:44:33
3	Co 228.616†	45.6	56.5	2.6646 µg/L	2.6646 ppb	13:44:33
3	Cr 267.716†	-66.1	-24.9	-0.5434 µg/L	-0.5434 ppb	13:44:33
3	Cu 324.752†	1432.7	-1699.8	14.172 µg/L	14.172 ppb	13:44:12
3	Mn 257.610†	309.9	563.8	7.3728 µg/L	7.3728 ppb	13:44:12
3	Mo 202.031†	-97.5	-100.7	-3.4386 µg/L	-3.4386 ppb	13:44:33
3	Ni 231.604†	139.2	-138.4	-4.9583 µg/L	-4.9583 ppb	13:44:33
3	P 214.914†	102.2	87.4	178.07 µg/L	178.07 ppb	13:44:33
3	Pb 220.353†	49.8	-29.0	12.738 µg/L	12.738 ppb	13:44:33
3	S 181.975 Axial†	30.2	16.1	69.838 µg/L	69.838 ppb	13:44:33
3	Sb 206.836†	55.1	37.4	-6.0517 µg/L	-6.0517 ppb	13:44:33
3	Se 196.026†	17.4	2.9	-47.550 µg/L	-47.550 ppb	13:44:33
3	SiO2†	1320.0	-127.4	-26.369 µg/L	-26.369 ppb	13:44:33
3	Si 251.611†	473.1	173.4	13.912 µg/L	13.912 ppb	13:44:33
3	Sn 189.927†	-47.5	-51.7	10.833 µg/L	10.833 ppb	13:44:33
3	Ti 334.940†	10857.3	11588.2	-3.2562 µg/L	-3.2562 ppb	13:44:12
3	Tl 190.801†	-42.4	-23.9	-13.367 µg/L	-13.367 ppb	13:44:33
3	U 409.014†	1464.8	1366.0	57.029 µg/L	57.029 ppb	13:44:12
3	V 292.402†	-2282.1	-2404.5	-2.7307 µg/L	-2.7307 ppb	13:44:12
3	Zn 213.857†	1469.4	1030.2	-10.019 µg/L	-10.019 ppb	13:44:33

Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1763940.6	92.677 %	0.4694			0.51%
Sc RADIAL	51696.0	98.0 %	0.32			0.33%
Y 371.029	1208361.0	92.142 %	0.4891			0.53%
Ag 328.068†	-2395.1	-6.7449 µg/L	0.36070	-6.7449 ppb	0.36070	5.35%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	686499.9	497570 µg/L	1970.4	497570 ppb	1970.4	0.40%
QC value within limits for Al 396.153Radial Recovery = 99.51%						
As 188.979†	-16.1	-44.692 µg/L	9.9185	-44.692 ppb	9.9185	22.19%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	480.5	-76.024 µg/L	1.0625	-76.024 ppb	1.0625	1.40%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	307.0	7.8308 µg/L	0.13407	7.8308 ppb	0.13407	1.71%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-955.1	-0.6032 µg/L	0.02788	-0.6032 ppb	0.02788	4.62%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	502833.5	475840 µg/L	3103.4	475840 ppb	3103.4	0.65%
QC value within limits for Ca 317.933Radial Recovery = 95.17%						
Cd 226.502†	565.8	-5.6794 µg/L	0.12333	-5.6794 ppb	0.12333	2.17%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	54.9	2.5865 µg/L	0.27313	2.5865 ppb	0.27313	10.56%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-33.7	-0.7285 µg/L	0.19151	-0.7285 ppb	0.19151	26.29%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-1809.7	13.628 µg/L	0.4712	13.628 ppb	0.4712	3.46%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	20481.0	185070 µg/L	1217.0	185070 ppb	1217.0	0.66%	
QC value within limits for Fe 238.204 Radial Recovery = 92.54%							
K 766.490 Radial†	-111.6	-76.331 µg/L	15.9191	-76.331 ppb	15.9191	20.86%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	49807.5	476900 µg/L	2980.2	476900 ppb	2980.2	0.62%	
QC value within limits for Mg 279.077 IEC Recovery = 95.38%							
Mn 257.610†	575.2	7.4579 µg/L	0.07386	7.4579 ppb	0.07386	0.99%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-98.1	-3.1129 µg/L	1.02335	-3.1129 ppb	1.02335	32.87%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	40.8	12.615 µg/L	1.9482	12.615 ppb	1.9482	15.44%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-137.2	-4.8751 µg/L	0.29828	-4.8751 ppb	0.29828	6.12%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	85.4	172.99 µg/L	6.910	172.99 ppb	6.910	3.99%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-32.4	11.869 µg/L	2.0452	11.869 ppb	2.0452	17.23%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	17.7	76.564 µg/L	23.4511	76.564 ppb	23.4511	30.63%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	34.3	-9.0102 µg/L	9.27467	-9.0102 ppb	9.27467	102.93%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.5	-41.695 µg/L	6.3403	-41.695 ppb	6.3403	15.21%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-130.1	-26.943 µg/L	1.6506	-26.943 ppb	1.6506	6.13%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	142.7	11.452 µg/L	2.2064	11.452 ppb	2.2064	19.27%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-62.1	6.4547 µg/L	3.88669	6.4547 ppb	3.88669	60.21%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	360.1	3.5784 µg/L	0.11132	3.5784 ppb	0.11132	3.11%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	11748.8	-3.1450 µg/L	0.31514	-3.1450 ppb	0.31514	10.02%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-11.4	4.1400 µg/L	16.25727	4.1400 ppb	16.25727	392.69%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	1432.7	62.237 µg/L	4.9053	62.237 ppb	4.9053	7.88%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-2352.4	-2.0330 µg/L	0.71343	-2.0330 ppb	0.71343	35.09%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1032.0	-10.233 µg/L	0.3885	-10.233 ppb	0.3885	3.80%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10
 Sample ID: ICSAB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 104
 Date Collected: 2/24/2010 13:44:41
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51838.5	51838.5	98.2 %		13:45:19
1	Al 396.153Radial†	678842.0	691104.9	500900 µg/L	500900 ppb	13:45:13
1	Ca 317.933Radial†	495621.4	504372.0	477300 µg/L	477300 ppb	13:45:13
1	Fe 238.204 Radial†	20308.7	20659.0	186690 µg/L	186690 ppb	13:45:19
1	K 766.490 Radial†	7459.6	7346.9	5024.0 µg/L	5024.0 ppb	13:45:19
1	Mg 279.077 IEC†	49502.4	50382.0	482410 µg/L	482410 ppb	13:45:19
1	Na 589.592 Radial†	16628.4	16335.6	5052.2 µg/L	5052.2 ppb	13:45:19
1	Sr 421.552†	49909.3	50783.9	504.71 µg/L	504.71 ppb	13:45:19
1	Sc 361.383	1762944.1	1762944.1	92.624 %		13:45:49
1	Y 371.029	1205503.6	1205503.6	91.924 %		13:45:49
1	Ag 328.068†	28939.5	31742.8	256.86 µg/L	256.86 ppb	13:45:49
1	As 188.979†	242.7	261.1	482.94 µg/L	482.94 ppb	13:46:10
1	B 249.677†	12184.4	12700.4	446.47 µg/L	446.47 ppb	13:45:49
1	Ba 233.527†	18171.8	19639.3	504.58 µg/L	504.58 ppb	13:45:49
1	Be 313.107†	357233.5	389217.8	241.44 µg/L	241.44 ppb	13:45:49
1	Cd 226.502†	16502.1	17945.5	462.73 µg/L	462.73 ppb	13:45:49
1	Co 228.616†	8361.2	9034.5	436.04 µg/L	436.04 ppb	13:46:10
1	Cr 267.716†	21275.4	23015.7	487.84 µg/L	487.84 ppb	13:45:49
1	Cu 324.752†	77081.2	79980.0	560.59 µg/L	560.59 ppb	13:45:49
1	Mn 257.610†	132936.2	143752.5	487.17 µg/L	487.17 ppb	13:45:49
1	Mo 202.031†	4408.1	4763.2	499.83 µg/L	499.83 ppb	13:46:10
1	Ni 231.604†	7749.6	8078.7	430.58 µg/L	430.58 ppb	13:46:10
1	P 214.914†	1237.4	1313.6	2698.8 µg/L	2698.8 ppb	13:46:10
1	Pb 220.353†	1751.0	1807.9	484.78 µg/L	484.78 ppb	13:46:10
1	S 181.975 Axial†	593.7	624.6	2709.0 µg/L	2709.0 ppb	13:46:10
1	Sb 206.836†	542.0	563.3	495.23 µg/L	495.23 ppb	13:46:10
1	Se 196.026†	1502.6	1606.4	2329.6 µg/L	2329.6 ppb	13:46:10
1	SiO2†	50804.7	53304.7	11037 µg/L	11037 ppb	13:45:49
1	Si 251.611†	60324.7	64793.4	5199.6 µg/L	5199.6 ppb	13:45:49
1	Sn 189.927†	999.0	1077.9	515.95 µg/L	515.95 ppb	13:46:10
1	Ti 334.940†	216396.6	233551.0	504.89 µg/L	504.89 ppb	13:45:49
1	Tl 190.801†	281.4	325.5	477.22 µg/L	477.22 ppb	13:46:10
1	U 409.014†	6575.2	6891.0	507.64 µg/L	507.64 ppb	13:45:49
1	V 292.402†	45013.9	48645.7	520.85 µg/L	520.85 ppb	13:45:49
1	Zn 213.857†	19446.0	20446.0	467.39 µg/L	467.39 ppb	13:45:49
2	Sc RADIAL	51751.3	51751.3	98.1 %		13:45:29
2	Al 396.153Radial†	685369.3	698926.0	506560 µg/L	506560 ppb	13:45:24
2	Ca 317.933Radial†	502050.8	511778.8	484310 µg/L	484310 ppb	13:45:24
2	Fe 238.204 Radial†	20262.5	20646.7	186580 µg/L	186580 ppb	13:45:29
2	K 766.490 Radial†	7514.1	7415.2	5070.7 µg/L	5070.7 ppb	13:45:29
2	Mg 279.077 IEC†	49655.8	50623.3	484720 µg/L	484720 ppb	13:45:29
2	Na 589.592 Radial†	16670.1	16406.7	5074.2 µg/L	5074.2 ppb	13:45:29
2	Sr 421.552†	50012.5	50974.8	506.61 µg/L	506.61 ppb	13:45:29
2	Sc 361.383	1748285.4	1748285.4	91.854 %		13:46:17
2	Y 371.029	1197407.6	1197407.6	91.307 %		13:46:17
2	Ag 328.068†	29021.9	32094.4	259.54 µg/L	259.54 ppb	13:46:17
2	As 188.979†	242.3	262.9	485.86 µg/L	485.86 ppb	13:46:37
2	B 249.677†	12188.8	12815.6	451.46 µg/L	451.46 ppb	13:46:17
2	Ba 233.527†	18113.4	19740.2	507.17 µg/L	507.17 ppb	13:46:17
2	Be 313.107†	356677.4	391846.2	243.07 µg/L	243.07 ppb	13:46:17
2	Cd 226.502†	16489.6	18081.3	466.41 µg/L	466.41 ppb	13:46:17
2	Co 228.616†	8361.8	9110.8	439.73 µg/L	439.73 ppb	13:46:37
2	Cr 267.716†	21322.2	23259.2	493.00 µg/L	493.00 ppb	13:46:17
2	Cu 324.752†	76781.2	80351.2	563.05 µg/L	563.05 ppb	13:46:17
2	Mn 257.610†	133281.7	145332.1	492.35 µg/L	492.35 ppb	13:46:17
2	Mo 202.031†	4410.2	4805.4	504.19 µg/L	504.19 ppb	13:46:37
2	Ni 231.604†	7751.5	8150.9	434.41 µg/L	434.41 ppb	13:46:37
2	P 214.914†	1236.2	1323.5	2721.1 µg/L	2721.1 ppb	13:46:37
2	Pb 220.353†	1746.1	1818.4	487.80 µg/L	487.80 ppb	13:46:37

2	S 181.975 Axial†	597.5	634.1	2750.2 µg/L	2750.2 ppb	13:46:37
2	Sb 206.836†	544.1	570.5	501.46 µg/L	501.46 ppb	13:46:37
2	Se 196.026†	1511.8	1630.1	2360.3 µg/L	2360.3 ppb	13:46:37
2	SiO2†	50661.8	53608.9	11100 µg/L	11100 ppb	13:46:17
2	Si 251.611†	60086.6	65080.3	5222.6 µg/L	5222.6 ppb	13:46:17
2	Sn 189.927†	988.6	1075.6	515.20 µg/L	515.20 ppb	13:46:37
2	Ti 334.940†	215969.0	235044.4	508.25 µg/L	508.25 ppb	13:46:17
2	Tl 190.801†	282.3	329.1	482.04 µg/L	482.04 ppb	13:46:37
2	U 409.014†	6584.7	6960.9	512.94 µg/L	512.94 ppb	13:46:17
2	V 292.402†	44831.0	48854.1	523.00 µg/L	523.00 ppb	13:46:17
2	Zn 213.857†	19409.3	20582.1	470.61 µg/L	470.61 ppb	13:46:17
3	Sc RADIAL	51656.5	51656.5	97.9 %		13:45:40
3	Al 396.153Radial†	689585.4	704516.0	510620 µg/L	510620 ppb	13:45:35
3	Ca 317.933Radial†	505209.0	515944.9	488250 µg/L	488250 ppb	13:45:35
3	Fe 238.204 Radial†	20244.7	20666.5	186760 µg/L	186760 ppb	13:45:40
3	K 766.490 Radial†	7549.7	7465.7	5105.3 µg/L	5105.3 ppb	13:45:40
3	Mg 279.077 IEC†	49606.8	50666.3	485140 µg/L	485140 ppb	13:45:40
3	Na 589.592 Radial†	16635.9	16402.9	5073.0 µg/L	5073.0 ppb	13:45:40
3	Sr 421.552†	50083.7	51141.1	508.26 µg/L	508.26 ppb	13:45:40
3	Sc 361.383	1746400.9	1746400.9	91.755 %		13:46:44
3	Y 371.029	1196150.4	1196150.4	91.211 %		13:46:44
3	Ag 328.068†	28834.4	31924.2	258.25 µg/L	258.25 ppb	13:46:44
3	As 188.979†	243.5	264.6	488.88 µg/L	488.88 ppb	13:47:04
3	B 249.677†	12148.4	12785.8	450.08 µg/L	450.08 ppb	13:46:44
3	Ba 233.527†	18012.6	19651.7	504.90 µg/L	504.90 ppb	13:46:44
3	Be 313.107†	354926.8	390357.2	242.14 µg/L	242.14 ppb	13:46:44
3	Cd 226.502†	16328.6	17925.1	462.18 µg/L	462.18 ppb	13:46:44
3	Co 228.616†	8380.6	9141.1	441.20 µg/L	441.20 ppb	13:47:04
3	Cr 267.716†	21151.9	23098.6	489.60 µg/L	489.60 ppb	13:46:44
3	Cu 324.752†	76408.7	80035.3	560.97 µg/L	560.97 ppb	13:46:44
3	Mn 257.610†	132557.8	144699.8	490.24 µg/L	490.24 ppb	13:46:44
3	Mo 202.031†	4412.1	4812.6	504.94 µg/L	504.94 ppb	13:47:04
3	Ni 231.604†	7782.8	8194.2	436.71 µg/L	436.71 ppb	13:47:04
3	P 214.914†	1227.2	1315.1	2704.7 µg/L	2704.7 ppb	13:47:04
3	Pb 220.353†	1745.9	1820.2	488.50 µg/L	488.50 ppb	13:47:04
3	S 181.975 Axial†	609.2	647.6	2808.5 µg/L	2808.5 ppb	13:47:04
3	Sb 206.836†	544.1	571.2	501.77 µg/L	501.77 ppb	13:47:04
3	Se 196.026†	1520.8	1641.6	2376.5 µg/L	2376.5 ppb	13:47:04
3	SiO2†	50457.0	53445.3	11066 µg/L	11066 ppb	13:46:44
3	Si 251.611†	59783.5	64820.5	5201.8 µg/L	5201.8 ppb	13:46:44
3	Sn 189.927†	981.9	1069.5	512.46 µg/L	512.46 ppb	13:47:04
3	Ti 334.940†	215023.5	234267.7	506.50 µg/L	506.50 ppb	13:46:44
3	Tl 190.801†	270.2	316.2	464.10 µg/L	464.10 ppb	13:47:04
3	U 409.014†	6540.6	6920.6	509.38 µg/L	509.38 ppb	13:46:44
3	V 292.402†	44685.8	48748.5	521.94 µg/L	521.94 ppb	13:46:44
3	Zn 213.857†	19309.6	20496.2	468.44 µg/L	468.44 ppb	13:46:44

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1752543.5	92.078 %	0.4758			0.52%
Sc RADIAL	51748.8	98.1 %	0.17			0.18%
Y 371.029	1199687.2	91.481 %	0.3871			0.42%
Ag 328.068†	31920.4	258.21 µg/L	1.343	258.21 ppb	1.343	0.52%
QC value within limits for Ag 328.068 Recovery = 103.29%						
Al 396.153Radial†	698182.3	506030 µg/L	4882.4	506030 ppb	4882.4	0.96%
QC value within limits for Al 396.153Radial Recovery = 101.21%						
As 188.979†	262.9	485.90 µg/L	2.969	485.90 ppb	2.969	0.61%
QC value within limits for As 188.979 Recovery = 97.18%						
B 249.677†	12767.3	449.34 µg/L	2.578	449.34 ppb	2.578	0.57%
QC value within limits for B 249.677 Recovery = 89.87%						
Ba 233.527†	19677.1	505.55 µg/L	1.413	505.55 ppb	1.413	0.28%
QC value within limits for Ba 233.527 Recovery = 101.11%						
Be 313.107†	390473.7	242.22 µg/L	0.818	242.22 ppb	0.818	0.34%
QC value within limits for Be 313.107 Recovery = 96.89%						
Ca 317.933Radial†	510698.6	483290 µg/L	5547.0	483290 ppb	5547.0	1.15%
QC value within limits for Ca 317.933Radial Recovery = 96.66%						
Cd 226.502†	17984.0	463.77 µg/L	2.296	463.77 ppb	2.296	0.50%
QC value within limits for Cd 226.502 Recovery = 92.75%						
Co 228.616†	9095.5	438.99 µg/L	2.656	438.99 ppb	2.656	0.61%

QC value within limits for Co 228.616 Recovery = 87.80%						
Cr 267.716†	23124.5	490.15 µg/L	2.623	490.15 ppb	2.623	0.54%
QC value within limits for Cr 267.716 Recovery = 98.03%						
Cu 324.752†	80122.2	561.54 µg/L	1.328	561.54 ppb	1.328	0.24%
QC value within limits for Cu 324.752 Recovery = 112.31%						
Fe 238.204 Radial†	20657.4	186680 µg/L	90.3	186680 ppb	90.3	0.05%
QC value within limits for Fe 238.204 Radial Recovery = 93.34%						
K 766.490 Radial†	7409.3	5066.7 µg/L	40.76	5066.7 ppb	40.76	0.80%
QC value within limits for K 766.490 Radial Recovery = 101.33%						
Mg 279.077 IEC†	50557.2	484090 µg/L	1467.8	484090 ppb	1467.8	0.30%
QC value within limits for Mg 279.077 IEC Recovery = 96.82%						
Mn 257.610†	144594.8	489.92 µg/L	2.607	489.92 ppb	2.607	0.53%
QC value within limits for Mn 257.610 Recovery = 97.98%						
Mo 202.031†	4793.7	502.99 µg/L	2.762	502.99 ppb	2.762	0.55%
QC value within limits for Mo 202.031 Recovery = 100.60%						
Na 589.592 Radial†	16381.7	5066.4 µg/L	12.37	5066.4 ppb	12.37	0.24%
QC value within limits for Na 589.592 Radial Recovery = 101.33%						
Ni 231.604†	8141.2	433.90 µg/L	3.093	433.90 ppb	3.093	0.71%
QC value within limits for Ni 231.604 Recovery = 86.78%						
P 214.914†	1317.4	2708.2 µg/L	11.53	2708.2 ppb	11.53	0.43%
QC value within limits for P 214.914 Recovery = 108.33%						
Pb 220.353†	1815.5	487.03 µg/L	1.976	487.03 ppb	1.976	0.41%
QC value within limits for Pb 220.353 Recovery = 97.41%						
S 181.975 Axial†	635.4	2755.9 µg/L	49.96	2755.9 ppb	49.96	1.81%
QC value within limits for S 181.975 Axial Recovery = 110.24%						
Sb 206.836†	568.4	499.49 µg/L	3.688	499.49 ppb	3.688	0.74%
QC value within limits for Sb 206.836 Recovery = 99.90%						
Se 196.026†	1626.0	2355.5 µg/L	23.84	2355.5 ppb	23.84	1.01%
QC value within limits for Se 196.026 Recovery = 94.22%						
SiO2†	53453.0	11067 µg/L	31.5	11067 ppb	31.5	0.28%
QC value within limits for SiO2 Recovery = 103.48%						
Si 251.611†	64898.1	5208.0 µg/L	12.71	5208.0 ppb	12.71	0.24%
QC value within limits for Si 251.611 Recovery = 104.16%						
Sn 189.927†	1074.3	514.54 µg/L	1.837	514.54 ppb	1.837	0.36%
QC value within limits for Sn 189.927 Recovery = 102.91%						
Sr 421.552†	50966.6	506.53 µg/L	1.777	506.53 ppb	1.777	0.35%
QC value within limits for Sr 421.552 Recovery = 101.31%						
Ti 334.940†	234287.7	506.55 µg/L	1.677	506.55 ppb	1.677	0.33%
QC value within limits for Ti 334.940 Recovery = 101.31%						
Tl 190.801†	323.6	474.46 µg/L	9.284	474.46 ppb	9.284	1.96%
QC value within limits for Tl 190.801 Recovery = 94.89%						
U 409.014†	6924.2	509.98 µg/L	2.700	509.98 ppb	2.700	0.53%
QC value within limits for U 409.014 Recovery = 102.00%						
V 292.402†	48749.4	521.93 µg/L	1.076	521.93 ppb	1.076	0.21%
QC value within limits for V 292.402 Recovery = 104.39%						
Zn 213.857†	20508.1	468.81 µg/L	1.643	468.81 ppb	1.643	0.35%
QC value within limits for Zn 213.857 Recovery = 93.76%						
All analyte(s) passed QC.						

Sequence No.: 11
 Sample ID: LR1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 105
 Date Collected: 2/24/2010 13:47:14
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51035.4	51035.4	96.7 %		13:47:52
1	Al 396.153Radial†	641993.9	663877.4	481170 µg/L	481170 ppb	13:47:46
1	Ca 317.933Radial†	471685.8	487561.4	461390 µg/L	461390 ppb	13:47:46
1	Fe 238.204 Radial†	46849.6	48428.9	437620 µg/L	437620 ppb	13:47:52
1	K 766.490 Radial†	111.3	-132.1	-90.356 µg/L	-90.356 ppb	13:47:52
1	Mg 279.077 IEC†	46338.8	47903.7	458400 µg/L	458400 ppb	13:47:52
1	Na 589.592 Radial†	1455419.8	1504377.8	465260 µg/L	465260 ppb	13:47:46
1	Sr 421.552†	524.5	517.4	5.1418 µg/L	5.1418 ppb	13:47:52
1	Sc 361.383	1739495.2	1739495.2	91.392 %		13:48:23
1	Y 371.029	1180800.8	1180800.8	90.040 %		13:48:23
1	Ag 328.068†	-4868.4	-4828.2	-9.6767 µg/L	-9.6767 ppb	13:48:23
1	As 188.979†	-27.9	-31.4	-58.482 µg/L	-58.482 ppb	13:48:43
1	B 249.677†	1550.7	1242.6	-175.21 µg/L	-175.21 ppb	13:48:23
1	Ba 233.527†	569.4	643.5	16.377 µg/L	16.377 ppb	13:48:43
1	Be 313.107†	-11328.3	-8857.0	-5.5132 µg/L	-5.5132 ppb	13:48:23
1	Cd 226.502†	1095.0	1327.5	-13.704 µg/L	-13.704 ppb	13:48:23
1	Co 228.616†	191.6	217.1	10.397 µg/L	10.397 ppb	13:48:43
1	Cr 267.716†	63.8	115.9	2.4111 µg/L	2.4111 ppb	13:48:43
1	Cu 324.752†	-2162.5	-5605.3	23.360 µg/L	23.360 ppb	13:48:23
1	Mn 257.610†	-6286.3	-6647.5	17.577 µg/L	17.577 ppb	13:48:23
1	Mo 202.031†	-187.7	-201.4	-4.2014 µg/L	-4.2014 ppb	13:48:43
1	Ni 231.604†	57.5	-225.0	-6.2650 µg/L	-6.2650 ppb	13:48:43
1	P 214.914†	278.8	282.7	379.82 µg/L	379.82 ppb	13:48:43
1	Pb 220.353†	161.0	93.6	20.266 µg/L	20.266 ppb	13:48:43
1	S 181.975 Axial†	26.2	12.4	53.608 µg/L	53.608 ppb	13:48:43
1	Sb 206.836†	47.4	30.1	-12.003 µg/L	-12.003 ppb	13:48:43
1	Se 196.026†	-137.9	-166.7	412.17 µg/L	412.17 ppb	13:48:43
1	SiO2†	1209.5	-222.2	-45.998 µg/L	-45.998 ppb	13:48:43
1	Si 251.611†	-270.3	-630.6	-50.607 µg/L	-50.607 ppb	13:48:43
1	Sn 189.927†	-56.1	-62.1	-22.587 µg/L	-22.587 ppb	13:48:43
1	Ti 334.940†	15149.9	16499.8	8.9552 µg/L	8.9552 ppb	13:48:23
1	Tl 190.801†	-37.0	-18.8	45.488 µg/L	45.488 ppb	13:48:43
1	U 409.014†	146696.5	160304.9	13001 µg/L	13001 ppb	13:48:23
1	V 292.402†	-6360.4	-6911.9	-5.1475 µg/L	-5.1475 ppb	13:48:23
1	Zn 213.857†	2750.9	2461.6	14.272 µg/L	14.272 ppb	13:48:43
2	Sc RADIAL	51284.7	51284.7	97.2 %		13:48:03
2	Al 396.153Radial†	647713.3	666536.2	483100 µg/L	483100 ppb	13:47:58
2	Ca 317.933Radial†	476692.1	490342.3	464020 µg/L	464020 ppb	13:47:58
2	Fe 238.204 Radial†	47372.7	48731.6	440360 µg/L	440360 ppb	13:48:03
2	K 766.490 Radial†	133.4	-109.9	-75.160 µg/L	-75.160 ppb	13:48:03
2	Mg 279.077 IEC†	46803.8	48149.3	460750 µg/L	460750 ppb	13:48:03
2	Na 589.592 Radial†	1468199.4	1510213.4	467070 µg/L	467070 ppb	13:47:58
2	Sr 421.552†	552.4	543.4	5.4008 µg/L	5.4008 ppb	13:48:03
2	Sc 361.383	1733927.1	1733927.1	91.100 %		13:48:50
2	Y 371.029	1177121.9	1177121.9	89.760 %		13:48:50
2	Ag 328.068†	-4919.9	-4901.8	-10.056 µg/L	-10.056 ppb	13:48:50
2	As 188.979†	-18.5	-21.2	-39.012 µg/L	-39.012 ppb	13:49:10
2	B 249.677†	1458.6	1146.9	-180.73 µg/L	-180.73 ppb	13:48:50
2	Ba 233.527†	551.2	625.5	15.919 µg/L	15.919 ppb	13:49:10
2	Be 313.107†	-11185.4	-8739.9	-5.4408 µg/L	-5.4408 ppb	13:48:50
2	Cd 226.502†	1057.5	1290.1	-15.020 µg/L	-15.020 ppb	13:48:50
2	Co 228.616†	184.0	209.4	10.022 µg/L	10.022 ppb	13:49:10
2	Cr 267.716†	47.1	97.8	2.0284 µg/L	2.0284 ppb	13:49:10
2	Cu 324.752†	-2119.6	-5565.8	24.005 µg/L	24.005 ppb	13:48:50
2	Mn 257.610†	-6377.9	-6770.2	17.435 µg/L	17.435 ppb	13:48:50
2	Mo 202.031†	-180.8	-194.4	-3.3760 µg/L	-3.3760 ppb	13:49:10
2	Ni 231.604†	53.8	-228.9	-6.4341 µg/L	-6.4341 ppb	13:49:10
2	P 214.914†	285.0	290.5	394.44 µg/L	394.44 ppb	13:49:10
2	Pb 220.353†	159.2	92.2	19.977 µg/L	19.977 ppb	13:49:10

2	S 181.975 Axial†	25.4	11.5	49.914 µg/L	49.914 ppb	13:49:10
2	Sb 206.836†	49.7	32.7	-9.6769 µg/L	-9.6769 ppb	13:49:10
2	Se 196.026†	-111.2	-137.9	459.48 µg/L	459.48 ppb	13:49:10
2	SiO2†	1191.5	-237.6	-49.202 µg/L	-49.202 ppb	13:49:10
2	Si 251.611†	-238.6	-596.8	-47.893 µg/L	-47.893 ppb	13:49:10
2	Sn 189.927†	-45.9	-51.1	-17.682 µg/L	-17.682 ppb	13:49:10
2	Ti 334.940†	15424.9	16854.9	9.6255 µg/L	9.6255 ppb	13:48:50
2	Tl 190.801†	-46.6	-29.4	30.998 µg/L	30.998 ppb	13:49:10
2	U 409.014†	145628.0	159647.6	12947 µg/L	12947 ppb	13:48:50
2	V 292.402†	-6219.4	-6779.5	-3.5338 µg/L	-3.5338 ppb	13:48:50
2	Zn 213.857†	2718.0	2435.1	13.354 µg/L	13.354 ppb	13:49:10
3	Sc RADIAL	51230.1	51230.1	97.1 %		13:48:14
3	Al 396.153Radial†	649088.7	668663.4	484640 µg/L	484640 ppb	13:48:09
3	Ca 317.933Radial†	478272.8	492493.5	466060 µg/L	466060 ppb	13:48:09
3	Fe 238.204 Radial†	47340.8	48750.8	440530 µg/L	440530 ppb	13:48:14
3	K 766.490 Radial†	89.7	-154.8	-105.83 µg/L	-105.83 ppb	13:48:14
3	Mg 279.077 IEC†	46780.2	48176.3	461000 µg/L	461000 ppb	13:48:14
3	Na 589.592 Radial†	1472538.0	1516293.2	468950 µg/L	468950 ppb	13:48:09
3	Sr 421.552†	513.9	504.4	5.0127 µg/L	5.0127 ppb	13:48:14
3	Sc 361.383	1722454.0	1722454.0	90.497 %		13:49:17
3	Y 371.029	1168726.9	1168726.9	89.120 %		13:49:17
3	Ag 328.068†	-4892.0	-4906.9	-10.087 µg/L	-10.087 ppb	13:49:17
3	As 188.979†	-23.7	-27.1	-50.247 µg/L	-50.247 ppb	13:49:37
3	B 249.677†	1474.0	1174.6	-179.64 µg/L	-179.64 ppb	13:49:17
3	Ba 233.527†	529.3	605.4	15.401 µg/L	15.401 ppb	13:49:37
3	Be 313.107†	-11214.8	-8854.2	-5.5122 µg/L	-5.5122 ppb	13:49:17
3	Cd 226.502†	1106.1	1351.6	-13.382 µg/L	-13.382 ppb	13:49:17
3	Co 228.616†	187.6	214.8	10.279 µg/L	10.279 ppb	13:49:37
3	Cr 267.716†	84.5	139.5	2.9104 µg/L	2.9104 ppb	13:49:37
3	Cu 324.752†	-2217.6	-5689.5	23.201 µg/L	23.201 ppb	13:49:17
3	Mn 257.610†	-6367.5	-6805.3	17.330 µg/L	17.330 ppb	13:49:17
3	Mo 202.031†	-190.0	-205.9	-4.5619 µg/L	-4.5619 ppb	13:49:37
3	Ni 231.604†	66.1	-215.0	-5.6930 µg/L	-5.6930 ppb	13:49:37
3	P 214.914†	286.0	293.7	401.70 µg/L	401.70 ppb	13:49:37
3	Pb 220.353†	157.8	91.8	19.851 µg/L	19.851 ppb	13:49:37
3	S 181.975 Axial†	23.0	9.1	39.467 µg/L	39.467 ppb	13:49:37
3	Sb 206.836†	48.0	31.3	-11.260 µg/L	-11.260 ppb	13:49:37
3	Se 196.026†	-132.7	-162.4	422.78 µg/L	422.78 ppb	13:49:37
3	SiO2†	1211.7	-206.7	-42.794 µg/L	-42.794 ppb	13:49:37
3	Si 251.611†	-264.7	-627.4	-50.350 µg/L	-50.350 ppb	13:49:37
3	Sn 189.927†	-37.3	-41.9	-13.595 µg/L	-13.595 ppb	13:49:37
3	Ti 334.940†	15748.5	17325.2	10.716 µg/L	10.716 ppb	13:49:17
3	Tl 190.801†	-46.7	-29.9	30.339 µg/L	30.339 ppb	13:49:37
3	U 409.014†	145541.8	160617.1	13026 µg/L	13026 ppb	13:49:17
3	V 292.402†	-6219.2	-6824.8	-3.8976 µg/L	-3.8976 ppb	13:49:17
3	Zn 213.857†	2744.7	2484.4	14.550 µg/L	14.550 ppb	13:49:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1731958.8	90.996 %		0.4565			0.50%
Sc RADIAL	51183.4	97.0 %		0.25			0.26%
Y 371.029	1175549.9	89.640 %		0.4719			0.53%
Ag 328.068†	-4878.9	-9.9401 µg/L		0.22860	-9.9401 ppb	0.22860	2.30%
Al 396.153Radial†	666359.0	482970 µg/L		1738.0	482970 ppb	1738.0	0.36%
QC value within limits for Al 396.153Radial Recovery = 96.59%							
As 188.979†	-26.6	-49.247 µg/L		9.7734	-49.247 ppb	9.7734	19.85%
B 249.677†	1188.0	-178.53 µg/L		2.922	-178.53 ppb	2.922	1.64%
Ba 233.527†	624.8	15.899 µg/L		0.4883	15.899 ppb	0.4883	3.07%
Be 313.107†	-8817.0	-5.4887 µg/L		0.04151	-5.4887 ppb	0.04151	0.76%
Ca 317.933Radial†	490132.4	463830 µg/L		2340.0	463830 ppb	2340.0	0.50%
QC value within limits for Ca 317.933Radial Recovery = 92.77%							
Cd 226.502†	1323.1	-14.035 µg/L		0.8679	-14.035 ppb	0.8679	6.18%
Co 228.616†	213.7	10.233 µg/L		0.1920	10.233 ppb	0.1920	1.88%
Cr 267.716†	117.7	2.4500 µg/L		0.44230	2.4500 ppb	0.44230	18.05%
Cu 324.752†	-5620.2	23.522 µg/L		0.4254	23.522 ppb	0.4254	1.81%
Fe 238.204 Radial†	48637.1	439500 µg/L		1631.8	439500 ppb	1631.8	0.37%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.90%							
K 766.490 Radial†	-132.3	-90.450 µg/L		15.3370	-90.450 ppb	15.3370	16.96%
Mg 279.077 IEC†	48076.5	460050 µg/L		1437.1	460050 ppb	1437.1	0.31%

QC value within limits for Mg 279.077 IEC Recovery = 92.01%

Mn 257.610†	-6741.0	17.448 µg/L	0.1237	17.448 ppb	0.1237	0.71%
Mo 202.031†	-200.6	-4.0464 µg/L	0.60795	-4.0464 ppb	0.60795	15.02%
Na 589.592 Radial†	1510294.8	467090 µg/L	1842.7	467090 ppb	1842.7	0.39%

QC value within limits for Na 589.592 Radial Recovery = 93.42%

Ni 231.604†	-223.0	-6.1307 µg/L	0.38836	-6.1307 ppb	0.38836	6.33%
P 214.914†	289.0	391.98 µg/L	11.146	391.98 ppb	11.146	2.84%
Pb 220.353†	92.5	20.031 µg/L	0.2127	20.031 ppb	0.2127	1.06%
S 181.975 Axial†	11.0	47.663 µg/L	7.3342	47.663 ppb	7.3342	15.39%
Sb 206.836†	31.4	-10.980 µg/L	1.1879	-10.980 ppb	1.1879	10.82%
Se 196.026†	-155.7	431.48 µg/L	24.820	431.48 ppb	24.820	5.75%
SiO2†	-222.2	-45.998 µg/L	3.2041	-45.998 ppb	3.2041	6.97%
Si 251.611†	-618.3	-49.617 µg/L	1.4981	-49.617 ppb	1.4981	3.02%
Sn 189.927†	-51.7	-17.955 µg/L	4.5020	-17.955 ppb	4.5020	25.07%
Sr 421.552†	521.7	5.1851 µg/L	0.19763	5.1851 ppb	0.19763	3.81%
Ti 334.940†	16893.3	9.7655 µg/L	0.88862	9.7655 ppb	0.88862	9.10%
Tl 190.801†	-26.0	35.609 µg/L	8.5623	35.609 ppb	8.5623	24.05%
U 409.014†	160189.9	12991 µg/L	40.4	12991 ppb	40.4	0.31%

QC value less than the lower limit for U 409.014 Recovery = 86.61%

V 292.402†	-6838.8	-4.1930 µg/L	0.84646	-4.1930 ppb	0.84646	20.19%
Zn 213.857†	2460.4	14.059 µg/L	0.6261	14.059 ppb	0.6261	4.45%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 2/24/2010 13:49:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53247.4	53247.4	101 %			13:50:26
1	Al 396.153Radial†	360.8	384.0	80.677 µg/L		80.677 ppb	13:50:26
1	Ca 317.933Radial†	278.7	93.0	88.031 µg/L		88.031 ppb	13:50:46
1	Fe 238.204 Radial†	19.8	3.9	229.62 µg/L		229.62 ppb	13:50:46
1	K 766.490 Radial†	422907.4	418891.8	286450 µg/L		286450 ppb	13:50:21
1	Mg 279.077 IEC†	2.2	-10.5	61.170 µg/L		61.170 ppb	13:50:46
1	Na 589.592 Radial†	1324.2	719.9	222.65 µg/L		222.65 ppb	13:50:26
1	Sr 421.552†	958165.1	949601.9	9437.6 µg/L		9437.6 ppb	13:50:21
1	Sc 361.383	1887593.4	1887593.4	99.173 %			13:52:10
1	Y 371.029	1289340.9	1289340.9	98.317 %			13:52:10
1	Ag 328.068†	-6986.5	-6545.9	14.289 µg/L		14.289 ppb	13:52:15
1	As 188.979†	4875.8	4915.5	9353.1 µg/L		9353.1 ppb	13:52:15
1	B 249.677†	111199.1	111671.7	4812.7 µg/L		4812.7 ppb	13:52:10
1	Ba 233.527†	541485.9	546019.3	14021 µg/L		14021 ppb	13:52:10
1	Be 313.107†	4395269.3	4435439.1	2750.1 µg/L		2750.1 ppb	13:52:00
1	Cd 226.502†	342702.9	345688.5	9321.1 µg/L		9321.1 ppb	13:52:10
1	Co 228.616†	188132.8	189708.2	9159.2 µg/L		9159.2 ppb	13:52:10
1	Cr 267.716†	1096136.0	1105317.6	23420 µg/L		23420 ppb	13:52:10
1	Cu 324.752†	2901906.1	2922852.4	19538 µg/L		19538 ppb	13:52:10
1	Mn 257.610†	2743705.2	2766802.9	9270.2 µg/L		9270.2 ppb	13:52:10
1	Mo 202.031†	92230.7	93003.4	9620.9 µg/L		9620.9 ppb	13:52:10
1	Ni 231.604†	174878.3	176047.8	9330.7 µg/L		9330.7 ppb	13:52:10
1	P 214.914†	6972.1	7007.9	12785 µg/L		12785 ppb	13:52:15
1	Pb 220.353†	92982.6	93675.0	24057 µg/L		24057 ppb	13:52:10
1	S 181.975 Axial†	11706.3	11787.5	51122 µg/L		51122 ppb	13:52:15
1	Sb 206.836†	10514.6	10580.4	9925.6 µg/L		9925.6 ppb	13:52:15
1	Se 196.026†	6331.7	6368.6	9442.9 µg/L		9442.9 ppb	13:52:15
1	SiO2†	464021.3	466343.0	96555 µg/L		96555 ppb	13:52:10
1	Si 251.611†	557170.4	561479.1	45058 µg/L		45058 ppb	13:52:10
1	Sn 189.927†	22247.8	22432.5	10017 µg/L		10017 ppb	13:52:15
1	Ti 334.940†	4086649.6	4120632.0	9446.0 µg/L		9446.0 ppb	13:52:00
1	Tl 190.801†	6547.2	6623.5	9276.3 µg/L		9276.3 ppb	13:52:15
1	U 409.014†	-1235.4	-1453.5	-118.70 µg/L		-118.70 ppb	13:52:10
1	V 292.402†	950799.3	958771.0	9851.9 µg/L		9851.9 ppb	13:52:10
1	Zn 213.857†	564085.6	568238.4	14000 µg/L		14000 ppb	13:52:10
2	Sc RADIAL	53268.5	53268.5	101 %			13:50:57
2	Al 396.153Radial†	331.7	355.1	59.677 µg/L		59.677 ppb	13:50:57
2	Ca 317.933Radial†	264.1	78.4	74.208 µg/L		74.208 ppb	13:51:17
2	Fe 238.204 Radial†	18.6	2.7	218.97 µg/L		218.97 ppb	13:51:17
2	K 766.490 Radial†	423221.6	419036.7	286550 µg/L		286550 ppb	13:50:52
2	Mg 279.077 IEC†	-0.7	-13.4	33.222 µg/L		33.222 ppb	13:51:17
2	Na 589.592 Radial†	1084.4	481.7	148.99 µg/L		148.99 ppb	13:50:57
2	Sr 421.552†	957690.5	948755.2	9429.1 µg/L		9429.1 ppb	13:50:52
2	Sc 361.383	1875824.3	1875824.3	98.555 %			13:52:34
2	Y 371.029	1282240.5	1282240.5	97.776 %			13:52:34
2	Ag 328.068†	-6994.3	-6598.0	14.062 µg/L		14.062 ppb	13:52:39
2	As 188.979†	4821.1	4890.9	9306.1 µg/L		9306.1 ppb	13:52:39
2	B 249.677†	110716.2	111885.2	4822.0 µg/L		4822.0 ppb	13:52:34
2	Ba 233.527†	538928.7	546850.2	14043 µg/L		14043 ppb	13:52:34
2	Be 313.107†	4400115.0	4468162.0	2770.4 µg/L		2770.4 ppb	13:52:24
2	Cd 226.502†	341026.8	346155.9	9333.8 µg/L		9333.8 ppb	13:52:34
2	Co 228.616†	187051.8	189801.6	9163.6 µg/L		9163.6 ppb	13:52:34
2	Cr 267.716†	1092248.2	1108307.5	23483 µg/L		23483 ppb	13:52:34
2	Cu 324.752†	2889713.4	2928839.6	19578 µg/L		19578 ppb	13:52:34
2	Mn 257.610†	2734331.0	2774649.1	9296.5 µg/L		9296.5 ppb	13:52:34
2	Mo 202.031†	91668.2	93016.1	9622.2 µg/L		9622.2 ppb	13:52:34
2	Ni 231.604†	174116.6	176381.2	9348.4 µg/L		9348.4 ppb	13:52:34
2	P 214.914†	6928.6	7007.9	12781 µg/L		12781 ppb	13:52:39
2	Pb 220.353†	92604.2	93879.3	24110 µg/L		24110 ppb	13:52:34

2	S 181.975 Axial†	11584.0	11737.5	50905 µg/L	50905 ppb	13:52:39
2	Sb 206.836†	10425.0	10556.0	9901.7 µg/L	9901.7 ppb	13:52:39
2	Se 196.026†	6290.5	6366.9	9440.3 µg/L	9440.3 ppb	13:52:39
2	SiO2†	462956.6	468198.3	96939 µg/L	96939 ppb	13:52:34
2	Si 251.611†	556240.6	564060.6	45265 µg/L	45265 ppb	13:52:34
2	Sn 189.927†	22049.0	22371.5	9989.7 µg/L	9989.7 ppb	13:52:39
2	Ti 334.940†	4090630.7	4150525.3	9514.5 µg/L	9514.5 ppb	13:52:24
2	Tl 190.801†	6530.2	6647.7	9310.5 µg/L	9310.5 ppb	13:52:39
2	U 409.014†	-1136.2	-1360.7	-111.12 µg/L	-111.12 ppb	13:52:34
2	V 292.402†	947384.1	961320.8	9878.0 µg/L	9878.0 ppb	13:52:34
2	Zn 213.857†	561713.9	569400.6	14029 µg/L	14029 ppb	13:52:34
3	Sc RADIAL	53296.6	53296.6	101 %		13:51:28
3	Al 396.153Radial†	345.8	368.8	85.399 µg/L	85.399 ppb	13:51:28
3	Ca 317.933Radial†	279.5	93.5	88.514 µg/L	88.514 ppb	13:51:48
3	Fe 238.204 Radial†	19.8	3.9	213.66 µg/L	213.66 ppb	13:51:48
3	K 766.490 Radial†	425259.5	420833.7	287780 µg/L	287780 ppb	13:51:23
3	Mg 279.077 IEC†	-1.8	-14.5	9.6980 µg/L	9.6980 ppb	13:51:48
3	Na 589.592 Radial†	970.0	368.0	113.80 µg/L	113.80 ppb	13:51:28
3	Sr 421.552†	965024.8	955517.4	9496.3 µg/L	9496.3 ppb	13:51:23
3	Sc 361.383	1886904.2	1886904.2	99.137 %		13:52:58
3	Y 371.029	1289412.5	1289412.5	98.322 %		13:52:58
3	Ag 328.068†	-6244.7	-5800.3	14.828 µg/L	14.828 ppb	13:53:03
3	As 188.979†	4434.4	4472.2	8509.2 µg/L	8509.2 ppb	13:53:03
3	B 249.677†	105740.3	106206.4	4575.4 µg/L	4575.4 ppb	13:52:58
3	Ba 233.527†	503537.3	507939.8	13043 µg/L	13043 ppb	13:52:58
3	Be 313.107†	4309201.7	4350241.2	2697.3 µg/L	2697.3 ppb	13:52:48
3	Cd 226.502†	317662.5	320556.3	8643.4 µg/L	8643.4 ppb	13:52:58
3	Co 228.616†	172729.3	174240.0	8411.2 µg/L	8411.2 ppb	13:52:58
3	Cr 267.716†	988989.4	997642.3	21138 µg/L	21138 ppb	13:52:58
3	Cu 324.752†	2673790.3	2693820.1	18007 µg/L	18007 ppb	13:52:58
3	Mn 257.610†	2526776.8	2548997.1	8540.4 µg/L	8540.4 ppb	13:52:58
3	Mo 202.031†	84869.8	85612.5	8856.3 µg/L	8856.3 ppb	13:52:58
3	Ni 231.604†	160791.6	161902.9	8581.0 µg/L	8581.0 ppb	13:52:58
3	P 214.914†	6237.1	6269.1	11379 µg/L	11379 ppb	13:53:03
3	Pb 220.353†	87191.9	87868.1	22566 µg/L	22566 ppb	13:52:58
3	S 181.975 Axial†	10748.4	10825.6	46950 µg/L	46950 ppb	13:53:03
3	Sb 206.836†	9469.8	9530.4	8943.2 µg/L	8943.2 ppb	13:53:03
3	Se 196.026†	5817.9	5852.7	8678.0 µg/L	8678.0 ppb	13:53:03
3	SiO2†	439494.3	441773.5	91468 µg/L	91468 ppb	13:52:58
3	Si 251.611†	527737.7	531995.5	42692 µg/L	42692 ppb	13:52:58
3	Sn 189.927†	19455.8	19624.4	8763.0 µg/L	8763.0 ppb	13:53:03
3	Ti 334.940†	4002273.5	4037026.7	9254.3 µg/L	9254.3 ppb	13:52:48
3	Tl 190.801†	6207.4	6283.1	8802.0 µg/L	8802.0 ppb	13:53:03
3	U 409.014†	-965.4	-1181.6	-96.496 µg/L	-96.496 ppb	13:52:58
3	V 292.402†	874270.6	881926.5	9061.5 µg/L	9061.5 ppb	13:52:58
3	Zn 213.857†	521404.8	525393.9	12945 µg/L	12945 ppb	13:52:58

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1883440.6	98.955 %	0.3470			0.35%
Sc RADIAL	53270.9	101 %	0.0			0.05%
Y 371.029	1286997.9	98.138 %	0.3142			0.32%
Ag 328.068†	-6314.7	14.393 µg/L	0.3932	14.393 ppb	0.3932	2.73%
Al 396.153Radial†	369.3	75.251 µg/L	13.6924	75.251 ppb	13.6924	18.20%
As 188.979†	4759.5	9056.1 µg/L	474.24	9056.1 ppb	474.24	5.24%
QC value within limits for As 188.979 Recovery = 90.56%						
B 249.677†	109921.1	4736.7 µg/L	139.78	4736.7 ppb	139.78	2.95%
QC value within limits for B 249.677 Recovery = 94.73%						
Ba 233.527†	533603.1	13703 µg/L	570.9	13703 ppb	570.9	4.17%
QC value within limits for Ba 233.527 Recovery = 91.35%						
Be 313.107†	4417947.4	2739.2 µg/L	37.74	2739.2 ppb	37.74	1.38%
QC value within limits for Be 313.107 Recovery = 91.31%						
Ca 317.933Radial†	88.3	83.585 µg/L	8.1236	83.585 ppb	8.1236	9.72%
Cd 226.502†	337466.9	9099.4 µg/L	394.98	9099.4 ppb	394.98	4.34%
QC value within limits for Cd 226.502 Recovery = 90.99%						
Co 228.616†	184583.2	8911.4 µg/L	433.13	8911.4 ppb	433.13	4.86%
QC value less than the lower limit for Co 228.616 Recovery = 89.11%						
Cr 267.716†	1070422.5	22680 µg/L	1335.8	22680 ppb	1335.8	5.89%
QC value within limits for Cr 267.716 Recovery = 90.72%						

Cu 324.752†	2848504.0	19041 µg/L	895.7	19041 ppb	895.7	4.70%
QC value within limits for Cu 324.752 Recovery = 95.21%						
Fe 238.204 Radial†	3.5	220.75 µg/L	8.132	220.75 ppb	8.132	3.68%
K 766.490 Radial†	419587.4	286930 µg/L	739.7	286930 ppb	739.7	0.26%
QC value within limits for K 766.490 Radial Recovery = 95.64%						
Mg 279.077 IEC†	-12.8	34.697 µg/L	25.7675	34.697 ppb	25.7675	74.27%
Mn 257.610†	2696816.4	9035.7 µg/L	429.12	9035.7 ppb	429.12	4.75%
QC value within limits for Mn 257.610 Recovery = 90.36%						
Mo 202.031†	90544.0	9366.5 µg/L	441.81	9366.5 ppb	441.81	4.72%
QC value within limits for Mo 202.031 Recovery = 93.66%						
Na 589.592 Radial†	523.2	161.81 µg/L	55.544	161.81 ppb	55.544	34.33%
Ni 231.604†	171444.0	9086.7 µg/L	438.02	9086.7 ppb	438.02	4.82%
QC value within limits for Ni 231.604 Recovery = 90.87%						
P 214.914†	6761.6	12315 µg/L	810.8	12315 ppb	810.8	6.58%
QC value less than the lower limit for P 214.914 Recovery = 82.10%						
Pb 220.353†	91807.5	23578 µg/L	876.5	23578 ppb	876.5	3.72%
QC value within limits for Pb 220.353 Recovery = 94.31%						
S 181.975 Axial†	11450.2	49659 µg/L	2348.4	49659 ppb	2348.4	4.73%
QC value within limits for S 181.975 Axial Recovery = 99.32%						
Sb 206.836†	10222.3	9590.2 µg/L	560.42	9590.2 ppb	560.42	5.84%
QC value within limits for Sb 206.836 Recovery = 95.90%						
Se 196.026†	6196.1	9187.1 µg/L	440.86	9187.1 ppb	440.86	4.80%
QC value within limits for Se 196.026 Recovery = 91.87%						
SiO2†	458771.6	94987 µg/L	3053.9	94987 ppb	3053.9	3.22%
QC value less than the lower limit for SiO2 Recovery = 88.77%						
Si 251.611†	552511.7	44338 µg/L	1429.6	44338 ppb	1429.6	3.22%
QC value less than the lower limit for Si 251.611 Recovery = 88.68%						
Sn 189.927†	21476.1	9589.9 µg/L	716.22	9589.9 ppb	716.22	7.47%
QC value within limits for Sn 189.927 Recovery = 95.90%						
Sr 421.552†	951291.5	9454.3 µg/L	36.61	9454.3 ppb	36.61	0.39%
QC value within limits for Sr 421.552 Recovery = 94.54%						
Ti 334.940†	4102728.0	9404.9 µg/L	134.86	9404.9 ppb	134.86	1.43%
QC value within limits for Ti 334.940 Recovery = 94.05%						
Tl 190.801†	6518.1	9129.6 µg/L	284.19	9129.6 ppb	284.19	3.11%
QC value within limits for Tl 190.801 Recovery = 91.30%						
U 409.014†	-1331.9	-108.77 µg/L	11.287	-108.77 ppb	11.287	10.38%
V 292.402†	934006.1	9597.1 µg/L	464.08	9597.1 ppb	464.08	4.84%
QC value within limits for V 292.402 Recovery = 95.97%						
Zn 213.857†	554344.3	13658 µg/L	617.7	13658 ppb	617.7	4.52%
QC value within limits for Zn 213.857 Recovery = 91.05%						
QC Failed. Continue with analysis.						

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 13:53:11

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	53713.2	53713.2	102 %		13:53:48
1	Al 396.153Radial†	6989.9	6894.0	4985.9 µg/L	4985.9 ppb	13:53:48
1	Ca 317.933Radial†	5494.3	5214.9	4935.0 µg/L	4935.0 ppb	13:54:09
1	Fe 238.204 Radial†	578.2	552.3	5001.5 µg/L	5001.5 ppb	13:54:09
1	K 766.490 Radial†	8050.6	7662.5	5239.9 µg/L	5239.9 ppb	13:53:48
1	Mg 279.077 IEC†	551.1	528.7	5067.9 µg/L	5067.9 ppb	13:54:09
1	Na 589.592 Radial†	33562.2	32382.2	10015 µg/L	10015 ppb	13:53:48
1	Sr 421.552†	50949.9	50033.1	497.25 µg/L	497.25 ppb	13:53:48
1	Sc 361.383	1918699.3	1918699.3	100.81 %		13:55:08
1	Y 371.029	1318036.8	1318036.8	100.51 %		13:55:08
1	Ag 328.068†	66028.8	65998.5	506.46 µg/L	506.46 ppb	13:55:13
1	As 188.979†	271.3	268.3	510.50 µg/L	510.50 ppb	13:55:34
1	B 249.677†	12393.5	11840.0	504.52 µg/L	504.52 ppb	13:55:13
1	Ba 233.527†	19819.0	19680.7	505.66 µg/L	505.66 ppb	13:55:13
1	Be 313.107†	813580.5	810599.7	503.06 µg/L	503.06 ppb	13:55:08
1	Cd 226.502†	18868.2	18846.4	507.61 µg/L	507.61 ppb	13:55:13
1	Co 228.616†	10551.2	10474.1	505.72 µg/L	505.72 ppb	13:55:13
1	Cr 267.716†	24213.2	24065.3	510.08 µg/L	510.08 ppb	13:55:13
1	Cu 324.752†	79591.6	75714.8	506.82 µg/L	506.82 ppb	13:55:13
1	Mn 257.610†	153948.2	152945.5	512.91 µg/L	512.91 ppb	13:55:08
1	Mo 202.031†	5119.2	5082.2	525.93 µg/L	525.93 ppb	13:55:34
1	Ni 231.604†	9944.5	9576.8	507.64 µg/L	507.64 ppb	13:55:13
1	P 214.914†	1244.4	1212.1	2494.2 µg/L	2494.2 ppb	13:55:34
1	Pb 220.353†	2141.9	2042.2	524.80 µg/L	524.80 ppb	13:55:34
1	S 181.975 Axial†	255.5	237.1	1028.3 µg/L	1028.3 ppb	13:55:34
1	Sb 206.836†	576.8	550.4	524.33 µg/L	524.33 ppb	13:55:34
1	Se 196.026†	362.1	343.4	516.96 µg/L	516.96 ppb	13:55:34
1	SiO2†	27988.1	26218.2	5428.4 µg/L	5428.4 ppb	13:55:13
1	Si 251.611†	32232.0	31638.8	2539.0 µg/L	2539.0 ppb	13:55:13
1	Sn 189.927†	1182.3	1172.1	523.44 µg/L	523.44 ppb	13:55:34
1	Ti 334.940†	223485.6	221617.8	507.71 µg/L	507.71 ppb	13:55:08
1	Tl 190.801†	340.2	359.2	504.28 µg/L	504.28 ppb	13:55:34
1	U 409.014†	6280.1	6022.0	490.75 µg/L	490.75 ppb	13:55:13
1	V 292.402†	50003.8	49650.5	509.89 µg/L	509.89 ppb	13:55:13
1	Zn 213.857†	21502.8	20782.1	511.11 µg/L	511.11 ppb	13:55:13
2	Sc RADIAL	54016.6	54016.6	102 %		13:54:14
2	Al 396.153Radial†	7019.8	6884.6	4979.1 µg/L	4979.1 ppb	13:54:14
2	Ca 317.933Radial†	5517.1	5206.8	4927.4 µg/L	4927.4 ppb	13:54:34
2	Fe 238.204 Radial†	579.7	550.6	4986.3 µg/L	4986.3 ppb	13:54:34
2	K 766.490 Radial†	7940.9	7510.9	5136.1 µg/L	5136.1 ppb	13:54:14
2	Mg 279.077 IEC†	545.7	520.4	4988.7 µg/L	4988.7 ppb	13:54:34
2	Na 589.592 Radial†	33749.5	32379.9	10014 µg/L	10014 ppb	13:54:14
2	Sr 421.552†	51349.5	50142.3	498.34 µg/L	498.34 ppb	13:54:14
2	Sc 361.383	1921610.6	1921610.6	100.96 %		13:55:40
2	Y 371.029	1318990.0	1318990.0	100.58 %		13:55:40
2	Ag 328.068†	65805.6	65678.2	504.02 µg/L	504.02 ppb	13:55:46
2	As 188.979†	274.8	271.3	516.25 µg/L	516.25 ppb	13:56:06
2	B 249.677†	12345.3	11773.6	501.69 µg/L	501.69 ppb	13:55:46
2	Ba 233.527†	19836.5	19668.2	505.34 µg/L	505.34 ppb	13:55:46
2	Be 313.107†	813572.7	809369.3	502.29 µg/L	502.29 ppb	13:55:40
2	Cd 226.502†	18898.9	18848.4	507.67 µg/L	507.67 ppb	13:55:46
2	Co 228.616†	10595.9	10502.6	507.09 µg/L	507.09 ppb	13:55:46
2	Cr 267.716†	24310.7	24125.5	511.36 µg/L	511.36 ppb	13:55:46
2	Cu 324.752†	79677.4	75680.2	506.59 µg/L	506.59 ppb	13:55:46
2	Mn 257.610†	154211.9	152975.3	513.01 µg/L	513.01 ppb	13:55:40
2	Mo 202.031†	5124.7	5080.0	525.70 µg/L	525.70 ppb	13:56:06
2	Ni 231.604†	9963.7	9580.9	507.85 µg/L	507.85 ppb	13:55:46
2	P 214.914†	1253.9	1219.6	2510.1 µg/L	2510.1 ppb	13:56:06
2	Pb 220.353†	2156.2	2053.1	527.61 µg/L	527.61 ppb	13:56:06

2	S 181.975 Axial†	254.2	235.4	1020.8 µg/L	1020.8 ppb	13:56:06
2	Sb 206.836†	578.6	551.3	525.20 µg/L	525.20 ppb	13:56:06
2	Se 196.026†	373.0	353.6	532.13 µg/L	532.13 ppb	13:56:06
2	SiO2†	27972.4	26160.7	5416.5 µg/L	5416.5 ppb	13:55:46
2	Si 251.611†	32253.1	31611.3	2536.8 µg/L	2536.8 ppb	13:55:46
2	Sn 189.927†	1182.7	1170.7	522.81 µg/L	522.81 ppb	13:56:06
2	Ti 334.940†	224059.8	221850.8	508.25 µg/L	508.25 ppb	13:55:40
2	Tl 190.801†	344.3	362.7	509.10 µg/L	509.10 ppb	13:56:06
2	U 409.014†	6377.2	6108.7	497.83 µg/L	497.83 ppb	13:55:46
2	V 292.402†	50033.3	49604.6	509.43 µg/L	509.43 ppb	13:55:46
2	Zn 213.857†	21507.2	20754.1	510.42 µg/L	510.42 ppb	13:55:46
3	Sc RADIAL	53754.6	53754.6	102 %		13:54:39
3	Al 396.153Radial†	7001.5	6900.1	4991.5 µg/L	4991.5 ppb	13:54:39
3	Ca 317.933Radial†	5524.4	5240.3	4959.0 µg/L	4959.0 ppb	13:54:59
3	Fe 238.204 Radial†	581.0	554.6	5022.3 µg/L	5022.3 ppb	13:54:59
3	K 766.490 Radial†	7881.4	7490.3	5122.1 µg/L	5122.1 ppb	13:54:39
3	Mg 279.077 IEC†	549.1	526.4	5044.7 µg/L	5044.7 ppb	13:54:59
3	Na 589.592 Radial†	33635.6	32428.8	10029 µg/L	10029 ppb	13:54:39
3	Sr 421.552†	51098.4	50140.2	498.31 µg/L	498.31 ppb	13:54:39
3	Sc 361.383	1900776.6	1900776.6	99.866 %		13:56:13
3	Y 371.029	1306435.3	1306435.3	99.621 %		13:56:13
3	Ag 328.068†	63745.3	64329.6	493.58 µg/L	493.58 ppb	13:56:18
3	As 188.979†	241.8	241.3	459.15 µg/L	459.15 ppb	13:56:38
3	B 249.677†	11912.7	11474.5	488.84 µg/L	488.84 ppb	13:56:18
3	Ba 233.527†	18900.9	18946.7	486.79 µg/L	486.79 ppb	13:56:18
3	Be 313.107†	781258.4	785844.2	487.69 µg/L	487.69 ppb	13:56:13
3	Cd 226.502†	17927.0	18080.4	486.95 µg/L	486.95 ppb	13:56:18
3	Co 228.616†	9970.8	9991.6	482.37 µg/L	482.37 ppb	13:56:18
3	Cr 267.716†	22971.0	23047.9	488.52 µg/L	488.52 ppb	13:56:18
3	Cu 324.752†	76040.1	72903.0	488.03 µg/L	488.03 ppb	13:56:18
3	Mn 257.610†	148752.0	149182.3	500.30 µg/L	500.30 ppb	13:56:13
3	Mo 202.031†	4512.2	4522.3	468.00 µg/L	468.00 ppb	13:56:38
3	Ni 231.604†	9404.7	9129.3	483.92 µg/L	483.92 ppb	13:56:18
3	P 214.914†	1110.3	1089.5	2237.9 µg/L	2237.9 ppb	13:56:38
3	Pb 220.353†	1964.7	1884.8	484.28 µg/L	484.28 ppb	13:56:38
3	S 181.975 Axial†	241.2	225.2	976.66 µg/L	976.66 ppb	13:56:38
3	Sb 206.836†	525.9	504.8	480.43 µg/L	480.43 ppb	13:56:38
3	Se 196.026†	338.1	322.7	486.30 µg/L	486.30 ppb	13:56:38
3	SiO2†	26973.5	25464.1	5272.2 µg/L	5272.2 ppb	13:56:18
3	Si 251.611†	30948.1	30654.7	2460.0 µg/L	2460.0 ppb	13:56:18
3	Sn 189.927†	1015.7	1016.4	453.89 µg/L	453.89 ppb	13:56:38
3	Ti 334.940†	215398.1	215610.0	493.94 µg/L	493.94 ppb	13:56:13
3	Tl 190.801†	319.3	341.4	479.43 µg/L	479.43 ppb	13:56:38
3	U 409.014†	5881.7	5681.8	462.96 µg/L	462.96 ppb	13:56:18
3	V 292.402†	47065.3	47175.9	484.27 µg/L	484.27 ppb	13:56:18
3	Zn 213.857†	20395.3	19874.2	488.76 µg/L	488.76 ppb	13:56:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1913695.5	100.54 %	0.593			0.59%
Sc RADIAL	53828.1	102 %	0.3			0.31%
Y 371.029	1314487.4	100.23 %	0.533			0.53%
Ag 328.068†	65335.4	501.35 µg/L	6.840	501.35 ppb	6.840	1.36%
QC value within limits for Ag 328.068 Recovery = 100.27%						
Al 396.153Radial†	6892.9	4985.5 µg/L	6.21	4985.5 ppb	6.21	0.12%
QC value within limits for Al 396.153Radial Recovery = 99.71%						
As 188.979†	260.3	495.30 µg/L	31.440	495.30 ppb	31.440	6.35%
QC value within limits for As 188.979 Recovery = 99.06%						
B 249.677†	11696.0	498.35 µg/L	8.355	498.35 ppb	8.355	1.68%
QC value within limits for B 249.677 Recovery = 99.67%						
Ba 233.527†	19431.8	499.27 µg/L	10.803	499.27 ppb	10.803	2.16%
QC value within limits for Ba 233.527 Recovery = 99.85%						
Be 313.107†	801937.7	497.68 µg/L	8.658	497.68 ppb	8.658	1.74%
QC value within limits for Be 313.107 Recovery = 99.54%						
Ca 317.933Radial†	5220.7	4940.5 µg/L	16.51	4940.5 ppb	16.51	0.33%
QC value within limits for Ca 317.933Radial Recovery = 98.81%						
Cd 226.502†	18591.7	500.74 µg/L	11.944	500.74 ppb	11.944	2.39%
QC value within limits for Cd 226.502 Recovery = 100.15%						
Co 228.616†	10322.7	498.39 µg/L	13.894	498.39 ppb	13.894	2.79%

QC value within limits for Co 228.616	Recovery = 99.68%			
Cr 267.716†	23746.3	503.32 µg/L	12.835	503.32 ppb 12.835 2.55%
QC value within limits for Cr 267.716	Recovery = 100.66%			
Cu 324.752†	74766.0	500.48 µg/L	10.783	500.48 ppb 10.783 2.15%
QC value within limits for Cu 324.752	Recovery = 100.10%			
Fe 238.204 Radial†	552.5	5003.3 µg/L	18.07	5003.3 ppb 18.07 0.36%
QC value within limits for Fe 238.204 Radial	Recovery = 100.07%			
K 766.490 Radial†	7554.6	5166.0 µg/L	64.34	5166.0 ppb 64.34 1.25%
QC value within limits for K 766.490 Radial	Recovery = 103.32%			
Mg 279.077 IEC†	525.2	5033.8 µg/L	40.70	5033.8 ppb 40.70 0.81%
QC value within limits for Mg 279.077 IEC	Recovery = 100.68%			
Mn 257.610†	151701.0	508.74 µg/L	7.307	508.74 ppb 7.307 1.44%
QC value within limits for Mn 257.610	Recovery = 101.75%			
Mo 202.031†	4894.8	506.54 µg/L	33.377	506.54 ppb 33.377 6.59%
QC value within limits for Mo 202.031	Recovery = 101.31%			
Na 589.592 Radial†	32397.0	10020 µg/L	8.5	10020 ppb 8.5 0.09%
QC value within limits for Na 589.592 Radial	Recovery = 100.20%			
Ni 231.604†	9429.0	499.80 µg/L	13.756	499.80 ppb 13.756 2.75%
QC value within limits for Ni 231.604	Recovery = 99.96%			
P 214.914†	1173.7	2414.1 µg/L	152.76	2414.1 ppb 152.76 6.33%
QC value within limits for P 214.914	Recovery = 96.56%			
Pb 220.353†	1993.4	512.23 µg/L	24.247	512.23 ppb 24.247 4.73%
QC value within limits for Pb 220.353	Recovery = 102.45%			
S 181.975 Axial†	232.6	1008.6 µg/L	27.91	1008.6 ppb 27.91 2.77%
QC value within limits for S 181.975 Axial	Recovery = 100.86%			
Sb 206.836†	535.5	509.99 µg/L	25.602	509.99 ppb 25.602 5.02%
QC value within limits for Sb 206.836	Recovery = 102.00%			
Se 196.026†	339.9	511.79 µg/L	23.347	511.79 ppb 23.347 4.56%
QC value within limits for Se 196.026	Recovery = 102.36%			
SiO2†	25947.7	5372.4 µg/L	86.91	5372.4 ppb 86.91 1.62%
QC value within limits for SiO2	Recovery = 100.47%			
Si 251.611†	31301.6	2511.9 µg/L	44.97	2511.9 ppb 44.97 1.79%
QC value within limits for Si 251.611	Recovery = 100.48%			
Sn 189.927†	1119.7	500.05 µg/L	39.973	500.05 ppb 39.973 7.99%
QC value within limits for Sn 189.927	Recovery = 100.01%			
Sr 421.552†	50105.2	497.97 µg/L	0.621	497.97 ppb 0.621 0.12%
QC value within limits for Sr 421.552	Recovery = 99.59%			
Ti 334.940†	219692.9	503.30 µg/L	8.111	503.30 ppb 8.111 1.61%
QC value within limits for Ti 334.940	Recovery = 100.66%			
Tl 190.801†	354.4	497.61 µg/L	15.924	497.61 ppb 15.924 3.20%
QC value within limits for Tl 190.801	Recovery = 99.52%			
U 409.014†	5937.5	483.85 µg/L	18.430	483.85 ppb 18.430 3.81%
QC value within limits for U 409.014	Recovery = 96.77%			
V 292.402†	48810.3	501.19 µg/L	14.662	501.19 ppb 14.662 2.93%
QC value within limits for V 292.402	Recovery = 100.24%			
Zn 213.857†	20470.1	503.43 µg/L	12.709	503.43 ppb 12.709 2.52%
QC value within limits for Zn 213.857	Recovery = 100.69%			

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 13:56:46

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53330.4	53330.4	101 %		13:57:18
1	Al 396.153Radial†	-20.9	5.7	4.1086 µg/L	4.1086 ppb	13:57:18
1	Ca 317.933Radial†	184.0	-1.1	-1.0757 µg/L	-1.0757 ppb	13:57:38
1	Fe 238.204 Radial†	18.1	2.2	19.667 µg/L	19.667 ppb	13:57:38
1	K 766.490 Radial†	352.2	101.4	69.311 µg/L	69.311 ppb	13:57:18
1	Mg 279.077 IEC†	10.4	-2.4	-23.331 µg/L	-23.331 ppb	13:57:38
1	Na 589.592 Radial†	768.3	167.7	51.867 µg/L	51.867 ppb	13:57:18
1	Sr 421.552†	78.7	52.9	0.5254 µg/L	0.5254 ppb	13:57:18
1	Sc 361.383	1888770.7	1888770.7	99.235 %		13:58:37
1	Y 371.029	1300773.5	1300773.5	99.189 %		13:58:37
1	Ag 328.068†	-440.5	54.9	0.4209 µg/L	0.4209 ppb	13:58:42
1	As 188.979†	-0.7	-1.6	-3.0561 µg/L	-3.0561 ppb	13:59:02
1	B 249.677†	518.9	68.7	2.9308 µg/L	2.9308 ppb	13:59:02
1	Ba 233.527†	-3.4	17.0	0.4367 µg/L	0.4367 ppb	13:59:02
1	Be 313.107†	-3400.4	111.7	0.0692 µg/L	0.0692 ppb	13:58:42
1	Cd 226.502†	-118.5	10.0	0.2661 µg/L	0.2661 ppb	13:59:02
1	Co 228.616†	1.7	9.1	0.4427 µg/L	0.4427 ppb	13:59:02
1	Cr 267.716†	-10.8	35.2	0.7461 µg/L	0.7461 ppb	13:59:02
1	Cu 324.752†	3426.7	214.1	1.4337 µg/L	1.4337 ppb	13:58:42
1	Mn 257.610†	-171.2	58.3	0.1990 µg/L	0.1990 ppb	13:59:02
1	Mo 202.031†	16.3	20.5	2.1197 µg/L	2.1197 ppb	13:59:02
1	Ni 231.604†	287.5	1.7	0.0913 µg/L	0.0913 ppb	13:59:02
1	P 214.914†	23.4	1.2	2.4095 µg/L	2.4095 ppb	13:59:02
1	Pb 220.353†	126.7	45.2	11.605 µg/L	11.605 ppb	13:59:02
1	S 181.975 Axial†	17.1	0.9	3.8846 µg/L	3.8846 ppb	13:59:02
1	Sb 206.836†	21.7	0.0	0.0632 µg/L	0.0632 ppb	13:59:02
1	Se 196.026†	21.9	6.2	9.3102 µg/L	9.3102 ppb	13:59:02
1	SiO2†	1576.2	42.8	8.8648 µg/L	8.8648 ppb	13:58:42
1	Si 251.611†	388.8	56.9	4.5650 µg/L	4.5650 ppb	13:59:02
1	Sn 189.927†	8.9	8.3	3.6903 µg/L	3.6903 ppb	13:59:02
1	Ti 334.940†	248.8	173.8	0.4001 µg/L	0.4001 ppb	13:58:42
1	Tl 190.801†	-17.0	4.6	6.3162 µg/L	6.3162 ppb	13:59:02
1	U 409.014†	164.8	-41.7	-3.4083 µg/L	-3.4083 ppb	13:58:42
1	V 292.402†	-23.3	24.0	0.2603 µg/L	0.2603 ppb	13:58:42
1	Zn 213.857†	618.6	74.9	1.8520 µg/L	1.8520 ppb	13:59:02
2	Sc RADIAL	53452.7	53452.7	101 %		13:57:44
2	Al 396.153Radial†	-11.2	15.4	11.132 µg/L	11.132 ppb	13:57:44
2	Ca 317.933Radial†	202.1	16.3	15.412 µg/L	15.412 ppb	13:58:04
2	Fe 238.204 Radial†	16.6	0.6	5.3960 µg/L	5.3960 ppb	13:58:04
2	K 766.490 Radial†	246.5	-3.8	-2.6140 µg/L	-2.6140 ppb	13:57:44
2	Mg 279.077 IEC†	11.8	-1.0	-9.9256 µg/L	-9.9256 ppb	13:58:04
2	Na 589.592 Radial†	732.7	130.8	40.452 µg/L	40.452 ppb	13:57:44
2	Sr 421.552†	57.7	32.0	0.3179 µg/L	0.3179 ppb	13:57:44
2	Sc 361.383	1890202.3	1890202.3	99.311 %		13:59:08
2	Y 371.029	1301340.3	1301340.3	99.232 %		13:59:08
2	Ag 328.068†	-443.9	51.8	0.3959 µg/L	0.3959 ppb	13:59:13
2	As 188.979†	0.2	-0.6	-1.1826 µg/L	-1.1826 ppb	13:59:34
2	B 249.677†	512.4	61.8	2.6393 µg/L	2.6393 ppb	13:59:34
2	Ba 233.527†	-0.7	19.8	0.5085 µg/L	0.5085 ppb	13:59:34
2	Be 313.107†	-3379.8	135.0	0.0836 µg/L	0.0836 ppb	13:59:13
2	Cd 226.502†	-125.0	3.5	0.0951 µg/L	0.0951 ppb	13:59:34
2	Co 228.616†	-1.4	6.0	0.2912 µg/L	0.2912 ppb	13:59:34
2	Cr 267.716†	-22.3	23.6	0.5010 µg/L	0.5010 ppb	13:59:34
2	Cu 324.752†	3432.3	217.0	1.4514 µg/L	1.4514 ppb	13:59:13
2	Mn 257.610†	-150.5	79.3	0.2667 µg/L	0.2667 ppb	13:59:34
2	Mo 202.031†	15.4	19.6	2.0228 µg/L	2.0228 ppb	13:59:34
2	Ni 231.604†	298.2	12.3	0.6528 µg/L	0.6528 ppb	13:59:34
2	P 214.914†	15.0	-7.2	-15.330 µg/L	-15.330 ppb	13:59:34
2	Pb 220.353†	113.6	31.9	8.1978 µg/L	8.1978 ppb	13:59:34

2	S 181.975 Axial†	19.6	3.3	14.509 µg/L	14.509 ppb	13:59:34
2	Sb 206.836†	24.5	2.8	2.7057 µg/L	2.7057 ppb	13:59:34
2	Se 196.026†	12.7	-3.1	-4.5279 µg/L	-4.5279 ppb	13:59:34
2	SiO2†	1583.7	49.1	10.163 µg/L	10.163 ppb	13:59:13
2	Si 251.611†	392.0	59.8	4.7992 µg/L	4.7992 ppb	13:59:34
2	Sn 189.927†	2.7	2.0	0.8844 µg/L	0.8844 ppb	13:59:34
2	Ti 334.940†	283.9	208.9	0.4798 µg/L	0.4798 ppb	13:59:13
2	Tl 190.801†	-20.3	1.3	1.8195 µg/L	1.8195 ppb	13:59:34
2	U 409.014†	145.8	-61.0	-4.9811 µg/L	-4.9811 ppb	13:59:13
2	V 292.402†	-32.0	15.2	0.1664 µg/L	0.1664 ppb	13:59:13
2	Zn 213.857†	622.5	78.3	1.9341 µg/L	1.9341 ppb	13:59:34
3	Sc RADIAL	52702.0	52702.0	99.9 %		13:58:09
3	Al 396.153Radial†	1.0	27.4	19.839 µg/L	19.839 ppb	13:58:09
3	Ca 317.933Radial†	193.6	10.7	10.102 µg/L	10.102 ppb	13:58:29
3	Fe 238.204 Radial†	15.2	-0.5	-4.8476 µg/L	-4.8476 ppb	13:58:29
3	K 766.490 Radial†	304.5	57.8	39.512 µg/L	39.512 ppb	13:58:09
3	Mg 279.077 IEC†	12.4	-0.3	-2.7174 µg/L	-2.7174 ppb	13:58:29
3	Na 589.592 Radial†	701.0	109.5	33.851 µg/L	33.851 ppb	13:58:09
3	Sr 421.552†	55.4	30.4	0.3023 µg/L	0.3023 ppb	13:58:09
3	Sc 361.383	1894755.6	1894755.6	99.550 %		13:59:39
3	Y 371.029	1306479.2	1306479.2	99.624 %		13:59:39
3	Ag 328.068†	-411.5	85.5	0.6527 µg/L	0.6527 ppb	13:59:45
3	As 188.979†	4.5	3.7	6.9920 µg/L	6.9920 ppb	14:00:05
3	B 249.677†	501.9	50.0	2.1432 µg/L	2.1432 ppb	14:00:05
3	Ba 233.527†	-6.9	13.5	0.3469 µg/L	0.3469 ppb	14:00:05
3	Be 313.107†	-3045.7	478.7	0.2969 µg/L	0.2969 ppb	13:59:45
3	Cd 226.502†	-104.4	24.4	0.6599 µg/L	0.6599 ppb	14:00:05
3	Co 228.616†	1.0	8.4	0.4086 µg/L	0.4086 ppb	14:00:05
3	Cr 267.716†	2.9	49.1	1.0400 µg/L	1.0400 ppb	14:00:05
3	Cu 324.752†	3504.8	281.6	1.8815 µg/L	1.8815 ppb	13:59:45
3	Mn 257.610†	-118.0	112.3	0.3757 µg/L	0.3757 ppb	14:00:05
3	Mo 202.031†	14.0	18.1	1.8703 µg/L	1.8703 ppb	14:00:05
3	Ni 231.604†	302.5	15.9	0.8415 µg/L	0.8415 ppb	14:00:05
3	P 214.914†	23.7	1.5	3.0006 µg/L	3.0006 ppb	14:00:05
3	Pb 220.353†	113.5	31.5	8.0865 µg/L	8.0865 ppb	14:00:05
3	S 181.975 Axial†	17.1	0.9	3.7520 µg/L	3.7520 ppb	14:00:05
3	Sb 206.836†	28.5	6.8	6.4640 µg/L	6.4640 ppb	14:00:05
3	Se 196.026†	14.0	-1.7	-2.5899 µg/L	-2.5899 ppb	14:00:05
3	SiO2†	1727.1	189.4	39.208 µg/L	39.208 ppb	13:59:45
3	Si 251.611†	410.8	77.8	6.2422 µg/L	6.2422 ppb	14:00:05
3	Sn 189.927†	8.8	8.1	3.6317 µg/L	3.6317 ppb	14:00:05
3	Ti 334.940†	384.8	309.6	0.7101 µg/L	0.7101 ppb	13:59:45
3	Tl 190.801†	-21.5	0.1	0.1708 µg/L	0.1708 ppb	14:00:05
3	U 409.014†	232.4	25.6	2.0932 µg/L	2.0932 ppb	13:59:45
3	V 292.402†	-20.8	26.6	0.2879 µg/L	0.2879 ppb	13:59:45
3	Zn 213.857†	611.7	66.0	1.6282 µg/L	1.6282 ppb	14:00:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1891242.9	99.365 %		0.1642			0.17%
Sc RADIAL	53161.7	101 %		0.8			0.76%
Y 371.029	1302864.4	99.348 %		0.2397			0.24%
Ag 328.068†	64.0	0.4898 µg/L		0.14159	0.4898 ppb	0.14159	28.91%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	16.2	11.693 µg/L		7.8803	11.693 ppb	7.8803	67.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.5	0.9178 µg/L		5.34319	0.9178 ppb	5.34319	582.17%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	60.2	2.5711 µg/L		0.39823	2.5711 ppb	0.39823	15.49%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	16.8	0.4307 µg/L		0.08094	0.4307 ppb	0.08094	18.79%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	241.8	0.1499 µg/L		0.12753	0.1499 ppb	0.12753	85.06%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	8.6	8.1461 µg/L		8.41604	8.1461 ppb	8.41604	103.31%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	12.6	0.3404 µg/L		0.28964	0.3404 ppb	0.28964	85.09%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	7.9	0.3808 µg/L		0.07951	0.3808 ppb	0.07951	20.88%

Cr	267.716†	36.0	0.7624 µg/L	0.26986	0.7624 ppb	0.26986	35.40%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	237.5	1.5889 µg/L	0.25361	1.5889 ppb	0.25361	15.96%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.7	6.7384 µg/L	12.31217	6.7384 ppb	12.31217	182.72%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	51.8	35.403 µg/L	36.1382	35.403 ppb	36.1382	102.08%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-1.3	-11.991 µg/L	10.4608	-11.991 ppb	10.4608	87.24%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	83.3	0.2805 µg/L	0.08917	0.2805 ppb	0.08917	31.79%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	19.4	2.0043 µg/L	0.12571	2.0043 ppb	0.12571	6.27%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	136.0	42.057 µg/L	9.1149	42.057 ppb	9.1149	21.67%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	10.0	0.5286 µg/L	0.39027	0.5286 ppb	0.39027	73.84%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-1.5	-3.3067 µg/L	10.41680	-3.3067 ppb	10.41680	315.02%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	36.2	9.2964 µg/L	2.00001	9.2964 ppb	2.00001	21.51%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.7	7.3817 µg/L	6.17236	7.3817 ppb	6.17236	83.62%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	3.2	3.0776 µg/L	3.21659	3.0776 ppb	3.21659	104.51%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.5	0.7308 µg/L	7.49293	0.7308 ppb	7.49293	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		93.8	19.412 µg/L	17.1560	19.412 ppb	17.1560	88.38%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	64.8	5.2021 µg/L	0.90828	5.2021 ppb	0.90828	17.46%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	6.1	2.7355 µg/L	1.60333	2.7355 ppb	1.60333	58.61%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	38.4	0.3819 µg/L	0.12458	0.3819 ppb	0.12458	32.62%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	230.7	0.5300 µg/L	0.16097	0.5300 ppb	0.16097	30.37%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.0	2.7688 µg/L	3.18078	2.7688 ppb	3.18078	114.88%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-25.7	-2.0987 µg/L	3.71453	-2.0987 ppb	3.71453	176.99%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	21.9	0.2382 µg/L	0.06367	0.2382 ppb	0.06367	26.73%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	73.1	1.8048 µg/L	0.15830	1.8048 ppb	0.15830	8.77%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 2/24/2010 14:19:31

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022410A.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optima1\Results\Results.mdb
=====

Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 2/24/2010 13:19:39

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 113

Sample ID: LR1

Date Collected: 2/24/2010 14:19:33

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52800.1	52800.1	100 %		14:20:06
1	Al 396.153Radial†	-64.8	-38.3	-27.494 µg/L	-27.494 ppb	14:20:27
1	Ca 317.933Radial†	111.2	-72.1	-68.249 µg/L	-68.249 ppb	14:20:27
1	Fe 238.204 Radial†	41963.1	41925.8	378860 µg/L	378860 ppb	14:20:06

1	K 766.490 Radial†	105.6	-141.7	-96.876 µg/L	-96.876 ppb	14:20:06
1	Mg 279.077 IEC†	33.4	20.7	-208.45 µg/L	-208.45 ppb	14:20:27
1	Na 589.592 Radial†	491.0	-101.7	-31.468 µg/L	-31.468 ppb	14:20:06
1	Sr 421.552†	118.8	93.7	0.9315 µg/L	0.9315 ppb	14:20:06
1	Sc 361.383	1896826.2	1896826.2	99.659 %		14:21:26
1	Y 371.029	1300153.2	1300153.2	99.141 %		14:21:26
1	Ag 328.068†	-4145.1	-3660.5	-4.3745 µg/L	-4.3745 ppb	14:21:31
1	As 188.979†	-18.6	-19.5	-15.242 µg/L	-15.242 ppb	14:21:51
1	B 249.677†	1407.6	958.2	-156.71 µg/L	-156.71 ppb	14:21:31
1	Ba 233.527†	479.8	501.9	12.776 µg/L	12.776 ppb	14:21:51
1	Be 313.107†	-9309.8	-5803.4	-3.6049 µg/L	-3.6049 ppb	14:21:31
1	Cd 226.502†	1001.6	1134.3	-12.264 µg/L	-12.264 ppb	14:21:31
1	Co 228.616†	433.0	442.0	21.341 µg/L	21.341 ppb	14:21:51
1	Cr 267.716†	-94.2	-48.4	-1.0595 µg/L	-1.0595 ppb	14:21:31
1	Cu 324.752†	-2275.6	-5522.5	15.746 µg/L	15.746 ppb	14:21:31
1	Mn 257.610†	-10019.5	-9823.0	17.468 µg/L	17.468 ppb	14:21:26
1	Mo 202.031†	-128.7	-125.1	1.4534 µg/L	1.4534 ppb	14:21:51
1	Ni 231.604†	130.8	-156.8	-3.4194 µg/L	-3.4194 ppb	14:21:51
1	P 214.914†	291.2	269.9	262.44 µg/L	262.44 ppb	14:21:51
1	Pb 220.353†	218.2	136.4	10.390 µg/L	10.390 ppb	14:21:51
1	S 181.975 Axial†	0.9	-15.4	-66.863 µg/L	-66.863 ppb	14:21:51
1	Sb 206.836†	26.2	4.5	4.0322 µg/L	4.0322 ppb	14:21:51
1	Se 196.026†	-208.5	-225.0	701.89 µg/L	701.89 ppb	14:21:51
1	SiO2†	1366.8	-174.1	-36.044 µg/L	-36.044 ppb	14:21:51
1	Si 251.611†	-635.3	-972.3	-78.027 µg/L	-78.027 ppb	14:21:51
1	Sn 189.927†	14.6	13.9	-34.174 µg/L	-34.174 ppb	14:21:51
1	Ti 334.940†	2280.0	2210.8	5.0512 µg/L	5.0512 ppb	14:21:31
1	Tl 190.801†	-38.1	-16.5	42.524 µg/L	42.524 ppb	14:21:51
1	U 409.014†	120647.3	120852.8	9815.9 µg/L	9815.9 ppb	14:21:26
1	V 292.402†	-5326.8	-5297.6	1.0141 µg/L	1.0141 ppb	14:21:31
1	Zn 213.857†	2321.0	1780.5	26.186 µg/L	26.186 ppb	14:21:51
2	Sc RADIAL	52855.2	52855.2	100 %		14:20:32
2	Al 396.153Radial†	-60.1	-33.6	-24.056 µg/L	-24.056 ppb	14:20:52
2	Ca 317.933Radial†	103.2	-80.2	-75.875 µg/L	-75.875 ppb	14:20:52
2	Fe 238.204 Radial†	41359.1	41279.0	373010 µg/L	373010 ppb	14:20:32
2	K 766.490 Radial†	45.1	-202.1	-138.23 µg/L	-138.23 ppb	14:20:32
2	Mg 279.077 IEC†	31.7	18.9	-219.38 µg/L	-219.38 ppb	14:20:52
2	Na 589.592 Radial†	445.2	-148.0	-45.775 µg/L	-45.775 ppb	14:20:32
2	Sr 421.552†	112.9	87.7	0.8717 µg/L	0.8717 ppb	14:20:32
2	Sc 361.383	1878643.9	1878643.9	98.703 %		14:21:58
2	Y 371.029	1287096.5	1287096.5	98.146 %		14:21:58
2	Ag 328.068†	-3929.8	-3482.6	-3.4023 µg/L	-3.4023 ppb	14:22:03
2	As 188.979†	-20.6	-21.7	-19.763 µg/L	-19.763 ppb	14:22:24
2	B 249.677†	1380.0	943.9	-154.28 µg/L	-154.28 ppb	14:22:03
2	Ba 233.527†	471.8	498.5	12.683 µg/L	12.683 ppb	14:22:24
2	Be 313.107†	-9326.7	-5911.0	-3.6717 µg/L	-3.6717 ppb	14:22:03
2	Cd 226.502†	1027.6	1170.4	-10.630 µg/L	-10.630 ppb	14:22:03
2	Co 228.616†	418.7	431.6	20.842 µg/L	20.842 ppb	14:22:24
2	Cr 267.716†	-65.5	-20.2	-0.4637 µg/L	-0.4637 ppb	14:22:03
2	Cu 324.752†	-2220.5	-5488.8	15.158 µg/L	15.158 ppb	14:22:03
2	Mn 257.610†	-10084.2	-9985.9	16.146 µg/L	16.146 ppb	14:21:58
2	Mo 202.031†	-135.6	-133.4	0.3790 µg/L	0.3790 ppb	14:22:24
2	Ni 231.604†	152.8	-133.2	-2.2412 µg/L	-2.2412 ppb	14:22:24
2	P 214.914†	305.9	287.6	304.45 µg/L	304.45 ppb	14:22:24
2	Pb 220.353†	229.1	149.6	13.944 µg/L	13.944 ppb	14:22:24
2	S 181.975 Axial†	7.5	-8.7	-37.861 µg/L	-37.861 ppb	14:22:24
2	Sb 206.836†	23.3	1.8	1.4507 µg/L	1.4507 ppb	14:22:24
2	Se 196.026†	-225.8	-244.6	656.85 µg/L	656.85 ppb	14:22:24
2	SiO2†	1376.7	-150.8	-31.222 µg/L	-31.222 ppb	14:22:24
2	Si 251.611†	-620.0	-963.1	-77.284 µg/L	-77.284 ppb	14:22:24
2	Sn 189.927†	19.4	19.0	-31.295 µg/L	-31.295 ppb	14:22:24
2	Ti 334.940†	2308.4	2261.8	5.1692 µg/L	5.1692 ppb	14:22:03
2	Tl 190.801†	-48.4	-27.3	26.793 µg/L	26.793 ppb	14:22:24
2	U 409.014†	120234.1	121605.9	9878.2 µg/L	9878.2 ppb	14:21:58
2	V 292.402†	-5494.8	-5519.6	-1.8660 µg/L	-1.8660 ppb	14:22:03
2	Zn 213.857†	2308.3	1790.2	26.697 µg/L	26.697 ppb	14:22:24
3	Sc RADIAL	52745.5	52745.5	99.9 %		14:20:57
3	Al 396.153Radial†	-60.7	-34.3	-24.603 µg/L	-24.603 ppb	14:21:17
3	Ca 317.933Radial†	106.5	-76.6	-72.505 µg/L	-72.505 ppb	14:21:17
3	Fe 238.204 Radial†	41687.3	41693.2	376760 µg/L	376760 ppb	14:20:57
3	K 766.490 Radial†	126.8	-120.3	-82.290 µg/L	-82.290 ppb	14:20:57

3	Mg 279.077 IEC†	37.0	24.3	-172.05 µg/L	-172.05 ppb	14:21:17
3	Na 589.592 Radial†	456.4	-135.9	-42.021 µg/L	-42.021 ppb	14:20:57
3	Sr 421.552†	133.8	108.8	1.0815 µg/L	1.0815 ppb	14:20:57
3	Sc 361.383	1884452.7	1884452.7	99.008 %		14:22:30
3	Y 371.029	1292067.3	1292067.3	98.525 %		14:22:30
3	Ag 328.068†	-3789.2	-3328.3	-1.9690 µg/L	-1.9690 ppb	14:22:36
3	As 188.979†	-13.3	-14.3	-5.4516 µg/L	-5.4516 ppb	14:22:56
3	B 249.677†	1351.5	910.9	-157.64 µg/L	-157.64 ppb	14:22:36
3	Ba 233.527†	411.7	436.3	11.094 µg/L	11.094 ppb	14:22:56
3	Be 313.107†	-8955.9	-5507.3	-3.4210 µg/L	-3.4210 ppb	14:22:36
3	Cd 226.502†	978.5	1117.7	-12.472 µg/L	-12.472 ppb	14:22:36
3	Co 228.616†	376.3	387.5	18.711 µg/L	18.711 ppb	14:22:56
3	Cr 267.716†	-54.9	-9.3	-0.2311 µg/L	-0.2311 ppb	14:22:36
3	Cu 324.752†	-1974.4	-5233.3	17.386 µg/L	17.386 ppb	14:22:36
3	Mn 257.610†	-9691.1	-9557.3	18.077 µg/L	18.077 ppb	14:22:30
3	Mo 202.031†	-118.0	-115.1	2.4115 µg/L	2.4115 ppb	14:22:56
3	Ni 231.604†	171.7	-114.6	-1.2049 µg/L	-1.2049 ppb	14:22:56
3	P 214.914†	263.9	244.2	210.18 µg/L	210.18 ppb	14:22:56
3	Pb 220.353†	215.9	135.6	10.519 µg/L	10.519 ppb	14:22:56
3	S 181.975 Axial†	5.7	-10.6	-46.057 µg/L	-46.057 ppb	14:22:56
3	Sb 206.836†	27.7	6.2	5.6897 µg/L	5.6897 ppb	14:22:56
3	Se 196.026†	-183.8	-201.5	731.01 µg/L	731.01 ppb	14:22:56
3	SiO2†	1381.0	-150.8	-31.214 µg/L	-31.214 ppb	14:22:56
3	Si 251.611†	-486.1	-825.8	-66.271 µg/L	-66.271 ppb	14:22:56
3	Sn 189.927†	15.8	15.3	-33.350 µg/L	-33.350 ppb	14:22:56
3	Ti 334.940†	2157.5	2102.1	4.7992 µg/L	4.7992 ppb	14:22:36
3	Tl 190.801†	-36.1	-14.8	44.339 µg/L	44.339 ppb	14:22:56
3	U 409.014†	116870.9	117833.5	9569.7 µg/L	9569.7 ppb	14:22:30
3	V 292.402†	-5181.6	-5186.0	1.6524 µg/L	1.6524 ppb	14:22:36
3	Zn 213.857†	2087.0	1559.4	20.795 µg/L	20.795 ppb	14:22:56

Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1886641.0	99.123 %	0.4879			0.49%
Sc RADIAL	52800.3	100 %	0.1			0.10%
Y 371.029	1293105.7	98.604 %	0.5025			0.51%
Ag 328.068†	-3490.5	-3.2486 µg/L	1.21008	-3.2486 ppb	1.21008	37.25%
Al 396.153Radial†	-35.4	-25.384 µg/L	1.8478	-25.384 ppb	1.8478	7.28%
As 188.979†	-18.5	-13.486 µg/L	7.3158	-13.486 ppb	7.3158	54.25%
B 249.677†	937.7	-156.21 µg/L	1.738	-156.21 ppb	1.738	1.11%
Ba 233.527†	478.9	12.184 µg/L	0.9453	12.184 ppb	0.9453	7.76%
Be 313.107†	-5740.6	-3.5659 µg/L	0.12984	-3.5659 ppb	0.12984	3.64%
Ca 317.933Radial†	-76.3	-72.210 µg/L	3.8214	-72.210 ppb	3.8214	5.29%
Cd 226.502†	1140.8	-11.789 µg/L	1.0091	-11.789 ppb	1.0091	8.56%
Co 228.616†	420.4	20.298 µg/L	1.3968	20.298 ppb	1.3968	6.88%
Cr 267.716†	-26.0	-0.5848 µg/L	0.42729	-0.5848 ppb	0.42729	73.07%
Cu 324.752†	-5414.9	16.097 µg/L	1.1548	16.097 ppb	1.1548	7.17%
Fe 238.204 Radial†	41632.7	376210 µg/L	2960.6	376210 ppb	2960.6	0.79%
K 766.490 Radial†	-154.7	-105.80 µg/L	29.017	-105.80 ppb	29.017	27.43%
Mg 279.077 IEC†	21.3	-199.96 µg/L	24.784	-199.96 ppb	24.784	12.39%
Mn 257.610†	-9788.7	17.230 µg/L	0.9876	17.230 ppb	0.9876	5.73%
Mo 202.031†	-124.5	1.4146 µg/L	1.01681	1.4146 ppb	1.01681	71.88%
Na 589.592 Radial†	-128.5	-39.754 µg/L	7.4180	-39.754 ppb	7.4180	18.66%
Ni 231.604†	-134.8	-2.2885 µg/L	1.10799	-2.2885 ppb	1.10799	48.42%
P 214.914†	267.2	259.02 µg/L	47.231	259.02 ppb	47.231	18.23%
Pb 220.353†	140.5	11.617 µg/L	2.0159	11.617 ppb	2.0159	17.35%
S 181.975 Axial†	-11.6	-50.260 µg/L	14.9511	-50.260 ppb	14.9511	29.75%
Sb 206.836†	4.1	3.7242 µg/L	2.13619	3.7242 ppb	2.13619	57.36%
Se 196.026†	-223.7	696.58 µg/L	37.364	696.58 ppb	37.364	5.36%
SiO2†	-158.5	-32.827 µg/L	2.7864	-32.827 ppb	2.7864	8.49%
Si 251.611†	-920.4	-73.861 µg/L	6.5832	-73.861 ppb	6.5832	8.91%
Sn 189.927†	16.1	-32.940 µg/L	1.4825	-32.940 ppb	1.4825	4.50%
Sr 421.552†	96.8	0.9615 µg/L	0.10811	0.9615 ppb	0.10811	11.24%
Ti 334.940†	2191.5	5.0065 µg/L	0.18900	5.0065 ppb	0.18900	3.78%
Tl 190.801†	-19.5	37.885 µg/L	9.6488	37.885 ppb	9.6488	25.47%
U 409.014†	120097.4	9754.6 µg/L	163.16	9754.6 ppb	163.16	1.67%
V 292.402†	-5334.4	0.2668 µg/L	1.87448	0.2668 ppb	1.87448	702.51%
Zn 213.857†	1710.0	24.559 µg/L	3.2703	24.559 ppb	3.2703	13.32%

Sequence No.: 2
 Sample ID: LR2
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 114
 Date Collected: 2/24/2010 14:23:04
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53229.5	53229.5	101 %		14:23:36
1	Al 396.153Radial†	-0.4	26.0	18.839 µg/L	18.839 ppb	14:23:36
1	Ca 317.933Radial†	186.2	1.3	1.2753 µg/L	1.2753 ppb	14:23:56
1	Fe 238.204 Radial†	20.6	4.7	148.20 µg/L	148.20 ppb	14:23:56
1	K 766.490 Radial†	201.9	-47.0	-32.138 µg/L	-32.138 ppb	14:23:36
1	Mg 279.077 IEC†	10.3	-2.5	-23.855 µg/L	-23.855 ppb	14:23:56
1	Na 589.592 Radial†	555.9	-41.4	-12.801 µg/L	-12.801 ppb	14:23:36
1	Sr 421.552†	52.5	27.0	0.2682 µg/L	0.2682 ppb	14:23:36
1	Sc 361.383	1903275.9	1903275.9	99.997 %		14:24:55
1	Y 371.029	1305898.6	1305898.6	99.580 %		14:24:55
1	Ag 328.068†	-438.5	60.3	0.4618 µg/L	0.4618 ppb	14:25:00
1	As 188.979†	-2.9	-3.8	-7.2186 µg/L	-7.2186 ppb	14:25:21
1	B 249.677†	801.8	347.6	14.845 µg/L	14.845 ppb	14:25:00
1	Ba 233.527†	-16.0	4.5	0.1159 µg/L	0.1159 ppb	14:25:21
1	Be 313.107†	-3361.7	176.5	0.1092 µg/L	0.1092 ppb	14:25:00
1	Cd 226.502†	-99.2	30.2	0.8101 µg/L	0.8101 ppb	14:25:21
1	Co 228.616†	103379.3	103389.4	4997.7 µg/L	4997.7 ppb	14:25:00
1	Cr 267.716†	-0.0	46.1	0.9770 µg/L	0.9770 ppb	14:25:21
1	Cu 324.752†	2995.9	-243.1	-1.6190 µg/L	-1.6190 ppb	14:25:00
1	Mn 257.610†	-145.6	85.2	0.2920 µg/L	0.2920 ppb	14:25:21
1	Mo 202.031†	1.9	5.9	0.6129 µg/L	0.6129 ppb	14:25:21
1	Ni 231.604†	337.0	49.1	-3.3478 µg/L	-3.3478 ppb	14:25:21
1	P 214.914†	4863.9	4841.7	10156 µg/L	10156 ppb	14:25:00
1	Pb 220.353†	97.8	15.3	3.9290 µg/L	3.9290 ppb	14:25:21
1	S 181.975 Axial†	13.5	-2.9	-12.515 µg/L	-12.515 ppb	14:25:21
1	Sb 206.836†	20.6	-1.2	-1.1207 µg/L	-1.1207 ppb	14:25:21
1	Se 196.026†	8.8	-7.0	-10.206 µg/L	-10.206 ppb	14:25:21
1	SiO2†	378704.2	377168.5	78091 µg/L	78091 ppb	14:24:55
1	Si 251.611†	450915.0	450591.8	36159 µg/L	36159 ppb	14:24:55
1	Sn 189.927†	1.7	1.0	0.4538 µg/L	0.4538 ppb	14:25:21
1	Ti 334.940†	461.0	384.0	0.8822 µg/L	0.8822 ppb	14:25:00
1	Tl 190.801†	-2.2	19.5	10.222 µg/L	10.222 ppb	14:25:21
1	U 409.014†	206.7	-1.1	-0.0975 µg/L	-0.0975 ppb	14:25:00
1	V 292.402†	-52.7	-5.3	-0.0418 µg/L	-0.0418 ppb	14:25:00
1	Zn 213.857†	504.4	-44.1	-1.1010 µg/L	-1.1010 ppb	14:25:21
2	Sc RADIAL	53314.9	53314.9	101 %		14:24:01
2	Al 396.153Radial†	-13.8	12.8	9.2486 µg/L	9.2486 ppb	14:24:01
2	Ca 317.933Radial†	181.9	-3.2	-3.0140 µg/L	-3.0140 ppb	14:24:21
2	Fe 238.204 Radial†	20.4	4.4	146.85 µg/L	146.85 ppb	14:24:21
2	K 766.490 Radial†	215.6	-33.7	-23.072 µg/L	-23.072 ppb	14:24:01
2	Mg 279.077 IEC†	12.0	-0.8	-8.1484 µg/L	-8.1484 ppb	14:24:21
2	Na 589.592 Radial†	534.4	-63.6	-19.665 µg/L	-19.665 ppb	14:24:01
2	Sr 421.552†	41.6	16.2	0.1610 µg/L	0.1610 ppb	14:24:01
2	Sc 361.383	1895504.9	1895504.9	99.589 %		14:25:27
2	Y 371.029	1302084.6	1302084.6	99.289 %		14:25:27
2	Ag 328.068†	-532.8	-36.2	-0.2715 µg/L	-0.2715 ppb	14:25:32
2	As 188.979†	-4.8	-5.6	-10.740 µg/L	-10.740 ppb	14:25:52
2	B 249.677†	820.2	369.4	15.776 µg/L	15.776 ppb	14:25:32
2	Ba 233.527†	-10.3	10.1	0.2600 µg/L	0.2600 ppb	14:25:52
2	Be 313.107†	-3464.1	59.8	0.0368 µg/L	0.0368 ppb	14:25:32
2	Cd 226.502†	-97.0	31.9	0.8594 µg/L	0.8594 ppb	14:25:52
2	Co 228.616†	103600.5	104035.4	5028.9 µg/L	5028.9 ppb	14:25:32
2	Cr 267.716†	-11.4	34.7	0.7356 µg/L	0.7356 ppb	14:25:52
2	Cu 324.752†	2942.7	-284.3	-1.8948 µg/L	-1.8948 ppb	14:25:32
2	Mn 257.610†	-131.0	99.3	0.3384 µg/L	0.3384 ppb	14:25:52
2	Mo 202.031†	4.2	8.3	0.8581 µg/L	0.8581 ppb	14:25:52
2	Ni 231.604†	349.5	63.0	-2.6474 µg/L	-2.6474 ppb	14:25:52
2	P 214.914†	4903.0	4900.9	10280 µg/L	10280 ppb	14:25:32
2	Pb 220.353†	107.9	25.8	6.6328 µg/L	6.6328 ppb	14:25:52

2	S 181.975 Axial†	15.5	-0.8	-3.4447 µg/L	-3.4447 ppb	14:25:52
2	Sb 206.836†	19.9	-1.9	-1.7501 µg/L	-1.7501 ppb	14:25:52
2	Se 196.026†	11.6	-4.2	-6.1238 µg/L	-6.1238 ppb	14:25:52
2	SiO2†	377062.0	377072.1	78071 µg/L	78071 ppb	14:25:27
2	Si 251.611†	449041.3	450559.1	36157 µg/L	36157 ppb	14:25:27
2	Sn 189.927†	0.8	0.2	0.0642 µg/L	0.0642 ppb	14:25:52
2	Ti 334.940†	502.4	427.5	0.9806 µg/L	0.9806 ppb	14:25:32
2	Tl 190.801†	-4.9	16.8	6.4529 µg/L	6.4529 ppb	14:25:52
2	U 409.014†	234.8	28.0	2.2823 µg/L	2.2823 ppb	14:25:32
2	V 292.402†	-23.2	24.1	0.2598 µg/L	0.2598 ppb	14:25:32
2	Zn 213.857†	503.8	-42.6	-1.0682 µg/L	-1.0682 ppb	14:25:52
3	Sc RADIAL	53506.9	53506.9	101 %		14:24:27
3	Al 396.153Radial†	-13.1	13.5	9.7948 µg/L	9.7948 ppb	14:24:27
3	Ca 317.933Radial†	189.3	3.5	3.3348 µg/L	3.3348 ppb	14:24:47
3	Fe 238.204 Radial†	20.6	4.6	143.49 µg/L	143.49 ppb	14:24:47
3	K 766.490 Radial†	193.3	-56.5	-38.638 µg/L	-38.638 ppb	14:24:27
3	Mg 279.077 IEC†	10.6	-2.3	-22.120 µg/L	-22.120 ppb	14:24:47
3	Na 589.592 Radial†	508.9	-90.6	-28.015 µg/L	-28.015 ppb	14:24:27
3	Sr 421.552†	46.2	20.6	0.2044 µg/L	0.2044 ppb	14:24:27
3	Sc 361.383	1882596.1	1882596.1	98.911 %		14:25:58
3	Y 371.029	1293722.1	1293722.1	98.651 %		14:25:58
3	Ag 328.068†	-469.0	24.7	0.1932 µg/L	0.1932 ppb	14:26:04
3	As 188.979†	2.0	1.1	2.1680 µg/L	2.1680 ppb	14:26:24
3	B 249.677†	776.7	331.1	14.138 µg/L	14.138 ppb	14:26:04
3	Ba 233.527†	-9.5	10.9	0.2793 µg/L	0.2793 ppb	14:26:24
3	Be 313.107†	-3362.1	139.1	0.0860 µg/L	0.0860 ppb	14:26:04
3	Cd 226.502†	-96.9	31.4	0.8421 µg/L	0.8421 ppb	14:26:24
3	Co 228.616†	98555.8	99648.5	4816.9 µg/L	4816.9 ppb	14:26:04
3	Cr 267.716†	-2.3	43.8	0.9288 µg/L	0.9288 ppb	14:26:24
3	Cu 324.752†	3027.3	-178.4	-1.1871 µg/L	-1.1871 ppb	14:26:04
3	Mn 257.610†	-154.3	74.8	0.2570 µg/L	0.2570 ppb	14:26:24
3	Mo 202.031†	-2.0	2.0	0.2130 µg/L	0.2130 ppb	14:26:24
3	Ni 231.604†	326.1	41.7	-3.5241 µg/L	-3.5241 ppb	14:26:24
3	P 214.914†	4685.9	4715.1	9890.7 µg/L	9890.7 ppb	14:26:04
3	Pb 220.353†	89.7	8.2	2.0804 µg/L	2.0804 ppb	14:26:24
3	S 181.975 Axial†	12.4	-3.9	-16.795 µg/L	-16.795 ppb	14:26:24
3	Sb 206.836†	23.1	1.6	1.4997 µg/L	1.4997 ppb	14:26:24
3	Se 196.026†	11.0	-4.7	-6.8476 µg/L	-6.8476 ppb	14:26:24
3	SiO2†	372644.0	375201.5	77684 µg/L	77684 ppb	14:25:58
3	Si 251.611†	443875.5	448428.1	35986 µg/L	35986 ppb	14:25:58
3	Sn 189.927†	-1.1	-1.8	-0.8248 µg/L	-0.8248 ppb	14:26:24
3	Ti 334.940†	475.3	403.5	0.9268 µg/L	0.9268 ppb	14:26:04
3	Tl 190.801†	-4.2	17.5	8.1150 µg/L	8.1150 ppb	14:26:24
3	U 409.014†	388.6	185.1	15.108 µg/L	15.108 ppb	14:26:04
3	V 292.402†	-9.9	37.4	0.4040 µg/L	0.4040 ppb	14:26:04
3	Zn 213.857†	497.6	-45.4	-1.1322 µg/L	-1.1322 ppb	14:26:24

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	1893792.3	99.499 %	%	0.5488			0.55%
Sc RADIAL	53350.4	101 %	%	0.3			0.27%
Y 371.029	1300568.4	99.173 %	%	0.4749			0.48%
Ag 328.068†	16.3	0.1278 µg/L	µg/L	0.37095	0.1278 ppb	0.37095	290.20%
Al 396.153Radial†	17.4	12.628 µg/L	µg/L	5.3865	12.628 ppb	5.3865	42.66%
As 188.979†	-2.8	-5.2636 µg/L	µg/L	6.67252	-5.2636 ppb	6.67252	126.77%
B 249.677†	349.4	14.920 µg/L	µg/L	0.8215	14.920 ppb	0.8215	5.51%
Ba 233.527†	8.5	0.2184 µg/L	µg/L	0.08927	0.2184 ppb	0.08927	40.88%
Be 313.107†	125.1	0.0773 µg/L	µg/L	0.03701	0.0773 ppb	0.03701	47.85%
Ca 317.933Radial†	0.6	0.5320 µg/L	µg/L	3.23901	0.5320 ppb	3.23901	608.80%
Cd 226.502†	31.2	0.8372 µg/L	µg/L	0.02500	0.8372 ppb	0.02500	2.99%
Co 228.616†	102357.7	4947.8 µg/L	µg/L	114.49	4947.8 ppb	114.49	2.31%
Cr 267.716†	41.6	0.8805 µg/L	µg/L	0.12775	0.8805 ppb	0.12775	14.51%
Cu 324.752†	-235.3	-1.5670 µg/L	µg/L	0.35672	-1.5670 ppb	0.35672	22.76%
Fe 238.204 Radial†	4.6	146.18 µg/L	µg/L	2.425	146.18 ppb	2.425	1.66%
K 766.490 Radial†	-45.7	-31.283 µg/L	µg/L	7.8182	-31.283 ppb	7.8182	24.99%
Mg 279.077 IEC†	-1.9	-18.041 µg/L	µg/L	8.6112	-18.041 ppb	8.6112	47.73%
Mn 257.610†	86.4	0.2958 µg/L	µg/L	0.04086	0.2958 ppb	0.04086	13.81%
Mo 202.031†	5.4	0.5613 µg/L	µg/L	0.32559	0.5613 ppb	0.32559	58.01%
Na 589.592 Radial†	-65.2	-20.160 µg/L	µg/L	7.6189	-20.160 ppb	7.6189	37.79%

Ni 231.604†	51.2	-3.1731 µg/L	0.46370	-3.1731 ppb	0.46370	14.61%
P 214.914†	4819.2	10109 µg/L	199.1	10109 ppb	199.1	1.97%
Pb 220.353†	16.4	4.2140 µg/L	2.28953	4.2140 ppb	2.28953	54.33%
S 181.975 Axial†	-2.5	-10.918 µg/L	6.8167	-10.918 ppb	6.8167	62.43%
Sb 206.836†	-0.5	-0.4571 µg/L	1.72355	-0.4571 ppb	1.72355	377.10%
Se 196.026†	-5.3	-7.7257 µg/L	2.17807	-7.7257 ppb	2.17807	28.19%
SiO2†	376480.7	77949 µg/L	229.6	77949 ppb	229.6	0.29%
Si 251.611†	449859.7	36101 µg/L	99.5	36101 ppb	99.5	0.28%
Sn 189.927†	-0.2	-0.1023 µg/L	0.65534	-0.1023 ppb	0.65534	640.61%
Sr 421.552†	21.2	0.2112 µg/L	0.05393	0.2112 ppb	0.05393	25.53%
Ti 334.940†	405.0	0.9298 µg/L	0.04926	0.9298 ppb	0.04926	5.30%
Tl 190.801†	17.9	8.2634 µg/L	1.88905	8.2634 ppb	1.88905	22.86%
U 409.014†	70.7	5.7643 µg/L	8.17905	5.7643 ppb	8.17905	141.89%
V 292.402†	18.7	0.2073 µg/L	0.22752	0.2073 ppb	0.22752	109.73%
Zn 213.857†	-44.0	-1.1005 µg/L	0.03203	-1.1005 ppb	0.03203	2.91%

Sequence No.: 3
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/24/2010 14:26:32
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52349.7	52349.7	99.2 %			14:27:07
1	Al 396.153Radial†	6977.4	7060.3	5106.5 µg/L		5106.5 ppb	14:27:07
1	Ca 317.933Radial†	5471.5	5332.5	5046.3 µg/L		5046.3 ppb	14:27:27
1	Fe 238.204 Radial†	579.2	568.1	5144.7 µg/L		5144.7 ppb	14:27:27
1	K 766.490 Radial†	7689.3	7504.3	5131.7 µg/L		5131.7 ppb	14:27:07
1	Mg 279.077 IEC†	552.4	544.1	5215.5 µg/L		5215.5 ppb	14:27:27
1	Na 589.592 Radial†	33372.0	33049.3	10221 µg/L		10221 ppb	14:27:07
1	Sr 421.552†	50800.5	51186.3	508.71 µg/L		508.71 ppb	14:27:07
1	Sc 361.383	1892212.0	1892212.0	99.416 %			14:28:27
1	Y 371.029	1300175.8	1300175.8	99.143 %			14:28:27
1	Ag 328.068†	65317.6	66200.0	508.00 µg/L		508.00 ppb	14:28:32
1	As 188.979†	269.9	270.6	514.89 µg/L		514.89 ppb	14:28:53
1	B 249.677†	11942.6	11558.6	492.40 µg/L		492.40 ppb	14:28:32
1	Ba 233.527†	19455.4	19590.2	503.34 µg/L		503.34 ppb	14:28:32
1	Be 313.107†	803954.5	812214.5	504.06 µg/L		504.06 ppb	14:28:27
1	Cd 226.502†	18451.8	18689.5	503.37 µg/L		503.37 ppb	14:28:32
1	Co 228.616†	10427.5	10496.2	506.78 µg/L		506.78 ppb	14:28:32
1	Cr 267.716†	23643.8	23828.8	505.07 µg/L		505.07 ppb	14:28:32
1	Cu 324.752†	78274.6	75495.3	505.37 µg/L		505.37 ppb	14:28:32
1	Mn 257.610†	151918.9	153042.0	513.24 µg/L		513.24 ppb	14:28:27
1	Mo 202.031†	5010.3	5043.8	521.96 µg/L		521.96 ppb	14:28:53
1	Ni 231.604†	9773.4	9542.9	505.83 µg/L		505.83 ppb	14:28:32
1	P 214.914†	1236.4	1221.3	2513.6 µg/L		2513.6 ppb	14:28:53
1	Pb 220.353†	2084.0	2013.7	517.48 µg/L		517.48 ppb	14:28:53
1	S 181.975 Axial†	251.5	236.6	1026.3 µg/L		1026.3 ppb	14:28:53
1	Sb 206.836†	559.3	540.8	515.21 µg/L		515.21 ppb	14:28:53
1	Se 196.026†	357.1	343.3	517.07 µg/L		517.07 ppb	14:28:53
1	SiO2†	27571.9	26188.2	5422.2 µg/L		5422.2 ppb	14:28:32
1	Si 251.611†	31748.5	31600.1	2535.9 µg/L		2535.9 ppb	14:28:32
1	Sn 189.927†	1163.2	1169.4	522.22 µg/L		522.22 ppb	14:28:53
1	Ti 334.940†	220466.5	221684.4	507.85 µg/L		507.85 ppb	14:28:27
1	Tl 190.801†	345.3	369.0	517.87 µg/L		517.87 ppb	14:28:53
1	U 409.014†	6249.1	6078.0	495.30 µg/L		495.30 ppb	14:28:32
1	V 292.402†	49213.2	49549.7	508.84 µg/L		508.84 ppb	14:28:32
1	Zn 213.857†	20944.7	20519.2	504.60 µg/L		504.60 ppb	14:28:32
2	Sc RADIAL	53045.7	53045.7	101 %			14:27:33
2	Al 396.153Radial†	6987.4	6977.9	5046.7 µg/L		5046.7 ppb	14:27:33
2	Ca 317.933Radial†	5480.0	5268.6	4985.8 µg/L		4985.8 ppb	14:27:53
2	Fe 238.204 Radial†	582.9	564.1	5109.0 µg/L		5109.0 ppb	14:27:53
2	K 766.490 Radial†	7718.5	7431.6	5081.9 µg/L		5081.9 ppb	14:27:53
2	Mg 279.077 IEC†	553.7	538.1	5158.3 µg/L		5158.3 ppb	14:27:33
2	Na 589.592 Radial†	33518.1	32753.2	10130 µg/L		10130 ppb	14:27:33
2	Sr 421.552†	50891.3	50604.6	502.93 µg/L		502.93 ppb	14:27:33
2	Sc 361.383	1861201.7	1861201.7	97.787 %			14:28:59
2	Y 371.029	1277073.6	1277073.6	97.382 %			14:28:59
2	Ag 328.068†	65950.9	67942.4	521.37 µg/L		521.37 ppb	14:29:05
2	As 188.979†	277.0	282.4	537.35 µg/L		537.35 ppb	14:29:25
2	B 249.677†	12049.4	11867.9	505.67 µg/L		505.67 ppb	14:29:05
2	Ba 233.527†	19709.6	20176.2	518.40 µg/L		518.40 ppb	14:29:05
2	Be 313.107†	800391.4	822044.4	510.16 µg/L		510.16 ppb	14:28:59
2	Cd 226.502†	18715.9	19268.9	518.99 µg/L		518.99 ppb	14:29:05
2	Co 228.616†	10576.9	10823.7	522.61 µg/L		522.61 ppb	14:29:05
2	Cr 267.716†	23955.3	24543.6	520.22 µg/L		520.22 ppb	14:29:05
2	Cu 324.752†	79126.4	77678.2	519.96 µg/L		519.96 ppb	14:29:05
2	Mn 257.610†	151741.5	155406.6	521.16 µg/L		521.16 ppb	14:28:59
2	Mo 202.031†	4987.1	5104.0	528.19 µg/L		528.19 ppb	14:29:25
2	Ni 231.604†	9876.1	9811.7	520.08 µg/L		520.08 ppb	14:29:05
2	P 214.914†	1229.4	1234.9	2540.7 µg/L		2540.7 ppb	14:29:25
2	Pb 220.353†	2076.9	2041.3	524.55 µg/L		524.55 ppb	14:29:25

2	S 181.975 Axial†	252.3	241.7	1048.1 µg/L	1048.1 ppb	14:29:25
2	Sb 206.836†	565.1	556.1	529.66 µg/L	529.66 ppb	14:29:25
2	Se 196.026†	363.1	355.5	535.13 µg/L	535.13 ppb	14:29:25
2	SiO2†	27946.2	27033.1	5597.1 µg/L	5597.1 ppb	14:29:05
2	Si 251.611†	32127.2	32519.5	2609.6 µg/L	2609.6 ppb	14:29:05
2	Sn 189.927†	1159.6	1185.1	529.24 µg/L	529.24 ppb	14:29:25
2	Ti 334.940†	219684.8	224579.8	514.49 µg/L	514.49 ppb	14:28:59
2	Tl 190.801†	344.5	374.0	524.87 µg/L	524.87 ppb	14:29:25
2	U 409.014†	6269.9	6204.0	505.59 µg/L	505.59 ppb	14:29:05
2	V 292.402†	49822.9	50998.0	523.62 µg/L	523.62 ppb	14:29:05
2	Zn 213.857†	21169.6	21100.3	518.91 µg/L	518.91 ppb	14:29:05
3	Sc RADIAL	52880.2	52880.2	100 %		14:27:58
3	Al 396.153Radial†	7048.4	7060.6	5108.1 µg/L	5108.1 ppb	14:27:58
3	Ca 317.933Radial†	5461.8	5267.5	4984.8 µg/L	4984.8 ppb	14:28:18
3	Fe 238.204 Radial†	577.6	560.6	5076.3 µg/L	5076.3 ppb	14:28:18
3	K 766.490 Radial†	7706.5	7443.7	5090.2 µg/L	5090.2 ppb	14:27:58
3	Mg 279.077 IEC†	549.1	535.3	5129.5 µg/L	5129.5 ppb	14:28:18
3	Na 589.592 Radial†	33733.3	33072.3	10228 µg/L	10228 ppb	14:27:58
3	Sr 421.552†	51333.0	51203.9	508.89 µg/L	508.89 ppb	14:27:58
3	Sc 361.383	1900024.5	1900024.5	99.827 %		14:29:32
3	Y 371.029	1305629.6	1305629.6	99.559 %		14:29:32
3	Ag 328.068†	63738.3	64347.8	493.68 µg/L	493.68 ppb	14:29:37
3	As 188.979†	237.2	236.8	450.60 µg/L	450.60 ppb	14:29:57
3	B 249.677†	11578.2	11144.1	474.65 µg/L	474.65 ppb	14:29:37
3	Ba 233.527†	18639.6	18692.4	480.26 µg/L	480.26 ppb	14:29:37
3	Be 313.107†	776779.8	781667.5	485.10 µg/L	485.10 ppb	14:29:32
3	Cd 226.502†	17608.2	17768.1	478.53 µg/L	478.53 ppb	14:29:37
3	Co 228.616†	9914.6	9939.3	479.84 µg/L	479.84 ppb	14:29:37
3	Cr 267.716†	21983.0	22067.3	467.74 µg/L	467.74 ppb	14:29:37
3	Cu 324.752†	74486.0	71376.3	477.83 µg/L	477.83 ppb	14:29:37
3	Mn 257.610†	146932.1	147418.1	494.39 µg/L	494.39 ppb	14:29:32
3	Mo 202.031†	4353.1	4364.7	451.71 µg/L	451.71 ppb	14:29:57
3	Ni 231.604†	9284.1	9012.3	477.71 µg/L	477.71 ppb	14:29:37
3	P 214.914†	1111.9	1091.5	2243.2 µg/L	2243.2 ppb	14:29:57
3	Pb 220.353†	1866.6	1787.3	459.20 µg/L	459.20 ppb	14:29:57
3	S 181.975 Axial†	236.4	220.4	956.01 µg/L	956.01 ppb	14:29:57
3	Sb 206.836†	501.4	480.4	457.23 µg/L	457.23 ppb	14:29:57
3	Se 196.026†	327.9	312.7	471.46 µg/L	471.46 ppb	14:29:57
3	SiO2†	26777.9	25278.8	5233.9 µg/L	5233.9 ppb	14:29:37
3	Si 251.611†	30887.1	30605.9	2456.1 µg/L	2456.1 ppb	14:29:37
3	Sn 189.927†	997.8	998.8	446.05 µg/L	446.05 ppb	14:29:57
3	Ti 334.940†	212426.8	212718.9	487.30 µg/L	487.30 ppb	14:29:32
3	Tl 190.801†	310.9	333.1	467.93 µg/L	467.93 ppb	14:29:57
3	U 409.014†	5900.0	5702.4	464.64 µg/L	464.64 ppb	14:29:37
3	V 292.402†	46359.6	46487.6	477.12 µg/L	477.12 ppb	14:29:37
3	Zn 213.857†	19897.4	19383.5	476.64 µg/L	476.64 ppb	14:29:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1884479.4	99.010 %	1.0789			1.09%
Sc RADIAL	52758.5	100.0 %	0.69			0.69%
Y 371.029	1294293.0	98.695 %	1.1560			1.17%
Ag 328.068†	66163.4	507.68 µg/L	13.848	507.68 ppb	13.848	2.73%
QC value within limits for Ag 328.068 Recovery = 101.54%						
Al 396.153Radial†	7032.9	5087.1 µg/L	35.03	5087.1 ppb	35.03	0.69%
QC value within limits for Al 396.153Radial Recovery = 101.74%						
As 188.979†	263.2	500.95 µg/L	45.024	500.95 ppb	45.024	8.99%
QC value within limits for As 188.979 Recovery = 100.19%						
B 249.677†	11523.5	490.91 µg/L	15.562	490.91 ppb	15.562	3.17%
QC value within limits for B 249.677 Recovery = 98.18%						
Ba 233.527†	19486.3	500.66 µg/L	19.209	500.66 ppb	19.209	3.84%
QC value within limits for Ba 233.527 Recovery = 100.13%						
Be 313.107†	805308.8	499.77 µg/L	13.067	499.77 ppb	13.067	2.61%
QC value within limits for Be 313.107 Recovery = 99.95%						
Ca 317.933Radial†	5289.5	5005.6 µg/L	35.21	5005.6 ppb	35.21	0.70%
QC value within limits for Ca 317.933Radial Recovery = 100.11%						
Cd 226.502†	18575.5	500.29 µg/L	20.406	500.29 ppb	20.406	4.08%
QC value within limits for Cd 226.502 Recovery = 100.06%						
Co 228.616†	10419.7	503.08 µg/L	21.622	503.08 ppb	21.622	4.30%

QC value within limits for Co 228.616 Recovery = 100.62%							
Cr 267.716†	23479.9	497.68 µg/L	27.012	497.68 ppb	27.012	5.43%	
QC value within limits for Cr 267.716 Recovery = 99.54%							
Cu 324.752†	74849.9	501.05 µg/L	21.394	501.05 ppb	21.394	4.27%	
QC value within limits for Cu 324.752 Recovery = 100.21%							
Fe 238.204 Radial†	564.3	5110.0 µg/L	34.23	5110.0 ppb	34.23	0.67%	
QC value within limits for Fe 238.204 Radial Recovery = 102.20%							
K 766.490 Radial†	7459.9	5101.3 µg/L	26.63	5101.3 ppb	26.63	0.52%	
QC value within limits for K 766.490 Radial Recovery = 102.03%							
Mg 279.077 IEC†	539.2	5167.8 µg/L	43.80	5167.8 ppb	43.80	0.85%	
QC value within limits for Mg 279.077 IEC Recovery = 103.36%							
Mn 257.610†	151955.6	509.60 µg/L	13.751	509.60 ppb	13.751	2.70%	
QC value within limits for Mn 257.610 Recovery = 101.92%							
Mo 202.031†	4837.5	500.62 µg/L	42.470	500.62 ppb	42.470	8.48%	
QC value within limits for Mo 202.031 Recovery = 100.12%							
Na 589.592 Radial†	32958.3	10193 µg/L	55.0	10193 ppb	55.0	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 101.93%							
Ni 231.604†	9455.6	501.21 µg/L	21.559	501.21 ppb	21.559	4.30%	
QC value within limits for Ni 231.604 Recovery = 100.24%							
P 214.914†	1182.6	2432.5 µg/L	164.52	2432.5 ppb	164.52	6.76%	
QC value within limits for P 214.914 Recovery = 97.30%							
Pb 220.353†	1947.4	500.41 µg/L	35.866	500.41 ppb	35.866	7.17%	
QC value within limits for Pb 220.353 Recovery = 100.08%							
S 181.975 Axial†	232.9	1010.1 µg/L	48.14	1010.1 ppb	48.14	4.77%	
QC value within limits for S 181.975 Axial Recovery = 101.01%							
Sb 206.836†	525.8	500.70 µg/L	38.330	500.70 ppb	38.330	7.66%	
QC value within limits for Sb 206.836 Recovery = 100.14%							
Se 196.026†	337.2	507.89 µg/L	32.811	507.89 ppb	32.811	6.46%	
QC value within limits for Se 196.026 Recovery = 101.58%							
SiO2†	26166.7	5417.7 µg/L	181.64	5417.7 ppb	181.64	3.35%	
QC value within limits for SiO2 Recovery = 101.31%							
Si 251.611†	31575.1	2533.9 µg/L	76.80	2533.9 ppb	76.80	3.03%	
QC value within limits for Si 251.611 Recovery = 101.35%							
Sn 189.927†	1117.8	499.17 µg/L	46.136	499.17 ppb	46.136	9.24%	
QC value within limits for Sn 189.927 Recovery = 99.83%							
Sr 421.552†	50998.3	506.84 µg/L	3.389	506.84 ppb	3.389	0.67%	
QC value within limits for Sr 421.552 Recovery = 101.37%							
Ti 334.940†	219661.0	503.21 µg/L	14.174	503.21 ppb	14.174	2.82%	
QC value within limits for Ti 334.940 Recovery = 100.64%							
Tl 190.801†	358.7	503.56 µg/L	31.054	503.56 ppb	31.054	6.17%	
QC value within limits for Tl 190.801 Recovery = 100.71%							
U 409.014†	5994.8	488.51 µg/L	21.303	488.51 ppb	21.303	4.36%	
QC value within limits for U 409.014 Recovery = 97.70%							
V 292.402†	49011.7	503.19 µg/L	23.760	503.19 ppb	23.760	4.72%	
QC value within limits for V 292.402 Recovery = 100.64%							
Zn 213.857†	20334.3	500.05 µg/L	21.494	500.05 ppb	21.494	4.30%	
QC value within limits for Zn 213.857 Recovery = 100.01%							
All analyte(s) passed QC.							

Sequence No.: 4
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/24/2010 14:30:05
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52566.9	52566.9	99.6 %		14:30:37
1	Al 396.153Radial†	-12.7	13.7	9.9427 µg/L	9.9427 ppb	14:30:37
1	Ca 317.933Radial†	188.9	6.4	6.0911 µg/L	6.0911 ppb	14:30:57
1	Fe 238.204 Radial†	17.7	2.0	18.299 µg/L	18.299 ppb	14:30:57
1	K 766.490 Radial†	204.3	-42.1	-28.776 µg/L	-28.776 ppb	14:30:37
1	Mg 279.077 IEC†	11.9	-0.8	-7.5959 µg/L	-7.5959 ppb	14:30:57
1	Na 589.592 Radial†	619.9	29.8	9.2051 µg/L	9.2051 ppb	14:30:37
1	Sr 421.552†	41.5	16.6	0.1652 µg/L	0.1652 ppb	14:30:37
1	Sc 361.383	1871524.0	1871524.0	98.329 %		14:31:56
1	Y 371.029	1290911.4	1290911.4	98.437 %		14:31:56
1	Ag 328.068†	-448.7	42.5	0.3226 µg/L	0.3226 ppb	14:32:01
1	As 188.979†	-1.0	-1.9	-3.5754 µg/L	-3.5754 ppb	14:32:21
1	B 249.677†	385.1	-62.5	-2.6828 µg/L	-2.6828 ppb	14:32:21
1	Ba 233.527†	-17.3	2.8	0.0725 µg/L	0.0725 ppb	14:32:21
1	Be 313.107†	-3379.5	101.3	0.0628 µg/L	0.0628 ppb	14:32:01
1	Cd 226.502†	-129.9	-2.7	-0.0747 µg/L	-0.0747 ppb	14:32:21
1	Co 228.616†	-10.2	-3.0	-0.1435 µg/L	-0.1435 ppb	14:32:21
1	Cr 267.716†	-19.6	26.2	0.5549 µg/L	0.5549 ppb	14:32:21
1	Cu 324.752†	3265.2	81.6	0.5479 µg/L	0.5479 ppb	14:32:01
1	Mn 257.610†	-198.6	28.9	0.0994 µg/L	0.0994 ppb	14:32:21
1	Mo 202.031†	-1.2	2.8	0.2918 µg/L	0.2918 ppb	14:32:21
1	Ni 231.604†	292.0	9.0	0.4778 µg/L	0.4778 ppb	14:32:21
1	P 214.914†	20.3	-1.7	-3.6623 µg/L	-3.6623 ppb	14:32:21
1	Pb 220.353†	90.5	9.5	2.4403 µg/L	2.4403 ppb	14:32:21
1	S 181.975 Axial†	10.2	-6.0	-25.944 µg/L	-25.944 ppb	14:32:21
1	Sb 206.836†	23.7	2.3	2.2215 µg/L	2.2215 ppb	14:32:21
1	Se 196.026†	12.5	-3.1	-4.6134 µg/L	-4.6134 ppb	14:32:21
1	SiO2†	1596.3	77.8	16.117 µg/L	16.117 ppb	14:32:01
1	Si 251.611†	402.8	74.7	5.9975 µg/L	5.9975 ppb	14:32:21
1	Sn 189.927†	2.2	1.6	0.7039 µg/L	0.7039 ppb	14:32:21
1	Ti 334.940†	196.9	123.3	0.2833 µg/L	0.2833 ppb	14:32:01
1	Tl 190.801†	-20.0	1.4	1.9083 µg/L	1.9083 ppb	14:32:21
1	U 409.014†	221.6	17.6	1.4372 µg/L	1.4372 ppb	14:32:01
1	V 292.402†	-77.7	-31.6	-0.3132 µg/L	-0.3132 ppb	14:32:01
1	Zn 213.857†	558.1	19.1	0.4694 µg/L	0.4694 ppb	14:32:21
2	Sc RADIAL	52026.1	52026.1	98.6 %		14:31:02
2	Al 396.153Radial†	-21.3	4.8	3.4420 µg/L	3.4420 ppb	14:31:02
2	Ca 317.933Radial†	189.7	9.2	8.7109 µg/L	8.7109 ppb	14:31:23
2	Fe 238.204 Radial†	18.0	2.5	22.818 µg/L	22.818 ppb	14:31:23
2	K 766.490 Radial†	255.2	11.6	7.9578 µg/L	7.9578 ppb	14:31:02
2	Mg 279.077 IEC†	11.4	-1.2	-11.325 µg/L	-11.325 ppb	14:31:23
2	Na 589.592 Radial†	571.3	-13.0	-4.0359 µg/L	-4.0359 ppb	14:31:02
2	Sr 421.552†	11.0	-13.9	-0.1380 µg/L	-0.1380 ppb	14:31:02
2	Sc 361.383	1884701.5	1884701.5	99.022 %		14:32:27
2	Y 371.029	1299708.0	1299708.0	99.108 %		14:32:27
2	Ag 328.068†	-474.0	20.1	0.1545 µg/L	0.1545 ppb	14:32:32
2	As 188.979†	0.8	-0.0	-0.0934 µg/L	-0.0934 ppb	14:32:52
2	B 249.677†	376.5	-74.0	-3.1750 µg/L	-3.1750 ppb	14:32:52
2	Ba 233.527†	-11.3	9.1	0.2334 µg/L	0.2334 ppb	14:32:52
2	Be 313.107†	-3289.4	216.4	0.1342 µg/L	0.1342 ppb	14:32:32
2	Cd 226.502†	-121.1	7.1	0.1886 µg/L	0.1886 ppb	14:32:52
2	Co 228.616†	-1.8	5.6	0.2737 µg/L	0.2737 ppb	14:32:52
2	Cr 267.716†	-12.7	33.3	0.7054 µg/L	0.7054 ppb	14:32:52
2	Cu 324.752†	3209.5	2.1	0.0174 µg/L	0.0174 ppb	14:32:32
2	Mn 257.610†	-183.6	45.5	0.1558 µg/L	0.1558 ppb	14:32:52
2	Mo 202.031†	14.0	18.2	1.8833 µg/L	1.8833 ppb	14:32:52
2	Ni 231.604†	302.8	17.8	0.9424 µg/L	0.9424 ppb	14:32:52
2	P 214.914†	29.2	7.2	15.079 µg/L	15.079 ppb	14:32:52
2	Pb 220.353†	96.1	14.5	3.7331 µg/L	3.7331 ppb	14:32:52

2	S 181.975 Axial†	15.6	-0.7	-2.8265 µg/L	-2.8265 ppb	14:32:52
2	Sb 206.836†	26.4	4.8	4.5815 µg/L	4.5815 ppb	14:32:52
2	Se 196.026†	17.8	2.2	3.3054 µg/L	3.3054 ppb	14:32:52
2	SiO2†	1619.6	90.1	18.650 µg/L	18.650 ppb	14:32:32
2	Si 251.611†	421.0	90.3	7.2428 µg/L	7.2428 ppb	14:32:52
2	Sn 189.927†	3.3	2.6	1.1635 µg/L	1.1635 ppb	14:32:52
2	Ti 334.940†	235.7	161.0	0.3702 µg/L	0.3702 ppb	14:32:32
2	Tl 190.801†	-27.0	-5.6	-7.7526 µg/L	-7.7526 ppb	14:32:52
2	U 409.014†	197.0	-8.8	-0.7235 µg/L	-0.7235 ppb	14:32:32
2	V 292.402†	-52.2	-5.3	-0.0356 µg/L	-0.0356 ppb	14:32:32
2	Zn 213.857†	570.5	27.6	0.6800 µg/L	0.6800 ppb	14:32:52
3	Sc RADIAL	52129.5	52129.5	98.8 %		14:31:28
3	Al 396.153Radial†	-32.2	-6.1	-4.4500 µg/L	-4.4500 ppb	14:31:28
3	Ca 317.933Radial†	179.7	-1.3	-1.2511 µg/L	-1.2511 ppb	14:31:48
3	Fe 238.204 Radial†	17.8	2.2	20.011 µg/L	20.011 ppb	14:31:48
3	K 766.490 Radial†	304.9	61.5	42.053 µg/L	42.053 ppb	14:31:28
3	Mg 279.077 IEC†	8.2	-4.4	-42.619 µg/L	-42.619 ppb	14:31:48
3	Na 589.592 Radial†	591.8	6.6	2.0262 µg/L	2.0262 ppb	14:31:28
3	Sr 421.552†	67.1	42.9	0.4262 µg/L	0.4262 ppb	14:31:28
3	Sc 361.383	1876215.1	1876215.1	98.576 %		14:32:58
3	Y 371.029	1293643.5	1293643.5	98.645 %		14:32:58
3	Ag 328.068†	-418.5	74.2	0.5690 µg/L	0.5690 ppb	14:33:03
3	As 188.979†	1.7	0.9	1.7315 µg/L	1.7315 ppb	14:33:24
3	B 249.677†	386.9	-61.7	-2.6482 µg/L	-2.6482 ppb	14:33:24
3	Ba 233.527†	-10.8	9.5	0.2440 µg/L	0.2440 ppb	14:33:24
3	Be 313.107†	-3000.6	494.3	0.3067 µg/L	0.3067 ppb	14:33:03
3	Cd 226.502†	-115.9	11.7	0.3148 µg/L	0.3148 ppb	14:33:24
3	Co 228.616†	1.1	8.6	0.4137 µg/L	0.4137 ppb	14:33:24
3	Cr 267.716†	-6.6	39.5	0.8367 µg/L	0.8367 ppb	14:33:24
3	Cu 324.752†	3335.5	144.7	0.9697 µg/L	0.9697 ppb	14:33:03
3	Mn 257.610†	-134.1	94.8	0.3219 µg/L	0.3219 ppb	14:33:24
3	Mo 202.031†	2.3	6.4	0.6592 µg/L	0.6592 ppb	14:33:24
3	Ni 231.604†	296.9	13.2	0.7021 µg/L	0.7021 ppb	14:33:24
3	P 214.914†	18.0	-4.1	-8.7114 µg/L	-8.7114 ppb	14:33:24
3	Pb 220.353†	89.1	7.8	1.9962 µg/L	1.9962 ppb	14:33:24
3	S 181.975 Axial†	14.0	-2.2	-9.3663 µg/L	-9.3663 ppb	14:33:24
3	Sb 206.836†	28.2	6.8	6.4279 µg/L	6.4279 ppb	14:33:24
3	Se 196.026†	15.0	-0.6	-0.8223 µg/L	-0.8223 ppb	14:33:24
3	SiO2†	1598.4	75.9	15.718 µg/L	15.718 ppb	14:33:03
3	Si 251.611†	426.2	97.5	7.8258 µg/L	7.8258 ppb	14:33:24
3	Sn 189.927†	2.0	1.3	0.5734 µg/L	0.5734 ppb	14:33:24
3	Ti 334.940†	248.3	174.9	0.4044 µg/L	0.4044 ppb	14:33:03
3	Tl 190.801†	-24.0	-2.6	-3.6120 µg/L	-3.6120 ppb	14:33:24
3	U 409.014†	376.5	174.2	14.221 µg/L	14.221 ppb	14:33:03
3	V 292.402†	-12.9	34.4	0.3727 µg/L	0.3727 ppb	14:33:03
3	Zn 213.857†	563.5	23.2	0.5708 µg/L	0.5708 ppb	14:33:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1877480.2	98.642 %		0.3509			0.36%
Sc RADIAL	52240.8	99.0 %		0.54			0.55%
Y 371.029	1294754.3	98.730 %		0.3433			0.35%
Ag 328.068†	45.6	0.3487 µg/L		0.20850	0.3487 ppb	0.20850	59.80%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	4.1	2.9783 µg/L		7.20757	2.9783 ppb	7.20757	242.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.3	-0.6457 µg/L		2.69621	-0.6457 ppb	2.69621	417.54%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-66.1	-2.8353 µg/L		0.29470	-2.8353 ppb	0.29470	10.39%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	7.1	0.1833 µg/L		0.09612	0.1833 ppb	0.09612	52.44%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	270.7	0.1679 µg/L		0.12541	0.1679 ppb	0.12541	74.68%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.8	4.5170 µg/L		5.16418	4.5170 ppb	5.16418	114.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	5.4	0.1429 µg/L		0.19872	0.1429 ppb	0.19872	139.10%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	3.7	0.1813 µg/L		0.28984	0.1813 ppb	0.28984	159.87%

Cr	267.716†	33.0	0.6990 µg/L	0.14101	0.6990 ppb	0.14101	20.17%
	QC value within limits	for Cr 267.716	Recovery = Not calculated				
Cu	324.752†	76.1	0.5117 µg/L	0.47722	0.5117 ppb	0.47722	93.27%
	QC value within limits	for Cu 324.752	Recovery = Not calculated				
Fe	238.204 Radial†	2.3	20.376 µg/L	2.2814	20.376 ppb	2.2814	11.20%
	QC value within limits	for Fe 238.204 Radial	Recovery = Not calculated				
K	766.490 Radial†	10.4	7.0782 µg/L	35.42274	7.0782 ppb	35.42274	500.45%
	QC value within limits	for K 766.490 Radial	Recovery = Not calculated				
Mg	279.077 IEC†	-2.1	-20.513 µg/L	19.2347	-20.513 ppb	19.2347	93.77%
	QC value within limits	for Mg 279.077 IEC	Recovery = Not calculated				
Mn	257.610†	56.4	0.1924 µg/L	0.11568	0.1924 ppb	0.11568	60.14%
	QC value within limits	for Mn 257.610	Recovery = Not calculated				
Mo	202.031†	9.1	0.9448 µg/L	0.83328	0.9448 ppb	0.83328	88.20%
	QC value within limits	for Mo 202.031	Recovery = Not calculated				
Na	589.592 Radial†	7.8	2.3985 µg/L	6.62832	2.3985 ppb	6.62832	276.36%
	QC value within limits	for Na 589.592 Radial	Recovery = Not calculated				
Ni	231.604†	13.3	0.7074 µg/L	0.23237	0.7074 ppb	0.23237	32.85%
	QC value within limits	for Ni 231.604	Recovery = Not calculated				
P	214.914†	0.5	0.9016 µg/L	12.53450	0.9016 ppb	12.53450	>999.9%
	QC value within limits	for P 214.914	Recovery = Not calculated				
Pb	220.353†	10.6	2.7232 µg/L	0.90237	2.7232 ppb	0.90237	33.14%
	QC value within limits	for Pb 220.353	Recovery = Not calculated				
S	181.975 Axial†	-2.9	-12.712 µg/L	11.9162	-12.712 ppb	11.9162	93.74%
	QC value within limits	for S 181.975 Axial	Recovery = Not calculated				
Sb	206.836†	4.6	4.4103 µg/L	2.10842	4.4103 ppb	2.10842	47.81%
	QC value within limits	for Sb 206.836	Recovery = Not calculated				
Se	196.026†	-0.5	-0.7101 µg/L	3.96058	-0.7101 ppb	3.96058	557.74%
	QC value within limits	for Se 196.026	Recovery = Not calculated				
SiO2†		81.3	16.828 µg/L	1.5900	16.828 ppb	1.5900	9.45%
	QC value within limits	for SiO2	Recovery = Not calculated				
Si	251.611†	87.5	7.0220 µg/L	0.93396	7.0220 ppb	0.93396	13.30%
	QC value within limits	for Si 251.611	Recovery = Not calculated				
Sn	189.927†	1.8	0.8136 µg/L	0.30998	0.8136 ppb	0.30998	38.10%
	QC value within limits	for Sn 189.927	Recovery = Not calculated				
Sr	421.552†	15.2	0.1511 µg/L	0.28241	0.1511 ppb	0.28241	186.85%
	QC value within limits	for Sr 421.552	Recovery = Not calculated				
Ti	334.940†	153.1	0.3526 µg/L	0.06242	0.3526 ppb	0.06242	17.70%
	QC value within limits	for Ti 334.940	Recovery = Not calculated				
Tl	190.801†	-2.3	-3.1521 µg/L	4.84684	-3.1521 ppb	4.84684	153.76%
	QC value within limits	for Tl 190.801	Recovery = Not calculated				
U	409.014†	61.0	4.9783 µg/L	8.07725	4.9783 ppb	8.07725	162.25%
	QC value within limits	for U 409.014	Recovery = Not calculated				
V	292.402†	-0.8	0.0079 µg/L	0.34500	0.0079 ppb	0.34500	>999.9%
	QC value within limits	for V 292.402	Recovery = Not calculated				
Zn	213.857†	23.3	0.5734 µg/L	0.10532	0.5734 ppb	0.10532	18.37%
	QC value within limits	for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 15:04:44

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	52958.0	52958.0	100 %		15:05:22
1	Al 396.153Radial†	7090.9	7092.6	5129.5 µg/L	5129.5 ppb	15:05:22
1	Ca 317.933Radial†	5489.8	5287.4	5003.6 µg/L	5003.6 ppb	15:05:42
1	Fe 238.204 Radial†	578.1	560.4	5074.8 µg/L	5074.8 ppb	15:05:42
1	K 766.490 Radial†	7825.6	7551.0	5163.6 µg/L	5163.6 ppb	15:05:22
1	Mg 279.077 IEC†	550.3	535.7	5134.7 µg/L	5134.7 ppb	15:05:42
1	Na 589.592 Radial†	34023.5	33312.0	10303 µg/L	10303 ppb	15:05:22
1	Sr 421.552†	51666.4	51460.8	511.44 µg/L	511.44 ppb	15:05:22
1	Sc 361.383	1851780.0	1851780.0	97.292 %		15:06:42
1	Y 371.029	1272057.9	1272057.9	96.999 %		15:06:42
1	Ag 328.068†	66669.0	69023.5	529.66 µg/L	529.66 ppb	15:06:47
1	As 188.979†	268.8	275.4	524.06 µg/L	524.06 ppb	15:07:08
1	B 249.677†	12136.3	12020.0	512.21 µg/L	512.21 ppb	15:06:47
1	Ba 233.527†	19900.5	20474.9	526.07 µg/L	526.07 ppb	15:06:47
1	Be 313.107†	808960.2	835016.3	518.21 µg/L	518.21 ppb	15:06:42
1	Cd 226.502†	18919.0	19574.9	527.25 µg/L	527.25 ppb	15:06:47
1	Co 228.616†	10635.9	10939.4	528.19 µg/L	528.19 ppb	15:06:47
1	Cr 267.716†	24300.1	25022.6	530.38 µg/L	530.38 ppb	15:06:47
1	Cu 324.752†	79959.2	78945.8	528.43 µg/L	528.43 ppb	15:06:47
1	Mn 257.610†	152783.0	157266.7	527.39 µg/L	527.39 ppb	15:06:42
1	Mo 202.031†	5076.4	5221.7	540.37 µg/L	540.37 ppb	15:07:08
1	Ni 231.604†	9962.5	9951.8	527.51 µg/L	527.51 ppb	15:06:47
1	P 214.914†	1262.7	1275.5	2625.2 µg/L	2625.2 ppb	15:07:08
1	Pb 220.353†	2084.0	2059.5	529.23 µg/L	529.23 ppb	15:07:08
1	S 181.975 Axial†	262.2	253.1	1097.7 µg/L	1097.7 ppb	15:07:08
1	Sb 206.836†	570.0	564.1	537.29 µg/L	537.29 ppb	15:07:08
1	Se 196.026†	364.3	358.6	539.60 µg/L	539.60 ppb	15:07:08
1	SiO2†	28164.2	27402.6	5673.6 µg/L	5673.6 ppb	15:06:47
1	Si 251.611†	32446.0	33014.2	2649.3 µg/L	2649.3 ppb	15:06:47
1	Sn 189.927†	1179.4	1211.5	541.02 µg/L	541.02 ppb	15:07:08
1	Ti 334.940†	222257.3	228366.9	523.17 µg/L	523.17 ppb	15:06:42
1	Tl 190.801†	347.1	378.4	531.13 µg/L	531.13 ppb	15:07:08
1	U 409.014†	6436.9	6408.3	522.28 µg/L	522.28 ppb	15:06:47
1	V 292.402†	50429.7	51880.9	532.71 µg/L	532.71 ppb	15:06:47
1	Zn 213.857†	21381.1	21427.8	526.97 µg/L	526.97 ppb	15:06:47
2	Sc RADIAL	52243.7	52243.7	99.0 %		15:05:48
2	Al 396.153Radial†	7017.7	7115.2	5146.0 µg/L	5146.0 ppb	15:05:48
2	Ca 317.933Radial†	5472.7	5344.9	5058.0 µg/L	5058.0 ppb	15:06:08
2	Fe 238.204 Radial†	576.5	566.6	5131.3 µg/L	5131.3 ppb	15:06:08
2	K 766.490 Radial†	7705.1	7536.0	5153.3 µg/L	5153.3 ppb	15:05:48
2	Mg 279.077 IEC†	553.4	546.3	5236.1 µg/L	5236.1 ppb	15:06:08
2	Na 589.592 Radial†	33715.5	33464.5	10350 µg/L	10350 ppb	15:05:48
2	Sr 421.552†	51066.5	51558.9	512.41 µg/L	512.41 ppb	15:05:48
2	Sc 361.383	1851846.0	1851846.0	97.295 %		15:07:14
2	Y 371.029	1272600.2	1272600.2	97.040 %		15:07:14
2	Ag 328.068†	67019.0	69380.9	532.40 µg/L	532.40 ppb	15:07:20
2	As 188.979†	271.8	278.5	530.04 µg/L	530.04 ppb	15:07:40
2	B 249.677†	12187.1	12071.7	514.39 µg/L	514.39 ppb	15:07:20
2	Ba 233.527†	19938.8	20513.6	527.07 µg/L	527.07 ppb	15:07:20
2	Be 313.107†	810379.1	836445.0	519.10 µg/L	519.10 ppb	15:07:14
2	Cd 226.502†	18909.7	19564.8	526.97 µg/L	526.97 ppb	15:07:20
2	Co 228.616†	10650.5	10954.0	528.89 µg/L	528.89 ppb	15:07:20
2	Cr 267.716†	24308.4	25030.3	530.54 µg/L	530.54 ppb	15:07:20
2	Cu 324.752†	80394.9	79390.7	531.41 µg/L	531.41 ppb	15:07:20
2	Mn 257.610†	152855.7	157335.7	527.63 µg/L	527.63 ppb	15:07:14
2	Mo 202.031†	5063.1	5207.9	538.94 µg/L	538.94 ppb	15:07:40
2	Ni 231.604†	9999.7	9989.7	529.52 µg/L	529.52 ppb	15:07:20
2	P 214.914†	1251.7	1264.2	2601.1 µg/L	2601.1 ppb	15:07:40
2	Pb 220.353†	2099.0	2074.8	533.14 µg/L	533.14 ppb	15:07:40

2	S 181.975 Axial†	257.1	247.8	1074.9 µg/L	1074.9 ppb	15:07:40
2	Sb 206.836†	568.5	562.5	535.76 µg/L	535.76 ppb	15:07:40
2	Se 196.026†	371.7	366.2	550.85 µg/L	550.85 ppb	15:07:40
2	SiO2†	28288.3	27529.1	5699.8 µg/L	5699.8 ppb	15:07:20
2	Si 251.611†	32690.6	33264.5	2669.4 µg/L	2669.4 ppb	15:07:20
2	Sn 189.927†	1170.1	1201.9	536.75 µg/L	536.75 ppb	15:07:40
2	Ti 334.940†	222382.6	228487.6	523.44 µg/L	523.44 ppb	15:07:14
2	Tl 190.801†	349.2	380.6	534.16 µg/L	534.16 ppb	15:07:40
2	U 409.014†	6511.2	6484.4	528.48 µg/L	528.48 ppb	15:07:20
2	V 292.402†	50633.1	52088.1	534.81 µg/L	534.81 ppb	15:07:20
2	Zn 213.857†	21450.3	21498.1	528.69 µg/L	528.69 ppb	15:07:20
3	Sc RADIAL	52372.5	52372.5	99.2 %		15:06:13
3	Al 396.153Radial†	7082.5	7163.1	5182.2 µg/L	5182.2 ppb	15:06:13
3	Ca 317.933Radial†	5502.2	5361.0	5073.3 µg/L	5073.3 ppb	15:06:33
3	Fe 238.204 Radial†	579.4	568.1	5144.1 µg/L	5144.1 ppb	15:06:33
3	K 766.490 Radial†	7719.6	7531.5	5150.2 µg/L	5150.2 ppb	15:06:13
3	Mg 279.077 IEC†	555.9	547.4	5245.9 µg/L	5245.9 ppb	15:06:33
3	Na 589.592 Radial†	33864.1	33530.4	10370 µg/L	10370 ppb	15:06:13
3	Sr 421.552†	51377.3	51745.1	514.26 µg/L	514.26 ppb	15:06:13
3	Sc 361.383	1858035.0	1858035.0	97.620 %		15:07:47
3	Y 371.029	1275569.6	1275569.6	97.267 %		15:07:47
3	Ag 328.068†	64183.7	66247.0	508.25 µg/L	508.25 ppb	15:07:52
3	As 188.979†	242.5	247.6	471.16 µg/L	471.16 ppb	15:08:12
3	B 249.677†	11648.3	11478.1	488.92 µg/L	488.92 ppb	15:07:52
3	Ba 233.527†	18735.3	19212.4	493.62 µg/L	493.62 ppb	15:07:52
3	Be 313.107†	787942.8	810687.4	503.11 µg/L	503.11 ppb	15:07:47
3	Cd 226.502†	17674.8	18235.0	491.11 µg/L	491.11 ppb	15:07:52
3	Co 228.616†	9939.7	10189.5	491.91 µg/L	491.91 ppb	15:07:52
3	Cr 267.716†	22261.9	22850.7	484.34 µg/L	484.34 ppb	15:07:52
3	Cu 324.752†	75214.6	73808.9	494.10 µg/L	494.10 ppb	15:07:52
3	Mn 257.610†	149414.8	153287.6	514.06 µg/L	514.06 ppb	15:07:47
3	Mo 202.031†	4370.0	4480.5	463.69 µg/L	463.69 ppb	15:08:12
3	Ni 231.604†	9351.0	9291.0	492.49 µg/L	492.49 ppb	15:07:52
3	P 214.914†	1108.1	1112.7	2286.1 µg/L	2286.1 ppb	15:08:12
3	Pb 220.353†	1879.0	1842.3	473.32 µg/L	473.32 ppb	15:08:12
3	S 181.975 Axial†	239.3	228.8	992.10 µg/L	992.10 ppb	15:08:12
3	Sb 206.836†	505.5	496.0	472.05 µg/L	472.05 ppb	15:08:12
3	Se 196.026†	325.0	317.1	478.13 µg/L	478.13 ppb	15:08:12
3	SiO2†	27081.2	26195.8	5423.7 µg/L	5423.7 ppb	15:07:52
3	Si 251.611†	31164.8	31589.5	2535.0 µg/L	2535.0 ppb	15:07:52
3	Sn 189.927†	1001.8	1025.5	457.99 µg/L	457.99 ppb	15:08:12
3	Ti 334.940†	215628.9	220808.0	505.84 µg/L	505.84 ppb	15:07:47
3	Tl 190.801†	314.3	343.6	482.71 µg/L	482.71 ppb	15:08:12
3	U 409.014†	5944.0	5881.1	479.22 µg/L	479.22 ppb	15:07:52
3	V 292.402†	46803.5	47991.8	492.53 µg/L	492.53 ppb	15:07:52
3	Zn 213.857†	20065.9	20006.5	491.98 µg/L	491.98 ppb	15:07:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1853887.0	97.403 %	0.1887			0.19%
Sc RADIAL	52524.7	99.5 %	0.72			0.72%
Y 371.029	1273409.2	97.102 %	0.1442			0.15%
Ag 328.068†	68217.1	523.44 µg/L	13.223	523.44 ppb	13.223	2.53%
QC value within limits for Ag 328.068 Recovery = 104.69%						
Al 396.153Radial†	7123.6	5152.6 µg/L	26.94	5152.6 ppb	26.94	0.52%
QC value within limits for Al 396.153Radial Recovery = 103.05%						
As 188.979†	267.2	508.42 µg/L	32.406	508.42 ppb	32.406	6.37%
QC value within limits for As 188.979 Recovery = 101.68%						
B 249.677†	11856.6	505.17 µg/L	14.114	505.17 ppb	14.114	2.79%
QC value within limits for B 249.677 Recovery = 101.03%						
Ba 233.527†	20067.0	515.59 µg/L	19.029	515.59 ppb	19.029	3.69%
QC value within limits for Ba 233.527 Recovery = 103.12%						
Be 313.107†	827382.9	513.47 µg/L	8.984	513.47 ppb	8.984	1.75%
QC value within limits for Be 313.107 Recovery = 102.69%						
Ca 317.933Radial†	5331.1	5045.0 µg/L	36.64	5045.0 ppb	36.64	0.73%
QC value within limits for Ca 317.933Radial Recovery = 100.90%						
Cd 226.502†	19124.9	515.11 µg/L	20.785	515.11 ppb	20.785	4.03%
QC value within limits for Cd 226.502 Recovery = 103.02%						
Co 228.616†	10694.3	516.33 µg/L	21.154	516.33 ppb	21.154	4.10%

Cr	267.716†	24301.2	515.09 µg/L	26.624	515.09 ppb	26.624	5.17%
Cu	324.752†	77381.8	517.98 µg/L	20.734	517.98 ppb	20.734	4.00%
Fe	238.204 Radial†	565.0	5116.7 µg/L	36.89	5116.7 ppb	36.89	0.72%
K	766.490 Radial†	7539.5	5155.7 µg/L	7.01	5155.7 ppb	7.01	0.14%
Mg	279.077 IEC†	543.1	5205.6 µg/L	61.54	5205.6 ppb	61.54	1.18%
Mn	257.610†	155963.3	523.03 µg/L	7.763	523.03 ppb	7.763	1.48%
Mo	202.031†	4970.1	514.33 µg/L	43.861	514.33 ppb	43.861	8.53%
Na	589.592 Radial†	33435.7	10341 µg/L	34.6	10341 ppb	34.6	0.34%
Ni	231.604†	9744.2	516.50 µg/L	20.824	516.50 ppb	20.824	4.03%
P	214.914†	1217.5	2504.2 µg/L	189.20	2504.2 ppb	189.20	7.56%
Pb	220.353†	1992.2	511.90 µg/L	33.465	511.90 ppb	33.465	6.54%
S	181.975 Axial†	243.2	1054.9 µg/L	55.55	1054.9 ppb	55.55	5.27%
Sb	206.836†	540.9	515.03 µg/L	37.230	515.03 ppb	37.230	7.23%
Se	196.026†	347.3	522.86 µg/L	39.143	522.86 ppb	39.143	7.49%
SiO2†		27042.5	5599.0 µg/L	152.39	5599.0 ppb	152.39	2.72%
Si	251.611†	32622.8	2617.9 µg/L	72.51	2617.9 ppb	72.51	2.77%
Sn	189.927†	1146.3	511.92 µg/L	46.751	511.92 ppb	46.751	9.13%
Sr	421.552†	51588.2	512.71 µg/L	1.435	512.71 ppb	1.435	0.28%
Ti	334.940†	225887.5	517.48 µg/L	10.087	517.48 ppb	10.087	1.95%
Tl	190.801†	367.6	516.00 µg/L	28.871	516.00 ppb	28.871	5.60%
U	409.014†	6258.0	509.99 µg/L	26.833	509.99 ppb	26.833	5.26%
V	292.402†	50653.6	520.02 µg/L	23.827	520.02 ppb	23.827	4.58%
Zn	213.857†	20977.5	515.88 µg/L	20.721	515.88 ppb	20.721	4.02%

QC value within limits for Co 228.616 Recovery = 103.27%
 QC value within limits for Cr 267.716 Recovery = 103.02%
 QC value within limits for Cu 324.752 Recovery = 103.60%
 QC value within limits for Fe 238.204 Radial Recovery = 102.33%
 QC value within limits for K 766.490 Radial Recovery = 103.11%
 QC value within limits for Mg 279.077 IEC Recovery = 104.11%
 QC value within limits for Mn 257.610 Recovery = 104.61%
 QC value within limits for Mo 202.031 Recovery = 102.87%
 QC value within limits for Na 589.592 Radial Recovery = 103.41%
 QC value within limits for Ni 231.604 Recovery = 103.30%
 QC value within limits for P 214.914 Recovery = 100.17%
 QC value within limits for Pb 220.353 Recovery = 102.38%
 QC value within limits for S 181.975 Axial Recovery = 105.49%
 QC value within limits for Sb 206.836 Recovery = 103.01%
 QC value within limits for Se 196.026 Recovery = 104.57%
 QC value within limits for SiO2 Recovery = 104.70%
 QC value within limits for Si 251.611 Recovery = 104.72%
 QC value within limits for Sn 189.927 Recovery = 102.38%
 QC value within limits for Sr 421.552 Recovery = 102.54%
 QC value within limits for Ti 334.940 Recovery = 103.50%
 QC value within limits for Tl 190.801 Recovery = 103.20%
 QC value within limits for U 409.014 Recovery = 102.00%
 QC value within limits for V 292.402 Recovery = 104.00%
 QC value within limits for Zn 213.857 Recovery = 103.18%

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 15:08:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51554.1	51554.1	97.7 %		15:08:52
1	Al 396.153Radial†	-28.9	-3.2	-2.3046 µg/L	-2.3046 ppb	15:08:52
1	Ca 317.933Radial†	186.4	7.6	7.1917 µg/L	7.1917 ppb	15:09:12
1	Fe 238.204 Radial†	15.7	0.3	2.8743 µg/L	2.8743 ppb	15:09:12
1	K 766.490 Radial†	244.8	3.4	2.3368 µg/L	2.3368 ppb	15:08:52
1	Mg 279.077 IEC†	10.7	-1.7	-16.526 µg/L	-16.526 ppb	15:09:12
1	Na 589.592 Radial†	572.6	-6.4	-1.9749 µg/L	-1.9749 ppb	15:08:52
1	Sr 421.552†	91.7	68.9	0.6844 µg/L	0.6844 ppb	15:08:52
1	Sc 361.383	1841539.3	1841539.3	96.754 %		15:10:11
1	Y 371.029	1267650.1	1267650.1	96.663 %		15:10:11
1	Ag 328.068†	-418.6	66.1	0.5043 µg/L	0.5043 ppb	15:10:16
1	As 188.979†	-1.5	-2.4	-4.5363 µg/L	-4.5363 ppb	15:10:36
1	B 249.677†	336.9	-106.0	-4.5348 µg/L	-4.5348 ppb	15:10:36
1	Ba 233.527†	-10.9	9.2	0.2359 µg/L	0.2359 ppb	15:10:36
1	Be 313.107†	-3378.1	46.8	0.0290 µg/L	0.0290 ppb	15:10:16
1	Cd 226.502†	-132.9	-8.0	-0.2136 µg/L	-0.2136 ppb	15:10:36
1	Co 228.616†	-14.4	-7.5	-0.3616 µg/L	-0.3616 ppb	15:10:36
1	Cr 267.716†	-29.6	15.5	0.3292 µg/L	0.3292 ppb	15:10:36
1	Cu 324.752†	3232.2	101.6	0.6793 µg/L	0.6793 ppb	15:10:16
1	Mn 257.610†	-214.9	8.7	0.0302 µg/L	0.0302 ppb	15:10:36
1	Mo 202.031†	-1.9	2.1	0.2170 µg/L	0.2170 ppb	15:10:36
1	Ni 231.604†	297.3	19.3	1.0231 µg/L	1.0231 ppb	15:10:36
1	P 214.914†	26.3	4.9	10.198 µg/L	10.198 ppb	15:10:36
1	Pb 220.353†	83.0	3.2	0.8204 µg/L	0.8204 ppb	15:10:36
1	S 181.975 Axial†	17.8	2.0	8.7677 µg/L	8.7677 ppb	15:10:36
1	Sb 206.836†	25.4	4.4	4.1873 µg/L	4.1873 ppb	15:10:36
1	Se 196.026†	15.4	0.1	0.0975 µg/L	0.0975 ppb	15:10:36
1	SiO2†	1551.2	57.7	11.937 µg/L	11.937 ppb	15:10:16
1	Si 251.611†	345.9	22.7	1.8179 µg/L	1.8179 ppb	15:10:36
1	Sn 189.927†	3.4	2.8	1.2561 µg/L	1.2561 ppb	15:10:36
1	Ti 334.940†	100.9	27.3	0.0641 µg/L	0.0641 ppb	15:10:16
1	Tl 190.801†	-20.9	0.1	0.1069 µg/L	0.1069 ppb	15:10:36
1	U 409.014†	230.5	30.4	2.4844 µg/L	2.4844 ppb	15:10:16
1	V 292.402†	-40.5	5.6	0.0621 µg/L	0.0621 ppb	15:10:16
1	Zn 213.857†	561.4	31.8	0.7827 µg/L	0.7827 ppb	15:10:36
2	Sc RADIAL	51987.3	51987.3	98.5 %		15:09:17
2	Al 396.153Radial†	-23.0	3.1	2.2450 µg/L	2.2450 ppb	15:09:17
2	Ca 317.933Radial†	182.9	2.4	2.2770 µg/L	2.2770 ppb	15:09:38
2	Fe 238.204 Radial†	16.9	1.4	13.084 µg/L	13.084 ppb	15:09:38
2	K 766.490 Radial†	276.3	33.3	22.765 µg/L	22.765 ppb	15:09:17
2	Mg 279.077 IEC†	9.9	-2.7	-25.890 µg/L	-25.890 ppb	15:09:38
2	Na 589.592 Radial†	567.6	-16.3	-5.0464 µg/L	-5.0464 ppb	15:09:17
2	Sr 421.552†	53.0	28.8	0.2861 µg/L	0.2861 ppb	15:09:17
2	Sc 361.383	1863180.7	1863180.7	97.891 %		15:10:42
2	Y 371.029	1284054.7	1284054.7	97.914 %		15:10:42
2	Ag 328.068†	-487.8	0.4	0.0051 µg/L	0.0051 ppb	15:10:47
2	As 188.979†	1.9	1.1	2.0778 µg/L	2.0778 ppb	15:11:07
2	B 249.677†	347.5	-99.2	-4.2474 µg/L	-4.2474 ppb	15:11:07
2	Ba 233.527†	-17.6	2.5	0.0655 µg/L	0.0655 ppb	15:11:07
2	Be 313.107†	-3252.9	215.3	0.1335 µg/L	0.1335 ppb	15:10:47
2	Cd 226.502†	-123.7	3.0	0.0807 µg/L	0.0807 ppb	15:11:07
2	Co 228.616†	-3.7	3.7	0.1782 µg/L	0.1782 ppb	15:11:07
2	Cr 267.716†	-21.8	23.9	0.5065 µg/L	0.5065 ppb	15:11:07
2	Cu 324.752†	3191.9	21.6	0.1460 µg/L	0.1460 ppb	15:10:47
2	Mn 257.610†	-163.0	64.3	0.2181 µg/L	0.2181 ppb	15:11:07
2	Mo 202.031†	8.6	12.8	1.3280 µg/L	1.3280 ppb	15:11:07
2	Ni 231.604†	295.1	13.5	0.7140 µg/L	0.7140 ppb	15:11:07
2	P 214.914†	22.2	0.4	0.7147 µg/L	0.7147 ppb	15:11:07
2	Pb 220.353†	91.8	11.2	2.8844 µg/L	2.8844 ppb	15:11:07

2	S 181.975 Axial†	14.9	-1.2	-5.0956 µg/L	-5.0956 ppb	15:11:07
2	Sb 206.836†	21.2	-0.2	-0.1644 µg/L	-0.1644 ppb	15:11:07
2	Se 196.026†	19.6	4.2	6.3373 µg/L	6.3373 ppb	15:11:07
2	SiO2†	1509.2	-3.9	-0.7977 µg/L	-0.7977 ppb	15:10:47
2	Si 251.611†	370.1	43.2	3.4680 µg/L	3.4680 ppb	15:11:07
2	Sn 189.927†	1.3	0.7	0.2933 µg/L	0.2933 ppb	15:11:07
2	Ti 334.940†	237.6	165.7	0.3820 µg/L	0.3820 ppb	15:10:47
2	Tl 190.801†	-22.2	-0.9	-1.2717 µg/L	-1.2717 ppb	15:11:07
2	U 409.014†	233.2	30.4	2.4845 µg/L	2.4845 ppb	15:10:47
2	V 292.402†	-32.6	14.2	0.1591 µg/L	0.1591 ppb	15:10:47
2	Zn 213.857†	561.6	25.2	0.6207 µg/L	0.6207 ppb	15:11:07
3	Sc RADIAL	51641.9	51641.9	97.9 %		15:09:43
3	Al 396.153Radial†	-9.2	17.0	12.311 µg/L	12.311 ppb	15:09:43
3	Ca 317.933Radial†	180.8	1.6	1.4738 µg/L	1.4738 ppb	15:10:03
3	Fe 238.204 Radial†	14.6	-0.8	-7.1975 µg/L	-7.1975 ppb	15:10:03
3	K 766.490 Radial†	281.8	40.8	27.915 µg/L	27.915 ppb	15:09:43
3	Mg 279.077 IEC†	14.2	1.8	17.531 µg/L	17.531 ppb	15:10:03
3	Na 589.592 Radial†	570.7	-9.3	-2.8728 µg/L	-2.8728 ppb	15:09:43
3	Sr 421.552†	57.8	34.1	0.3387 µg/L	0.3387 ppb	15:09:43
3	Sc 361.383	1865513.0	1865513.0	98.013 %		15:11:13
3	Y 371.029	1286622.0	1286622.0	98.110 %		15:11:13
3	Ag 328.068†	-454.3	35.3	0.2725 µg/L	0.2725 ppb	15:11:18
3	As 188.979†	-0.8	-1.7	-3.1898 µg/L	-3.1898 ppb	15:11:39
3	B 249.677†	359.6	-87.3	-3.7273 µg/L	-3.7273 ppb	15:11:39
3	Ba 233.527†	-4.5	15.8	0.4073 µg/L	0.4073 ppb	15:11:39
3	Be 313.107†	-2868.9	611.2	0.3792 µg/L	0.3792 ppb	15:11:18
3	Cd 226.502†	-125.1	1.7	0.0485 µg/L	0.0485 ppb	15:11:39
3	Co 228.616†	-1.9	5.5	0.2655 µg/L	0.2655 ppb	15:11:39
3	Cr 267.716†	-19.0	26.8	0.5679 µg/L	0.5679 ppb	15:11:39
3	Cu 324.752†	3319.8	148.0	0.9883 µg/L	0.9883 ppb	15:11:18
3	Mn 257.610†	-110.8	117.8	0.3930 µg/L	0.3930 ppb	15:11:39
3	Mo 202.031†	4.2	8.4	0.8648 µg/L	0.8648 ppb	15:11:39
3	Ni 231.604†	296.2	14.2	0.7532 µg/L	0.7532 ppb	15:11:39
3	P 214.914†	14.9	-7.1	-14.936 µg/L	-14.936 ppb	15:11:39
3	Pb 220.353†	87.1	6.3	1.6121 µg/L	1.6121 ppb	15:11:39
3	S 181.975 Axial†	12.4	-3.7	-15.908 µg/L	-15.908 ppb	15:11:39
3	Sb 206.836†	26.3	5.0	4.7256 µg/L	4.7256 ppb	15:11:39
3	Se 196.026†	20.2	4.8	7.0462 µg/L	7.0462 ppb	15:11:39
3	SiO2†	1572.8	59.1	12.235 µg/L	12.235 ppb	15:11:18
3	Si 251.611†	394.4	67.5	5.4160 µg/L	5.4160 ppb	15:11:39
3	Sn 189.927†	2.9	2.3	1.0322 µg/L	1.0322 ppb	15:11:39
3	Ti 334.940†	366.1	296.6	0.6784 µg/L	0.6784 ppb	15:11:18
3	Tl 190.801†	-14.7	6.7	9.3682 µg/L	9.3682 ppb	15:11:39
3	U 409.014†	275.1	72.9	5.9519 µg/L	5.9519 ppb	15:11:18
3	V 292.402†	7.9	55.5	0.5762 µg/L	0.5762 ppb	15:11:18
3	Zn 213.857†	565.5	28.5	0.7008 µg/L	0.7008 ppb	15:11:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1856744.3	97.553 %	0.6945			0.71%
Sc RADIAL	51727.8	98.0 %	0.43			0.44%
Y 371.029	1279442.3	97.562 %	0.7849			0.80%
Ag 328.068†	34.0	0.2606 µg/L	0.24981	0.2606 ppb	0.24981	95.84%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.7	4.0837 µg/L	7.47901	4.0837 ppb	7.47901	183.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.0	-1.8828 µg/L	3.49539	-1.8828 ppb	3.49539	185.65%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-97.5	-4.1698 µg/L	0.40932	-4.1698 ppb	0.40932	9.82%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.2	0.2362 µg/L	0.17089	0.2362 ppb	0.17089	72.34%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	291.1	0.1806 µg/L	0.17976	0.1806 ppb	0.17976	99.55%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.9	3.6475 µg/L	3.09557	3.6475 ppb	3.09557	84.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-1.1	-0.0281 µg/L	0.16145	-0.0281 ppb	0.16145	573.76%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.6	0.0274 µg/L	0.33966	0.0274 ppb	0.33966	>999.9%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	22.1	0.4679 µg/L	0.12393	0.4679 ppb	0.12393	26.49%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	90.4	0.6045 µg/L	0.42613	0.6045 ppb	0.42613	70.49%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	0.3	2.9204 µg/L	10.14106	2.9204 ppb	10.14106	347.25%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	25.8	17.672 µg/L	13.5284	17.672 ppb	13.5284	76.55%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-0.9	-8.2951 µg/L	22.85088	-8.2951 ppb	22.85088	275.47%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	63.6	0.2138 µg/L	0.18145	0.2138 ppb	0.18145	84.88%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	7.8	0.8033 µg/L	0.55805	0.8033 ppb	0.55805	69.47%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-10.7	-3.2980 µg/L	1.57927	-3.2980 ppb	1.57927	47.89%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	15.6	0.8301 µg/L	0.16828	0.8301 ppb	0.16828	20.27%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-0.6	-1.3411 µg/L	12.69266	-1.3411 ppb	12.69266	946.44%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	6.9	1.7723 µg/L	1.04128	1.7723 ppb	1.04128	58.75%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-0.9	-4.0786 µg/L	12.36918	-4.0786 ppb	12.36918	303.27%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	3.1	2.9162 µg/L	2.68137	2.9162 ppb	2.68137	91.95%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	3.0	4.4937 µg/L	3.82362	4.4937 ppb	3.82362	85.09%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	37.6	7.7914 µg/L	7.43982	7.7914 ppb	7.43982	95.49%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	44.5	3.5673 µg/L	1.80110	3.5673 ppb	1.80110	50.49%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	1.9	0.8605 µg/L	0.50387	0.8605 ppb	0.50387	58.55%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	43.9	0.4364 µg/L	0.21637	0.4364 ppb	0.21637	49.58%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	163.2	0.3748 µg/L	0.30726	0.3748 ppb	0.30726	81.97%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	2.0	2.7345 µg/L	5.78621	2.7345 ppb	5.78621	211.60%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	44.6	3.6403 µg/L	2.00194	3.6403 ppb	2.00194	54.99%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	25.1	0.2658 µg/L	0.27314	0.2658 ppb	0.27314	102.77%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	28.5	0.7014 µg/L	0.08101	0.7014 ppb	0.08101	11.55%
	QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 26

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 15:46:25

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	51062.9	51062.9	96.8 %		15:47:03
1	Al 396.153Radial†	6950.0	7209.2	5214.0 µg/L	5214.0 ppb	15:47:03
1	Ca 317.933Radial†	5437.2	5436.0	5144.3 µg/L	5144.3 ppb	15:47:23
1	Fe 238.204 Radial†	575.0	578.5	5239.0 µg/L	5239.0 ppb	15:47:23
1	K 766.490 Radial†	7653.7	7662.9	5240.1 µg/L	5240.1 ppb	15:47:03
1	Mg 279.077 IEC†	548.1	553.7	5307.3 µg/L	5307.3 ppb	15:47:23
1	Na 589.592 Radial†	33327.0	33850.6	10469 µg/L	10469 ppb	15:47:03
1	Sr 421.552†	50286.6	51945.6	516.26 µg/L	516.26 ppb	15:47:03
1	Sc 361.383	1871078.9	1871078.9	98.306 %		15:48:22
1	Y 371.029	1283474.4	1283474.4	97.870 %		15:48:22
1	Ag 328.068†	67300.5	68959.2	529.19 µg/L	529.19 ppb	15:48:28
1	As 188.979†	278.1	282.0	536.65 µg/L	536.65 ppb	15:48:48
1	B 249.677†	12242.8	11999.6	511.25 µg/L	511.25 ppb	15:48:28
1	Ba 233.527†	20158.1	20526.0	527.38 µg/L	527.38 ppb	15:48:28
1	Be 313.107†	826749.8	844536.3	524.12 µg/L	524.12 ppb	15:48:22
1	Cd 226.502†	19106.3	19565.0	526.96 µg/L	526.96 ppb	15:48:28
1	Co 228.616†	10782.3	10975.5	529.93 µg/L	529.93 ppb	15:48:28
1	Cr 267.716†	24551.4	25020.7	530.33 µg/L	530.33 ppb	15:48:28
1	Cu 324.752†	80732.3	78884.5	528.04 µg/L	528.04 ppb	15:48:28
1	Mn 257.610†	156115.7	159037.0	533.34 µg/L	533.34 ppb	15:48:22
1	Mo 202.031†	5140.3	5233.0	541.53 µg/L	541.53 ppb	15:48:48
1	Ni 231.604†	10107.9	9994.1	529.75 µg/L	529.75 ppb	15:48:28
1	P 214.914†	1280.8	1280.6	2635.8 µg/L	2635.8 ppb	15:48:48
1	Pb 220.353†	2121.4	2075.5	533.34 µg/L	533.34 ppb	15:48:48
1	S 181.975 Axial†	263.5	251.7	1091.6 µg/L	1091.6 ppb	15:48:48
1	Sb 206.836†	578.0	566.1	539.24 µg/L	539.24 ppb	15:48:48
1	Se 196.026†	362.2	352.7	531.03 µg/L	531.03 ppb	15:48:48
1	SiO2†	28219.7	27160.5	5623.5 µg/L	5623.5 ppb	15:48:28
1	Si 251.611†	32541.0	32766.9	2629.5 µg/L	2629.5 ppb	15:48:28
1	Sn 189.927†	1194.4	1214.3	542.29 µg/L	542.29 ppb	15:48:48
1	Ti 334.940†	226668.2	230497.7	528.05 µg/L	528.05 ppb	15:48:22
1	Tl 190.801†	350.5	378.3	530.99 µg/L	530.99 ppb	15:48:48
1	U 409.014†	6478.4	6382.3	520.12 µg/L	520.12 ppb	15:48:28
1	V 292.402†	51038.7	51965.7	533.59 µg/L	533.59 ppb	15:48:28
1	Zn 213.857†	21619.8	21443.9	527.34 µg/L	527.34 ppb	15:48:28
2	Sc RADIAL	52873.0	52873.0	100 %		15:47:28
2	Al 396.153Radial†	7177.8	7190.7	5200.6 µg/L	5200.6 ppb	15:47:28
2	Ca 317.933Radial†	5582.3	5388.5	5099.3 µg/L	5099.3 ppb	15:47:48
2	Fe 238.204 Radial†	589.8	572.9	5188.4 µg/L	5188.4 ppb	15:47:48
2	K 766.490 Radial†	7807.3	7545.3	5159.7 µg/L	5159.7 ppb	15:47:28
2	Mg 279.077 IEC†	561.5	547.7	5250.2 µg/L	5250.2 ppb	15:47:48
2	Na 589.592 Radial†	34223.4	33566.1	10381 µg/L	10381 ppb	15:47:28
2	Sr 421.552†	52190.6	52066.8	517.46 µg/L	517.46 ppb	15:47:28
2	Sc 361.383	1862138.3	1862138.3	97.836 %		15:48:55
2	Y 371.029	1278674.6	1278674.6	97.504 %		15:48:55
2	Ag 328.068†	67406.1	69395.8	532.53 µg/L	532.53 ppb	15:49:00
2	As 188.979†	278.5	283.8	540.06 µg/L	540.06 ppb	15:49:20
2	B 249.677†	12287.7	12105.3	515.80 µg/L	515.80 ppb	15:49:00
2	Ba 233.527†	20204.2	20671.6	531.12 µg/L	531.12 ppb	15:49:00
2	Be 313.107†	822955.0	844695.5	524.22 µg/L	524.22 ppb	15:48:55
2	Cd 226.502†	19085.8	19637.3	528.92 µg/L	528.92 ppb	15:49:00
2	Co 228.616†	10780.3	11026.2	532.38 µg/L	532.38 ppb	15:49:00
2	Cr 267.716†	24604.4	25194.7	534.02 µg/L	534.02 ppb	15:49:00
2	Cu 324.752†	80718.9	79265.2	530.58 µg/L	530.58 ppb	15:49:00
2	Mn 257.610†	155067.8	158728.5	532.30 µg/L	532.30 ppb	15:48:55
2	Mo 202.031†	5117.7	5234.9	541.73 µg/L	541.73 ppb	15:49:20
2	Ni 231.604†	10127.6	10063.6	533.44 µg/L	533.44 ppb	15:49:00
2	P 214.914†	1263.6	1269.2	2611.8 µg/L	2611.8 ppb	15:49:20
2	Pb 220.353†	2106.8	2070.8	532.14 µg/L	532.14 ppb	15:49:20

2	S 181.975 Axial†	258.2	247.6	1073.8 µg/L	1073.8 ppb	15:49:20
2	Sb 206.836†	573.3	564.2	537.38 µg/L	537.38 ppb	15:49:20
2	Se 196.026†	368.9	361.3	543.70 µg/L	543.70 ppb	15:49:20
2	SiO2†	28286.2	27366.3	5666.1 µg/L	5666.1 ppb	15:49:00
2	Si 251.611†	32627.7	33014.5	2649.4 µg/L	2649.4 ppb	15:49:00
2	Sn 189.927†	1193.6	1219.3	544.49 µg/L	544.49 ppb	15:49:20
2	Ti 334.940†	225475.7	230385.8	527.79 µg/L	527.79 ppb	15:48:55
2	Tl 190.801†	348.9	378.3	531.02 µg/L	531.02 ppb	15:49:20
2	U 409.014†	6433.9	6368.4	519.00 µg/L	519.00 ppb	15:49:00
2	V 292.402†	51079.3	52256.5	536.54 µg/L	536.54 ppb	15:49:00
2	Zn 213.857†	21632.8	21562.8	530.28 µg/L	530.28 ppb	15:49:00
3	Sc RADIAL	52811.8	52811.8	100 %		15:47:53
3	Al 396.153Radial†	7140.3	7161.5	5180.8 µg/L	5180.8 ppb	15:47:53
3	Ca 317.933Radial†	5573.4	5386.1	5097.0 µg/L	5097.0 ppb	15:48:13
3	Fe 238.204 Radial†	584.0	567.8	5141.9 µg/L	5141.9 ppb	15:48:13
3	K 766.490 Radial†	7816.3	7563.3	5172.0 µg/L	5172.0 ppb	15:47:53
3	Mg 279.077 IEC†	557.3	544.1	5214.7 µg/L	5214.7 ppb	15:48:13
3	Na 589.592 Radial†	34275.5	33657.8	10409 µg/L	10409 ppb	15:47:53
3	Sr 421.552†	52134.6	52071.2	517.51 µg/L	517.51 ppb	15:47:53
3	Sc 361.383	1858797.4	1858797.4	97.661 %		15:49:27
3	Y 371.029	1275827.8	1275827.8	97.287 %		15:49:27
3	Ag 328.068†	65543.3	67612.2	518.74 µg/L	518.74 ppb	15:49:32
3	As 188.979†	246.3	251.3	478.28 µg/L	478.28 ppb	15:49:53
3	B 249.677†	11908.3	11739.4	500.12 µg/L	500.12 ppb	15:49:32
3	Ba 233.527†	19260.0	19741.9	507.23 µg/L	507.23 ppb	15:49:32
3	Be 313.107†	795342.9	817933.7	507.61 µg/L	507.61 ppb	15:49:27
3	Cd 226.502†	18246.8	18813.3	506.70 µg/L	506.70 ppb	15:49:32
3	Co 228.616†	10164.7	10415.6	502.84 µg/L	502.84 ppb	15:49:32
3	Cr 267.716†	22896.7	23491.3	497.92 µg/L	497.92 ppb	15:49:32
3	Cu 324.752†	76783.2	75383.5	504.63 µg/L	504.63 ppb	15:49:32
3	Mn 257.610†	150618.7	154457.6	517.98 µg/L	517.98 ppb	15:49:27
3	Mo 202.031†	4459.7	4570.6	473.01 µg/L	473.01 ppb	15:49:53
3	Ni 231.604†	9626.7	9569.3	507.24 µg/L	507.24 ppb	15:49:32
3	P 214.914†	1123.1	1127.6	2316.4 µg/L	2316.4 ppb	15:49:53
3	Pb 220.353†	1906.5	1869.7	480.35 µg/L	480.35 ppb	15:49:53
3	S 181.975 Axial†	233.0	222.2	963.81 µg/L	963.81 ppb	15:49:53
3	Sb 206.836†	521.3	512.0	487.17 µg/L	487.17 ppb	15:49:53
3	Se 196.026†	336.0	328.2	494.61 µg/L	494.61 ppb	15:49:53
3	SiO2†	27336.6	26445.9	5475.5 µg/L	5475.5 ppb	15:49:32
3	Si 251.611†	31452.6	31871.2	2557.6 µg/L	2557.6 ppb	15:49:32
3	Sn 189.927†	1015.5	1039.1	464.05 µg/L	464.05 ppb	15:49:53
3	Ti 334.940†	217527.2	222661.1	510.09 µg/L	510.09 ppb	15:49:27
3	Tl 190.801†	320.0	349.3	490.66 µg/L	490.66 ppb	15:49:53
3	U 409.014†	6124.7	6063.6	494.12 µg/L	494.12 ppb	15:49:32
3	V 292.402†	48071.5	49270.5	505.62 µg/L	505.62 ppb	15:49:32
3	Zn 213.857†	20533.0	20476.4	503.53 µg/L	503.53 ppb	15:49:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1864004.9	97.934 %	0.3336			0.34%
Sc RADIAL	52249.2	99.0 %	1.95			1.97%
Y 371.029	1279325.6	97.553 %	0.2947			0.30%
Ag 328.068†	68655.7	526.82 µg/L	7.194	526.82 ppb	7.194	1.37%
QC value within limits for Ag 328.068 Recovery = 105.36%						
Al 396.153Radial†	7187.1	5198.5 µg/L	16.69	5198.5 ppb	16.69	0.32%
QC value within limits for Al 396.153Radial Recovery = 103.97%						
As 188.979†	272.4	518.33 µg/L	34.724	518.33 ppb	34.724	6.70%
QC value within limits for As 188.979 Recovery = 103.67%						
B 249.677†	11948.1	509.06 µg/L	8.067	509.06 ppb	8.067	1.58%
QC value within limits for B 249.677 Recovery = 101.81%						
Ba 233.527†	20313.1	521.91 µg/L	12.855	521.91 ppb	12.855	2.46%
QC value within limits for Ba 233.527 Recovery = 104.38%						
Be 313.107†	835721.8	518.65 µg/L	9.560	518.65 ppb	9.560	1.84%
QC value within limits for Be 313.107 Recovery = 103.73%						
Ca 317.933Radial†	5403.5	5113.5 µg/L	26.64	5113.5 ppb	26.64	0.52%
QC value within limits for Ca 317.933Radial Recovery = 102.27%						
Cd 226.502†	19338.5	520.86 µg/L	12.301	520.86 ppb	12.301	2.36%
QC value within limits for Cd 226.502 Recovery = 104.17%						
Co 228.616†	10805.8	521.72 µg/L	16.394	521.72 ppb	16.394	3.14%

Cr	267.716†	24568.9	520.76 µg/L	19.864	520.76 ppb	19.864	3.81%
Cu	324.752†	77844.4	521.08 µg/L	14.309	521.08 ppb	14.309	2.75%
Fe	238.204 Radial†	573.1	5189.8 µg/L	48.54	5189.8 ppb	48.54	0.94%
K	766.490 Radial†	7590.5	5190.6 µg/L	43.29	5190.6 ppb	43.29	0.83%
Mg	279.077 IEC†	548.5	5257.4 µg/L	46.70	5257.4 ppb	46.70	0.89%
Mn	257.610†	157407.7	527.87 µg/L	8.580	527.87 ppb	8.580	1.63%
Mo	202.031†	5012.8	518.76 µg/L	39.618	518.76 ppb	39.618	7.64%
Na	589.592 Radial†	33691.5	10420 µg/L	44.9	10420 ppb	44.9	0.43%
Ni	231.604†	9875.7	523.48 µg/L	14.180	523.48 ppb	14.180	2.71%
P	214.914†	1225.8	2521.4 µg/L	177.92	2521.4 ppb	177.92	7.06%
Pb	220.353†	2005.3	515.28 µg/L	30.256	515.28 ppb	30.256	5.87%
S	181.975 Axial†	240.5	1043.1 µg/L	69.23	1043.1 ppb	69.23	6.64%
Sb	206.836†	547.4	521.26 µg/L	29.542	521.26 ppb	29.542	5.67%
Se	196.026†	347.4	523.11 µg/L	25.483	523.11 ppb	25.483	4.87%
SiO2†		26990.9	5588.4 µg/L	100.01	5588.4 ppb	100.01	1.79%
Si	251.611†	32550.8	2612.2 µg/L	48.27	2612.2 ppb	48.27	1.85%
Sn	189.927†	1157.6	516.94 µg/L	45.820	516.94 ppb	45.820	8.86%
Sr	421.552†	52027.9	517.08 µg/L	0.708	517.08 ppb	0.708	0.14%
Ti	334.940†	227848.2	521.98 µg/L	10.296	521.98 ppb	10.296	1.97%
Tl	190.801†	368.7	517.56 µg/L	23.291	517.56 ppb	23.291	4.50%
U	409.014†	6271.4	511.08 µg/L	14.702	511.08 ppb	14.702	2.88%
V	292.402†	51164.2	525.25 µg/L	17.068	525.25 ppb	17.068	3.25%
Zn	213.857†	21161.0	520.38 µg/L	14.668	520.38 ppb	14.668	2.82%

QC value within limits for Co 228.616 Recovery = 104.34%
 QC value within limits for Cr 267.716 Recovery = 104.15%
 QC value within limits for Cu 324.752 Recovery = 104.22%
 QC value within limits for Fe 238.204 Radial Recovery = 103.80%
 QC value within limits for K 766.490 Radial Recovery = 103.81%
 QC value within limits for Mg 279.077 IEC Recovery = 105.15%
 QC value within limits for Mn 257.610 Recovery = 105.57%
 QC value within limits for Mo 202.031 Recovery = 103.75%
 QC value within limits for Na 589.592 Radial Recovery = 104.20%
 QC value within limits for Ni 231.604 Recovery = 104.70%
 QC value within limits for P 214.914 Recovery = 100.85%
 QC value within limits for Pb 220.353 Recovery = 103.06%
 QC value within limits for S 181.975 Axial Recovery = 104.31%
 QC value within limits for Sb 206.836 Recovery = 104.25%
 QC value within limits for Se 196.026 Recovery = 104.62%
 QC value within limits for SiO2 Recovery = 104.50%
 QC value within limits for Si 251.611 Recovery = 104.49%
 QC value within limits for Sn 189.927 Recovery = 103.39%
 QC value within limits for Sr 421.552 Recovery = 103.42%
 QC value within limits for Ti 334.940 Recovery = 104.40%
 QC value within limits for Tl 190.801 Recovery = 103.51%
 QC value within limits for U 409.014 Recovery = 102.22%
 QC value within limits for V 292.402 Recovery = 105.05%
 QC value within limits for Zn 213.857 Recovery = 104.08%

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 15:50:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51849.9	51849.9	98.3 %		15:50:33
1	Al 396.153Radial†	-13.4	12.8	9.2681 µg/L	9.2681 ppb	15:50:33
1	Ca 317.933Radial†	188.1	8.2	7.8055 µg/L	7.8055 ppb	15:50:53
1	Fe 238.204 Radial†	16.1	0.6	5.6137 µg/L	5.6137 ppb	15:50:53
1	K 766.490 Radial†	241.0	-1.8	-1.2584 µg/L	-1.2584 ppb	15:50:33
1	Mg 279.077 IEC†	7.3	-5.3	-50.722 µg/L	-50.722 ppb	15:50:53
1	Na 589.592 Radial†	568.4	-14.1	-4.3461 µg/L	-4.3461 ppb	15:50:33
1	Sr 421.552†	31.5	7.0	0.0700 µg/L	0.0700 ppb	15:50:33
1	Sc 361.383	1849655.3	1849655.3	97.180 %		15:51:52
1	Y 371.029	1275654.7	1275654.7	97.273 %		15:51:52
1	Ag 328.068†	-456.9	28.6	0.2205 µg/L	0.2205 ppb	15:51:57
1	As 188.979†	1.9	1.1	2.1576 µg/L	2.1576 ppb	15:52:17
1	B 249.677†	353.6	-90.3	-3.8639 µg/L	-3.8639 ppb	15:52:17
1	Ba 233.527†	-25.1	-5.4	-0.1370 µg/L	-0.1370 ppb	15:52:17
1	Be 313.107†	-3359.4	81.3	0.0504 µg/L	0.0504 ppb	15:51:57
1	Cd 226.502†	-124.6	1.1	0.0296 µg/L	0.0296 ppb	15:52:17
1	Co 228.616†	11.6	19.4	0.9366 µg/L	0.9366 ppb	15:52:17
1	Cr 267.716†	-28.2	17.1	0.3629 µg/L	0.3629 ppb	15:52:17
1	Cu 324.752†	3260.4	115.9	0.7758 µg/L	0.7758 ppb	15:51:57
1	Mn 257.610†	-200.1	24.9	0.0861 µg/L	0.0861 ppb	15:52:17
1	Mo 202.031†	3.5	7.7	0.7975 µg/L	0.7975 ppb	15:52:17
1	Ni 231.604†	294.2	14.7	0.7799 µg/L	0.7799 ppb	15:52:17
1	P 214.914†	18.6	-3.2	-6.7112 µg/L	-6.7112 ppb	15:52:17
1	Pb 220.353†	86.3	6.2	1.5986 µg/L	1.5986 ppb	15:52:17
1	S 181.975 Axial†	14.4	-1.6	-6.8285 µg/L	-6.8285 ppb	15:52:17
1	Sb 206.836†	23.7	2.6	2.4593 µg/L	2.4593 ppb	15:52:17
1	Se 196.026†	19.3	4.0	5.9835 µg/L	5.9835 ppb	15:52:17
1	SiO2†	1550.9	50.4	10.429 µg/L	10.429 ppb	15:51:57
1	Si 251.611†	330.9	5.6	0.4501 µg/L	0.4501 ppb	15:52:17
1	Sn 189.927†	0.4	-0.2	-0.1140 µg/L	-0.1140 ppb	15:52:17
1	Ti 334.940†	150.3	77.7	0.1821 µg/L	0.1821 ppb	15:51:57
1	Tl 190.801†	-19.5	1.6	2.2372 µg/L	2.2372 ppb	15:52:17
1	U 409.014†	242.9	42.1	3.4388 µg/L	3.4388 ppb	15:51:57
1	V 292.402†	-14.6	32.4	0.3399 µg/L	0.3399 ppb	15:51:57
1	Zn 213.857†	561.3	29.1	0.7191 µg/L	0.7191 ppb	15:52:17
2	Sc RADIAL	51759.7	51759.7	98.1 %		15:50:59
2	Al 396.153Radial†	-6.8	19.5	14.104 µg/L	14.104 ppb	15:50:59
2	Ca 317.933Radial†	175.9	-3.8	-3.6190 µg/L	-3.6190 ppb	15:51:19
2	Fe 238.204 Radial†	17.0	1.5	13.879 µg/L	13.879 ppb	15:51:19
2	K 766.490 Radial†	212.8	-30.3	-20.692 µg/L	-20.692 ppb	15:50:59
2	Mg 279.077 IEC†	7.4	-5.2	-49.468 µg/L	-49.468 ppb	15:51:19
2	Na 589.592 Radial†	612.4	31.9	9.8576 µg/L	9.8576 ppb	15:50:59
2	Sr 421.552†	30.9	6.5	0.0643 µg/L	0.0643 ppb	15:50:59
2	Sc 361.383	1854559.7	1854559.7	97.438 %		15:52:23
2	Y 371.029	1277021.0	1277021.0	97.378 %		15:52:23
2	Ag 328.068†	-474.8	11.5	0.0919 µg/L	0.0919 ppb	15:52:28
2	As 188.979†	0.4	-0.5	-0.9324 µg/L	-0.9324 ppb	15:52:48
2	B 249.677†	340.7	-104.6	-4.4784 µg/L	-4.4784 ppb	15:52:48
2	Ba 233.527†	-13.2	7.0	0.1794 µg/L	0.1794 ppb	15:52:48
2	Be 313.107†	-3294.1	157.5	0.0977 µg/L	0.0977 ppb	15:52:28
2	Cd 226.502†	-132.6	-6.7	-0.1814 µg/L	-0.1814 ppb	15:52:48
2	Co 228.616†	-10.5	-3.3	-0.1589 µg/L	-0.1589 ppb	15:52:48
2	Cr 267.716†	-38.8	6.3	0.1348 µg/L	0.1348 ppb	15:52:48
2	Cu 324.752†	3250.2	96.6	0.6473 µg/L	0.6473 ppb	15:52:28
2	Mn 257.610†	-167.8	58.6	0.2001 µg/L	0.2001 ppb	15:52:48
2	Mo 202.031†	11.8	16.1	1.6699 µg/L	1.6699 ppb	15:52:48
2	Ni 231.604†	284.8	4.3	0.2296 µg/L	0.2296 ppb	15:52:48
2	P 214.914†	14.9	-7.0	-14.856 µg/L	-14.856 ppb	15:52:48
2	Pb 220.353†	92.6	12.4	3.1995 µg/L	3.1995 ppb	15:52:48

2	S 181.975 Axial†	10.2	-5.9	-25.404 µg/L	-25.404 ppb	15:52:48
2	Sb 206.836†	23.1	1.9	1.8097 µg/L	1.8097 ppb	15:52:48
2	Se 196.026†	24.1	8.9	13.250 µg/L	13.250 ppb	15:52:48
2	SiO2†	1559.8	55.2	11.437 µg/L	11.437 ppb	15:52:28
2	Si 251.611†	335.8	9.8	0.7846 µg/L	0.7846 ppb	15:52:48
2	Sn 189.927†	1.5	0.8	0.3714 µg/L	0.3714 ppb	15:52:48
2	Ti 334.940†	184.2	112.1	0.2609 µg/L	0.2609 ppb	15:52:28
2	Tl 190.801†	-21.7	-0.6	-0.8210 µg/L	-0.8210 ppb	15:52:48
2	U 409.014†	207.7	5.4	0.4393 µg/L	0.4393 ppb	15:52:28
2	V 292.402†	-0.2	47.2	0.4941 µg/L	0.4941 ppb	15:52:28
2	Zn 213.857†	558.6	24.8	0.6155 µg/L	0.6155 ppb	15:52:48
3	Sc RADIAL	52189.0	52189.0	98.9 %		15:51:24
3	Al 396.153Radial†	-18.5	7.8	5.6173 µg/L	5.6173 ppb	15:51:24
3	Ca 317.933Radial†	180.7	-0.5	-0.4678 µg/L	-0.4678 ppb	15:51:44
3	Fe 238.204 Radial†	15.0	-0.6	-5.0168 µg/L	-5.0168 ppb	15:51:44
3	K 766.490 Radial†	193.2	-51.8	-35.452 µg/L	-35.452 ppb	15:51:24
3	Mg 279.077 IEC†	7.2	-5.5	-52.467 µg/L	-52.467 ppb	15:51:44
3	Na 589.592 Radial†	537.0	-49.6	-15.330 µg/L	-15.330 ppb	15:51:24
3	Sr 421.552†	46.8	22.3	0.2219 µg/L	0.2219 ppb	15:51:24
3	Sc 361.383	1843658.8	1843658.8	96.865 %		15:52:54
3	Y 371.029	1269917.1	1269917.1	96.836 %		15:52:54
3	Ag 328.068†	-437.5	47.1	0.3574 µg/L	0.3574 ppb	15:52:59
3	As 188.979†	-2.3	-3.2	-6.1359 µg/L	-6.1359 ppb	15:53:20
3	B 249.677†	349.3	-93.6	-3.9971 µg/L	-3.9971 ppb	15:53:20
3	Ba 233.527†	-9.4	10.8	0.2758 µg/L	0.2758 ppb	15:53:20
3	Be 313.107†	-2940.9	502.2	0.3116 µg/L	0.3116 ppb	15:52:59
3	Cd 226.502†	-118.9	6.6	0.1804 µg/L	0.1804 ppb	15:53:20
3	Co 228.616†	1.8	9.3	0.4487 µg/L	0.4487 ppb	15:53:20
3	Cr 267.716†	-5.0	40.9	0.8669 µg/L	0.8669 ppb	15:53:20
3	Cu 324.752†	3265.0	131.6	0.8790 µg/L	0.8790 ppb	15:52:59
3	Mn 257.610†	-129.0	97.7	0.3287 µg/L	0.3287 ppb	15:53:20
3	Mo 202.031†	6.5	10.8	1.1168 µg/L	1.1168 ppb	15:53:20
3	Ni 231.604†	298.9	20.6	1.0911 µg/L	1.0911 ppb	15:53:20
3	P 214.914†	24.4	2.8	5.8051 µg/L	5.8051 ppb	15:53:20
3	Pb 220.353†	80.5	0.5	0.1297 µg/L	0.1297 ppb	15:53:20
3	S 181.975 Axial†	16.7	0.8	3.6004 µg/L	3.6004 ppb	15:53:20
3	Sb 206.836†	24.2	3.1	2.9760 µg/L	2.9760 ppb	15:53:20
3	Se 196.026†	17.0	1.7	2.5680 µg/L	2.5680 ppb	15:53:20
3	SiO2†	1573.0	78.3	16.211 µg/L	16.211 ppb	15:52:59
3	Si 251.611†	337.3	13.3	1.0683 µg/L	1.0683 ppb	15:53:20
3	Sn 189.927†	0.0	-0.7	-0.3055 µg/L	-0.3055 ppb	15:53:20
3	Ti 334.940†	238.8	169.6	0.3929 µg/L	0.3929 ppb	15:52:59
3	Tl 190.801†	-24.2	-3.3	-4.5403 µg/L	-4.5403 ppb	15:53:20
3	U 409.014†	230.3	30.0	2.4473 µg/L	2.4473 ppb	15:52:59
3	V 292.402†	-61.1	-15.7	-0.1463 µg/L	-0.1463 ppb	15:52:59
3	Zn 213.857†	554.0	23.4	0.5774 µg/L	0.5774 ppb	15:53:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1849291.3	97.161 %	0.2868			0.30%
Sc RADIAL	51932.8	98.4 %	0.43			0.44%
Y 371.029	1274197.6	97.162 %	0.2874			0.30%
Ag 328.068†	29.1	0.2233 µg/L	0.13282	0.2233 ppb	0.13282	59.49%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	13.4	9.6632 µg/L	4.25719	9.6632 ppb	4.25719	44.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.9	-1.6369 µg/L	4.19136	-1.6369 ppb	4.19136	256.06%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-96.1	-4.1131 µg/L	0.32326	-4.1131 ppb	0.32326	7.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.1	0.1061 µg/L	0.21594	0.1061 ppb	0.21594	203.53%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	247.0	0.1532 µg/L	0.13918	0.1532 ppb	0.13918	90.82%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.3	1.2396 µg/L	5.90053	1.2396 ppb	5.90053	476.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	0.3	0.0095 µg/L	0.18168	0.0095 ppb	0.18168	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.4	0.4088 µg/L	0.54884	0.4088 ppb	0.54884	134.25%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	21.5	0.4548 µg/L	0.37462	0.4548 ppb	0.37462	82.36%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	114.7	0.7674 µg/L	0.11605	0.7674 ppb	0.11605	15.12%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	0.5	4.8253 µg/L	9.47248	4.8253 ppb	9.47248	196.31%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-28.0	-19.134 µg/L	17.1499	-19.134 ppb	17.1499	89.63%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-5.3	-50.886 µg/L	1.5064	-50.886 ppb	1.5064	2.96%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	60.4	0.2050 µg/L	0.12136	0.2050 ppb	0.12136	59.21%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	11.5	1.1947 µg/L	0.44142	1.1947 ppb	0.44142	36.95%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-10.6	-3.2728 µg/L	12.62805	-3.2728 ppb	12.62805	385.85%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	13.2	0.7002 µg/L	0.43623	0.7002 ppb	0.43623	62.30%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-2.5	-5.2541 µg/L	10.40741	-5.2541 ppb	10.40741	198.08%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	6.4	1.6426 µg/L	1.53538	1.6426 ppb	1.53538	93.47%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-2.2	-9.5440 µg/L	14.69166	-9.5440 ppb	14.69166	153.94%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	2.5	2.4150 µg/L	0.58441	2.4150 ppb	0.58441	24.20%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	4.9	7.2672 µg/L	5.45550	7.2672 ppb	5.45550	75.07%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	61.3	12.692 µg/L	3.0887	12.692 ppb	3.0887	24.33%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	9.6	0.7677 µg/L	0.30946	0.7677 ppb	0.30946	40.31%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	-0.0	-0.0160 µg/L	0.34894	-0.0160 ppb	0.34894	>999.9%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	11.9	0.1187 µg/L	0.08942	0.1187 ppb	0.08942	75.32%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	119.8	0.2786 µg/L	0.10650	0.2786 ppb	0.10650	38.22%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	-0.8	-1.0414 µg/L	3.39411	-1.0414 ppb	3.39411	325.93%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	25.8	2.1085 µg/L	1.52817	2.1085 ppb	1.52817	72.48%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	21.3	0.2292 µg/L	0.33421	0.2292 ppb	0.33421	145.80%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	25.8	0.6373 µg/L	0.07332	0.6373 ppb	0.07332	11.50%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 36

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 16:21:03

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	52030.2	52030.2	98.6 %		16:21:39
1	Al 396.153Radial†	7086.7	7214.3	5217.7 µg/L	5217.7 ppb	16:21:39
1	Ca 317.933Radial†	5522.2	5417.8	5127.0 µg/L	5127.0 ppb	16:21:59
1	Fe 238.204 Radial†	581.2	573.7	5195.6 µg/L	5195.6 ppb	16:21:59
1	K 766.490 Radial†	7751.4	7614.9	5207.3 µg/L	5207.3 ppb	16:21:39
1	Mg 279.077 IEC†	552.8	548.0	5252.4 µg/L	5252.4 ppb	16:21:59
1	Na 589.592 Radial†	33779.1	33668.8	10413 µg/L	10413 ppb	16:21:39
1	Sr 421.552†	51748.7	52462.4	521.39 µg/L	521.39 ppb	16:21:39
1	Sc 361.383	1853688.7	1853688.7	97.392 %		16:22:59
1	Y 371.029	1271899.8	1271899.8	96.987 %		16:22:59
1	Ag 328.068†	66863.9	69153.1	530.68 µg/L	530.68 ppb	16:23:04
1	As 188.979†	274.6	281.0	534.81 µg/L	534.81 ppb	16:23:25
1	B 249.677†	12197.4	12069.8	514.28 µg/L	514.28 ppb	16:23:04
1	Ba 233.527†	20098.9	20657.6	530.77 µg/L	530.77 ppb	16:23:04
1	Be 313.107†	820965.1	846486.4	525.33 µg/L	525.33 ppb	16:22:59
1	Cd 226.502†	19160.2	19802.6	533.37 µg/L	533.37 ppb	16:23:04
1	Co 228.616†	10757.1	11052.6	533.66 µg/L	533.66 ppb	16:23:04
1	Cr 267.716†	24571.7	25275.8	535.74 µg/L	535.74 ppb	16:23:04
1	Cu 324.752†	80085.1	78990.4	528.74 µg/L	528.74 ppb	16:23:04
1	Mn 257.610†	155209.0	159595.9	535.21 µg/L	535.21 ppb	16:22:59
1	Mo 202.031†	5100.0	5240.6	542.32 µg/L	542.32 ppb	16:23:25
1	Ni 231.604†	10135.1	10118.5	536.35 µg/L	536.35 ppb	16:23:04
1	P 214.914†	1265.4	1277.0	2628.3 µg/L	2628.3 ppb	16:23:25
1	Pb 220.353†	2110.7	2084.7	535.71 µg/L	535.71 ppb	16:23:25
1	S 181.975 Axial†	260.9	251.5	1090.7 µg/L	1090.7 ppb	16:23:25
1	Sb 206.836†	570.9	564.4	537.55 µg/L	537.55 ppb	16:23:25
1	Se 196.026†	357.5	351.3	528.87 µg/L	528.87 ppb	16:23:25
1	SiO2†	28034.1	27239.2	5639.8 µg/L	5639.8 ppb	16:23:04
1	Si 251.611†	32335.5	32866.5	2637.5 µg/L	2637.5 ppb	16:23:04
1	Sn 189.927†	1196.6	1227.9	548.36 µg/L	548.36 ppb	16:23:25
1	Ti 334.940†	224484.4	230418.5	527.87 µg/L	527.87 ppb	16:22:59
1	Tl 190.801†	353.8	385.0	540.31 µg/L	540.31 ppb	16:23:25
1	U 409.014†	6517.1	6483.8	528.42 µg/L	528.42 ppb	16:23:04
1	V 292.402†	50830.3	52238.8	536.38 µg/L	536.38 ppb	16:23:04
1	Zn 213.857†	21574.5	21603.7	531.28 µg/L	531.28 ppb	16:23:04
2	Sc RADIAL	51518.5	51518.5	97.6 %		16:22:05
2	Al 396.153Radial†	7071.1	7269.7	5257.8 µg/L	5257.8 ppb	16:22:05
2	Ca 317.933Radial†	5522.8	5474.1	5180.3 µg/L	5180.3 ppb	16:22:25
2	Fe 238.204 Radial†	586.3	584.8	5296.2 µg/L	5296.2 ppb	16:22:25
2	K 766.490 Radial†	7701.7	7642.0	5225.9 µg/L	5225.9 ppb	16:22:05
2	Mg 279.077 IEC†	553.1	553.8	5308.6 µg/L	5308.6 ppb	16:22:25
2	Na 589.592 Radial†	33712.0	33940.4	10497 µg/L	10497 ppb	16:22:05
2	Sr 421.552†	51483.2	52711.7	523.87 µg/L	523.87 ppb	16:22:05
2	Sc 361.383	1848405.9	1848405.9	97.115 %		16:23:31
2	Y 371.029	1267821.0	1267821.0	96.676 %		16:23:31
2	Ag 328.068†	66999.0	69488.4	533.26 µg/L	533.26 ppb	16:23:37
2	As 188.979†	279.3	286.7	545.64 µg/L	545.64 ppb	16:23:57
2	B 249.677†	12221.2	12130.1	516.81 µg/L	516.81 ppb	16:23:37
2	Ba 233.527†	20123.6	20742.0	532.93 µg/L	532.93 ppb	16:23:37
2	Be 313.107†	817710.5	845544.3	524.74 µg/L	524.74 ppb	16:23:31
2	Cd 226.502†	19147.3	19845.6	534.52 µg/L	534.52 ppb	16:23:37
2	Co 228.616†	10780.4	11108.1	536.34 µg/L	536.34 ppb	16:23:37
2	Cr 267.716†	24583.0	25359.6	537.52 µg/L	537.52 ppb	16:23:37
2	Cu 324.752†	80330.5	79478.2	532.02 µg/L	532.02 ppb	16:23:37
2	Mn 257.610†	154344.2	159160.8	533.76 µg/L	533.76 ppb	16:23:31
2	Mo 202.031†	5135.9	5292.5	547.70 µg/L	547.70 ppb	16:23:57
2	Ni 231.604†	10142.8	10156.1	538.34 µg/L	538.34 ppb	16:23:37
2	P 214.914†	1270.3	1285.7	2646.1 µg/L	2646.1 ppb	16:23:57
2	Pb 220.353†	2116.4	2096.8	538.82 µg/L	538.82 ppb	16:23:57

2	S 181.975 Axial†	257.4	248.7	1078.5 µg/L	1078.5 ppb	16:23:57
2	Sb 206.836†	581.7	577.2	549.79 µg/L	549.79 ppb	16:23:57
2	Se 196.026†	364.4	359.4	541.23 µg/L	541.23 ppb	16:23:57
2	SiO2†	28177.4	27469.0	5687.4 µg/L	5687.4 ppb	16:23:37
2	Si 251.611†	32504.7	33135.6	2659.1 µg/L	2659.1 ppb	16:23:37
2	Sn 189.927†	1196.3	1231.2	549.81 µg/L	549.81 ppb	16:23:57
2	Ti 334.940†	223919.8	230495.9	528.04 µg/L	528.04 ppb	16:23:31
2	Tl 190.801†	352.6	384.8	540.00 µg/L	540.00 ppb	16:23:57
2	U 409.014†	6398.2	6380.5	519.97 µg/L	519.97 ppb	16:23:37
2	V 292.402†	50965.9	52527.6	539.36 µg/L	539.36 ppb	16:23:37
2	Zn 213.857†	21635.4	21729.7	534.38 µg/L	534.38 ppb	16:23:37
3	Sc RADIAL	51910.7	51910.7	98.4 %		16:22:30
3	Al 396.153Radial†	7096.7	7241.0	5238.4 µg/L	5238.4 ppb	16:22:30
3	Ca 317.933Radial†	5511.1	5419.4	5128.6 µg/L	5128.6 ppb	16:22:50
3	Fe 238.204 Radial†	578.3	572.2	5181.1 µg/L	5181.1 ppb	16:22:50
3	K 766.490 Radial†	7761.3	7643.1	5226.6 µg/L	5226.6 ppb	16:22:30
3	Mg 279.077 IEC†	551.4	547.9	5250.6 µg/L	5250.6 ppb	16:22:50
3	Na 589.592 Radial†	33893.6	33864.1	10473 µg/L	10473 ppb	16:22:30
3	Sr 421.552†	51962.1	52800.2	524.75 µg/L	524.75 ppb	16:22:30
3	Sc 361.383	1843640.1	1843640.1	96.864 %		16:24:04
3	Y 371.029	1264868.2	1264868.2	96.451 %		16:24:04
3	Ag 328.068†	64393.1	66976.5	513.87 µg/L	513.87 ppb	16:24:09
3	As 188.979†	239.6	246.5	469.02 µg/L	469.02 ppb	16:24:29
3	B 249.677†	11692.9	11617.3	494.87 µg/L	494.87 ppb	16:24:09
3	Ba 233.527†	18987.0	19622.2	504.15 µg/L	504.15 ppb	16:24:09
3	Be 313.107†	791840.1	821012.9	509.52 µg/L	509.52 ppb	16:24:04
3	Cd 226.502†	18000.7	18712.8	503.99 µg/L	503.99 ppb	16:24:09
3	Co 228.616†	10087.4	10421.5	503.12 µg/L	503.12 ppb	16:24:09
3	Cr 267.716†	22543.6	23319.5	494.28 µg/L	494.28 ppb	16:24:09
3	Cu 324.752†	75481.2	74685.7	499.97 µg/L	499.97 ppb	16:24:09
3	Mn 257.610†	149886.8	154970.0	519.71 µg/L	519.71 ppb	16:24:04
3	Mo 202.031†	4458.0	4606.4	476.71 µg/L	476.71 ppb	16:24:29
3	Ni 231.604†	9505.1	9524.8	504.88 µg/L	504.88 ppb	16:24:09
3	P 214.914†	1126.1	1140.2	2343.4 µg/L	2343.4 ppb	16:24:29
3	Pb 220.353†	1905.8	1885.0	484.30 µg/L	484.30 ppb	16:24:29
3	S 181.975 Axial†	234.1	225.3	977.29 µg/L	977.29 ppb	16:24:29
3	Sb 206.836†	510.4	505.1	480.76 µg/L	480.76 ppb	16:24:29
3	Se 196.026†	333.1	328.1	494.51 µg/L	494.51 ppb	16:24:29
3	SiO2†	26835.5	26158.7	5416.1 µg/L	5416.1 ppb	16:24:09
3	Si 251.611†	30967.2	31634.8	2538.6 µg/L	2538.6 ppb	16:24:09
3	Sn 189.927†	1021.4	1053.8	470.61 µg/L	470.61 ppb	16:24:29
3	Ti 334.940†	216301.8	223227.3	511.38 µg/L	511.38 ppb	16:24:04
3	Tl 190.801†	323.2	355.4	499.11 µg/L	499.11 ppb	16:24:29
3	U 409.014†	6020.6	6007.7	489.55 µg/L	489.55 ppb	16:24:09
3	V 292.402†	47302.9	48881.7	501.69 µg/L	501.69 ppb	16:24:09
3	Zn 213.857†	20269.7	20377.4	501.09 µg/L	501.09 ppb	16:24:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1848578.2	97.124 %	0.2641			0.27%
Sc RADIAL	51819.8	98.2 %	0.51			0.52%
Y 371.029	1268196.3	96.705 %	0.2692			0.28%
Ag 328.068†	68539.4	525.94 µg/L	10.528	525.94 ppb	10.528	2.00%
QC value within limits for Ag 328.068 Recovery = 105.19%						
Al 396.153Radial†	7241.7	5238.0 µg/L	20.02	5238.0 ppb	20.02	0.38%
QC value within limits for Al 396.153Radial Recovery = 104.76%						
As 188.979†	271.4	516.49 µg/L	41.462	516.49 ppb	41.462	8.03%
QC value within limits for As 188.979 Recovery = 103.30%						
B 249.677†	11939.1	508.66 µg/L	12.003	508.66 ppb	12.003	2.36%
QC value within limits for B 249.677 Recovery = 101.73%						
Ba 233.527†	20340.6	522.62 µg/L	16.030	522.62 ppb	16.030	3.07%
QC value within limits for Ba 233.527 Recovery = 104.52%						
Be 313.107†	837681.2	519.87 µg/L	8.963	519.87 ppb	8.963	1.72%
QC value within limits for Be 313.107 Recovery = 103.97%						
Ca 317.933Radial†	5437.1	5145.3 µg/L	30.30	5145.3 ppb	30.30	0.59%
QC value within limits for Ca 317.933Radial Recovery = 102.91%						
Cd 226.502†	19453.7	523.96 µg/L	17.306	523.96 ppb	17.306	3.30%
QC value within limits for Cd 226.502 Recovery = 104.79%						
Co 228.616†	10860.7	524.37 µg/L	18.454	524.37 ppb	18.454	3.52%

QC value within limits for Co 228.616 Recovery = 104.87%							
Cr 267.716†	24651.6	522.51 µg/L	24.466	522.51 ppb	24.466	4.68%	
QC value within limits for Cr 267.716 Recovery = 104.50%							
Cu 324.752†	77718.1	520.24 µg/L	17.636	520.24 ppb	17.636	3.39%	
QC value within limits for Cu 324.752 Recovery = 104.05%							
Fe 238.204 Radial†	576.9	5224.3 µg/L	62.68	5224.3 ppb	62.68	1.20%	
QC value within limits for Fe 238.204 Radial Recovery = 104.49%							
K 766.490 Radial†	7633.3	5219.9 µg/L	10.95	5219.9 ppb	10.95	0.21%	
QC value within limits for K 766.490 Radial Recovery = 104.40%							
Mg 279.077 IEC†	549.9	5270.6 µg/L	32.99	5270.6 ppb	32.99	0.63%	
QC value within limits for Mg 279.077 IEC Recovery = 105.41%							
Mn 257.610†	157908.9	529.56 µg/L	8.562	529.56 ppb	8.562	1.62%	
QC value within limits for Mn 257.610 Recovery = 105.91%							
Mo 202.031†	5046.5	522.24 µg/L	39.523	522.24 ppb	39.523	7.57%	
QC value within limits for Mo 202.031 Recovery = 104.45%							
Na 589.592 Radial†	33824.4	10461 µg/L	43.3	10461 ppb	43.3	0.41%	
QC value within limits for Na 589.592 Radial Recovery = 104.61%							
Ni 231.604†	9933.1	526.52 µg/L	18.770	526.52 ppb	18.770	3.56%	
QC value within limits for Ni 231.604 Recovery = 105.30%							
P 214.914†	1234.3	2539.3 µg/L	169.87	2539.3 ppb	169.87	6.69%	
QC value within limits for P 214.914 Recovery = 101.57%							
Pb 220.353†	2022.1	519.61 µg/L	30.619	519.61 ppb	30.619	5.89%	
QC value within limits for Pb 220.353 Recovery = 103.92%							
S 181.975 Axial†	241.8	1048.8 µg/L	62.27	1048.8 ppb	62.27	5.94%	
QC value within limits for S 181.975 Axial Recovery = 104.88%							
Sb 206.836†	548.9	522.70 µg/L	36.833	522.70 ppb	36.833	7.05%	
QC value within limits for Sb 206.836 Recovery = 104.54%							
Se 196.026†	346.3	521.54 µg/L	24.206	521.54 ppb	24.206	4.64%	
QC value within limits for Se 196.026 Recovery = 104.31%							
SiO2†	26955.6	5581.1 µg/L	144.87	5581.1 ppb	144.87	2.60%	
QC value within limits for SiO2 Recovery = 104.37%							
Si 251.611†	32545.6	2611.7 µg/L	64.21	2611.7 ppb	64.21	2.46%	
QC value within limits for Si 251.611 Recovery = 104.47%							
Sn 189.927†	1171.0	522.92 µg/L	45.311	522.92 ppb	45.311	8.67%	
QC value within limits for Sn 189.927 Recovery = 104.58%							
Sr 421.552†	52658.1	523.34 µg/L	1.741	523.34 ppb	1.741	0.33%	
QC value within limits for Sr 421.552 Recovery = 104.67%							
Ti 334.940†	228047.2	522.43 µg/L	9.568	522.43 ppb	9.568	1.83%	
QC value within limits for Ti 334.940 Recovery = 104.49%							
Tl 190.801†	375.1	526.47 µg/L	23.700	526.47 ppb	23.700	4.50%	
QC value within limits for Tl 190.801 Recovery = 105.29%							
U 409.014†	6290.7	512.64 µg/L	20.444	512.64 ppb	20.444	3.99%	
QC value within limits for U 409.014 Recovery = 102.53%							
V 292.402†	51216.0	525.81 µg/L	20.942	525.81 ppb	20.942	3.98%	
QC value within limits for V 292.402 Recovery = 105.16%							
Zn 213.857†	21236.9	522.25 µg/L	18.387	522.25 ppb	18.387	3.52%	
QC value within limits for Zn 213.857 Recovery = 104.45%							

All analyte(s) passed QC.

Sequence No.: 37

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 16:24:37

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51213.1	51213.1	97.0 %		16:25:09
1	Al 396.153Radial†	-18.9	6.9	5.0150 µg/L	5.0150 ppb	16:25:09
1	Ca 317.933Radial†	178.0	0.2	0.1752 µg/L	0.1752 ppb	16:25:29
1	Fe 238.204 Radial†	12.7	-2.7	-24.070 µg/L	-24.070 ppb	16:25:29
1	K 766.490 Radial†	185.5	-56.1	-38.345 µg/L	-38.345 ppb	16:25:09
1	Mg 279.077 IEC†	12.7	0.4	3.9091 µg/L	3.9091 ppb	16:25:29
1	Na 589.592 Radial†	545.6	-30.3	-9.3839 µg/L	-9.3839 ppb	16:25:09
1	Sr 421.552†	23.0	-1.3	-0.0133 µg/L	-0.0133 ppb	16:25:09
1	Sc 361.383	1833382.0	1833382.0	96.325 %		16:26:28
1	Y 371.029	1263072.5	1263072.5	96.314 %		16:26:28
1	Ag 328.068†	-533.4	-55.0	-0.4195 µg/L	-0.4195 ppb	16:26:33
1	As 188.979†	0.5	-0.4	-0.6932 µg/L	-0.6932 ppb	16:26:53
1	B 249.677†	340.6	-100.6	-4.2893 µg/L	-4.2893 ppb	16:26:53
1	Ba 233.527†	-11.7	8.3	0.2143 µg/L	0.2143 ppb	16:26:53
1	Be 313.107†	-3336.8	74.2	0.0460 µg/L	0.0460 ppb	16:26:33
1	Cd 226.502†	-117.2	7.7	0.2109 µg/L	0.2109 ppb	16:26:53
1	Co 228.616†	5.0	12.7	0.6125 µg/L	0.6125 ppb	16:26:53
1	Cr 267.716†	-20.1	25.3	0.5359 µg/L	0.5359 ppb	16:26:53
1	Cu 324.752†	3281.7	167.8	1.1185 µg/L	1.1185 ppb	16:26:33
1	Mn 257.610†	-188.8	34.9	0.1135 µg/L	0.1135 ppb	16:26:53
1	Mo 202.031†	0.5	4.6	0.4733 µg/L	0.4733 ppb	16:26:53
1	Ni 231.604†	295.5	18.8	0.9948 µg/L	0.9948 ppb	16:26:53
1	P 214.914†	24.3	2.8	5.8611 µg/L	5.8611 ppb	16:26:53
1	Pb 220.353†	88.7	9.5	2.4480 µg/L	2.4480 ppb	16:26:53
1	S 181.975 Axial†	16.6	0.9	3.8250 µg/L	3.8250 ppb	16:26:53
1	Sb 206.836†	25.0	4.1	3.9079 µg/L	3.9079 ppb	16:26:53
1	Se 196.026†	18.9	3.8	5.5916 µg/L	5.5916 ppb	16:26:53
1	SiO2†	1544.4	57.8	11.964 µg/L	11.964 ppb	16:26:33
1	Si 251.611†	331.9	9.7	0.7809 µg/L	0.7809 ppb	16:26:53
1	Sn 189.927†	-1.5	-2.3	-1.0044 µg/L	-1.0044 ppb	16:26:53
1	Ti 334.940†	141.3	69.7	0.1595 µg/L	0.1595 ppb	16:26:33
1	Tl 190.801†	-20.6	0.3	0.4704 µg/L	0.4704 ppb	16:26:53
1	U 409.014†	259.5	61.7	5.0385 µg/L	5.0385 ppb	16:26:33
1	V 292.402†	-31.6	14.6	0.1557 µg/L	0.1557 ppb	16:26:33
1	Zn 213.857†	510.4	-18.6	-0.4655 µg/L	-0.4655 ppb	16:26:53
2	Sc RADIAL	51125.7	51125.7	96.9 %		16:25:34
2	Al 396.153Radial†	-18.8	7.1	5.1003 µg/L	5.1003 ppb	16:25:34
2	Ca 317.933Radial†	176.7	-0.8	-0.7991 µg/L	-0.7991 ppb	16:25:55
2	Fe 238.204 Radial†	15.5	0.2	1.8550 µg/L	1.8550 ppb	16:25:55
2	K 766.490 Radial†	200.0	-40.7	-27.850 µg/L	-27.850 ppb	16:25:34
2	Mg 279.077 IEC†	9.5	-2.9	-27.599 µg/L	-27.599 ppb	16:25:55
2	Na 589.592 Radial†	506.1	-70.2	-21.696 µg/L	-21.696 ppb	16:25:34
2	Sr 421.552†	31.6	7.6	0.0751 µg/L	0.0751 ppb	16:25:34
2	Sc 361.383	1835893.4	1835893.4	96.457 %		16:26:59
2	Y 371.029	1265597.2	1265597.2	96.506 %		16:26:59
2	Ag 328.068†	-503.0	-22.7	-0.1723 µg/L	-0.1723 ppb	16:27:04
2	As 188.979†	1.4	0.6	1.0736 µg/L	1.0736 ppb	16:27:24
2	B 249.677†	349.4	-92.0	-3.9324 µg/L	-3.9324 ppb	16:27:24
2	Ba 233.527†	-0.4	20.0	0.5139 µg/L	0.5139 ppb	16:27:24
2	Be 313.107†	-2995.9	432.3	0.2682 µg/L	0.2682 ppb	16:27:04
2	Cd 226.502†	-111.4	13.8	0.3739 µg/L	0.3739 ppb	16:27:24
2	Co 228.616†	5.6	13.2	0.6388 µg/L	0.6388 ppb	16:27:24
2	Cr 267.716†	-5.9	40.0	0.8482 µg/L	0.8482 ppb	16:27:24
2	Cu 324.752†	3343.5	227.3	1.5194 µg/L	1.5194 ppb	16:27:04
2	Mn 257.610†	-88.3	139.3	0.4682 µg/L	0.4682 ppb	16:27:24
2	Mo 202.031†	4.0	8.2	0.8485 µg/L	0.8485 ppb	16:27:24
2	Ni 231.604†	304.9	28.1	1.4884 µg/L	1.4884 ppb	16:27:24
2	P 214.914†	29.9	8.6	18.003 µg/L	18.003 ppb	16:27:24
2	Pb 220.353†	94.6	15.6	4.0002 µg/L	4.0002 ppb	16:27:24

2	S 181.975 Axial†	15.1	-0.7	-3.0414 µg/L	-3.0414 ppb	16:27:24
2	Sb 206.836†	28.5	7.7	7.3196 µg/L	7.3196 ppb	16:27:24
2	Se 196.026†	13.3	-2.0	-2.9113 µg/L	-2.9113 ppb	16:27:24
2	SiO2†	1545.8	57.0	11.799 µg/L	11.799 ppb	16:27:04
2	Si 251.611†	348.3	26.2	2.1001 µg/L	2.1001 ppb	16:27:24
2	Sn 189.927†	3.6	3.0	1.3304 µg/L	1.3304 ppb	16:27:24
2	Ti 334.940†	239.4	171.2	0.3947 µg/L	0.3947 ppb	16:27:04
2	Tl 190.801†	-19.7	1.3	1.8147 µg/L	1.8147 ppb	16:27:24
2	U 409.014†	161.3	-40.5	-3.3085 µg/L	-3.3085 ppb	16:27:04
2	V 292.402†	-35.3	10.8	0.1151 µg/L	0.1151 ppb	16:27:04
2	Zn 213.857†	531.1	2.1	0.0441 µg/L	0.0441 ppb	16:27:24
3	Sc RADIAL	52146.9	52146.9	98.8 %		16:26:00
3	Al 396.153Radial†	-22.9	3.3	2.3468 µg/L	2.3468 ppb	16:26:00
3	Ca 317.933Radial†	173.3	-7.9	-7.4534 µg/L	-7.4534 ppb	16:26:20
3	Fe 238.204 Radial†	15.2	-0.4	-3.4891 µg/L	-3.4891 ppb	16:26:20
3	K 766.490 Radial†	183.2	-61.7	-42.226 µg/L	-42.226 ppb	16:26:00
3	Mg 279.077 IEC†	15.0	2.5	23.521 µg/L	23.521 ppb	16:26:20
3	Na 589.592 Radial†	485.0	-101.7	-31.467 µg/L	-31.467 ppb	16:26:00
3	Sr 421.552†	54.4	30.0	0.2983 µg/L	0.2983 ppb	16:26:00
3	Sc 361.383	1871452.5	1871452.5	98.325 %		16:27:30
3	Y 371.029	1290559.2	1290559.2	98.410 %		16:27:30
3	Ag 328.068†	-424.2	67.4	0.5190 µg/L	0.5190 ppb	16:27:35
3	As 188.979†	1.0	0.2	0.2848 µg/L	0.2848 ppb	16:27:56
3	B 249.677†	354.7	-93.5	-3.9925 µg/L	-3.9925 ppb	16:27:56
3	Ba 233.527†	11.6	32.2	0.8282 µg/L	0.8282 ppb	16:27:56
3	Be 313.107†	-2084.4	1418.3	0.8802 µg/L	0.8802 ppb	16:27:35
3	Cd 226.502†	-99.9	27.8	0.7503 µg/L	0.7503 ppb	16:27:56
3	Co 228.616†	20.7	28.5	1.3753 µg/L	1.3753 ppb	16:27:56
3	Cr 267.716†	14.4	60.8	1.2880 µg/L	1.2880 ppb	16:27:56
3	Cu 324.752†	3386.2	204.8	1.3687 µg/L	1.3687 ppb	16:27:35
3	Mn 257.610†	63.9	295.8	0.9897 µg/L	0.9897 ppb	16:27:56
3	Mo 202.031†	12.5	16.7	1.7296 µg/L	1.7296 ppb	16:27:56
3	Ni 231.604†	316.1	33.4	1.7732 µg/L	1.7732 ppb	16:27:56
3	P 214.914†	26.0	4.1	8.4072 µg/L	8.4072 ppb	16:27:56
3	Pb 220.353†	93.4	12.4	3.1753 µg/L	3.1753 ppb	16:27:56
3	S 181.975 Axial†	13.7	-2.5	-10.695 µg/L	-10.695 ppb	16:27:56
3	Sb 206.836†	23.2	1.7	1.6662 µg/L	1.6662 ppb	16:27:56
3	Se 196.026†	19.2	3.7	5.4651 µg/L	5.4651 ppb	16:27:56
3	SiO2†	1594.7	76.3	15.789 µg/L	15.789 ppb	16:27:35
3	Si 251.611†	375.9	47.4	3.8016 µg/L	3.8016 ppb	16:27:56
3	Sn 189.927†	1.2	0.5	0.2371 µg/L	0.2371 ppb	16:27:56
3	Ti 334.940†	520.0	451.9	1.0339 µg/L	1.0339 ppb	16:27:35
3	Tl 190.801†	-19.8	1.6	2.1985 µg/L	2.1985 ppb	16:27:56
3	U 409.014†	318.5	116.2	9.4876 µg/L	9.4876 ppb	16:27:35
3	V 292.402†	37.7	85.8	0.8957 µg/L	0.8957 ppb	16:27:35
3	Zn 213.857†	538.5	-0.8	-0.0304 µg/L	-0.0304 ppb	16:27:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1846909.3	97.036 %	1.1187			1.15%
Sc RADIAL	51495.2	97.6 %	1.107			1.10%
Y 371.029	1273076.3	97.077 %	1.1585			1.19%
Ag 328.068†	-3.4	-0.0243 µg/L	0.48642	-0.0243 ppb	0.48642	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.8	4.1541 µg/L	1.56570	4.1541 ppb	1.56570	37.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.1	0.2218 µg/L	0.88510	0.2218 ppb	0.88510	399.13%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-95.3	-4.0714 µg/L	0.19110	-4.0714 ppb	0.19110	4.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	20.2	0.5188 µg/L	0.30697	0.5188 ppb	0.30697	59.17%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	641.6	0.3981 µg/L	0.43198	0.3981 ppb	0.43198	108.50%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.8	-2.6924 µg/L	4.15179	-2.6924 ppb	4.15179	154.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	16.4	0.4450 µg/L	0.27665	0.4450 ppb	0.27665	62.16%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	18.1	0.8755 µg/L	0.43299	0.8755 ppb	0.43299	49.45%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	42.0	0.8907 µg/L	0.37786	0.8907 ppb	0.37786	42.42%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	200.0	1.3355 µg/L	0.20249	1.3355 ppb	0.20249	15.16%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.0	-8.5680 µg/L	13.68842	-8.5680 ppb	13.68842	159.76%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-52.9	-36.141 µg/L	7.4374	-36.141 ppb	7.4374	20.58%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.0	-0.0562 µg/L	25.78984	-0.0562 ppb	25.78984	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	156.7	0.5238 µg/L	0.44076	0.5238 ppb	0.44076	84.15%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	9.8	1.0171 µg/L	0.64490	1.0171 ppb	0.64490	63.40%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-67.4	-20.849 µg/L	11.0658	-20.849 ppb	11.0658	53.08%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	26.8	1.4188 µg/L	0.39382	1.4188 ppb	0.39382	27.76%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	5.2	10.757 µg/L	6.4029	10.757 ppb	6.4029	59.52%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	12.5	3.2078 µg/L	0.77664	3.2078 ppb	0.77664	24.21%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.8	-3.3037 µg/L	7.26346	-3.3037 ppb	7.26346	219.86%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.5	4.2979 µg/L	2.84681	4.2979 ppb	2.84681	66.24%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.8	2.7151 µg/L	4.87307	2.7151 ppb	4.87307	179.48%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	63.7	13.184 µg/L	2.2578	13.184 ppb	2.2578	17.13%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	27.8	2.2276 µg/L	1.51440	2.2276 ppb	1.51440	67.98%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.4	0.1877 µg/L	1.16819	0.1877 ppb	1.16819	622.44%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	12.1	0.1201 µg/L	0.16059	0.1201 ppb	0.16059	133.77%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	231.0	0.5294 µg/L	0.45251	0.5294 ppb	0.45251	85.48%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.1	1.4945 µg/L	0.90744	1.4945 ppb	0.90744	60.72%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	45.8	3.7392 µg/L	6.49625	3.7392 ppb	6.49625	173.73%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	37.1	0.3888 µg/L	0.43943	0.3888 ppb	0.43943	113.02%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-5.8	-0.1506 µg/L	0.27524	-0.1506 ppb	0.27524	182.73%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 45

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 16:52:14

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	52213.8	52213.8	98.9 %		16:52:52
1	Al 396.153Radial†	7029.6	7131.3	5157.6 µg/L	5157.6 ppb	16:52:52
1	Ca 317.933Radial†	5539.5	5415.6	5124.9 µg/L	5124.9 ppb	16:53:12
1	Fe 238.204 Radial†	578.8	569.2	5154.9 µg/L	5154.9 ppb	16:53:12
1	K 766.490 Radial†	7647.8	7482.5	5116.8 µg/L	5116.8 ppb	16:52:52
1	Mg 279.077 IEC†	550.7	543.9	5213.7 µg/L	5213.7 ppb	16:53:12
1	Na 589.592 Radial†	33396.7	33161.8	10256 µg/L	10256 ppb	16:52:52
1	Sr 421.552†	51205.2	51728.6	514.10 µg/L	514.10 ppb	16:52:52
1	Sc 361.383	1868801.1	1868801.1	98.186 %		16:54:12
1	Y 371.029	1280567.8	1280567.8	97.648 %		16:54:12
1	Ag 328.068†	66810.0	68543.1	526.01 µg/L	526.01 ppb	16:54:17
1	As 188.979†	279.7	284.0	540.39 µg/L	540.39 ppb	16:54:38
1	B 249.677†	12254.5	12026.7	512.46 µg/L	512.46 ppb	16:54:17
1	Ba 233.527†	20266.4	20661.2	530.85 µg/L	530.85 ppb	16:54:17
1	Be 313.107†	820648.4	839347.3	520.90 µg/L	520.90 ppb	16:54:12
1	Cd 226.502†	19295.4	19781.2	532.80 µg/L	532.80 ppb	16:54:17
1	Co 228.616†	10845.9	11053.7	533.72 µg/L	533.72 ppb	16:54:17
1	Cr 267.716†	24620.9	25121.8	532.48 µg/L	532.48 ppb	16:54:17
1	Cu 324.752†	80036.5	78276.0	523.96 µg/L	523.96 ppb	16:54:17
1	Mn 257.610†	154627.3	157714.7	528.90 µg/L	528.90 ppb	16:54:12
1	Mo 202.031†	5123.5	5222.2	540.41 µg/L	540.41 ppb	16:54:38
1	Ni 231.604†	10213.7	10114.4	536.13 µg/L	536.13 ppb	16:54:17
1	P 214.914†	1271.5	1272.6	2619.8 µg/L	2619.8 ppb	16:54:38
1	Pb 220.353†	2121.6	2078.2	534.05 µg/L	534.05 ppb	16:54:38
1	S 181.975 Axial†	260.0	248.4	1077.4 µg/L	1077.4 ppb	16:54:38
1	Sb 206.836†	573.6	562.3	535.63 µg/L	535.63 ppb	16:54:38
1	Se 196.026†	366.8	357.8	538.51 µg/L	538.51 ppb	16:54:38
1	SiO2†	28154.0	27128.5	5616.9 µg/L	5616.9 ppb	16:54:17
1	Si 251.611†	32442.0	32706.4	2624.6 µg/L	2624.6 ppb	16:54:17
1	Sn 189.927†	1209.3	1231.0	549.72 µg/L	549.72 ppb	16:54:38
1	Ti 334.940†	223660.2	227715.1	521.67 µg/L	521.67 ppb	16:54:12
1	Tl 190.801†	356.1	384.4	539.34 µg/L	539.34 ppb	16:54:38
1	U 409.014†	6452.1	6363.5	518.60 µg/L	518.60 ppb	16:54:17
1	V 292.402†	50891.3	51878.9	532.70 µg/L	532.70 ppb	16:54:17
1	Zn 213.857†	21715.8	21568.5	530.42 µg/L	530.42 ppb	16:54:17
2	Sc RADIAL	52391.2	52391.2	99.3 %		16:53:18
2	Al 396.153Radial†	6954.1	7031.2	5085.2 µg/L	5085.2 ppb	16:53:18
2	Ca 317.933Radial†	5523.8	5380.8	5092.0 µg/L	5092.0 ppb	16:53:38
2	Fe 238.204 Radial†	580.9	569.3	5155.9 µg/L	5155.9 ppb	16:53:38
2	K 766.490 Radial†	7588.0	7396.2	5057.7 µg/L	5057.7 ppb	16:53:18
2	Mg 279.077 IEC†	548.2	539.4	5170.6 µg/L	5170.6 ppb	16:53:38
2	Na 589.592 Radial†	33158.7	32807.8	10147 µg/L	10147 ppb	16:53:18
2	Sr 421.552†	50803.7	51148.9	508.34 µg/L	508.34 ppb	16:53:18
2	Sc 361.383	1889505.3	1889505.3	99.274 %		16:54:44
2	Y 371.029	1295556.9	1295556.9	98.791 %		16:54:44
2	Ag 328.068†	66297.4	67281.0	516.32 µg/L	516.32 ppb	16:54:50
2	As 188.979†	274.2	275.3	523.90 µg/L	523.90 ppb	16:55:10
2	B 249.677†	12111.0	11745.3	500.41 µg/L	500.41 ppb	16:54:50
2	Ba 233.527†	20013.3	20180.2	518.49 µg/L	518.49 ppb	16:54:50
2	Be 313.107†	818237.9	827760.7	513.71 µg/L	513.71 ppb	16:54:44
2	Cd 226.502†	19102.6	19371.6	521.76 µg/L	521.76 ppb	16:54:50
2	Co 228.616†	10708.4	10794.2	521.18 µg/L	521.18 ppb	16:54:50
2	Cr 267.716†	24373.4	24597.8	521.37 µg/L	521.37 ppb	16:54:50
2	Cu 324.752†	79329.6	76670.7	513.23 µg/L	513.23 ppb	16:54:50
2	Mn 257.610†	154047.0	155404.5	521.16 µg/L	521.16 ppb	16:54:44
2	Mo 202.031†	5108.8	5150.3	532.97 µg/L	532.97 ppb	16:55:10
2	Ni 231.604†	10085.5	9871.2	523.24 µg/L	523.24 ppb	16:54:50
2	P 214.914†	1276.1	1263.1	2600.6 µg/L	2600.6 ppb	16:55:10
2	Pb 220.353†	2138.4	2071.5	532.34 µg/L	532.34 ppb	16:55:10

2	S 181.975 Axial†	259.8	245.4	1064.1 µg/L	1064.1 ppb	16:55:10
2	Sb 206.836†	562.8	545.1	519.25 µg/L	519.25 ppb	16:55:10
2	Se 196.026†	365.7	352.6	530.82 µg/L	530.82 ppb	16:55:10
2	SiO2†	27983.3	26642.4	5516.2 µg/L	5516.2 ppb	16:54:50
2	Si 251.611†	32195.7	32096.3	2575.7 µg/L	2575.7 ppb	16:54:50
2	Sn 189.927†	1199.2	1207.3	539.14 µg/L	539.14 ppb	16:55:10
2	Ti 334.940†	222802.1	224354.7	513.97 µg/L	513.97 ppb	16:54:44
2	Tl 190.801†	346.4	370.6	520.14 µg/L	520.14 ppb	16:55:10
2	U 409.014†	6383.6	6222.5	507.09 µg/L	507.09 ppb	16:54:50
2	V 292.402†	50380.9	50796.8	521.63 µg/L	521.63 ppb	16:54:50
2	Zn 213.857†	21522.0	21131.0	519.66 µg/L	519.66 ppb	16:54:50
3	Sc RADIAL	52277.5	52277.5	99.1 %		16:53:43
3	Al 396.153Radial†	6991.7	7084.4	5125.1 µg/L	5125.1 ppb	16:53:43
3	Ca 317.933Radial†	5534.3	5403.5	5113.5 µg/L	5113.5 ppb	16:54:03
3	Fe 238.204 Radial†	580.2	569.9	5160.6 µg/L	5160.6 ppb	16:54:03
3	K 766.490 Radial†	7620.4	7445.4	5091.4 µg/L	5091.4 ppb	16:53:43
3	Mg 279.077 IEC†	553.5	546.0	5232.6 µg/L	5232.6 ppb	16:54:03
3	Na 589.592 Radial†	33292.9	33015.9	10211 µg/L	10211 ppb	16:53:43
3	Sr 421.552†	51036.4	51495.0	511.78 µg/L	511.78 ppb	16:53:43
3	Sc 361.383	1874150.5	1874150.5	98.467 %		16:55:17
3	Y 371.029	1284024.6	1284024.6	97.912 %		16:55:17
3	Ag 328.068†	64213.5	65711.9	504.18 µg/L	504.18 ppb	16:55:22
3	As 188.979†	243.9	246.9	469.77 µg/L	469.77 ppb	16:55:42
3	B 249.677†	11732.4	11460.9	488.18 µg/L	488.18 ppb	16:55:22
3	Ba 233.527†	19052.4	19369.5	497.65 µg/L	497.65 ppb	16:55:22
3	Be 313.107†	793935.2	809832.5	502.58 µg/L	502.58 ppb	16:55:17
3	Cd 226.502†	18138.5	18550.2	499.60 µg/L	499.60 ppb	16:55:22
3	Co 228.616†	10140.3	10305.6	497.54 µg/L	497.54 ppb	16:55:22
3	Cr 267.716†	22627.8	23026.2	488.06 µg/L	488.06 ppb	16:55:22
3	Cu 324.752†	75151.6	73082.3	489.25 µg/L	489.25 ppb	16:55:22
3	Mn 257.610†	150063.6	152630.5	511.86 µg/L	511.86 ppb	16:55:17
3	Mo 202.031†	4455.8	4529.3	468.73 µg/L	468.73 ppb	16:55:42
3	Ni 231.604†	9514.3	9374.4	496.91 µg/L	496.91 ppb	16:55:22
3	P 214.914†	1135.4	1130.7	2324.4 µg/L	2324.4 ppb	16:55:42
3	Pb 220.353†	1911.6	1858.8	477.59 µg/L	477.59 ppb	16:55:42
3	S 181.975 Axial†	231.6	218.8	948.94 µg/L	948.94 ppb	16:55:42
3	Sb 206.836†	507.9	494.0	470.17 µg/L	470.17 ppb	16:55:42
3	Se 196.026†	336.7	326.2	491.58 µg/L	491.58 ppb	16:55:42
3	SiO2†	26878.5	25751.4	5331.7 µg/L	5331.7 ppb	16:55:22
3	Si 251.611†	30919.0	31065.5	2493.0 µg/L	2493.0 ppb	16:55:22
3	Sn 189.927†	1030.4	1045.7	467.01 µg/L	467.01 ppb	16:55:42
3	Ti 334.940†	215864.0	219147.4	502.03 µg/L	502.03 ppb	16:55:17
3	Tl 190.801†	320.2	346.9	487.18 µg/L	487.18 ppb	16:55:42
3	U 409.014†	5945.5	5830.3	475.06 µg/L	475.06 ppb	16:55:22
3	V 292.402†	47321.9	48106.0	493.73 µg/L	493.73 ppb	16:55:22
3	Zn 213.857†	20331.8	20099.8	494.27 µg/L	494.27 ppb	16:55:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1877485.6	98.642 %		0.5647			0.57%
Sc RADIAL	52294.2	99.1 %		0.17			0.17%
Y 371.029	1286716.4	98.117 %		0.5985			0.61%
Ag 328.068†	67178.7	515.50 µg/L		10.934	515.50 ppb	10.934	2.12%
QC value within limits for Ag 328.068 Recovery = 103.10%							
Al 396.153Radial†	7082.3	5122.6 µg/L		36.28	5122.6 ppb	36.28	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.45%							
As 188.979†	268.7	511.35 µg/L		36.939	511.35 ppb	36.939	7.22%
QC value within limits for As 188.979 Recovery = 102.27%							
B 249.677†	11744.3	500.35 µg/L		12.135	500.35 ppb	12.135	2.43%
QC value within limits for B 249.677 Recovery = 100.07%							
Ba 233.527†	20070.3	515.67 µg/L		16.779	515.67 ppb	16.779	3.25%
QC value within limits for Ba 233.527 Recovery = 103.13%							
Be 313.107†	825646.8	512.40 µg/L		9.228	512.40 ppb	9.228	1.80%
QC value within limits for Be 313.107 Recovery = 102.48%							
Ca 317.933Radial†	5400.0	5110.1 µg/L		16.72	5110.1 ppb	16.72	0.33%
QC value within limits for Ca 317.933Radial Recovery = 102.20%							
Cd 226.502†	19234.3	518.05 µg/L		16.907	518.05 ppb	16.907	3.26%
QC value within limits for Cd 226.502 Recovery = 103.61%							
Co 228.616†	10717.8	517.48 µg/L		18.375	517.48 ppb	18.375	3.55%

QC value within limits for Co 228.616 Recovery = 103.50%							
Cr 267.716†	24248.6	513.97 µg/L	23.114	513.97 ppb	23.114	4.50%	
QC value within limits for Cr 267.716 Recovery = 102.79%							
Cu 324.752†	76009.7	508.81 µg/L	17.775	508.81 ppb	17.775	3.49%	
QC value within limits for Cu 324.752 Recovery = 101.76%							
Fe 238.204 Radial†	569.5	5157.1 µg/L	3.05	5157.1 ppb	3.05	0.06%	
QC value within limits for Fe 238.204 Radial Recovery = 103.14%							
K 766.490 Radial†	7441.4	5088.6 µg/L	29.63	5088.6 ppb	29.63	0.58%	
QC value within limits for K 766.490 Radial Recovery = 101.77%							
Mg 279.077 IEC†	543.1	5205.6 µg/L	31.80	5205.6 ppb	31.80	0.61%	
QC value within limits for Mg 279.077 IEC Recovery = 104.11%							
Mn 257.610†	155249.9	520.64 µg/L	8.529	520.64 ppb	8.529	1.64%	
QC value within limits for Mn 257.610 Recovery = 104.13%							
Mo 202.031†	4967.2	514.04 µg/L	39.413	514.04 ppb	39.413	7.67%	
QC value within limits for Mo 202.031 Recovery = 102.81%							
Na 589.592 Radial†	32995.1	10205 µg/L	55.0	10205 ppb	55.0	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 102.05%							
Ni 231.604†	9786.7	518.76 µg/L	19.992	518.76 ppb	19.992	3.85%	
QC value within limits for Ni 231.604 Recovery = 103.75%							
P 214.914†	1222.1	2514.9 µg/L	165.26	2514.9 ppb	165.26	6.57%	
QC value within limits for P 214.914 Recovery = 100.60%							
Pb 220.353†	2002.8	514.66 µg/L	32.118	514.66 ppb	32.118	6.24%	
QC value within limits for Pb 220.353 Recovery = 102.93%							
S 181.975 Axial†	237.5	1030.1 µg/L	70.63	1030.1 ppb	70.63	6.86%	
QC value within limits for S 181.975 Axial Recovery = 103.01%							
Sb 206.836†	533.8	508.35 µg/L	34.067	508.35 ppb	34.067	6.70%	
QC value within limits for Sb 206.836 Recovery = 101.67%							
Se 196.026†	345.5	520.30 µg/L	25.170	520.30 ppb	25.170	4.84%	
QC value within limits for Se 196.026 Recovery = 104.06%							
SiO2†	26507.5	5488.3 µg/L	144.61	5488.3 ppb	144.61	2.63%	
QC value within limits for SiO2 Recovery = 102.63%							
Si 251.611†	31956.1	2564.4 µg/L	66.56	2564.4 ppb	66.56	2.60%	
QC value within limits for Si 251.611 Recovery = 102.58%							
Sn 189.927†	1161.3	518.62 µg/L	45.013	518.62 ppb	45.013	8.68%	
QC value within limits for Sn 189.927 Recovery = 103.72%							
Sr 421.552†	51457.5	511.41 µg/L	2.899	511.41 ppb	2.899	0.57%	
QC value within limits for Sr 421.552 Recovery = 102.28%							
Ti 334.940†	223739.1	512.56 µg/L	9.897	512.56 ppb	9.897	1.93%	
QC value within limits for Ti 334.940 Recovery = 102.51%							
Tl 190.801†	367.3	515.55 µg/L	26.382	515.55 ppb	26.382	5.12%	
QC value within limits for Tl 190.801 Recovery = 103.11%							
U 409.014†	6138.8	500.25 µg/L	22.562	500.25 ppb	22.562	4.51%	
QC value within limits for U 409.014 Recovery = 100.05%							
V 292.402†	50260.6	516.02 µg/L	20.079	516.02 ppb	20.079	3.89%	
QC value within limits for V 292.402 Recovery = 103.20%							
Zn 213.857†	20933.1	514.78 µg/L	18.560	514.78 ppb	18.560	3.61%	
QC value within limits for Zn 213.857 Recovery = 102.96%							

All analyte(s) passed QC.

Sequence No.: 46
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/24/2010 16:55:51
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52025.7	52025.7	98.6 %		16:56:23
1	Al 396.153Radial†	-27.6	-1.6	-1.1347 µg/L	-1.1347 ppb	16:56:23
1	Ca 317.933Radial†	178.8	-1.8	-1.7227 µg/L	-1.7227 ppb	16:56:43
1	Fe 238.204 Radial†	16.2	0.7	6.0373 µg/L	6.0373 ppb	16:56:43
1	K 766.490 Radial†	187.9	-56.6	-38.716 µg/L	-38.716 ppb	16:56:23
1	Mg 279.077 IEC†	7.5	-5.1	-48.834 µg/L	-48.834 ppb	16:56:43
1	Na 589.592 Radial†	473.8	-111.9	-34.614 µg/L	-34.614 ppb	16:56:23
1	Sr 421.552†	10.7	-14.2	-0.1412 µg/L	-0.1412 ppb	16:56:23
1	Sc 361.383	1869615.0	1869615.0	98.229 %		16:57:42
1	Y 371.029	1286002.7	1286002.7	98.062 %		16:57:42
1	Ag 328.068†	-537.5	-48.4	-0.3671 µg/L	-0.3671 ppb	16:57:47
1	As 188.979†	-0.2	-1.0	-1.9827 µg/L	-1.9827 ppb	16:58:07
1	B 249.677†	347.5	-100.4	-4.2981 µg/L	-4.2981 ppb	16:58:07
1	Ba 233.527†	-26.2	-6.2	-0.1579 µg/L	-0.1579 ppb	16:58:07
1	Be 313.107†	-3606.6	-133.4	-0.0829 µg/L	-0.0829 ppb	16:57:47
1	Cd 226.502†	-125.0	2.1	0.0561 µg/L	0.0561 ppb	16:58:07
1	Co 228.616†	-8.4	-1.1	-0.0529 µg/L	-0.0529 ppb	16:58:07
1	Cr 267.716†	-36.0	9.5	0.2005 µg/L	0.2005 ppb	16:58:07
1	Cu 324.752†	3293.0	113.3	0.7581 µg/L	0.7581 ppb	16:57:47
1	Mn 257.610†	-230.9	-4.3	-0.0116 µg/L	-0.0116 ppb	16:58:07
1	Mo 202.031†	-0.0	4.1	0.4198 µg/L	0.4198 ppb	16:58:07
1	Ni 231.604†	291.4	8.7	0.4617 µg/L	0.4617 ppb	16:58:07
1	P 214.914†	23.7	1.8	3.7556 µg/L	3.7556 ppb	16:58:07
1	Pb 220.353†	87.1	6.1	1.5760 µg/L	1.5760 ppb	16:58:07
1	S 181.975 Axial†	14.0	-2.1	-9.0314 µg/L	-9.0314 ppb	16:58:07
1	Sb 206.836†	24.3	3.0	2.8093 µg/L	2.8093 ppb	16:58:07
1	Se 196.026†	17.3	1.8	2.7155 µg/L	2.7155 ppb	16:58:07
1	SiO2†	1533.8	15.9	3.2917 µg/L	3.2917 ppb	16:57:47
1	Si 251.611†	308.2	-21.1	-1.6938 µg/L	-1.6938 ppb	16:58:07
1	Sn 189.927†	2.4	1.7	0.7745 µg/L	0.7745 ppb	16:58:07
1	Ti 334.940†	152.5	78.3	0.1834 µg/L	0.1834 ppb	16:57:47
1	Tl 190.801†	-24.2	-2.9	-4.0256 µg/L	-4.0256 ppb	16:58:07
1	U 409.014†	240.0	36.5	2.9806 µg/L	2.9806 ppb	16:57:47
1	V 292.402†	-24.6	22.4	0.2350 µg/L	0.2350 ppb	16:57:47
1	Zn 213.857†	494.8	-44.8	-1.1093 µg/L	-1.1093 ppb	16:58:07
2	Sc RADIAL	51970.6	51970.6	98.5 %		16:56:49
2	Al 396.153Radial†	-16.6	9.6	6.9056 µg/L	6.9056 ppb	16:56:49
2	Ca 317.933Radial†	176.2	-4.3	-4.0801 µg/L	-4.0801 ppb	16:57:09
2	Fe 238.204 Radial†	16.5	1.0	8.8474 µg/L	8.8474 ppb	16:57:09
2	K 766.490 Radial†	222.5	-21.3	-14.551 µg/L	-14.551 ppb	16:56:49
2	Mg 279.077 IEC†	15.4	2.9	28.101 µg/L	28.101 ppb	16:57:09
2	Na 589.592 Radial†	480.9	-104.2	-32.224 µg/L	-32.224 ppb	16:56:49
2	Sr 421.552†	53.4	29.2	0.2902 µg/L	0.2902 ppb	16:56:49
2	Sc 361.383	1891198.1	1891198.1	99.363 %		16:58:13
2	Y 371.029	1301489.8	1301489.8	99.243 %		16:58:13
2	Ag 328.068†	-556.2	-61.0	-0.4668 µg/L	-0.4668 ppb	16:58:18
2	As 188.979†	-0.6	-1.4	-2.7518 µg/L	-2.7518 ppb	16:58:39
2	B 249.677†	349.0	-102.9	-4.4041 µg/L	-4.4041 ppb	16:58:39
2	Ba 233.527†	-24.0	-3.7	-0.0955 µg/L	-0.0955 ppb	16:58:39
2	Be 313.107†	-3534.0	-18.4	-0.0115 µg/L	-0.0115 ppb	16:58:18
2	Cd 226.502†	-122.9	5.7	0.1518 µg/L	0.1518 ppb	16:58:39
2	Co 228.616†	-4.7	2.7	0.1300 µg/L	0.1300 ppb	16:58:39
2	Cr 267.716†	-17.0	29.0	0.6144 µg/L	0.6144 ppb	16:58:39
2	Cu 324.752†	3290.0	72.0	0.4827 µg/L	0.4827 ppb	16:58:18
2	Mn 257.610†	-209.5	20.0	0.0671 µg/L	0.0671 ppb	16:58:39
2	Mo 202.031†	4.8	8.9	0.9186 µg/L	0.9186 ppb	16:58:39
2	Ni 231.604†	292.5	6.4	0.3384 µg/L	0.3384 ppb	16:58:39
2	P 214.914†	9.7	-12.6	-26.445 µg/L	-26.445 ppb	16:58:39
2	Pb 220.353†	93.4	11.4	2.9265 µg/L	2.9265 ppb	16:58:39

2	S 181.975 Axial†	16.8	0.5	2.3585 µg/L	2.3585 ppb	16:58:39
2	Sb 206.836†	21.1	-0.5	-0.4969 µg/L	-0.4969 ppb	16:58:39
2	Se 196.026†	20.1	4.4	6.5742 µg/L	6.5742 ppb	16:58:39
2	SiO2†	1567.1	31.6	6.5400 µg/L	6.5400 ppb	16:58:18
2	Si 251.611†	346.2	13.5	1.0851 µg/L	1.0851 ppb	16:58:39
2	Sn 189.927†	-3.7	-4.4	-1.9784 µg/L	-1.9784 ppb	16:58:39
2	Ti 334.940†	133.9	57.8	0.1301 µg/L	0.1301 ppb	16:58:18
2	Tl 190.801†	-21.7	-0.1	-0.1929 µg/L	-0.1929 ppb	16:58:39
2	U 409.014†	251.3	45.1	3.6851 µg/L	3.6851 ppb	16:58:18
2	V 292.402†	-89.0	-42.1	-0.4137 µg/L	-0.4137 ppb	16:58:18
2	Zn 213.857†	513.4	-31.8	-0.7907 µg/L	-0.7907 ppb	16:58:39
3	Sc RADIAL	52186.7	52186.7	98.9 %		16:57:14
3	Al 396.153Radial†	-14.5	11.8	8.5597 µg/L	8.5597 ppb	16:57:14
3	Ca 317.933Radial†	182.2	1.0	0.9711 µg/L	0.9711 ppb	16:57:34
3	Fe 238.204 Radial†	14.9	-0.7	-6.0969 µg/L	-6.0969 ppb	16:57:34
3	K 766.490 Radial†	243.4	-1.1	-0.7383 µg/L	-0.7383 ppb	16:57:14
3	Mg 279.077 IEC†	8.6	-4.0	-38.746 µg/L	-38.746 ppb	16:57:34
3	Na 589.592 Radial†	481.4	-105.7	-32.685 µg/L	-32.685 ppb	16:57:14
3	Sr 421.552†	55.4	31.0	0.3082 µg/L	0.3082 ppb	16:57:14
3	Sc 361.383	1856857.7	1856857.7	97.559 %		16:58:44
3	Y 371.029	1277103.2	1277103.2	97.384 %		16:58:44
3	Ag 328.068†	-473.1	13.9	0.1050 µg/L	0.1050 ppb	16:58:49
3	As 188.979†	-4.6	-5.5	-10.545 µg/L	-10.545 ppb	16:59:10
3	B 249.677†	338.3	-107.4	-4.5885 µg/L	-4.5885 ppb	16:59:10
3	Ba 233.527†	-7.9	12.4	0.3174 µg/L	0.3174 ppb	16:59:10
3	Be 313.107†	-3323.4	131.7	0.0816 µg/L	0.0816 ppb	16:58:49
3	Cd 226.502†	-127.4	-1.2	-0.0314 µg/L	-0.0314 ppb	16:59:10
3	Co 228.616†	-0.3	7.1	0.3442 µg/L	0.3442 ppb	16:59:10
3	Cr 267.716†	-6.5	39.5	0.8360 µg/L	0.8360 ppb	16:59:10
3	Cu 324.752†	3298.3	141.7	0.9465 µg/L	0.9465 ppb	16:58:49
3	Mn 257.610†	-151.0	76.1	0.2556 µg/L	0.2556 ppb	16:59:10
3	Mo 202.031†	-0.2	3.8	0.3937 µg/L	0.3937 ppb	16:59:10
3	Ni 231.604†	306.3	26.0	1.3782 µg/L	1.3782 ppb	16:59:10
3	P 214.914†	24.6	2.8	5.8808 µg/L	5.8808 ppb	16:59:10
3	Pb 220.353†	89.8	9.5	2.4323 µg/L	2.4323 ppb	16:59:10
3	S 181.975 Axial†	16.7	0.7	3.1165 µg/L	3.1165 ppb	16:59:10
3	Sb 206.836†	22.4	1.1	1.0646 µg/L	1.0646 ppb	16:59:10
3	Se 196.026†	14.1	-1.3	-1.9744 µg/L	-1.9744 ppb	16:59:10
3	SiO2†	1572.7	66.5	13.764 µg/L	13.764 ppb	16:58:49
3	Si 251.611†	326.2	-0.5	-0.0377 µg/L	-0.0377 ppb	16:59:10
3	Sn 189.927†	4.1	3.5	1.5552 µg/L	1.5552 ppb	16:59:10
3	Ti 334.940†	226.3	155.0	0.3585 µg/L	0.3585 ppb	16:58:49
3	Tl 190.801†	-22.5	-1.3	-1.8281 µg/L	-1.8281 ppb	16:59:10
3	U 409.014†	233.9	31.9	2.6084 µg/L	2.6084 ppb	16:58:49
3	V 292.402†	-51.9	-5.8	-0.0516 µg/L	-0.0516 ppb	16:58:49
3	Zn 213.857†	507.4	-28.4	-0.7074 µg/L	-0.7074 ppb	16:59:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1872556.9	98.383	%	0.9120				0.93%
Sc RADIAL	52061.0	98.7	%	0.21				0.22%
Y 371.029	1288198.6	98.230	%	0.9410				0.96%
Ag 328.068†	-31.8	-0.2430	µg/L	0.30542	-0.2430	ppb	0.30542	125.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	4.7769	µg/L	5.18596	4.7769	ppb	5.18596	108.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.7	-5.0931	µg/L	4.73694	-5.0931	ppb	4.73694	93.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-103.6	-4.4302	µg/L	0.14694	-4.4302	ppb	0.14694	3.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.8	0.0213	µg/L	0.25832	0.0213	ppb	0.25832	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-6.7	-0.0042	µg/L	0.08248	-0.0042	ppb	0.08248	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.6106	µg/L	2.52749	-1.6106	ppb	2.52749	156.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.2	0.0589	µg/L	0.09165	0.0589	ppb	0.09165	155.72%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.9	0.1404	µg/L	0.19874	0.1404	ppb	0.19874	141.55%

Cr	267.716†	26.0	0.5503 µg/L	0.32255	0.5503 ppb	0.32255	58.62%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	109.0	0.7291 µg/L	0.23324	0.7291 ppb	0.23324	31.99%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.3	2.9293 µg/L	7.94216	2.9293 ppb	7.94216	271.13%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-26.3	-18.002 µg/L	19.2225	-18.002 ppb	19.2225	106.78%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-2.1	-19.826 µg/L	41.8115	-19.826 ppb	41.8115	210.89%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	30.6	0.1037 µg/L	0.13729	0.1037 ppb	0.13729	132.40%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	5.6	0.5774 µg/L	0.29582	0.5774 ppb	0.29582	51.23%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-107.3	-33.174 µg/L	1.2676	-33.174 ppb	1.2676	3.82%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	13.7	0.7261 µg/L	0.56810	0.7261 ppb	0.56810	78.24%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-2.6	-5.6029 µg/L	18.08117	-5.6029 ppb	18.08117	322.71%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	9.0	2.3116 µg/L	0.68330	2.3116 ppb	0.68330	29.56%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-0.3	-1.1855 µg/L	6.80536	-1.1855 ppb	6.80536	574.06%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	1.2	1.1257 µg/L	1.65396	1.1257 ppb	1.65396	146.93%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.6	2.4384 µg/L	4.28105	2.4384 ppb	4.28105	175.56%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		38.0	7.8654 µg/L	5.36070	7.8654 ppb	5.36070	68.16%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-2.7	-0.2154 µg/L	1.39793	-0.2154 ppb	1.39793	648.88%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	0.3	0.1171 µg/L	1.85628	0.1171 ppb	1.85628	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	15.3	0.1524 µg/L	0.25442	0.1524 ppb	0.25442	166.91%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	97.0	0.2240 µg/L	0.11947	0.2240 ppb	0.11947	53.34%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-1.5	-2.0155 µg/L	1.92323	-2.0155 ppb	1.92323	95.42%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	37.9	3.0914 µg/L	0.54682	3.0914 ppb	0.54682	17.69%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-8.5	-0.0768 µg/L	0.32509	-0.0768 ppb	0.32509	423.47%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-35.0	-0.8691 µg/L	0.21214	-0.8691 ppb	0.21214	24.41%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/24/2010 17:31:45
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54200.0	54200.0	103	%		17:32:24
1	Al 396.153Radial†	7084.9	6924.8	5008.0	µg/L	5008.0 ppb	17:32:24
1	Ca 317.933Radial†	5535.0	5206.0	4926.6	µg/L	4926.6 ppb	17:32:45
1	Fe 238.204 Radial†	588.5	557.3	5046.9	µg/L	5046.9 ppb	17:32:45
1	K 766.490 Radial†	7839.5	7385.9	5050.7	µg/L	5050.7 ppb	17:32:24
1	Mg 279.077 IEC†	544.3	517.3	4958.7	µg/L	4958.7 ppb	17:32:45
1	Na 589.592 Radial†	33914.9	32429.3	10030	µg/L	10030 ppb	17:32:24
1	Sr 421.552†	52050.6	50655.1	503.43	µg/L	503.43 ppb	17:32:24
1	Sc 361.383	1902266.2	1902266.2	99.944	%		17:33:48
1	Y 371.029	1303333.5	1303333.5	99.384	%		17:33:48
1	Ag 328.068†	66573.1	67109.0	515.00	µg/L	515.00 ppb	17:33:54
1	As 188.979†	277.0	276.3	525.79	µg/L	525.79 ppb	17:34:14
1	B 249.677†	12262.8	11815.4	503.46	µg/L	503.46 ppb	17:33:54
1	Ba 233.527†	20202.3	20234.0	519.87	µg/L	519.87 ppb	17:33:54
1	Be 313.107†	831886.1	835887.5	518.75	µg/L	518.75 ppb	17:33:48
1	Cd 226.502†	19242.9	19383.0	522.07	µg/L	522.07 ppb	17:33:54
1	Co 228.616†	10813.9	10827.4	522.78	µg/L	522.78 ppb	17:33:54
1	Cr 267.716†	24581.4	24641.2	522.29	µg/L	522.29 ppb	17:33:54
1	Cu 324.752†	79704.7	76510.0	512.14	µg/L	512.14 ppb	17:33:54
1	Mn 257.610†	157158.3	157476.6	528.10	µg/L	528.10 ppb	17:33:48
1	Mo 202.031†	5162.7	5169.6	534.97	µg/L	534.97 ppb	17:34:14
1	Ni 231.604†	10146.5	9864.1	522.86	µg/L	522.86 ppb	17:33:54
1	P 214.914†	1281.3	1259.7	2593.7	µg/L	2593.7 ppb	17:34:14
1	Pb 220.353†	2131.6	2050.2	526.87	µg/L	526.87 ppb	17:34:14
1	S 181.975 Axial†	258.3	242.1	1049.9	µg/L	1049.9 ppb	17:34:14
1	Sb 206.836†	579.3	557.9	531.43	µg/L	531.43 ppb	17:34:14
1	Se 196.026†	377.0	361.4	543.83	µg/L	543.83 ppb	17:34:14
1	SiO2†	29251.3	27722.0	5739.7	µg/L	5739.7 ppb	17:33:54
1	Si 251.611†	33842.4	33526.3	2690.4	µg/L	2690.4 ppb	17:33:54
1	Sn 189.927†	1205.7	1205.6	538.39	µg/L	538.39 ppb	17:34:14
1	Ti 334.940†	226279.3	226328.3	518.51	µg/L	518.51 ppb	17:33:48
1	Tl 190.801†	349.7	371.6	521.58	µg/L	521.58 ppb	17:34:14
1	U 409.014†	6507.4	6303.2	513.71	µg/L	513.71 ppb	17:33:54
1	V 292.402†	50714.6	50790.2	521.57	µg/L	521.57 ppb	17:33:54
1	Zn 213.857†	21666.0	21129.6	519.65	µg/L	519.65 ppb	17:33:54
2	Sc RADIAL	53005.3	53005.3	100	%		17:32:50
2	Al 396.153Radial†	6963.1	6959.0	5033.0	µg/L	5033.0 ppb	17:32:50
2	Ca 317.933Radial†	5512.8	5305.4	5020.7	µg/L	5020.7 ppb	17:33:11
2	Fe 238.204 Radial†	578.7	560.4	5075.2	µg/L	5075.2 ppb	17:33:11
2	K 766.490 Radial†	7671.2	7390.3	5053.7	µg/L	5053.7 ppb	17:32:50
2	Mg 279.077 IEC†	545.8	530.7	5087.0	µg/L	5087.0 ppb	17:33:11
2	Na 589.592 Radial†	33194.1	32456.1	10038	µg/L	10038 ppb	17:32:50
2	Sr 421.552†	50682.5	50435.3	501.25	µg/L	501.25 ppb	17:32:50
2	Sc 361.383	1897612.9	1897612.9	99.700	%		17:34:21
2	Y 371.029	1300325.4	1300325.4	99.155	%		17:34:21
2	Ag 328.068†	66834.0	67534.0	518.26	µg/L	518.26 ppb	17:34:27
2	As 188.979†	276.1	276.0	525.30	µg/L	525.30 ppb	17:34:48
2	B 249.677†	12360.0	11943.0	508.91	µg/L	508.91 ppb	17:34:27
2	Ba 233.527†	20274.6	20356.1	523.01	µg/L	523.01 ppb	17:34:27
2	Be 313.107†	822746.8	828761.7	514.33	µg/L	514.33 ppb	17:34:21
2	Cd 226.502†	19324.9	19512.4	525.56	µg/L	525.56 ppb	17:34:27
2	Co 228.616†	10831.5	10871.6	524.92	µg/L	524.92 ppb	17:34:27
2	Cr 267.716†	24648.3	24768.7	524.99	µg/L	524.99 ppb	17:34:27
2	Cu 324.752†	79942.3	76943.8	515.05	µg/L	515.05 ppb	17:34:27
2	Mn 257.610†	155184.7	155882.7	522.76	µg/L	522.76 ppb	17:34:21
2	Mo 202.031†	5084.9	5104.3	528.22	µg/L	528.22 ppb	17:34:48
2	Ni 231.604†	10176.5	9919.2	525.78	µg/L	525.78 ppb	17:34:27
2	P 214.914†	1266.1	1247.6	2567.9	µg/L	2567.9 ppb	17:34:48
2	Pb 220.353†	2115.5	2039.3	524.04	µg/L	524.04 ppb	17:34:48

2	S 181.975 Axial†	259.2	243.6	1056.6 µg/L	1056.6 ppb	17:34:48
2	Sb 206.836†	573.9	553.8	527.40 µg/L	527.40 ppb	17:34:48
2	Se 196.026†	369.1	354.4	533.42 µg/L	533.42 ppb	17:34:48
2	SiO2†	30487.5	29033.7	6011.3 µg/L	6011.3 ppb	17:34:27
2	Si 251.611†	35186.9	34958.0	2805.3 µg/L	2805.3 ppb	17:34:27
2	Sn 189.927†	1182.9	1185.8	529.55 µg/L	529.55 ppb	17:34:48
2	Ti 334.940†	224035.2	224632.7	514.62 µg/L	514.62 ppb	17:34:21
2	Tl 190.801†	347.6	370.3	519.77 µg/L	519.77 ppb	17:34:48
2	U 409.014†	6392.5	6204.0	505.59 µg/L	505.59 ppb	17:34:27
2	V 292.402†	50954.1	51154.9	525.22 µg/L	525.22 ppb	17:34:27
2	Zn 213.857†	21714.3	21231.1	522.14 µg/L	522.14 ppb	17:34:27
3	Sc RADIAL	52998.7	52998.7	100 %		17:33:16
3	Al 396.153Radial†	7025.5	7022.0	5080.4 µg/L	5080.4 ppb	17:33:16
3	Ca 317.933Radial†	5555.4	5348.5	5061.5 µg/L	5061.5 ppb	17:33:36
3	Fe 238.204 Radial†	581.4	563.1	5098.9 µg/L	5098.9 ppb	17:33:36
3	K 766.490 Radial†	7662.2	7382.4	5048.3 µg/L	5048.3 ppb	17:33:16
3	Mg 279.077 IEC†	551.9	536.9	5144.7 µg/L	5144.7 ppb	17:33:36
3	Na 589.592 Radial†	33362.6	32628.0	10091 µg/L	10091 ppb	17:33:16
3	Sr 421.552†	51217.5	50974.3	506.60 µg/L	506.60 ppb	17:33:16
3	Sc 361.383	1897453.8	1897453.8	99.692 %		17:34:55
3	Y 371.029	1301078.2	1301078.2	99.212 %		17:34:55
3	Ag 328.068†	62994.5	63688.2	488.60 µg/L	488.60 ppb	17:35:01
3	As 188.979†	236.6	236.5	450.06 µg/L	450.06 ppb	17:35:21
3	B 249.677†	11513.8	11095.3	472.54 µg/L	472.54 ppb	17:35:01
3	Ba 233.527†	18536.9	18614.7	478.25 µg/L	478.25 ppb	17:35:01
3	Be 313.107†	765492.5	771399.4	478.73 µg/L	478.73 ppb	17:34:55
3	Cd 226.502†	17617.7	17801.6	479.42 µg/L	479.42 ppb	17:35:01
3	Co 228.616†	9773.0	9810.7	473.64 µg/L	473.64 ppb	17:35:01
3	Cr 267.716†	21631.7	21744.7	460.90 µg/L	460.90 ppb	17:35:01
3	Cu 324.752†	72608.6	69594.2	465.92 µg/L	465.92 ppb	17:35:01
3	Mn 257.610†	145171.3	145851.3	489.15 µg/L	489.15 ppb	17:34:55
3	Mo 202.031†	4251.0	4268.2	441.72 µg/L	441.72 ppb	17:35:21
3	Ni 231.604†	9228.5	8969.1	475.43 µg/L	475.43 ppb	17:35:01
3	P 214.914†	1095.6	1076.7	2213.2 µg/L	2213.2 ppb	17:35:21
3	Pb 220.353†	1849.4	1772.6	455.44 µg/L	455.44 ppb	17:35:21
3	S 181.975 Axial†	229.1	213.5	925.86 µg/L	925.86 ppb	17:35:21
3	Sb 206.836†	488.0	467.7	445.10 µg/L	445.10 ppb	17:35:21
3	Se 196.026†	326.6	311.7	470.15 µg/L	470.15 ppb	17:35:21
3	SiO2†	27790.4	26330.8	5451.7 µg/L	5451.7 ppb	17:35:01
3	Si 251.611†	32001.2	31765.3	2549.1 µg/L	2549.1 ppb	17:35:01
3	Sn 189.927†	980.9	983.3	439.12 µg/L	439.12 ppb	17:35:21
3	Ti 334.940†	207372.8	207937.5	476.34 µg/L	476.34 ppb	17:34:55
3	Tl 190.801†	309.9	332.6	467.02 µg/L	467.02 ppb	17:35:21
3	U 409.014†	5666.0	5475.7	446.12 µg/L	446.12 ppb	17:35:01
3	V 292.402†	45423.2	45611.2	468.12 µg/L	468.12 ppb	17:35:01
3	Zn 213.857†	19667.3	19179.7	471.63 µg/L	471.63 ppb	17:35:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1899111.0	99.779 %	0.1436			0.14%
Sc RADIAL	53401.4	101 %	1.3			1.30%
Y 371.029	1301579.0	99.250 %	0.1194			0.12%
Ag 328.068†	66110.4	507.29 µg/L	16.269	507.29 ppb	16.269	3.21%
QC value within limits for Ag 328.068 Recovery = 101.46%						
Al 396.153Radial†	6968.6	5040.5 µg/L	36.79	5040.5 ppb	36.79	0.73%
QC value within limits for Al 396.153Radial Recovery = 100.81%						
As 188.979†	262.9	500.38 µg/L	43.579	500.38 ppb	43.579	8.71%
QC value within limits for As 188.979 Recovery = 100.08%						
B 249.677†	11617.9	494.97 µg/L	19.614	494.97 ppb	19.614	3.96%
QC value within limits for B 249.677 Recovery = 98.99%						
Ba 233.527†	19734.9	507.05 µg/L	24.988	507.05 ppb	24.988	4.93%
QC value within limits for Ba 233.527 Recovery = 101.41%						
Be 313.107†	812016.2	503.94 µg/L	21.941	503.94 ppb	21.941	4.35%
QC value within limits for Be 313.107 Recovery = 100.79%						
Ca 317.933Radial†	5286.7	5002.9 µg/L	69.18	5002.9 ppb	69.18	1.38%
QC value within limits for Ca 317.933Radial Recovery = 100.06%						
Cd 226.502†	18899.0	509.02 µg/L	25.691	509.02 ppb	25.691	5.05%
QC value within limits for Cd 226.502 Recovery = 101.80%						
Co 228.616†	10503.2	507.11 µg/L	29.010	507.11 ppb	29.010	5.72%

Cr	267.716†	23718.2	502.73 µg/L	36.247	502.73 ppb	36.247	7.21%
Cu	324.752†	74349.3	497.70 µg/L	27.563	497.70 ppb	27.563	5.54%
Fe	238.204 Radial†	560.3	5073.7 µg/L	26.02	5073.7 ppb	26.02	0.51%
K	766.490 Radial†	7386.2	5050.9 µg/L	2.72	5050.9 ppb	2.72	0.05%
Mg	279.077 IEC†	528.3	5063.4 µg/L	95.20	5063.4 ppb	95.20	1.88%
Mn	257.610†	153070.2	513.33 µg/L	21.116	513.33 ppb	21.116	4.11%
Mo	202.031†	4847.4	501.64 µg/L	51.997	501.64 ppb	51.997	10.37%
Na	589.592 Radial†	32504.5	10053 µg/L	33.3	10053 ppb	33.3	0.33%
Ni	231.604†	9584.1	508.02 µg/L	28.267	508.02 ppb	28.267	5.56%
P	214.914†	1194.7	2458.3 µg/L	212.62	2458.3 ppb	212.62	8.65%
Pb	220.353†	1954.0	502.12 µg/L	40.448	502.12 ppb	40.448	8.06%
S	181.975 Axial†	233.1	1010.8 µg/L	73.64	1010.8 ppb	73.64	7.28%
Sb	206.836†	526.4	501.31 µg/L	48.721	501.31 ppb	48.721	9.72%
Se	196.026†	342.5	515.80 µg/L	39.877	515.80 ppb	39.877	7.73%
SiO2†		27695.5	5734.3 µg/L	279.86	5734.3 ppb	279.86	4.88%
Si	251.611†	33416.5	2681.6 µg/L	128.33	2681.6 ppb	128.33	4.79%
Sn	189.927†	1124.9	502.35 µg/L	54.941	502.35 ppb	54.941	10.94%
Sr	421.552†	50688.2	503.76 µg/L	2.694	503.76 ppb	2.694	0.53%
Ti	334.940†	219632.8	503.16 µg/L	23.304	503.16 ppb	23.304	4.63%
Tl	190.801†	358.2	502.79 µg/L	30.994	502.79 ppb	30.994	6.16%
U	409.014†	5994.3	488.47 µg/L	36.902	488.47 ppb	36.902	7.55%
V	292.402†	49185.5	504.97 µg/L	31.965	504.97 ppb	31.965	6.33%
Zn	213.857†	20513.5	504.47 µg/L	28.471	504.47 ppb	28.471	5.64%

QC value within limits for Co 228.616 Recovery = 101.42%
 QC value within limits for Cr 267.716 Recovery = 100.55%
 QC value within limits for Cu 324.752 Recovery = 99.54%
 QC value within limits for Fe 238.204 Radial Recovery = 101.47%
 QC value within limits for K 766.490 Radial Recovery = 101.02%
 QC value within limits for Mg 279.077 IEC Recovery = 101.27%
 QC value within limits for Mn 257.610 Recovery = 102.67%
 QC value within limits for Mo 202.031 Recovery = 100.33%
 QC value within limits for Na 589.592 Radial Recovery = 100.53%
 QC value within limits for Ni 231.604 Recovery = 101.60%
 QC value within limits for P 214.914 Recovery = 98.33%
 QC value within limits for Pb 220.353 Recovery = 100.42%
 QC value within limits for S 181.975 Axial Recovery = 101.08%
 QC value within limits for Sb 206.836 Recovery = 100.26%
 QC value within limits for Se 196.026 Recovery = 103.16%
 QC value within limits for SiO2 Recovery = 107.23%
 QC value within limits for Si 251.611 Recovery = 107.27%
 QC value within limits for Sn 189.927 Recovery = 100.47%
 QC value within limits for Sr 421.552 Recovery = 100.75%
 QC value within limits for Ti 334.940 Recovery = 100.63%
 QC value within limits for Tl 190.801 Recovery = 100.56%
 QC value within limits for U 409.014 Recovery = 97.69%
 QC value within limits for V 292.402 Recovery = 100.99%
 QC value within limits for Zn 213.857 Recovery = 100.89%

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/24/2010 17:35:30
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52546.0	52546.0	99.6 %		17:36:03
1	Al 396.153Radial†	-11.1	15.3	11.046 µg/L	11.046 ppb	17:36:03
1	Ca 317.933Radial†	180.4	-2.0	-1.9140 µg/L	-1.9140 ppb	17:36:24
1	Fe 238.204 Radial†	17.3	1.6	14.598 µg/L	14.598 ppb	17:36:24
1	K 766.490 Radial†	135.1	-111.5	-76.254 µg/L	-76.254 ppb	17:36:03
1	Mg 279.077 IEC†	11.6	-1.1	-10.210 µg/L	-10.210 ppb	17:36:24
1	Na 589.592 Radial†	501.8	-88.5	-27.380 µg/L	-27.380 ppb	17:36:03
1	Sr 421.552†	56.2	31.5	0.3127 µg/L	0.3127 ppb	17:36:03
1	Sc 361.383	1907494.8	1907494.8	100.22 %		17:37:26
1	Y 371.029	1311605.3	1311605.3	100.01 %		17:37:26
1	Ag 328.068†	-514.7	-14.8	-0.1095 µg/L	-0.1095 ppb	17:37:31
1	As 188.979†	0.2	-0.7	-1.2917 µg/L	-1.2917 ppb	17:37:52
1	B 249.677†	365.0	-90.0	-3.8540 µg/L	-3.8540 ppb	17:37:52
1	Ba 233.527†	-19.5	1.0	0.0270 µg/L	0.0270 ppb	17:37:52
1	Be 313.107†	-3636.5	-90.3	-0.0562 µg/L	-0.0562 ppb	17:37:31
1	Cd 226.502†	-130.3	-0.7	-0.0206 µg/L	-0.0206 ppb	17:37:52
1	Co 228.616†	-4.6	2.8	0.1368 µg/L	0.1368 ppb	17:37:52
1	Cr 267.716†	-27.7	18.5	0.3922 µg/L	0.3922 ppb	17:37:31
1	Cu 324.752†	3255.0	8.8	0.0607 µg/L	0.0607 ppb	17:37:31
1	Mn 257.610†	-206.2	25.1	0.0864 µg/L	0.0864 ppb	17:37:52
1	Mo 202.031†	10.0	14.0	1.4478 µg/L	1.4478 ppb	17:37:52
1	Ni 231.604†	287.8	-0.8	-0.0418 µg/L	-0.0418 ppb	17:37:52
1	P 214.914†	23.1	0.7	1.5031 µg/L	1.5031 ppb	17:37:52
1	Pb 220.353†	86.4	3.6	0.9367 µg/L	0.9367 ppb	17:37:52
1	S 181.975 Axial†	14.5	-1.9	-8.2519 µg/L	-8.2519 ppb	17:37:52
1	Sb 206.836†	24.8	2.9	2.7808 µg/L	2.7808 ppb	17:37:52
1	Se 196.026†	7.5	-8.3	-12.253 µg/L	-12.253 ppb	17:37:52
1	SiO2†	2121.8	571.6	118.34 µg/L	118.34 ppb	17:37:31
1	Si 251.611†	942.0	605.1	48.558 µg/L	48.558 ppb	17:37:52
1	Sn 189.927†	5.8	5.1	2.2876 µg/L	2.2876 ppb	17:37:52
1	Ti 334.940†	221.5	144.0	0.3310 µg/L	0.3310 ppb	17:37:31
1	Tl 190.801†	-19.0	2.7	3.7945 µg/L	3.7945 ppb	17:37:52
1	U 409.014†	166.1	-42.1	-3.4361 µg/L	-3.4361 ppb	17:37:31
1	V 292.402†	-14.2	33.3	0.3478 µg/L	0.3478 ppb	17:37:31
1	Zn 213.857†	520.0	-29.6	-0.7325 µg/L	-0.7325 ppb	17:37:52
2	Sc RADIAL	52790.2	52790.2	100 %		17:36:29
2	Al 396.153Radial†	1.0	27.4	19.880 µg/L	19.880 ppb	17:36:29
2	Ca 317.933Radial†	187.6	4.3	4.0539 µg/L	4.0539 ppb	17:36:50
2	Fe 238.204 Radial†	14.8	-0.9	-8.5296 µg/L	-8.5296 ppb	17:36:50
2	K 766.490 Radial†	198.8	-48.4	-33.110 µg/L	-33.110 ppb	17:36:29
2	Mg 279.077 IEC†	8.7	-4.0	-38.054 µg/L	-38.054 ppb	17:36:50
2	Na 589.592 Radial†	512.6	-80.1	-24.784 µg/L	-24.784 ppb	17:36:29
2	Sr 421.552†	42.5	17.5	0.1739 µg/L	0.1739 ppb	17:36:29
2	Sc 361.383	1899640.5	1899640.5	99.806 %		17:37:58
2	Y 371.029	1305748.7	1305748.7	99.568 %		17:37:58
2	Ag 328.068†	-507.8	-10.0	-0.0802 µg/L	-0.0802 ppb	17:38:03
2	As 188.979†	-0.8	-1.7	-3.2254 µg/L	-3.2254 ppb	17:38:24
2	B 249.677†	369.6	-83.9	-3.5810 µg/L	-3.5810 ppb	17:38:24
2	Ba 233.527†	-19.9	0.6	0.0133 µg/L	0.0133 ppb	17:38:24
2	Be 313.107†	-3487.1	44.4	0.0274 µg/L	0.0274 ppb	17:38:03
2	Cd 226.502†	-130.8	-1.7	-0.0437 µg/L	-0.0437 ppb	17:38:24
2	Co 228.616†	3.7	11.1	0.5383 µg/L	0.5383 ppb	17:38:24
2	Cr 267.716†	-37.8	8.2	0.1741 µg/L	0.1741 ppb	17:38:03
2	Cu 324.752†	3306.7	74.1	0.4939 µg/L	0.4939 ppb	17:38:03
2	Mn 257.610†	-168.3	62.2	0.2089 µg/L	0.2089 ppb	17:38:24
2	Mo 202.031†	2.2	6.2	0.6431 µg/L	0.6431 ppb	17:38:24
2	Ni 231.604†	297.4	10.0	0.5320 µg/L	0.5320 ppb	17:38:24
2	P 214.914†	27.2	4.9	10.263 µg/L	10.263 ppb	17:38:24
2	Pb 220.353†	87.0	4.6	1.1880 µg/L	1.1880 ppb	17:38:24

2	S 181.975 Axial†	11.1	-5.2	-22.579 µg/L	-22.579 ppb	17:38:24
2	Sb 206.836†	19.3	-2.5	-2.3751 µg/L	-2.3751 ppb	17:38:24
2	Se 196.026†	13.5	-2.3	-3.3880 µg/L	-3.3880 ppb	17:38:24
2	SiO2†	2267.9	726.8	150.47 µg/L	150.47 ppb	17:38:03
2	Si 251.611†	1125.9	793.2	63.654 µg/L	63.654 ppb	17:38:24
2	Sn 189.927†	3.6	2.9	1.2964 µg/L	1.2964 ppb	17:38:24
2	Ti 334.940†	243.2	166.7	0.3851 µg/L	0.3851 ppb	17:38:03
2	Tl 190.801†	-26.1	-4.4	-6.1373 µg/L	-6.1373 ppb	17:38:24
2	U 409.014†	256.0	48.7	3.9797 µg/L	3.9797 ppb	17:38:03
2	V 292.402†	-96.6	-49.3	-0.4916 µg/L	-0.4916 ppb	17:38:03
2	Zn 213.857†	516.0	-31.5	-0.7796 µg/L	-0.7796 ppb	17:38:24
3	Sc RADIAL	52859.8	52859.8	100 %		17:36:55
3	Al 396.153Radial†	-8.5	17.9	12.999 µg/L	12.999 ppb	17:36:55
3	Ca 317.933Radial†	186.0	2.5	2.3456 µg/L	2.3456 ppb	17:37:16
3	Fe 238.204 Radial†	14.8	-1.0	-8.6151 µg/L	-8.6151 ppb	17:37:16
3	K 766.490 Radial†	191.3	-56.2	-38.404 µg/L	-38.404 ppb	17:36:55
3	Mg 279.077 IEC†	11.1	-1.7	-15.982 µg/L	-15.982 ppb	17:37:16
3	Na 589.592 Radial†	496.2	-97.2	-30.049 µg/L	-30.049 ppb	17:36:55
3	Sr 421.552†	48.5	23.4	0.2327 µg/L	0.2327 ppb	17:36:55
3	Sc 361.383	1884735.7	1884735.7	99.023 %		17:38:30
3	Y 371.029	1296432.0	1296432.0	98.858 %		17:38:30
3	Ag 328.068†	-507.3	-13.5	-0.1028 µg/L	-0.1028 ppb	17:38:35
3	As 188.979†	0.6	-0.2	-0.4279 µg/L	-0.4279 ppb	17:38:56
3	B 249.677†	362.9	-87.7	-3.7447 µg/L	-3.7447 ppb	17:38:56
3	Ba 233.527†	-9.6	10.8	0.2772 µg/L	0.2772 ppb	17:38:56
3	Be 313.107†	-3384.1	120.8	0.0748 µg/L	0.0748 ppb	17:38:35
3	Cd 226.502†	-124.7	3.5	0.0947 µg/L	0.0947 ppb	17:38:56
3	Co 228.616†	1.8	9.3	0.4471 µg/L	0.4471 ppb	17:38:56
3	Cr 267.716†	-8.9	37.1	0.7864 µg/L	0.7864 ppb	17:38:35
3	Cu 324.752†	3351.8	145.7	0.9731 µg/L	0.9731 ppb	17:38:35
3	Mn 257.610†	-127.5	102.0	0.3413 µg/L	0.3413 ppb	17:38:56
3	Mo 202.031†	-0.2	3.9	0.3991 µg/L	0.3991 ppb	17:38:56
3	Ni 231.604†	297.2	12.1	0.6416 µg/L	0.6416 ppb	17:38:56
3	P 214.914†	18.9	-3.3	-6.9979 µg/L	-6.9979 ppb	17:38:56
3	Pb 220.353†	81.8	0.1	0.0071 µg/L	0.0071 ppb	17:38:56
3	S 181.975 Axial†	12.6	-3.6	-15.591 µg/L	-15.591 ppb	17:38:56
3	Sb 206.836†	27.4	5.8	5.5351 µg/L	5.5351 ppb	17:38:56
3	Se 196.026†	17.5	1.9	2.7798 µg/L	2.7798 ppb	17:38:56
3	SiO2†	1925.6	399.1	82.624 µg/L	82.624 ppb	17:38:35
3	Si 251.611†	671.6	343.4	27.556 µg/L	27.556 ppb	17:38:56
3	Sn 189.927†	-1.2	-1.9	-0.8420 µg/L	-0.8420 ppb	17:38:56
3	Ti 334.940†	258.5	184.1	0.4232 µg/L	0.4232 ppb	17:38:35
3	Tl 190.801†	-20.7	0.8	1.1435 µg/L	1.1435 ppb	17:38:56
3	U 409.014†	306.6	101.9	8.3201 µg/L	8.3201 ppb	17:38:35
3	V 292.402†	-38.4	8.7	0.1008 µg/L	0.1008 ppb	17:38:35
3	Zn 213.857†	512.0	-31.5	-0.7824 µg/L	-0.7824 ppb	17:38:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1897290.3	99.683 %	0.6074			0.61%
Sc RADIAL	52732.0	99.9 %	0.31			0.31%
Y 371.029	1304595.3	99.480 %	0.5835			0.59%
Ag 328.068†	-12.8	-0.0975 µg/L	0.01532	-0.0975 ppb	0.01532	15.71%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	20.2	14.641 µg/L	4.6405	14.641 ppb	4.6405	31.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.9	-1.6483 µg/L	1.43242	-1.6483 ppb	1.43242	86.90%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-87.2	-3.7266 µg/L	0.13741	-3.7266 ppb	0.13741	3.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.1	0.1058 µg/L	0.14856	0.1058 ppb	0.14856	140.37%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	25.0	0.0153 µg/L	0.06634	0.0153 ppb	0.06634	432.21%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.6	1.4952 µg/L	3.07349	1.4952 ppb	3.07349	205.56%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	0.4	0.0101 µg/L	0.07413	0.0101 ppb	0.07413	732.17%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	7.7	0.3741 µg/L	0.21051	0.3741 ppb	0.21051	56.27%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
		21.3	0.4509 µg/L	0.31030	0.4509 ppb	0.31030	68.82%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
		76.2	0.5092 µg/L	0.45640	0.5092 ppb	0.45640	89.63%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
		-0.1	-0.8490 µg/L	13.37726	-0.8490 ppb	13.37726	>999.9%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
		-72.0	-49.256 µg/L	23.5302	-49.256 ppb	23.5302	47.77%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
		-2.2	-21.415 µg/L	14.6955	-21.415 ppb	14.6955	68.62%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
		63.1	0.2122 µg/L	0.12751	0.2122 ppb	0.12751	60.09%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
		8.0	0.8300 µg/L	0.54874	0.8300 ppb	0.54874	66.11%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
		-88.6	-27.404 µg/L	2.6325	-27.404 ppb	2.6325	9.61%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
		7.1	0.3773 µg/L	0.36707	0.3773 ppb	0.36707	97.30%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
		0.8	1.5894 µg/L	8.63082	1.5894 ppb	8.63082	543.01%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
		2.8	0.7106 µg/L	0.62209	0.7106 ppb	0.62209	87.54%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
		-3.6	-15.474 µg/L	7.1642	-15.474 ppb	7.1642	46.30%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
		2.1	1.9802 µg/L	4.01542	1.9802 ppb	4.01542	202.77%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
		-2.9	-4.2870 µg/L	7.55648	-4.2870 ppb	7.55648	176.27%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated				
		565.8	117.15 µg/L	33.940	117.15 ppb	33.940	28.97%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated				
		580.6	46.589 µg/L	18.1289	46.589 ppb	18.1289	38.91%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
		2.1	0.9140 µg/L	1.59945	0.9140 ppb	1.59945	174.99%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
		24.1	0.2398 µg/L	0.06971	0.2398 ppb	0.06971	29.07%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
		164.9	0.3798 µg/L	0.04637	0.3798 ppb	0.04637	12.21%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
		-0.3	-0.3998 µg/L	5.14259	-0.3998 ppb	5.14259	>999.9%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
		36.2	2.9545 µg/L	5.94477	2.9545 ppb	5.94477	201.21%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
		-2.4	-0.0143 µg/L	0.43141	-0.0143 ppb	0.43141	>999.9%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
		-30.8	-0.7648 µg/L	0.02807	-0.7648 ppb	0.02807	3.67%
		QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 18:11:58

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	53628.4	53628.4	102 %		18:12:37
1	Al 396.153Radial†	7046.0	6960.1	5033.7 µg/L	5033.7 ppb	18:12:37
1	Ca 317.933Radial†	5526.4	5255.0	4973.0 µg/L	4973.0 ppb	18:12:57
1	Fe 238.204 Radial†	582.1	557.0	5044.6 µg/L	5044.6 ppb	18:12:57
1	K 766.490 Radial†	7705.5	7335.4	5016.2 µg/L	5016.2 ppb	18:12:37
1	Mg 279.077 IEC†	555.5	534.0	5118.3 µg/L	5118.3 ppb	18:12:57
1	Na 589.592 Radial†	33754.1	32623.1	10089 µg/L	10089 ppb	18:12:37
1	Sr 421.552†	51601.7	50753.6	504.41 µg/L	504.41 ppb	18:12:37
1	Sc 361.383	1906898.4	1906898.4	100.19 %		18:14:01
1	Y 371.029	1307313.0	1307313.0	99.687 %		18:14:01
1	Ag 328.068†	67635.5	68007.6	521.89 µg/L	521.89 ppb	18:14:06
1	As 188.979†	279.5	278.1	529.25 µg/L	529.25 ppb	18:14:27
1	B 249.677†	12414.8	11937.3	508.68 µg/L	508.68 ppb	18:14:06
1	Ba 233.527†	20440.7	20422.8	524.73 µg/L	524.73 ppb	18:14:06
1	Be 313.107†	821958.3	823956.3	511.35 µg/L	511.35 ppb	18:14:01
1	Cd 226.502†	19461.0	19553.9	526.68 µg/L	526.68 ppb	18:14:06
1	Co 228.616†	10927.0	10914.0	526.98 µg/L	526.98 ppb	18:14:06
1	Cr 267.716†	24864.9	24864.5	527.02 µg/L	527.02 ppb	18:14:06
1	Cu 324.752†	80967.0	77576.2	519.27 µg/L	519.27 ppb	18:14:06
1	Mn 257.610†	155047.8	154988.1	519.75 µg/L	519.75 ppb	18:14:01
1	Mo 202.031†	5131.1	5125.6	530.41 µg/L	530.41 ppb	18:14:27
1	Ni 231.604†	10257.0	9949.8	527.40 µg/L	527.40 ppb	18:14:06
1	P 214.914†	1281.1	1256.4	2585.9 µg/L	2585.9 ppb	18:14:27
1	Pb 220.353†	2131.0	2044.5	525.37 µg/L	525.37 ppb	18:14:27
1	S 181.975 Axial†	259.1	242.2	1050.6 µg/L	1050.6 ppb	18:14:27
1	Sb 206.836†	572.9	550.0	523.87 µg/L	523.87 ppb	18:14:27
1	Se 196.026†	369.4	352.9	531.03 µg/L	531.03 ppb	18:14:27
1	SiO2†	29372.6	27772.0	5750.1 µg/L	5750.1 ppb	18:14:06
1	Si 251.611†	33859.2	33460.8	2685.2 µg/L	2685.2 ppb	18:14:06
1	Sn 189.927†	1198.5	1195.6	533.92 µg/L	533.92 ppb	18:14:27
1	Ti 334.940†	224283.4	223786.2	512.67 µg/L	512.67 ppb	18:14:01
1	Tl 190.801†	355.1	376.2	527.81 µg/L	527.81 ppb	18:14:27
1	U 409.014†	6488.0	6268.1	510.83 µg/L	510.83 ppb	18:14:06
1	V 292.402†	51449.8	51400.9	527.74 µg/L	527.74 ppb	18:14:06
1	Zn 213.857†	21823.0	21233.6	522.18 µg/L	522.18 ppb	18:14:06
2	Sc RADIAL	53399.0	53399.0	101 %		18:13:03
2	Al 396.153Radial†	7008.3	6952.6	5028.4 µg/L	5028.4 ppb	18:13:03
2	Ca 317.933Radial†	5507.2	5259.4	4977.1 µg/L	4977.1 ppb	18:13:23
2	Fe 238.204 Radial†	580.1	557.5	5049.2 µg/L	5049.2 ppb	18:13:23
2	K 766.490 Radial†	7742.9	7404.9	5063.7 µg/L	5063.7 ppb	18:13:03
2	Mg 279.077 IEC†	552.2	533.0	5109.3 µg/L	5109.3 ppb	18:13:23
2	Na 589.592 Radial†	33670.5	32683.2	10108 µg/L	10108 ppb	18:13:03
2	Sr 421.552†	51284.5	50658.1	503.46 µg/L	503.46 ppb	18:13:03
2	Sc 361.383	1923787.7	1923787.7	101.08 %		18:14:34
2	Y 371.029	1316654.2	1316654.2	100.40 %		18:14:34
2	Ag 328.068†	66618.4	66408.6	509.62 µg/L	509.62 ppb	18:14:39
2	As 188.979†	279.7	275.8	524.94 µg/L	524.94 ppb	18:15:00
2	B 249.677†	12210.6	11626.5	495.37 µg/L	495.37 ppb	18:14:39
2	Ba 233.527†	20120.6	19927.1	511.99 µg/L	511.99 ppb	18:14:39
2	Be 313.107†	832236.5	826922.6	513.19 µg/L	513.19 ppb	18:14:34
2	Cd 226.502†	19105.1	19031.2	512.59 µg/L	512.59 ppb	18:14:39
2	Co 228.616†	10786.0	10678.8	515.59 µg/L	515.59 ppb	18:14:39
2	Cr 267.716†	24447.7	24233.8	513.65 µg/L	513.65 ppb	18:14:39
2	Cu 324.752†	79721.1	75634.1	506.29 µg/L	506.29 ppb	18:14:39
2	Mn 257.610†	157368.4	155925.3	522.89 µg/L	522.89 ppb	18:14:34
2	Mo 202.031†	5108.5	5058.2	523.45 µg/L	523.45 ppb	18:15:00
2	Ni 231.604†	10104.7	9709.2	514.65 µg/L	514.65 ppb	18:14:39
2	P 214.914†	1269.8	1234.0	2540.2 µg/L	2540.2 ppb	18:15:00
2	Pb 220.353†	2129.9	2024.7	520.31 µg/L	520.31 ppb	18:15:00

2	S 181.975 Axial†	254.4	235.3	1020.6 µg/L	1020.6 ppb	18:15:00
2	Sb 206.836†	572.0	544.2	518.33 µg/L	518.33 ppb	18:15:00
2	Se 196.026†	368.4	348.7	524.79 µg/L	524.79 ppb	18:15:00
2	SiO2†	28765.5	26914.0	5572.4 µg/L	5572.4 ppb	18:14:39
2	Si 251.611†	33173.4	32485.7	2606.9 µg/L	2606.9 ppb	18:14:39
2	Sn 189.927†	1191.3	1177.9	526.03 µg/L	526.03 ppb	18:15:00
2	Ti 334.940†	227650.9	225152.5	515.81 µg/L	515.81 ppb	18:14:34
2	Tl 190.801†	356.5	374.4	525.45 µg/L	525.45 ppb	18:15:00
2	U 409.014†	6384.3	6108.7	497.82 µg/L	497.82 ppb	18:14:39
2	V 292.402†	50585.0	50094.4	514.39 µg/L	514.39 ppb	18:14:39
2	Zn 213.857†	21529.2	20751.7	510.32 µg/L	510.32 ppb	18:14:39
3	Sc RADIAL	53228.3	53228.3	101 %		18:13:29
3	Al 396.153Radial†	7010.3	6976.7	5047.6 µg/L	5047.6 ppb	18:13:29
3	Ca 317.933Radial†	5525.8	5295.3	5011.1 µg/L	5011.1 ppb	18:13:49
3	Fe 238.204 Radial†	582.9	562.2	5090.1 µg/L	5090.1 ppb	18:13:49
3	K 766.490 Radial†	7654.1	7341.4	5020.3 µg/L	5020.3 ppb	18:13:29
3	Mg 279.077 IEC†	548.4	530.9	5087.9 µg/L	5087.9 ppb	18:13:49
3	Na 589.592 Radial†	33471.7	32592.8	10080 µg/L	10080 ppb	18:13:29
3	Sr 421.552†	51091.9	50629.7	503.18 µg/L	503.18 ppb	18:13:29
3	Sc 361.383	1907029.7	1907029.7	100.19 %		18:15:07
3	Y 371.029	1307206.1	1307206.1	99.679 %		18:15:07
3	Ag 328.068†	63289.0	63664.9	488.41 µg/L	488.41 ppb	18:15:13
3	As 188.979†	237.3	235.9	449.03 µg/L	449.03 ppb	18:15:33
3	B 249.677†	11504.6	11028.0	469.67 µg/L	469.67 ppb	18:15:13
3	Ba 233.527†	18568.7	18553.1	476.67 µg/L	476.67 ppb	18:15:13
3	Be 313.107†	771406.6	773446.4	480.00 µg/L	480.00 ppb	18:15:07
3	Cd 226.502†	17539.7	17635.0	474.93 µg/L	474.93 ppb	18:15:13
3	Co 228.616†	9800.1	9788.5	472.56 µg/L	472.56 ppb	18:15:13
3	Cr 267.716†	21673.1	21677.1	459.47 µg/L	459.47 ppb	18:15:13
3	Cu 324.752†	73172.6	69791.3	467.24 µg/L	467.24 ppb	18:15:13
3	Mn 257.610†	146000.5	145947.7	489.47 µg/L	489.47 ppb	18:15:07
3	Mo 202.031†	4272.3	4268.0	441.71 µg/L	441.71 ppb	18:15:33
3	Ni 231.604†	9234.3	8928.4	473.27 µg/L	473.27 ppb	18:15:13
3	P 214.914†	1087.1	1062.6	2183.6 µg/L	2183.6 ppb	18:15:33
3	Pb 220.353†	1849.4	1763.3	453.03 µg/L	453.03 ppb	18:15:33
3	S 181.975 Axial†	227.3	210.5	912.80 µg/L	912.80 ppb	18:15:33
3	Sb 206.836†	499.8	477.0	453.94 µg/L	453.94 ppb	18:15:33
3	Se 196.026†	327.0	310.5	468.41 µg/L	468.41 ppb	18:15:33
3	SiO2†	27191.6	25593.2	5299.0 µg/L	5299.0 ppb	18:15:13
3	Si 251.611†	31321.2	30925.5	2481.7 µg/L	2481.7 ppb	18:15:13
3	Sn 189.927†	989.3	986.7	440.63 µg/L	440.63 ppb	18:15:33
3	Ti 334.940†	210061.5	209576.5	480.10 µg/L	480.10 ppb	18:15:07
3	Tl 190.801†	312.2	333.3	468.01 µg/L	468.01 ppb	18:15:33
3	U 409.014†	5727.9	5509.0	448.84 µg/L	448.84 ppb	18:15:13
3	V 292.402†	45588.9	45547.8	467.48 µg/L	467.48 ppb	18:15:13
3	Zn 213.857†	19691.5	19104.8	469.78 µg/L	469.78 ppb	18:15:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1912571.9	100.49 %	0.510			0.51%
Sc RADIAL	53418.6	101 %	0.4			0.38%
Y 371.029	1310391.1	99.922 %	0.4136			0.41%
Ag 328.068†	66027.0	506.64 µg/L	16.935	506.64 ppb	16.935	3.34%
QC value within limits for Ag 328.068 Recovery = 101.33%						
Al 396.153Radial†	6963.1	5036.6 µg/L	9.90	5036.6 ppb	9.90	0.20%
QC value within limits for Al 396.153Radial Recovery = 100.73%						
As 188.979†	263.3	501.07 µg/L	45.121	501.07 ppb	45.121	9.01%
QC value within limits for As 188.979 Recovery = 100.21%						
B 249.677†	11530.6	491.24 µg/L	19.833	491.24 ppb	19.833	4.04%
QC value within limits for B 249.677 Recovery = 98.25%						
Ba 233.527†	19634.4	504.46 µg/L	24.898	504.46 ppb	24.898	4.94%
QC value within limits for Ba 233.527 Recovery = 100.89%						
Be 313.107†	808108.4	501.51 µg/L	18.652	501.51 ppb	18.652	3.72%
QC value within limits for Be 313.107 Recovery = 100.30%						
Ca 317.933Radial†	5269.9	4987.1 µg/L	20.93	4987.1 ppb	20.93	0.42%
QC value within limits for Ca 317.933Radial Recovery = 99.74%						
Cd 226.502†	18740.0	504.73 µg/L	26.753	504.73 ppb	26.753	5.30%
QC value within limits for Cd 226.502 Recovery = 100.95%						
Co 228.616†	10460.4	505.04 µg/L	28.701	505.04 ppb	28.701	5.68%

QC value within limits for Co 228.616 Recovery = 101.01%							
Cr 267.716†	23591.8	500.05 µg/L	35.773	500.05 ppb	35.773	7.15%	
QC value within limits for Cr 267.716 Recovery = 100.01%							
Cu 324.752†	74333.9	497.60 µg/L	27.083	497.60 ppb	27.083	5.44%	
QC value within limits for Cu 324.752 Recovery = 99.52%							
Fe 238.204 Radial†	558.9	5061.3 µg/L	25.10	5061.3 ppb	25.10	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 101.23%							
K 766.490 Radial†	7360.6	5033.4 µg/L	26.33	5033.4 ppb	26.33	0.52%	
QC value within limits for K 766.490 Radial Recovery = 100.67%							
Mg 279.077 IEC†	532.6	5105.2 µg/L	15.64	5105.2 ppb	15.64	0.31%	
QC value within limits for Mg 279.077 IEC Recovery = 102.10%							
Mn 257.610†	152287.0	510.71 µg/L	18.457	510.71 ppb	18.457	3.61%	
QC value within limits for Mn 257.610 Recovery = 102.14%							
Mo 202.031†	4817.3	498.52 µg/L	49.327	498.52 ppb	49.327	9.89%	
QC value within limits for Mo 202.031 Recovery = 99.70%							
Na 589.592 Radial†	32633.0	10093 µg/L	14.2	10093 ppb	14.2	0.14%	
QC value within limits for Na 589.592 Radial Recovery = 100.93%							
Ni 231.604†	9529.1	505.11 µg/L	28.301	505.11 ppb	28.301	5.60%	
QC value within limits for Ni 231.604 Recovery = 101.02%							
P 214.914†	1184.3	2436.6 µg/L	220.25	2436.6 ppb	220.25	9.04%	
QC value within limits for P 214.914 Recovery = 97.46%							
Pb 220.353†	1944.2	499.57 µg/L	40.385	499.57 ppb	40.385	8.08%	
QC value within limits for Pb 220.353 Recovery = 99.91%							
S 181.975 Axial†	229.3	994.66 µg/L	72.467	994.66 ppb	72.467	7.29%	
QC value within limits for S 181.975 Axial Recovery = 99.47%							
Sb 206.836†	523.7	498.72 µg/L	38.873	498.72 ppb	38.873	7.79%	
QC value within limits for Sb 206.836 Recovery = 99.74%							
Se 196.026†	337.4	508.08 µg/L	34.492	508.08 ppb	34.492	6.79%	
QC value within limits for Se 196.026 Recovery = 101.62%							
SiO2†	26759.7	5540.5 µg/L	227.24	5540.5 ppb	227.24	4.10%	
QC value within limits for SiO2 Recovery = 103.61%							
Si 251.611†	32290.7	2591.3 µg/L	102.63	2591.3 ppb	102.63	3.96%	
QC value within limits for Si 251.611 Recovery = 103.65%							
Sn 189.927†	1120.1	500.20 µg/L	51.733	500.20 ppb	51.733	10.34%	
QC value within limits for Sn 189.927 Recovery = 100.04%							
Sr 421.552†	50680.5	503.68 µg/L	0.645	503.68 ppb	0.645	0.13%	
QC value within limits for Sr 421.552 Recovery = 100.74%							
Ti 334.940†	219505.0	502.86 µg/L	19.771	502.86 ppb	19.771	3.93%	
QC value within limits for Ti 334.940 Recovery = 100.57%							
Tl 190.801†	361.3	507.09 µg/L	33.864	507.09 ppb	33.864	6.68%	
QC value within limits for Tl 190.801 Recovery = 101.42%							
U 409.014†	5961.9	485.83 µg/L	32.688	485.83 ppb	32.688	6.73%	
QC value within limits for U 409.014 Recovery = 97.17%							
V 292.402†	49014.3	503.20 µg/L	31.650	503.20 ppb	31.650	6.29%	
QC value within limits for V 292.402 Recovery = 100.64%							
Zn 213.857†	20363.4	500.76 µg/L	27.478	500.76 ppb	27.478	5.49%	
QC value within limits for Zn 213.857 Recovery = 100.15%							

All analyte(s) passed QC.

Sequence No.: 22

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 18:15:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53088.1	53088.1	101 %		18:16:15
1	Al 396.153Radial†	-10.8	15.7	11.351 µg/L	11.351 ppb	18:16:15
1	Ca 317.933Radial†	187.0	2.7	2.5187 µg/L	2.5187 ppb	18:16:36
1	Fe 238.204 Radial†	16.8	0.9	8.5031 µg/L	8.5031 ppb	18:16:36
1	K 766.490 Radial†	207.9	-40.5	-27.680 µg/L	-27.680 ppb	18:16:15
1	Mg 279.077 IEC†	9.6	-3.2	-30.396 µg/L	-30.396 ppb	18:16:36
1	Na 589.592 Radial†	487.1	-108.3	-33.496 µg/L	-33.496 ppb	18:16:15
1	Sr 421.552†	37.1	11.8	0.1177 µg/L	0.1177 ppb	18:16:15
1	Sc 361.383	1918141.5	1918141.5	100.78 %		18:17:37
1	Y 371.029	1318622.8	1318622.8	100.55 %		18:17:37
1	Ag 328.068†	-430.9	71.2	0.5429 µg/L	0.5429 ppb	18:17:43
1	As 188.979†	-2.6	-3.4	-6.5215 µg/L	-6.5215 ppb	18:18:04
1	B 249.677†	343.9	-113.0	-4.8347 µg/L	-4.8347 ppb	18:18:04
1	Ba 233.527†	-12.2	8.4	0.2160 µg/L	0.2160 ppb	18:18:04
1	Be 313.107†	-3625.8	-59.5	-0.0371 µg/L	-0.0371 ppb	18:17:43
1	Cd 226.502†	-130.3	0.1	0.0003 µg/L	0.0003 ppb	18:18:04
1	Co 228.616†	-5.8	1.7	0.0826 µg/L	0.0826 ppb	18:18:04
1	Cr 267.716†	-42.0	4.4	0.0934 µg/L	0.0934 ppb	18:18:04
1	Cu 324.752†	3335.6	70.8	0.4742 µg/L	0.4742 ppb	18:17:43
1	Mn 257.610†	-209.6	22.8	0.0788 µg/L	0.0788 ppb	18:18:04
1	Mo 202.031†	4.1	8.1	0.8412 µg/L	0.8412 ppb	18:18:04
1	Ni 231.604†	285.8	-4.4	-0.2330 µg/L	-0.2330 ppb	18:18:04
1	P 214.914†	24.7	2.1	4.4137 µg/L	4.4137 ppb	18:18:04
1	Pb 220.353†	87.6	4.4	1.1157 µg/L	1.1157 ppb	18:18:04
1	S 181.975 Axial†	16.8	0.3	1.4124 µg/L	1.4124 ppb	18:18:04
1	Sb 206.836†	21.5	-0.4	-0.4050 µg/L	-0.4050 ppb	18:18:04
1	Se 196.026†	13.0	-2.9	-4.3157 µg/L	-4.3157 ppb	18:18:04
1	SiO2†	1788.9	229.5	47.511 µg/L	47.511 ppb	18:17:43
1	Si 251.611†	595.4	255.9	20.538 µg/L	20.538 ppb	18:18:04
1	Sn 189.927†	-2.8	-3.4	-1.5339 µg/L	-1.5339 ppb	18:18:04
1	Ti 334.940†	211.4	132.8	0.3069 µg/L	0.3069 ppb	18:17:43
1	Tl 190.801†	-21.0	0.9	1.1961 µg/L	1.1961 ppb	18:18:04
1	U 409.014†	264.2	54.4	4.4408 µg/L	4.4408 ppb	18:17:43
1	V 292.402†	-51.3	-3.4	-0.0226 µg/L	-0.0226 ppb	18:17:43
1	Zn 213.857†	499.0	-53.4	-1.3199 µg/L	-1.3199 ppb	18:18:04
2	Sc RADIAL	53332.4	53332.4	101 %		18:16:41
2	Al 396.153Radial†	-29.4	-2.6	-1.9102 µg/L	-1.9102 ppb	18:16:41
2	Ca 317.933Radial†	182.0	-3.1	-2.9639 µg/L	-2.9639 ppb	18:17:01
2	Fe 238.204 Radial†	13.5	-2.4	-21.985 µg/L	-21.985 ppb	18:17:01
2	K 766.490 Radial†	170.4	-78.6	-53.757 µg/L	-53.757 ppb	18:16:41
2	Mg 279.077 IEC†	10.7	-2.2	-20.798 µg/L	-20.798 ppb	18:17:01
2	Na 589.592 Radial†	487.4	-110.2	-34.092 µg/L	-34.092 ppb	18:16:41
2	Sr 421.552†	63.0	37.3	0.3709 µg/L	0.3709 ppb	18:16:41
2	Sc 361.383	1908776.1	1908776.1	100.29 %		18:18:10
2	Y 371.029	1311072.3	1311072.3	99.974 %		18:18:10
2	Ag 328.068†	-518.7	-18.4	-0.1403 µg/L	-0.1403 ppb	18:18:15
2	As 188.979†	0.2	-0.7	-1.2553 µg/L	-1.2553 ppb	18:18:36
2	B 249.677†	347.7	-107.5	-4.5833 µg/L	-4.5833 ppb	18:18:36
2	Ba 233.527†	-22.8	-2.3	-0.0576 µg/L	-0.0576 ppb	18:18:36
2	Be 313.107†	-3613.8	-65.2	-0.0406 µg/L	-0.0406 ppb	18:18:15
2	Cd 226.502†	-133.9	-4.1	-0.1085 µg/L	-0.1085 ppb	18:18:36
2	Co 228.616†	-8.2	-0.8	-0.0372 µg/L	-0.0372 ppb	18:18:36
2	Cr 267.716†	-34.2	12.0	0.2543 µg/L	0.2543 ppb	18:18:36
2	Cu 324.752†	3323.5	74.9	0.4976 µg/L	0.4976 ppb	18:18:15
2	Mn 257.610†	-198.0	33.4	0.1099 µg/L	0.1099 ppb	18:18:36
2	Mo 202.031†	-1.5	2.6	0.2673 µg/L	0.2673 ppb	18:18:36
2	Ni 231.604†	291.7	2.9	0.1547 µg/L	0.1547 ppb	18:18:36
2	P 214.914†	21.6	-0.7	-1.6168 µg/L	-1.6168 ppb	18:18:36
2	Pb 220.353†	95.9	13.1	3.3516 µg/L	3.3516 ppb	18:18:36

2	S 181.975 Axial†	19.7	3.3	14.179 µg/L	14.179 ppb	18:18:36
2	Sb 206.836†	20.2	-1.7	-1.5972 µg/L	-1.5972 ppb	18:18:36
2	Se 196.026†	17.4	1.5	2.2301 µg/L	2.2301 ppb	18:18:36
2	SiO2†	1857.4	306.5	63.465 µg/L	63.465 ppb	18:18:15
2	Si 251.611†	562.1	225.6	18.102 µg/L	18.102 ppb	18:18:36
2	Sn 189.927†	-2.9	-3.5	-1.5848 µg/L	-1.5848 ppb	18:18:36
2	Ti 334.940†	196.2	118.6	0.2736 µg/L	0.2736 ppb	18:18:15
2	Tl 190.801†	-21.4	0.3	0.4922 µg/L	0.4922 ppb	18:18:36
2	U 409.014†	305.9	97.2	7.9440 µg/L	7.9440 ppb	18:18:15
2	V 292.402†	-28.9	18.6	0.1974 µg/L	0.1974 ppb	18:18:15
2	Zn 213.857†	508.0	-41.9	-1.0376 µg/L	-1.0376 ppb	18:18:36
3	Sc RADIAL	53556.1	53556.1	101 %		18:17:07
3	Al 396.153Radial†	-26.6	0.2	0.1333 µg/L	0.1333 ppb	18:17:07
3	Ca 317.933Radial†	182.0	-3.9	-3.7158 µg/L	-3.7158 ppb	18:17:27
3	Fe 238.204 Radial†	16.6	0.6	5.0830 µg/L	5.0830 ppb	18:17:27
3	K 766.490 Radial†	213.0	-37.3	-25.513 µg/L	-25.513 ppb	18:17:07
3	Mg 279.077 IEC†	6.2	-6.6	-63.295 µg/L	-63.295 ppb	18:17:27
3	Na 589.592 Radial†	471.4	-128.0	-39.583 µg/L	-39.583 ppb	18:17:07
3	Sr 421.552†	18.7	-6.5	-0.0651 µg/L	-0.0651 ppb	18:17:07
3	Sc 361.383	1909473.3	1909473.3	100.32 %		18:18:42
3	Y 371.029	1313053.3	1313053.3	100.13 %		18:18:42
3	Ag 328.068†	-480.4	19.9	0.1496 µg/L	0.1496 ppb	18:18:48
3	As 188.979†	1.7	0.8	1.5959 µg/L	1.5959 ppb	18:19:08
3	B 249.677†	335.3	-120.0	-5.1327 µg/L	-5.1327 ppb	18:19:08
3	Ba 233.527†	-12.5	8.0	0.2037 µg/L	0.2037 ppb	18:19:08
3	Be 313.107†	-3374.8	174.3	0.1081 µg/L	0.1081 ppb	18:18:48
3	Cd 226.502†	-126.6	3.1	0.0838 µg/L	0.0838 ppb	18:19:08
3	Co 228.616†	5.2	12.6	0.6080 µg/L	0.6080 ppb	18:19:08
3	Cr 267.716†	-21.7	24.5	0.5197 µg/L	0.5197 ppb	18:19:08
3	Cu 324.752†	3305.0	55.3	0.3702 µg/L	0.3702 ppb	18:18:48
3	Mn 257.610†	-166.0	65.4	0.2223 µg/L	0.2223 ppb	18:19:08
3	Mo 202.031†	5.1	9.1	0.9428 µg/L	0.9428 ppb	18:19:08
3	Ni 231.604†	299.4	10.5	0.5550 µg/L	0.5550 ppb	18:19:08
3	P 214.914†	27.7	5.2	10.964 µg/L	10.964 ppb	18:19:08
3	Pb 220.353†	80.6	-2.2	-0.5700 µg/L	-0.5700 ppb	18:19:08
3	S 181.975 Axial†	15.3	-1.2	-5.0154 µg/L	-5.0154 ppb	18:19:08
3	Sb 206.836†	21.4	-0.5	-0.4772 µg/L	-0.4772 ppb	18:19:08
3	Se 196.026†	18.3	2.4	3.6809 µg/L	3.6809 ppb	18:19:08
3	SiO2†	1785.5	234.2	48.494 µg/L	48.494 ppb	18:18:48
3	Si 251.611†	603.3	266.5	21.388 µg/L	21.388 ppb	18:19:08
3	Sn 189.927†	4.4	3.7	1.6325 µg/L	1.6325 ppb	18:19:08
3	Ti 334.940†	246.4	168.7	0.3916 µg/L	0.3916 ppb	18:18:48
3	Tl 190.801†	-19.6	2.2	2.9903 µg/L	2.9903 ppb	18:19:08
3	U 409.014†	205.3	-3.2	-0.2595 µg/L	-0.2595 ppb	18:18:48
3	V 292.402†	-85.9	-38.2	-0.3788 µg/L	-0.3788 ppb	18:18:48
3	Zn 213.857†	496.4	-53.7	-1.3285 µg/L	-1.3285 ppb	18:19:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1912130.3	100.46 %	0.274			0.27%
Sc RADIAL	53325.5	101 %	0.4			0.44%
Y 371.029	1314249.4	100.22 %	0.299			0.30%
Ag 328.068†	24.3	0.1841 µg/L	0.34292	0.1841 ppb	0.34292	186.29%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.4	3.1914 µg/L	7.13988	3.1914 ppb	7.13988	223.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.1	-2.0603 µg/L	4.11809	-2.0603 ppb	4.11809	199.88%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-113.5	-4.8502 µg/L	0.27500	-4.8502 ppb	0.27500	5.67%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.7	0.1207 µg/L	0.15452	0.1207 ppb	0.15452	128.02%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	16.5	0.0101 µg/L	0.08483	0.0101 ppb	0.08483	836.82%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.5	-1.3870 µg/L	3.40327	-1.3870 ppb	3.40327	245.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.3	-0.0081 µg/L	0.09646	-0.0081 ppb	0.09646	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.5	0.2178 µg/L	0.34319	0.2178 ppb	0.34319	157.59%

QC value within limits for Co 228.616	Recovery = Not calculated			
Cr 267.716†	13.7	0.2892 µg/L	0.21529	0.2892 ppb
QC value within limits for Cr 267.716	Recovery = Not calculated			
Cu 324.752†	67.0	0.4473 µg/L	0.06777	0.4473 ppb
QC value within limits for Cu 324.752	Recovery = Not calculated			
Fe 238.204 Radial†	-0.3	-2.7996 µg/L	16.70265	-2.7996 ppb
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
K 766.490 Radial†	-52.1	-35.650 µg/L	15.7183	-35.650 ppb
QC value within limits for K 766.490 Radial	Recovery = Not calculated			
Mg 279.077 IEC†	-4.0	-38.163 µg/L	22.2874	-38.163 ppb
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
Mn 257.610†	40.5	0.1370 µg/L	0.07546	0.1370 ppb
QC value within limits for Mn 257.610	Recovery = Not calculated			
Mo 202.031†	6.6	0.6837 µg/L	0.36422	0.6837 ppb
QC value within limits for Mo 202.031	Recovery = Not calculated			
Na 589.592 Radial†	-115.5	-35.724 µg/L	3.3555	-35.724 ppb
QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
Ni 231.604†	3.0	0.1589 µg/L	0.39402	0.1589 ppb
QC value within limits for Ni 231.604	Recovery = Not calculated			
P 214.914†	2.2	4.5869 µg/L	6.29207	4.5869 ppb
QC value within limits for P 214.914	Recovery = Not calculated			
Pb 220.353†	5.1	1.2991 µg/L	1.96718	1.2991 ppb
QC value within limits for Pb 220.353	Recovery = Not calculated			
S 181.975 Axial†	0.8	3.5252 µg/L	9.76984	3.5252 ppb
QC value within limits for S 181.975 Axial	Recovery = Not calculated			
Sb 206.836†	-0.9	-0.8265 µg/L	0.66842	-0.8265 ppb
QC value within limits for Sb 206.836	Recovery = Not calculated			
Se 196.026†	0.3	0.5318 µg/L	4.26021	0.5318 ppb
QC value within limits for Se 196.026	Recovery = Not calculated			
SiO2†	256.7	53.157 µg/L	8.9409	53.157 ppb
QC value within limits for SiO2	Recovery = Not calculated			
Si 251.611†	249.3	20.009 µg/L	1.7057	20.009 ppb
QC value within limits for Si 251.611	Recovery = Not calculated			
Sn 189.927†	-1.1	-0.4954 µg/L	1.84302	-0.4954 ppb
QC value within limits for Sn 189.927	Recovery = Not calculated			
Sr 421.552†	14.2	0.1412 µg/L	0.21893	0.1412 ppb
QC value within limits for Sr 421.552	Recovery = Not calculated			
Ti 334.940†	140.0	0.3240 µg/L	0.06085	0.3240 ppb
QC value within limits for Ti 334.940	Recovery = Not calculated			
Tl 190.801†	1.1	1.5596 µg/L	1.28811	1.5596 ppb
QC value within limits for Tl 190.801	Recovery = Not calculated			
U 409.014†	49.5	4.0418 µg/L	4.11626	4.0418 ppb
QC value within limits for U 409.014	Recovery = Not calculated			
V 292.402†	-7.7	-0.0680 µg/L	0.29077	-0.0680 ppb
QC value within limits for V 292.402	Recovery = Not calculated			
Zn 213.857†	-49.6	-1.2286 µg/L	0.16554	-1.2286 ppb
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: 2/24/2010 18:54:18
 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	53539.9	53539.9	101 %		18:54:57
1	Al 396.153Radial†	7023.9	6949.7	5026.2 µg/L	5026.2 ppb	18:54:57
1	Ca 317.933Radial†	5557.0	5294.2	5010.0 µg/L	5010.0 ppb	18:55:17
1	Fe 238.204 Radial†	583.7	559.5	5067.2 µg/L	5067.2 ppb	18:55:17
1	K 766.490 Radial†	7807.6	7448.6	5093.6 µg/L	5093.6 ppb	18:54:57
1	Mg 279.077 IEC†	553.3	532.7	5105.8 µg/L	5105.8 ppb	18:55:17
1	Na 589.592 Radial†	34118.3	33037.0	10217 µg/L	10217 ppb	18:54:57
1	Sr 421.552†	51566.7	50803.0	504.90 µg/L	504.90 ppb	18:54:57
1	Sc 361.383	1920013.3	1920013.3	100.88 %		18:56:21
1	Y 371.029	1316794.2	1316794.2	100.41 %		18:56:21
1	Ag 328.068†	66732.8	66651.5	511.50 µg/L	511.50 ppb	18:56:26
1	As 188.979†	279.8	276.5	526.10 µg/L	526.10 ppb	18:56:47
1	B 249.677†	12334.8	11773.4	501.64 µg/L	501.64 ppb	18:56:26
1	Ba 233.527†	20183.8	20028.9	514.61 µg/L	514.61 ppb	18:56:26
1	Be 313.107†	827067.4	823417.0	511.01 µg/L	511.01 ppb	18:56:21
1	Cd 226.502†	19280.6	19242.4	518.28 µg/L	518.28 ppb	18:56:26
1	Co 228.616†	10804.7	10718.2	517.51 µg/L	517.51 ppb	18:56:26
1	Cr 267.716†	24548.4	24381.2	516.78 µg/L	516.78 ppb	18:56:26
1	Cu 324.752†	79931.4	75997.6	508.72 µg/L	508.72 ppb	18:56:26
1	Mn 257.610†	155914.2	154789.9	519.09 µg/L	519.09 ppb	18:56:21
1	Mo 202.031†	5158.9	5118.1	529.64 µg/L	529.64 ppb	18:56:47
1	Ni 231.604†	10126.0	9750.0	516.81 µg/L	516.81 ppb	18:56:26
1	P 214.914†	1284.8	1251.3	2576.5 µg/L	2576.5 ppb	18:56:47
1	Pb 220.353†	2120.8	2019.8	519.04 µg/L	519.04 ppb	18:56:47
1	S 181.975 Axial†	260.0	241.4	1047.0 µg/L	1047.0 ppb	18:56:47
1	Sb 206.836†	575.6	548.8	522.80 µg/L	522.80 ppb	18:56:47
1	Se 196.026†	376.5	357.4	537.82 µg/L	537.82 ppb	18:56:47
1	SiO2†	28982.1	27184.7	5628.5 µg/L	5628.5 ppb	18:56:26
1	Si 251.611†	33498.6	32872.6	2638.0 µg/L	2638.0 ppb	18:56:26
1	Sn 189.927†	1206.7	1195.5	533.88 µg/L	533.88 ppb	18:56:47
1	Ti 334.940†	225487.7	223450.8	511.91 µg/L	511.91 ppb	18:56:21
1	Tl 190.801†	350.8	369.5	518.60 µg/L	518.60 ppb	18:56:47
1	U 409.014†	6501.8	6237.5	508.33 µg/L	508.33 ppb	18:56:26
1	V 292.402†	50889.0	50494.1	518.51 µg/L	518.51 ppb	18:56:26
1	Zn 213.857†	21599.5	20863.2	513.07 µg/L	513.07 ppb	18:56:26
2	Sc RADIAL	53890.0	53890.0	102 %		18:55:23
2	Al 396.153Radial†	7007.7	6888.9	4982.2 µg/L	4982.2 ppb	18:55:23
2	Ca 317.933Radial†	5563.9	5265.3	4982.7 µg/L	4982.7 ppb	18:55:43
2	Fe 238.204 Radial†	583.7	555.9	5034.3 µg/L	5034.3 ppb	18:55:43
2	K 766.490 Radial†	7796.5	7387.7	5051.9 µg/L	5051.9 ppb	18:55:23
2	Mg 279.077 IEC†	552.3	528.1	5062.3 µg/L	5062.3 ppb	18:55:43
2	Na 589.592 Radial†	34133.1	32833.0	10154 µg/L	10154 ppb	18:55:23
2	Sr 421.552†	51494.5	50402.0	500.92 µg/L	500.92 ppb	18:55:23
2	Sc 361.383	1900072.8	1900072.8	99.829 %		18:56:54
2	Y 371.029	1302317.5	1302317.5	99.307 %		18:56:54
2	Ag 328.068†	66759.1	67372.2	517.02 µg/L	517.02 ppb	18:57:00
2	As 188.979†	281.0	280.6	534.03 µg/L	534.03 ppb	18:57:20
2	B 249.677†	12326.8	11893.7	506.82 µg/L	506.82 ppb	18:57:00
2	Ba 233.527†	20124.0	20179.0	518.47 µg/L	518.47 ppb	18:57:00
2	Be 313.107†	822467.1	827413.1	513.49 µg/L	513.49 ppb	18:56:54
2	Cd 226.502†	19198.2	19360.4	521.47 µg/L	521.47 ppb	18:57:00
2	Co 228.616†	10800.7	10826.6	522.75 µg/L	522.75 ppb	18:57:00
2	Cr 267.716†	24546.1	24634.3	522.14 µg/L	522.14 ppb	18:57:00
2	Cu 324.752†	80132.4	77030.5	515.62 µg/L	515.62 ppb	18:57:00
2	Mn 257.610†	154924.5	155420.5	521.20 µg/L	521.20 ppb	18:56:54
2	Mo 202.031†	5065.1	5077.8	525.48 µg/L	525.48 ppb	18:57:20
2	Ni 231.604†	10163.7	9893.1	524.40 µg/L	524.40 ppb	18:57:00
2	P 214.914†	1264.7	1244.6	2561.5 µg/L	2561.5 ppb	18:57:20
2	Pb 220.353†	2095.9	2017.0	518.30 µg/L	518.30 ppb	18:57:20

2	S 181.975 Axial†	258.1	242.2	1050.4 µg/L	1050.4 ppb	18:57:20
2	Sb 206.836†	570.3	549.5	523.33 µg/L	523.33 ppb	18:57:20
2	Se 196.026†	363.7	348.5	524.53 µg/L	524.53 ppb	18:57:20
2	SiO2†	29257.0	27761.5	5747.9 µg/L	5747.9 ppb	18:57:00
2	Si 251.611†	33726.5	33449.3	2684.3 µg/L	2684.3 ppb	18:57:00
2	Sn 189.927†	1192.7	1194.1	533.23 µg/L	533.23 ppb	18:57:20
2	Ti 334.940†	224190.9	224497.6	514.31 µg/L	514.31 ppb	18:56:54
2	Tl 190.801†	346.5	368.8	517.66 µg/L	517.66 ppb	18:57:20
2	U 409.014†	6397.0	6200.1	505.29 µg/L	505.29 ppb	18:57:00
2	V 292.402†	50817.2	50951.7	523.13 µg/L	523.13 ppb	18:57:00
2	Zn 213.857†	21588.8	21077.2	518.33 µg/L	518.33 ppb	18:57:00
3	Sc RADIAL	53431.3	53431.3	101 %		18:55:49
3	Al 396.153Radial†	7029.6	6969.4	5042.4 µg/L	5042.4 ppb	18:55:49
3	Ca 317.933Radial†	5556.5	5304.9	5020.1 µg/L	5020.1 ppb	18:56:09
3	Fe 238.204 Radial†	585.7	562.8	5095.3 µg/L	5095.3 ppb	18:56:09
3	K 766.490 Radial†	7798.0	7454.7	5097.8 µg/L	5097.8 ppb	18:55:49
3	Mg 279.077 IEC†	552.8	533.2	5109.6 µg/L	5109.6 ppb	18:56:09
3	Na 589.592 Radial†	34041.8	33029.8	10215 µg/L	10215 ppb	18:55:49
3	Sr 421.552†	51429.3	50770.6	504.58 µg/L	504.58 ppb	18:55:49
3	Sc 361.383	1922152.8	1922152.8	100.99 %		18:57:27
3	Y 371.029	1318520.5	1318520.5	100.54 %		18:57:27
3	Ag 328.068†	63008.9	62890.5	482.49 µg/L	482.49 ppb	18:57:33
3	As 188.979†	234.2	231.1	439.76 µg/L	439.76 ppb	18:57:53
3	B 249.677†	11584.3	11016.7	469.17 µg/L	469.17 ppb	18:57:33
3	Ba 233.527†	18546.7	18385.5	472.36 µg/L	472.36 ppb	18:57:33
3	Be 313.107†	774935.5	770883.2	478.41 µg/L	478.41 ppb	18:57:27
3	Cd 226.502†	17576.2	17533.4	472.19 µg/L	472.19 ppb	18:57:33
3	Co 228.616†	9792.0	9703.5	468.46 µg/L	468.46 ppb	18:57:33
3	Cr 267.716†	21620.5	21454.9	454.76 µg/L	454.76 ppb	18:57:33
3	Cu 324.752†	72883.5	68930.6	461.48 µg/L	461.48 ppb	18:57:33
3	Mn 257.610†	146383.1	145180.1	486.90 µg/L	486.90 ppb	18:57:27
3	Mo 202.031†	4276.1	4238.2	438.63 µg/L	438.63 ppb	18:57:53
3	Ni 231.604†	9202.0	8823.9	467.73 µg/L	467.73 ppb	18:57:33
3	P 214.914†	1096.8	1063.7	2186.3 µg/L	2186.3 ppb	18:57:53
3	Pb 220.353†	1839.8	1739.3	446.87 µg/L	446.87 ppb	18:57:53
3	S 181.975 Axial†	231.5	212.9	923.41 µg/L	923.41 ppb	18:57:53
3	Sb 206.836†	500.4	473.7	450.78 µg/L	450.78 ppb	18:57:53
3	Se 196.026†	328.7	309.6	467.04 µg/L	467.04 ppb	18:57:53
3	SiO2†	27367.1	25553.5	5290.7 µg/L	5290.7 ppb	18:57:33
3	Si 251.611†	31513.8	30870.2	2477.3 µg/L	2477.3 ppb	18:57:33
3	Sn 189.927†	981.0	970.7	433.50 µg/L	433.50 ppb	18:57:53
3	Ti 334.940†	209780.4	207648.7	475.68 µg/L	475.68 ppb	18:57:27
3	Tl 190.801†	314.6	333.2	467.94 µg/L	467.94 ppb	18:57:53
3	U 409.014†	5730.4	5466.4	445.37 µg/L	445.37 ppb	18:57:33
3	V 292.402†	45578.7	45179.7	463.71 µg/L	463.71 ppb	18:57:33
3	Zn 213.857†	19644.5	18903.6	464.83 µg/L	464.83 ppb	18:57:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1914079.6	100.57 %	0.640			0.64%
Sc RADIAL	53620.4	102 %	0.5			0.45%
Y 371.029	1312544.1	100.09 %	0.679			0.68%
Ag 328.068†	65638.1	503.67 µg/L	18.547	503.67 ppb	18.547	3.68%
QC value within limits for Ag 328.068 Recovery = 100.73%						
Al 396.153Radial†	6936.0	5016.9 µg/L	31.13	5016.9 ppb	31.13	0.62%
QC value within limits for Al 396.153Radial Recovery = 100.34%						
As 188.979†	262.7	499.97 µg/L	52.289	499.97 ppb	52.289	10.46%
QC value within limits for As 188.979 Recovery = 99.99%						
B 249.677†	11561.3	492.54 µg/L	20.406	492.54 ppb	20.406	4.14%
QC value within limits for B 249.677 Recovery = 98.51%						
Ba 233.527†	19531.1	501.81 µg/L	25.577	501.81 ppb	25.577	5.10%
QC value within limits for Ba 233.527 Recovery = 100.36%						
Be 313.107†	807237.8	500.97 µg/L	19.578	500.97 ppb	19.578	3.91%
QC value within limits for Be 313.107 Recovery = 100.19%						
Ca 317.933Radial†	5288.1	5004.3 µg/L	19.37	5004.3 ppb	19.37	0.39%
QC value within limits for Ca 317.933Radial Recovery = 100.09%						
Cd 226.502†	18712.1	503.98 µg/L	27.575	503.98 ppb	27.575	5.47%
QC value within limits for Cd 226.502 Recovery = 100.80%						
Co 228.616†	10416.1	502.91 µg/L	29.948	502.91 ppb	29.948	5.95%

QC value within limits for Co 228.616 Recovery = 100.58%							
Cr	267.716†	23490.1	497.89 µg/L	37.452	497.89 ppb	37.452	7.52%
QC value within limits for Cr 267.716 Recovery = 99.58%							
Cu	324.752†	73986.2	495.27 µg/L	29.466	495.27 ppb	29.466	5.95%
QC value within limits for Cu 324.752 Recovery = 99.05%							
Fe	238.204 Radial†	559.4	5065.6 µg/L	30.52	5065.6 ppb	30.52	0.60%
QC value within limits for Fe 238.204 Radial Recovery = 101.31%							
K	766.490 Radial†	7430.3	5081.1 µg/L	25.33	5081.1 ppb	25.33	0.50%
QC value within limits for K 766.490 Radial Recovery = 101.62%							
Mg	279.077 IEC†	531.3	5092.6 µg/L	26.27	5092.6 ppb	26.27	0.52%
QC value within limits for Mg 279.077 IEC Recovery = 101.85%							
Mn	257.610†	151796.8	509.06 µg/L	19.225	509.06 ppb	19.225	3.78%
QC value within limits for Mn 257.610 Recovery = 101.81%							
Mo	202.031†	4811.4	497.91 µg/L	51.387	497.91 ppb	51.387	10.32%
QC value within limits for Mo 202.031 Recovery = 99.58%							
Na	589.592 Radial†	32966.6	10196 µg/L	35.8	10196 ppb	35.8	0.35%
QC value within limits for Na 589.592 Radial Recovery = 101.96%							
Ni	231.604†	9489.0	502.98 µg/L	30.763	502.98 ppb	30.763	6.12%
QC value within limits for Ni 231.604 Recovery = 100.60%							
P	214.914†	1186.5	2441.4 µg/L	221.05	2441.4 ppb	221.05	9.05%
QC value within limits for P 214.914 Recovery = 97.66%							
Pb	220.353†	1925.3	494.74 µg/L	41.457	494.74 ppb	41.457	8.38%
QC value within limits for Pb 220.353 Recovery = 98.95%							
S	181.975 Axial†	232.2	1007.0 µg/L	72.37	1007.0 ppb	72.37	7.19%
QC value within limits for S 181.975 Axial Recovery = 100.70%							
Sb	206.836†	524.0	498.97 µg/L	41.730	498.97 ppb	41.730	8.36%
QC value within limits for Sb 206.836 Recovery = 99.79%							
Se	196.026†	338.5	509.79 µg/L	37.619	509.79 ppb	37.619	7.38%
QC value within limits for Se 196.026 Recovery = 101.96%							
SiO2†		26833.2	5555.7 µg/L	237.11	5555.7 ppb	237.11	4.27%
QC value within limits for SiO2 Recovery = 103.89%							
Si	251.611†	32397.4	2599.8 µg/L	108.63	2599.8 ppb	108.63	4.18%
QC value within limits for Si 251.611 Recovery = 103.99%							
Sn	189.927†	1120.1	500.20 µg/L	57.768	500.20 ppb	57.768	11.55%
QC value within limits for Sn 189.927 Recovery = 100.04%							
Sr	421.552†	50658.5	503.47 µg/L	2.214	503.47 ppb	2.214	0.44%
QC value within limits for Sr 421.552 Recovery = 100.69%							
Ti	334.940†	218532.4	500.63 µg/L	21.641	500.63 ppb	21.641	4.32%
QC value within limits for Ti 334.940 Recovery = 100.13%							
Tl	190.801†	357.2	501.40 µg/L	28.979	501.40 ppb	28.979	5.78%
QC value within limits for Tl 190.801 Recovery = 100.28%							
U	409.014†	5968.0	486.33 µg/L	35.508	486.33 ppb	35.508	7.30%
QC value within limits for U 409.014 Recovery = 97.27%							
V	292.402†	48875.2	501.78 µg/L	33.054	501.78 ppb	33.054	6.59%
QC value within limits for V 292.402 Recovery = 100.36%							
Zn	213.857†	20281.3	498.74 µg/L	29.488	498.74 ppb	29.488	5.91%
QC value within limits for Zn 213.857 Recovery = 99.75%							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/24/2010 18:58:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52644.6	52644.6	99.8 %		18:58:37
1	Al 396.153Radial†	272.0	299.1	216.54 µg/L	216.54 ppb	18:58:37
1	Ca 317.933Radial†	384.8	202.5	191.67 µg/L	191.67 ppb	18:58:58
1	Fe 238.204 Radial†	26.8	11.1	100.06 µg/L	100.06 ppb	18:58:58
1	K 766.490 Radial†	520.6	274.7	187.83 µg/L	187.83 ppb	18:58:37
1	Mg 279.077 IEC†	43.9	31.3	300.04 µg/L	300.04 ppb	18:58:58
1	Na 589.592 Radial†	1846.3	1258.3	389.16 µg/L	389.16 ppb	18:58:37
1	Sr 421.552†	531.7	508.0	5.0485 µg/L	5.0485 ppb	18:58:37
1	Sc 361.383	1911961.7	1911961.7	100.45 %		19:00:00
1	Y 371.029	1316750.4	1316750.4	100.41 %		19:00:00
1	Ag 328.068†	174.6	672.7	5.1650 µg/L	5.1650 ppb	19:00:05
1	As 188.979†	14.2	13.2	25.228 µg/L	25.228 ppb	19:00:26
1	B 249.677†	1616.7	1155.2	49.354 µg/L	49.354 ppb	19:00:05
1	Ba 233.527†	188.8	208.5	5.3557 µg/L	5.3557 ppb	19:00:26
1	Be 313.107†	4509.4	8027.3	4.9817 µg/L	4.9817 ppb	19:00:05
1	Cd 226.502†	54.4	183.5	4.9355 µg/L	4.9355 ppb	19:00:26
1	Co 228.616†	87.6	94.7	4.5752 µg/L	4.5752 ppb	19:00:26
1	Cr 267.716†	199.5	244.7	5.1865 µg/L	5.1865 ppb	19:00:05
1	Cu 324.752†	4835.5	1574.6	10.539 µg/L	10.539 ppb	19:00:05
1	Mn 257.610†	2903.7	3121.4	10.460 µg/L	10.460 ppb	19:00:05
1	Mo 202.031†	103.1	106.7	11.037 µg/L	11.037 ppb	19:00:26
1	Ni 231.604†	382.3	92.6	4.9081 µg/L	4.9081 ppb	19:00:26
1	P 214.914†	94.1	71.4	148.69 µg/L	148.69 ppb	19:00:26
1	Pb 220.353†	131.5	48.3	12.378 µg/L	12.378 ppb	19:00:26
1	S 181.975 Axial†	40.9	24.4	105.80 µg/L	105.80 ppb	19:00:26
1	Sb 206.836†	31.7	9.8	9.3741 µg/L	9.3741 ppb	19:00:26
1	Se 196.026†	37.5	21.5	31.895 µg/L	31.895 ppb	19:00:26
1	SiO2†	2979.6	1420.5	294.12 µg/L	294.12 ppb	19:00:05
1	Si 251.611†	1986.1	1642.3	131.79 µg/L	131.79 ppb	19:00:05
1	Sn 189.927†	23.6	22.8	10.189 µg/L	10.189 ppb	19:00:26
1	Ti 334.940†	2307.4	2220.0	5.0685 µg/L	5.0685 ppb	19:00:05
1	Tl 190.801†	-8.1	13.6	19.018 µg/L	19.018 ppb	19:00:26
1	U 409.014†	927.9	715.9	58.432 µg/L	58.432 ppb	19:00:05
1	V 292.402†	461.2	506.5	5.3067 µg/L	5.3067 ppb	19:00:05
1	Zn 213.857†	936.7	384.0	9.4494 µg/L	9.4494 ppb	19:00:26
2	Sc RADIAL	53263.2	53263.2	101 %		18:59:03
2	Al 396.153Radial†	269.0	293.0	212.14 µg/L	212.14 ppb	18:59:03
2	Ca 317.933Radial†	388.1	201.3	190.49 µg/L	190.49 ppb	18:59:24
2	Fe 238.204 Radial†	26.9	10.9	98.629 µg/L	98.629 ppb	18:59:24
2	K 766.490 Radial†	471.7	220.2	150.59 µg/L	150.59 ppb	18:59:03
2	Mg 279.077 IEC†	43.9	30.8	294.63 µg/L	294.63 ppb	18:59:24
2	Na 589.592 Radial†	1839.5	1230.0	380.42 µg/L	380.42 ppb	18:59:03
2	Sr 421.552†	551.2	521.1	5.1793 µg/L	5.1793 ppb	18:59:03
2	Sc 361.383	1908462.0	1908462.0	100.27 %		19:00:32
2	Y 371.029	1314381.6	1314381.6	100.23 %		19:00:32
2	Ag 328.068†	190.7	689.0	5.2884 µg/L	5.2884 ppb	19:00:37
2	As 188.979†	15.1	14.2	26.969 µg/L	26.969 ppb	19:00:58
2	B 249.677†	1636.6	1178.0	50.329 µg/L	50.329 ppb	19:00:37
2	Ba 233.527†	182.1	202.1	5.1917 µg/L	5.1917 ppb	19:00:58
2	Be 313.107†	4734.1	8259.6	5.1258 µg/L	5.1258 ppb	19:00:37
2	Cd 226.502†	63.7	192.9	5.1902 µg/L	5.1902 ppb	19:00:58
2	Co 228.616†	98.1	105.2	5.0849 µg/L	5.0849 ppb	19:00:58
2	Cr 267.716†	203.3	248.9	5.2763 µg/L	5.2763 ppb	19:00:37
2	Cu 324.752†	4893.5	1641.2	10.984 µg/L	10.984 ppb	19:00:37
2	Mn 257.610†	2900.5	3123.5	10.467 µg/L	10.467 ppb	19:00:37
2	Mo 202.031†	100.3	104.1	10.770 µg/L	10.770 ppb	19:00:58
2	Ni 231.604†	395.2	106.2	5.6304 µg/L	5.6304 ppb	19:00:58
2	P 214.914†	100.4	77.8	162.17 µg/L	162.17 ppb	19:00:58
2	Pb 220.353†	130.2	47.3	12.114 µg/L	12.114 ppb	19:00:58

2	S 181.975 Axial†	35.0	18.5	80.376 µg/L	80.376 ppb	19:00:58
2	Sb 206.836†	28.0	6.1	5.9258 µg/L	5.9258 ppb	19:00:58
2	Se 196.026†	35.7	19.8	29.286 µg/L	29.286 ppb	19:00:58
2	SiO2†	3030.6	1476.9	305.78 µg/L	305.78 ppb	19:00:37
2	Si 251.611†	2087.4	1746.9	140.19 µg/L	140.19 ppb	19:00:37
2	Sn 189.927†	20.8	20.1	8.9786 µg/L	8.9786 ppb	19:00:58
2	Ti 334.940†	2460.0	2376.4	5.4273 µg/L	5.4273 ppb	19:00:37
2	Tl 190.801†	-10.4	11.3	15.825 µg/L	15.825 ppb	19:00:58
2	U 409.014†	770.6	560.7	45.760 µg/L	45.760 ppb	19:00:37
2	V 292.402†	449.5	495.8	5.1826 µg/L	5.1826 ppb	19:00:37
2	Zn 213.857†	939.8	388.8	9.5648 µg/L	9.5648 ppb	19:00:58
3	Sc RADIAL	52801.5	52801.5	100 %		18:59:29
3	Al 396.153Radial†	250.0	276.3	200.07 µg/L	200.07 ppb	18:59:29
3	Ca 317.933Radial†	388.6	205.2	194.19 µg/L	194.19 ppb	18:59:50
3	Fe 238.204 Radial†	27.5	11.8	106.41 µg/L	106.41 ppb	18:59:50
3	K 766.490 Radial†	434.5	187.1	127.91 µg/L	127.91 ppb	18:59:29
3	Mg 279.077 IEC†	44.4	31.7	303.50 µg/L	303.50 ppb	18:59:50
3	Na 589.592 Radial†	1789.9	1196.4	370.00 µg/L	370.00 ppb	18:59:29
3	Sr 421.552†	559.6	534.3	5.3102 µg/L	5.3102 ppb	18:59:29
3	Sc 361.383	1913715.8	1913715.8	100.55 %		19:01:04
3	Y 371.029	1317123.2	1317123.2	100.44 %		19:01:04
3	Ag 328.068†	159.8	657.7	5.0505 µg/L	5.0505 ppb	19:01:09
3	As 188.979†	11.7	10.8	20.572 µg/L	20.572 ppb	19:01:30
3	B 249.677†	1537.2	1074.6	45.907 µg/L	45.907 ppb	19:01:09
3	Ba 233.527†	164.1	183.7	4.7208 µg/L	4.7208 ppb	19:01:30
3	Be 313.107†	4523.8	8037.5	4.9880 µg/L	4.9880 ppb	19:01:09
3	Cd 226.502†	36.6	165.7	4.4567 µg/L	4.4567 ppb	19:01:30
3	Co 228.616†	92.2	99.1	4.7884 µg/L	4.7884 ppb	19:01:30
3	Cr 267.716†	222.4	267.3	5.6660 µg/L	5.6660 ppb	19:01:09
3	Cu 324.752†	4869.6	1604.1	10.738 µg/L	10.738 ppb	19:01:09
3	Mn 257.610†	2792.3	3008.0	10.080 µg/L	10.080 ppb	19:01:09
3	Mo 202.031†	92.6	96.1	9.9458 µg/L	9.9458 ppb	19:01:30
3	Ni 231.604†	380.1	90.0	4.7734 µg/L	4.7734 ppb	19:01:30
3	P 214.914†	85.0	62.2	129.53 µg/L	129.53 ppb	19:01:30
3	Pb 220.353†	121.6	38.4	9.8353 µg/L	9.8353 ppb	19:01:30
3	S 181.975 Axial†	36.8	20.3	87.987 µg/L	87.987 ppb	19:01:30
3	Sb 206.836†	37.3	15.3	14.553 µg/L	14.553 ppb	19:01:30
3	Se 196.026†	33.5	17.5	25.888 µg/L	25.888 ppb	19:01:30
3	SiO2†	2993.6	1431.7	296.44 µg/L	296.44 ppb	19:01:09
3	Si 251.611†	2068.0	1721.8	138.18 µg/L	138.18 ppb	19:01:09
3	Sn 189.927†	25.6	24.8	11.086 µg/L	11.086 ppb	19:01:30
3	Ti 334.940†	2325.1	2235.5	5.1037 µg/L	5.1037 ppb	19:01:09
3	Tl 190.801†	-8.1	13.7	19.080 µg/L	19.080 ppb	19:01:30
3	U 409.014†	744.1	532.2	43.435 µg/L	43.435 ppb	19:01:09
3	V 292.402†	446.5	491.5	5.1320 µg/L	5.1320 ppb	19:01:09
3	Zn 213.857†	884.1	330.8	8.1331 µg/L	8.1331 ppb	19:01:30

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1911379.8	100.42 %	0.141			0.14%
Sc RADIAL	52903.1	100 %	0.6			0.61%
Y 371.029	1316085.0	100.36 %	0.113			0.11%
Ag 328.068†	673.1	5.1680 µg/L	0.11895	5.1680 ppb	0.11895	2.30%
QC value within limits for Ag 328.068 Recovery = 103.36%						
Al 396.153Radial†	289.5	209.58 µg/L	8.530	209.58 ppb	8.530	4.07%
QC value within limits for Al 396.153Radial Recovery = 104.79%						
As 188.979†	12.7	24.256 µg/L	3.3074	24.256 ppb	3.3074	13.63%
QC value within limits for As 188.979 Recovery = 80.85%						
B 249.677†	1135.9	48.530 µg/L	2.3235	48.530 ppb	2.3235	4.79%
QC value within limits for B 249.677 Recovery = 97.06%						
Ba 233.527†	198.1	5.0894 µg/L	0.32958	5.0894 ppb	0.32958	6.48%
QC value within limits for Ba 233.527 Recovery = 101.79%						
Be 313.107†	8108.2	5.0319 µg/L	0.08142	5.0319 ppb	0.08142	1.62%
QC value within limits for Be 313.107 Recovery = 100.64%						
Ca 317.933Radial†	203.0	192.12 µg/L	1.889	192.12 ppb	1.889	0.98%
QC value within limits for Ca 317.933Radial Recovery = 96.06%						
Cd 226.502†	180.7	4.8608 µg/L	0.37241	4.8608 ppb	0.37241	7.66%
QC value within limits for Cd 226.502 Recovery = 97.22%						
Co 228.616†	99.7	4.8162 µg/L	0.25595	4.8162 ppb	0.25595	5.31%

QC value within limits for Co 228.616	Recovery = 96.32%				
Cr 267.716†	253.7	5.3763 µg/L	0.25489	5.3763 ppb	0.25489 4.74%
QC value within limits for Cr 267.716	Recovery = 107.53%				
Cu 324.752†	1606.6	10.754 µg/L	0.2231	10.754 ppb	0.2231 2.07%
QC value within limits for Cu 324.752	Recovery = 107.54%				
Fe 238.204 Radial†	11.2	101.70 µg/L	4.143	101.70 ppb	4.143 4.07%
QC value within limits for Fe 238.204 Radial	Recovery = 101.70%				
K 766.490 Radial†	227.3	155.44 µg/L	30.252	155.44 ppb	30.252 19.46%
QC value within limits for K 766.490 Radial	Recovery = 103.63%				
Mg 279.077 IEC†	31.2	299.39 µg/L	4.470	299.39 ppb	4.470 1.49%
QC value within limits for Mg 279.077 IEC	Recovery = 99.80%				
Mn 257.610†	3084.3	10.335 µg/L	0.2210	10.335 ppb	0.2210 2.14%
QC value within limits for Mn 257.610	Recovery = 103.35%				
Mo 202.031†	102.3	10.584 µg/L	0.5686	10.584 ppb	0.5686 5.37%
QC value within limits for Mo 202.031	Recovery = 105.84%				
Na 589.592 Radial†	1228.2	379.86 µg/L	9.590	379.86 ppb	9.590 2.52%
QC value within limits for Na 589.592 Radial	Recovery = 126.62%				
Ni 231.604†	96.3	5.1040 µg/L	0.46084	5.1040 ppb	0.46084 9.03%
QC value within limits for Ni 231.604	Recovery = 102.08%				
P 214.914†	70.5	146.80 µg/L	16.405	146.80 ppb	16.405 11.18%
QC value within limits for P 214.914	Recovery = 97.86%				
Pb 220.353†	44.7	11.443 µg/L	1.3982	11.443 ppb	1.3982 12.22%
QC value within limits for Pb 220.353	Recovery = 114.43%				
S 181.975 Axial†	21.1	91.386 µg/L	13.0467	91.386 ppb	13.0467 14.28%
QC value within limits for S 181.975 Axial	Recovery = 91.39%				
Sb 206.836†	10.4	9.9510 µg/L	4.34246	9.9510 ppb	4.34246 43.64%
QC value within limits for Sb 206.836	Recovery = 99.51%				
Se 196.026†	19.6	29.023 µg/L	3.0124	29.023 ppb	3.0124 10.38%
QC value within limits for Se 196.026	Recovery = 96.74%				
SiO2†	1443.0	298.78 µg/L	6.173	298.78 ppb	6.173 2.07%
QC value greater than the upper limit for SiO2	Recovery = 140.27%				
Si 251.611†	1703.7	136.72 µg/L	4.383	136.72 ppb	4.383 3.21%
QC value greater than the upper limit for Si 251.611	Recovery = 136.72%				
Sn 189.927†	22.5	10.085 µg/L	1.0577	10.085 ppb	1.0577 10.49%
QC value within limits for Sn 189.927	Recovery = 100.85%				
Sr 421.552†	521.1	5.1793 µg/L	0.13083	5.1793 ppb	0.13083 2.53%
QC value within limits for Sr 421.552	Recovery = 103.59%				
Ti 334.940†	2277.3	5.1998 µg/L	0.19776	5.1998 ppb	0.19776 3.80%
QC value within limits for Ti 334.940	Recovery = 104.00%				
Tl 190.801†	12.9	17.974 µg/L	1.8616	17.974 ppb	1.8616 10.36%
QC value within limits for Tl 190.801	Recovery = 89.87%				
U 409.014†	602.9	49.209 µg/L	8.0713	49.209 ppb	8.0713 16.40%
QC value within limits for U 409.014	Recovery = 98.42%				
V 292.402†	497.9	5.2071 µg/L	0.08985	5.2071 ppb	0.08985 1.73%
QC value within limits for V 292.402	Recovery = 104.14%				
Zn 213.857†	367.9	9.0491 µg/L	0.79540	9.0491 ppb	0.79540 8.79%
QC value within limits for Zn 213.857	Recovery = 90.49%				

QC Failed. Continue with analysis.

Sequence No.: 11
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/24/2010 19:01:40
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52736.9	52736.9	99.9 %		19:02:13
1	Al 396.153Radial†	-26.0	0.4	0.2775 µg/L	0.2775 ppb	19:02:13
1	Ca 317.933Radial†	174.5	-8.6	-8.1139 µg/L	-8.1139 ppb	19:02:33
1	Fe 238.204 Radial†	15.2	-0.5	-4.8010 µg/L	-4.8010 ppb	19:02:33
1	K 766.490 Radial†	215.0	-32.1	-21.920 µg/L	-21.920 ppb	19:02:13
1	Mg 279.077 IEC†	12.0	-0.7	-6.3542 µg/L	-6.3542 ppb	19:02:33
1	Na 589.592 Radial†	817.8	225.8	69.825 µg/L	69.825 ppb	19:02:13
1	Sr 421.552†	12.3	-12.7	-0.1259 µg/L	-0.1259 ppb	19:02:13
1	Sc 361.383	1898604.0	1898604.0	99.752 %		19:03:36
1	Y 371.029	1307501.6	1307501.6	99.702 %		19:03:36
1	Ag 328.068†	-476.0	21.6	0.1656 µg/L	0.1656 ppb	19:03:41
1	As 188.979†	-5.0	-5.9	-11.258 µg/L	-11.258 ppb	19:04:02
1	B 249.677†	421.5	-31.6	-1.3488 µg/L	-1.3488 ppb	19:04:02
1	Ba 233.527†	-19.7	0.7	0.0192 µg/L	0.0192 ppb	19:04:02
1	Be 313.107†	-3639.9	-110.7	-0.0687 µg/L	-0.0687 ppb	19:03:41
1	Cd 226.502†	-131.6	-2.5	-0.0677 µg/L	-0.0677 ppb	19:04:02
1	Co 228.616†	-3.7	3.7	0.1779 µg/L	0.1779 ppb	19:04:02
1	Cr 267.716†	-46.7	-0.7	-0.0143 µg/L	-0.0143 ppb	19:03:41
1	Cu 324.752†	3294.2	63.3	0.4226 µg/L	0.4226 ppb	19:03:41
1	Mn 257.610†	-257.5	-27.3	-0.0920 µg/L	-0.0920 ppb	19:04:02
1	Mo 202.031†	-3.9	0.1	0.0125 µg/L	0.0125 ppb	19:04:02
1	Ni 231.604†	292.9	5.6	0.2990 µg/L	0.2990 ppb	19:04:02
1	P 214.914†	25.2	3.0	6.1878 µg/L	6.1878 ppb	19:04:02
1	Pb 220.353†	75.8	-6.6	-1.6946 µg/L	-1.6946 ppb	19:04:02
1	S 181.975 Axial†	18.1	1.8	7.6981 µg/L	7.6981 ppb	19:04:02
1	Sb 206.836†	19.8	-2.0	-1.8532 µg/L	-1.8532 ppb	19:04:02
1	Se 196.026†	5.0	-10.8	-15.959 µg/L	-15.959 ppb	19:04:02
1	SiO2†	1825.0	284.0	58.798 µg/L	58.798 ppb	19:03:41
1	Si 251.611†	666.4	333.2	26.737 µg/L	26.737 ppb	19:04:02
1	Sn 189.927†	0.0	-0.6	-0.2889 µg/L	-0.2889 ppb	19:04:02
1	Ti 334.940†	71.5	-5.2	-0.0116 µg/L	-0.0116 ppb	19:03:41
1	Tl 190.801†	-17.5	4.2	5.7609 µg/L	5.7609 ppb	19:04:02
1	U 409.014†	141.7	-65.7	-5.3630 µg/L	-5.3630 ppb	19:03:41
1	V 292.402†	-28.6	18.8	0.1841 µg/L	0.1841 ppb	19:03:41
1	Zn 213.857†	495.7	-51.6	-1.2789 µg/L	-1.2789 ppb	19:04:02
2	Sc RADIAL	52967.3	52967.3	100 %		19:02:39
2	Al 396.153Radial†	-18.2	8.3	6.0219 µg/L	6.0219 ppb	19:02:39
2	Ca 317.933Radial†	176.0	-7.9	-7.4414 µg/L	-7.4414 ppb	19:02:59
2	Fe 238.204 Radial†	17.0	1.2	10.954 µg/L	10.954 ppb	19:02:59
2	K 766.490 Radial†	206.0	-41.9	-28.667 µg/L	-28.667 ppb	19:02:39
2	Mg 279.077 IEC†	11.5	-1.3	-12.106 µg/L	-12.106 ppb	19:02:59
2	Na 589.592 Radial†	771.4	176.1	54.450 µg/L	54.450 ppb	19:02:39
2	Sr 421.552†	76.9	51.6	0.5124 µg/L	0.5124 ppb	19:02:39
2	Sc 361.383	1906398.8	1906398.8	100.16 %		19:04:08
2	Y 371.029	1311458.2	1311458.2	100.00 %		19:04:08
2	Ag 328.068†	-494.4	5.2	0.0387 µg/L	0.0387 ppb	19:04:13
2	As 188.979†	-0.0	-0.9	-1.7010 µg/L	-1.7010 ppb	19:04:34
2	B 249.677†	401.0	-53.8	-2.3075 µg/L	-2.3075 ppb	19:04:34
2	Ba 233.527†	-26.4	-5.9	-0.1519 µg/L	-0.1519 ppb	19:04:34
2	Be 313.107†	-3670.9	-126.7	-0.0787 µg/L	-0.0787 ppb	19:04:13
2	Cd 226.502†	-134.0	-4.4	-0.1194 µg/L	-0.1194 ppb	19:04:34
2	Co 228.616†	-3.0	4.5	0.2166 µg/L	0.2166 ppb	19:04:34
2	Cr 267.716†	-68.4	-22.2	-0.4698 µg/L	-0.4698 ppb	19:04:13
2	Cu 324.752†	3385.9	141.3	0.9461 µg/L	0.9461 ppb	19:04:13
2	Mn 257.610†	-248.7	-17.5	-0.0567 µg/L	-0.0567 ppb	19:04:34
2	Mo 202.031†	-10.7	-6.6	-0.6827 µg/L	-0.6827 ppb	19:04:34
2	Ni 231.604†	290.2	1.7	0.0921 µg/L	0.0921 ppb	19:04:34
2	P 214.914†	23.6	1.2	2.4574 µg/L	2.4574 ppb	19:04:34
2	Pb 220.353†	86.0	3.3	0.8324 µg/L	0.8324 ppb	19:04:34

2	S 181.975 Axial†	16.0	-0.4	-1.6664 µg/L	-1.6664 ppb	19:04:34
2	Sb 206.836†	21.4	-0.5	-0.4593 µg/L	-0.4593 ppb	19:04:34
2	Se 196.026†	19.0	3.1	4.6532 µg/L	4.6532 ppb	19:04:34
2	SiO2†	1898.7	350.1	72.489 µg/L	72.489 ppb	19:04:13
2	Si 251.611†	714.5	378.5	30.371 µg/L	30.371 ppb	19:04:34
2	Sn 189.927†	0.1	-0.6	-0.2798 µg/L	-0.2798 ppb	19:04:34
2	Ti 334.940†	56.2	-20.8	-0.0469 µg/L	-0.0469 ppb	19:04:13
2	Tl 190.801†	-21.5	0.2	0.3286 µg/L	0.3286 ppb	19:04:34
2	U 409.014†	214.3	6.1	0.5010 µg/L	0.5010 ppb	19:04:13
2	V 292.402†	-66.6	-19.0	-0.1973 µg/L	-0.1973 ppb	19:04:13
2	Zn 213.857†	489.5	-59.8	-1.4817 µg/L	-1.4817 ppb	19:04:34
3	Sc RADIAL	52966.0	52966.0	100 %		19:03:05
3	Al 396.153Radial†	-31.2	-4.6	-3.3373 µg/L	-3.3373 ppb	19:03:05
3	Ca 317.933Radial†	174.3	-9.5	-9.0282 µg/L	-9.0282 ppb	19:03:25
3	Fe 238.204 Radial†	16.3	0.5	4.5271 µg/L	4.5271 ppb	19:03:25
3	K 766.490 Radial†	177.8	-70.0	-47.883 µg/L	-47.883 ppb	19:03:05
3	Mg 279.077 IEC†	9.7	-3.1	-29.284 µg/L	-29.284 ppb	19:03:25
3	Na 589.592 Radial†	798.9	203.5	62.937 µg/L	62.937 ppb	19:03:05
3	Sr 421.552†	41.5	16.3	0.1620 µg/L	0.1620 ppb	19:03:05
3	Sc 361.383	1922996.7	1922996.7	101.03 %		19:04:40
3	Y 371.029	1322295.4	1322295.4	100.83 %		19:04:40
3	Ag 328.068†	-446.9	56.5	0.4308 µg/L	0.4308 ppb	19:04:45
3	As 188.979†	1.0	0.1	0.1741 µg/L	0.1741 ppb	19:05:06
3	B 249.677†	410.6	-47.8	-2.0469 µg/L	-2.0469 ppb	19:05:06
3	Ba 233.527†	-18.0	2.7	0.0686 µg/L	0.0686 ppb	19:05:06
3	Be 313.107†	-3641.2	-65.7	-0.0408 µg/L	-0.0408 ppb	19:04:45
3	Cd 226.502†	-138.8	-8.0	-0.2152 µg/L	-0.2152 ppb	19:05:06
3	Co 228.616†	-9.1	-1.6	-0.0756 µg/L	-0.0756 ppb	19:05:06
3	Cr 267.716†	-43.2	3.4	0.0714 µg/L	0.0714 ppb	19:04:45
3	Cu 324.752†	3273.0	0.4	0.0035 µg/L	0.0035 ppb	19:04:45
3	Mn 257.610†	-253.5	-20.1	-0.0654 µg/L	-0.0654 ppb	19:05:06
3	Mo 202.031†	-3.7	0.4	0.0411 µg/L	0.0411 ppb	19:05:06
3	Ni 231.604†	301.7	10.6	0.5623 µg/L	0.5623 ppb	19:05:06
3	P 214.914†	16.7	-5.8	-12.183 µg/L	-12.183 ppb	19:05:06
3	Pb 220.353†	75.1	-8.3	-2.1228 µg/L	-2.1228 ppb	19:05:06
3	S 181.975 Axial†	16.9	0.3	1.4381 µg/L	1.4381 ppb	19:05:06
3	Sb 206.836†	24.1	2.1	1.9612 µg/L	1.9612 ppb	19:05:06
3	Se 196.026†	14.2	-1.8	-2.6486 µg/L	-2.6486 ppb	19:05:06
3	SiO2†	1950.8	385.3	79.767 µg/L	79.767 ppb	19:04:45
3	Si 251.611†	736.2	393.8	31.602 µg/L	31.602 ppb	19:05:06
3	Sn 189.927†	0.4	-0.3	-0.1342 µg/L	-0.1342 ppb	19:05:06
3	Ti 334.940†	109.5	31.4	0.0741 µg/L	0.0741 ppb	19:04:45
3	Tl 190.801†	-19.7	2.2	3.0556 µg/L	3.0556 ppb	19:05:06
3	U 409.014†	232.4	22.2	1.8151 µg/L	1.8151 ppb	19:04:45
3	V 292.402†	-47.7	0.2	0.0054 µg/L	0.0054 ppb	19:04:45
3	Zn 213.857†	486.2	-67.3	-1.6667 µg/L	-1.6667 ppb	19:05:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1909333.2	100.32 %	0.655			0.65%
Sc RADIAL	52890.0	100 %	0.3			0.25%
Y 371.029	1313751.7	100.18 %	0.584			0.58%
Ag 328.068†	27.8	0.2117 µg/L	0.20010	0.2117 ppb	0.20010	94.53%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.4	0.9874 µg/L	4.71982	0.9874 ppb	4.71982	478.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.2	-4.2615 µg/L	6.13095	-4.2615 ppb	6.13095	143.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-44.4	-1.9011 µg/L	0.49573	-1.9011 ppb	0.49573	26.08%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-0.8	-0.0214 µg/L	0.11570	-0.0214 ppb	0.11570	541.35%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-101.0	-0.0627 µg/L	0.01963	-0.0627 ppb	0.01963	31.30%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.7	-8.1945 µg/L	0.79642	-8.1945 ppb	0.79642	9.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-5.0	-0.1341 µg/L	0.07485	-0.1341 ppb	0.07485	55.81%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.2	0.1063 µg/L	0.15869	0.1063 ppb	0.15869	149.31%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	-6.5	-0.1376 µg/L	0.29087	-0.1376 ppb	0.29087 211.43%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	68.4	0.4574 µg/L	0.47227	0.4574 ppb	0.47227 103.25%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	0.4	3.5600 µg/L	7.92181	3.5600 ppb	7.92181 222.52%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	-48.0	-32.823 µg/L	13.4710	-32.823 ppb	13.4710 41.04%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	-1.7	-15.915 µg/L	11.9299	-15.915 ppb	11.9299 74.96%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	-21.6	-0.0713 µg/L	0.01839	-0.0713 ppb	0.01839 25.77%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	-2.0	-0.2097 µg/L	0.40986	-0.2097 ppb	0.40986 195.47%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	201.8	62.404 µg/L	7.7013	62.404 ppb	7.7013 12.34%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	6.0	0.3178 µg/L	0.23567	0.3178 ppb	0.23567 74.15%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	-0.5	-1.1792 µg/L	9.71016	-1.1792 ppb	9.71016 823.47%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	-3.9	-0.9950 µg/L	1.59704	-0.9950 ppb	1.59704 160.51%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	0.6	2.4900 µg/L	4.77001	2.4900 ppb	4.77001 191.57%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	-0.1	-0.1171 µg/L	1.93007	-0.1171 ppb	1.93007 >999.9%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-3.2	-4.6516 µg/L	10.45121	-4.6516 ppb	10.45121 224.68%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	339.8	70.351 µg/L	10.6470	70.351 ppb	10.6470 15.13%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	368.5	29.570 µg/L	2.5297	29.570 ppb	2.5297 8.56%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	-0.5	-0.2343 µg/L	0.08679	-0.2343 ppb	0.08679 37.04%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	18.4	0.1828 µg/L	0.31966	0.1828 ppb	0.31966 174.83%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	1.8	0.0052 µg/L	0.06224	0.0052 ppb	0.06224 >999.9%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	2.2	3.0484 µg/L	2.71619	3.0484 ppb	2.71619 89.10%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	-12.4	-1.0156 µg/L	3.82183	-1.0156 ppb	3.82183 376.30%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	-0.0	-0.0026 µg/L	0.19084	-0.0026 ppb	0.19084 >999.9%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	-59.5	-1.4758 µg/L	0.19394	-1.4758 ppb	0.19394 13.14%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 13
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/24/2010 19:08:52
 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	53703.7	53703.7	102 %		19:09:27
1	Al 396.153Radial†	6994.4	6899.7	4989.9 µg/L	4989.9 ppb	19:09:27
1	Ca 317.933Radial†	5648.7	5367.6	5079.5 µg/L	5079.5 ppb	19:09:47
1	Fe 238.204 Radial†	586.2	560.3	5074.0 µg/L	5074.0 ppb	19:09:47
1	K 766.490 Radial†	7691.2	7310.7	4999.3 µg/L	4999.3 ppb	19:09:27
1	Mg 279.077 IEC†	550.0	527.8	5059.2 µg/L	5059.2 ppb	19:09:47
1	Na 589.592 Radial†	33759.7	32582.0	10077 µg/L	10077 ppb	19:09:27
1	Sr 421.552†	51518.1	50600.2	502.89 µg/L	502.89 ppb	19:09:27
1	Sc 361.383	1917970.1	1917970.1	100.77 %		19:10:51
1	Y 371.029	1313583.8	1313583.8	100.17 %		19:10:51
1	Ag 328.068†	66944.8	66932.4	513.65 µg/L	513.65 ppb	19:10:56
1	As 188.979†	281.0	278.0	529.07 µg/L	529.07 ppb	19:11:17
1	B 249.677†	12350.8	11802.3	502.88 µg/L	502.88 ppb	19:10:56
1	Ba 233.527†	20265.2	20130.9	517.23 µg/L	517.23 ppb	19:10:56
1	Be 313.107†	831465.0	828654.5	514.26 µg/L	514.26 ppb	19:10:51
1	Cd 226.502†	19380.4	19361.8	521.50 µg/L	521.50 ppb	19:10:56
1	Co 228.616†	10888.1	10812.4	522.06 µg/L	522.06 ppb	19:10:56
1	Cr 267.716†	24686.5	24544.1	520.23 µg/L	520.23 ppb	19:10:56
1	Cu 324.752†	80029.9	76179.8	509.94 µg/L	509.94 ppb	19:10:56
1	Mn 257.610†	156493.6	155529.5	521.57 µg/L	521.57 ppb	19:10:51
1	Mo 202.031†	5156.5	5121.2	529.97 µg/L	529.97 ppb	19:11:17
1	Ni 231.604†	10231.8	9865.7	522.94 µg/L	522.94 ppb	19:10:56
1	P 214.914†	1291.8	1259.6	2593.7 µg/L	2593.7 ppb	19:11:17
1	Pb 220.353†	2136.1	2037.2	523.52 µg/L	523.52 ppb	19:11:17
1	S 181.975 Axial†	259.2	240.8	1044.5 µg/L	1044.5 ppb	19:11:17
1	Sb 206.836†	570.8	544.7	518.84 µg/L	518.84 ppb	19:11:17
1	Se 196.026†	367.8	349.2	525.66 µg/L	525.66 ppb	19:11:17
1	SiO2†	28523.1	26759.7	5540.5 µg/L	5540.5 ppb	19:10:56
1	Si 251.611†	32909.7	32323.6	2593.9 µg/L	2593.9 ppb	19:10:56
1	Sn 189.927†	1205.8	1195.9	534.03 µg/L	534.03 ppb	19:11:17
1	Ti 334.940†	226154.9	224351.1	513.97 µg/L	513.97 ppb	19:10:51
1	Tl 190.801†	344.7	363.7	510.62 µg/L	510.62 ppb	19:11:17
1	U 409.014†	6444.2	6187.2	504.22 µg/L	504.22 ppb	19:10:56
1	V 292.402†	51022.4	50680.3	520.41 µg/L	520.41 ppb	19:10:56
1	Zn 213.857†	21723.6	21009.3	516.66 µg/L	516.66 ppb	19:10:56
2	Sc RADIAL	53507.6	53507.6	101 %		19:09:53
2	Al 396.153Radial†	7045.3	6975.1	5044.8 µg/L	5044.8 ppb	19:09:53
2	Ca 317.933Radial†	5614.0	5353.7	5066.3 µg/L	5066.3 ppb	19:10:13
2	Fe 238.204 Radial†	581.4	557.6	5049.9 µg/L	5049.9 ppb	19:10:13
2	K 766.490 Radial†	7767.7	7413.9	5069.8 µg/L	5069.8 ppb	19:09:53
2	Mg 279.077 IEC†	548.0	527.7	5058.6 µg/L	5058.6 ppb	19:10:13
2	Na 589.592 Radial†	33807.6	32750.8	10129 µg/L	10129 ppb	19:09:53
2	Sr 421.552†	51623.5	50889.7	505.76 µg/L	505.76 ppb	19:09:53
2	Sc 361.383	1918457.5	1918457.5	100.80 %		19:11:24
2	Y 371.029	1313836.9	1313836.9	100.18 %		19:11:24
2	Ag 328.068†	66603.9	66577.4	510.93 µg/L	510.93 ppb	19:11:30
2	As 188.979†	276.3	273.3	520.09 µg/L	520.09 ppb	19:11:50
2	B 249.677†	12301.1	11749.9	500.65 µg/L	500.65 ppb	19:11:30
2	Ba 233.527†	20194.0	20055.2	515.28 µg/L	515.28 ppb	19:11:30
2	Be 313.107†	831957.8	828933.8	514.44 µg/L	514.44 ppb	19:11:24
2	Cd 226.502†	19261.7	19239.2	518.20 µg/L	518.20 ppb	19:11:30
2	Co 228.616†	10805.8	10728.0	517.98 µg/L	517.98 ppb	19:11:30
2	Cr 267.716†	24554.9	24407.4	517.33 µg/L	517.33 ppb	19:11:30
2	Cu 324.752†	79858.6	75989.6	508.66 µg/L	508.66 ppb	19:11:30
2	Mn 257.610†	156812.1	155806.0	522.50 µg/L	522.50 ppb	19:11:24
2	Mo 202.031†	5073.0	5037.1	521.26 µg/L	521.26 ppb	19:11:50
2	Ni 231.604†	10156.6	9788.5	518.85 µg/L	518.85 ppb	19:11:30
2	P 214.914†	1271.0	1238.6	2549.7 µg/L	2549.7 ppb	19:11:50
2	Pb 220.353†	2114.1	2014.9	517.77 µg/L	517.77 ppb	19:11:50

2	S 181.975 Axial†	259.4	241.0	1045.3 µg/L	1045.3 ppb	19:11:50
2	Sb 206.836†	574.3	547.9	521.81 µg/L	521.81 ppb	19:11:50
2	Se 196.026†	367.5	348.8	524.97 µg/L	524.97 ppb	19:11:50
2	SiO2†	28566.2	26795.3	5547.9 µg/L	5547.9 ppb	19:11:30
2	Si 251.611†	32931.4	32336.8	2595.0 µg/L	2595.0 ppb	19:11:30
2	Sn 189.927†	1181.0	1171.0	522.91 µg/L	522.91 ppb	19:11:50
2	Ti 334.940†	226473.8	224610.5	514.57 µg/L	514.57 ppb	19:11:24
2	Tl 190.801†	349.3	368.3	516.94 µg/L	516.94 ppb	19:11:50
2	U 409.014†	6402.4	6144.1	500.71 µg/L	500.71 ppb	19:11:30
2	V 292.402†	50773.1	50420.1	517.69 µg/L	517.69 ppb	19:11:30
2	Zn 213.857†	21610.2	20891.3	513.76 µg/L	513.76 ppb	19:11:30
3	Sc RADIAL	53785.2	53785.2	102 %		19:10:19
3	Al 396.153Radial†	6982.3	6877.3	4975.5 µg/L	4975.5 ppb	19:10:19
3	Ca 317.933Radial†	5605.9	5317.2	5031.8 µg/L	5031.8 ppb	19:10:39
3	Fe 238.204 Radial†	582.5	555.8	5032.3 µg/L	5032.3 ppb	19:10:39
3	K 766.490 Radial†	7756.9	7363.7	5035.5 µg/L	5035.5 ppb	19:10:19
3	Mg 279.077 IEC†	548.1	525.0	5031.2 µg/L	5031.2 ppb	19:10:39
3	Na 589.592 Radial†	33533.0	32309.4	9992.4 µg/L	9992.4 ppb	19:10:19
3	Sr 421.552†	51226.0	50236.9	499.28 µg/L	499.28 ppb	19:10:19
3	Sc 361.383	1912910.3	1912910.3	100.50 %		19:11:57
3	Y 371.029	1310949.9	1310949.9	99.965 %		19:11:57
3	Ag 328.068†	62723.3	62907.8	482.61 µg/L	482.61 ppb	19:12:03
3	As 188.979†	236.2	234.1	445.55 µg/L	445.55 ppb	19:12:24
3	B 249.677†	11497.0	10985.2	467.86 µg/L	467.86 ppb	19:12:03
3	Ba 233.527†	18414.0	18342.3	471.25 µg/L	471.25 ppb	19:12:03
3	Be 313.107†	773778.6	773439.7	480.00 µg/L	480.00 ppb	19:11:57
3	Cd 226.502†	17428.7	17470.7	470.51 µg/L	470.51 ppb	19:12:03
3	Co 228.616†	9736.8	9695.5	468.07 µg/L	468.07 ppb	19:12:03
3	Cr 267.716†	21502.7	21441.1	454.47 µg/L	454.47 ppb	19:12:03
3	Cu 324.752†	72503.8	68901.4	461.28 µg/L	461.28 ppb	19:12:03
3	Mn 257.610†	146221.6	145719.8	488.70 µg/L	488.70 ppb	19:11:57
3	Mo 202.031†	4288.4	4271.0	442.01 µg/L	442.01 ppb	19:12:24
3	Ni 231.604†	9155.4	8821.6	467.60 µg/L	467.60 ppb	19:12:03
3	P 214.914†	1093.7	1065.9	2191.2 µg/L	2191.2 ppb	19:12:24
3	Pb 220.353†	1855.9	1764.1	453.25 µg/L	453.25 ppb	19:12:24
3	S 181.975 Axial†	230.9	213.4	925.60 µg/L	925.60 ppb	19:12:24
3	Sb 206.836†	496.9	472.6	449.84 µg/L	449.84 ppb	19:12:24
3	Se 196.026†	323.2	305.7	461.16 µg/L	461.16 ppb	19:12:24
3	SiO2†	26542.0	24863.4	5147.9 µg/L	5147.9 ppb	19:12:03
3	Si 251.611†	30518.7	30030.9	2409.9 µg/L	2409.9 ppb	19:12:03
3	Sn 189.927†	986.9	981.3	438.22 µg/L	438.22 ppb	19:12:24
3	Ti 334.940†	209742.9	208615.0	477.90 µg/L	477.90 ppb	19:11:57
3	Tl 190.801†	310.3	330.4	464.02 µg/L	464.02 ppb	19:12:24
3	U 409.014†	5633.0	5397.0	439.70 µg/L	439.70 ppb	19:12:03
3	V 292.402†	45252.8	45073.5	462.64 µg/L	462.64 ppb	19:12:03
3	Zn 213.857†	19532.3	18886.0	464.40 µg/L	464.40 ppb	19:12:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1916446.0	100.69 %	0.161			0.16%
Sc RADIAL	53665.5	102 %	0.3			0.27%
Y 371.029	1312790.2	100.11 %	0.122			0.12%
Ag 328.068†	65472.5	502.39 µg/L	17.189	502.39 ppb	17.189	3.42%
QC value within limits for Ag 328.068 Recovery = 100.48%						
Al 396.153Radial†	6917.3	5003.4 µg/L	36.52	5003.4 ppb	36.52	0.73%
QC value within limits for Al 396.153Radial Recovery = 100.07%						
As 188.979†	261.8	498.24 µg/L	45.845	498.24 ppb	45.845	9.20%
QC value within limits for As 188.979 Recovery = 99.65%						
B 249.677†	11512.5	490.46 µg/L	19.609	490.46 ppb	19.609	4.00%
QC value within limits for B 249.677 Recovery = 98.09%						
Ba 233.527†	19509.5	501.25 µg/L	26.001	501.25 ppb	26.001	5.19%
QC value within limits for Ba 233.527 Recovery = 100.25%						
Be 313.107†	810342.7	502.90 µg/L	19.834	502.90 ppb	19.834	3.94%
QC value within limits for Be 313.107 Recovery = 100.58%						
Ca 317.933Radial†	5346.1	5059.2 µg/L	24.60	5059.2 ppb	24.60	0.49%
QC value within limits for Ca 317.933Radial Recovery = 101.18%						
Cd 226.502†	18690.6	503.40 µg/L	28.534	503.40 ppb	28.534	5.67%
QC value within limits for Cd 226.502 Recovery = 100.68%						
Co 228.616†	10412.0	502.70 µg/L	30.064	502.70 ppb	30.064	5.98%

QC value within limits for Co 228.616	Recovery = 100.54%				
Cr 267.716†	23464.2	497.34 µg/L	37.161	497.34 ppb	37.161 7.47%
QC value within limits for Cr 267.716	Recovery = 99.47%				
Cu 324.752†	73690.2	493.29 µg/L	27.733	493.29 ppb	27.733 5.62%
QC value within limits for Cu 324.752	Recovery = 98.66%				
Fe 238.204 Radial†	557.9	5052.1 µg/L	20.93	5052.1 ppb	20.93 0.41%
QC value within limits for Fe 238.204 Radial	Recovery = 101.04%				
K 766.490 Radial†	7362.8	5034.9 µg/L	35.28	5034.9 ppb	35.28 0.70%
QC value within limits for K 766.490 Radial	Recovery = 100.70%				
Mg 279.077 IEC†	526.9	5049.6 µg/L	15.98	5049.6 ppb	15.98 0.32%
QC value within limits for Mg 279.077 IEC	Recovery = 100.99%				
Mn 257.610†	152351.8	510.92 µg/L	19.251	510.92 ppb	19.251 3.77%
QC value within limits for Mn 257.610	Recovery = 102.18%				
Mo 202.031†	4809.8	497.75 µg/L	48.462	497.75 ppb	48.462 9.74%
QC value within limits for Mo 202.031	Recovery = 99.55%				
Na 589.592 Radial†	32547.4	10066 µg/L	68.9	10066 ppb	68.9 0.68%
QC value within limits for Na 589.592 Radial	Recovery = 100.66%				
Ni 231.604†	9491.9	503.13 µg/L	30.837	503.13 ppb	30.837 6.13%
QC value within limits for Ni 231.604	Recovery = 100.63%				
P 214.914†	1188.1	2444.8 µg/L	220.78	2444.8 ppb	220.78 9.03%
QC value within limits for P 214.914	Recovery = 97.79%				
Pb 220.353†	1938.7	498.18 µg/L	39.017	498.18 ppb	39.017 7.83%
QC value within limits for Pb 220.353	Recovery = 99.64%				
S 181.975 Axial†	231.8	1005.1 µg/L	68.87	1005.1 ppb	68.87 6.85%
QC value within limits for S 181.975 Axial	Recovery = 100.51%				
Sb 206.836†	521.7	496.83 µg/L	40.723	496.83 ppb	40.723 8.20%
QC value within limits for Sb 206.836	Recovery = 99.37%				
Se 196.026†	334.6	503.93 µg/L	37.042	503.93 ppb	37.042 7.35%
QC value within limits for Se 196.026	Recovery = 100.79%				
SiO2†	26139.5	5412.1 µg/L	228.84	5412.1 ppb	228.84 4.23%
QC value within limits for SiO2	Recovery = 101.21%				
Si 251.611†	31563.7	2532.9 µg/L	106.53	2532.9 ppb	106.53 4.21%
QC value within limits for Si 251.611	Recovery = 101.32%				
Sn 189.927†	1116.0	498.39 µg/L	52.401	498.39 ppb	52.401 10.51%
QC value within limits for Sn 189.927	Recovery = 99.68%				
Sr 421.552†	50575.6	502.64 µg/L	3.250	502.64 ppb	3.250 0.65%
QC value within limits for Sr 421.552	Recovery = 100.53%				
Ti 334.940†	219192.2	502.15 µg/L	21.000	502.15 ppb	21.000 4.18%
QC value within limits for Ti 334.940	Recovery = 100.43%				
Tl 190.801†	354.1	497.20 µg/L	28.901	497.20 ppb	28.901 5.81%
QC value within limits for Tl 190.801	Recovery = 99.44%				
U 409.014†	5909.5	481.54 µg/L	36.277	481.54 ppb	36.277 7.53%
QC value within limits for U 409.014	Recovery = 96.31%				
V 292.402†	48724.6	500.25 µg/L	32.595	500.25 ppb	32.595 6.52%
QC value within limits for V 292.402	Recovery = 100.05%				
Zn 213.857†	20262.2	498.28 µg/L	29.371	498.28 ppb	29.371 5.89%
QC value within limits for Zn 213.857	Recovery = 99.66%				

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 19:12:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53203.6	53203.6	101 %		19:13:06
1	Al 396.153Radial†	-19.1	7.5	5.4309 µg/L	5.4309 ppb	19:13:06
1	Ca 317.933Radial†	187.4	2.7	2.5185 µg/L	2.5185 ppb	19:13:27
1	Fe 238.204 Radial†	17.4	1.5	13.815 µg/L	13.815 ppb	19:13:27
1	K 766.490 Radial†	224.9	-24.1	-16.484 µg/L	-16.484 ppb	19:13:06
1	Mg 279.077 IEC†	9.5	-3.3	-32.049 µg/L	-32.049 ppb	19:13:27
1	Na 589.592 Radial†	728.6	130.2	40.262 µg/L	40.262 ppb	19:13:06
1	Sr 421.552†	73.6	48.0	0.4772 µg/L	0.4772 ppb	19:13:06
1	Sc 361.383	1923588.7	1923588.7	101.06 %		19:14:28
1	Y 371.029	1323603.4	1323603.4	100.93 %		19:14:28
1	Ag 328.068†	-476.1	27.7	0.2144 µg/L	0.2144 ppb	19:14:34
1	As 188.979†	5.7	4.8	9.0856 µg/L	9.0856 ppb	19:14:55
1	B 249.677†	395.3	-63.1	-2.7034 µg/L	-2.7034 ppb	19:14:55
1	Ba 233.527†	-22.9	-2.2	-0.0549 µg/L	-0.0549 ppb	19:14:55
1	Be 313.107†	-3525.2	50.1	0.0310 µg/L	0.0310 ppb	19:14:34
1	Cd 226.502†	-124.8	5.9	0.1576 µg/L	0.1576 ppb	19:14:55
1	Co 228.616†	-3.1	4.3	0.2084 µg/L	0.2084 ppb	19:14:55
1	Cr 267.716†	-46.1	0.5	0.0106 µg/L	0.0106 ppb	19:14:55
1	Cu 324.752†	3311.5	37.6	0.2531 µg/L	0.2531 ppb	19:14:34
1	Mn 257.610†	-222.4	10.8	0.0392 µg/L	0.0392 ppb	19:14:55
1	Mo 202.031†	-5.3	-1.2	-0.1233 µg/L	-0.1233 ppb	19:14:55
1	Ni 231.604†	287.2	-3.8	-0.2031 µg/L	-0.2031 ppb	19:14:55
1	P 214.914†	21.6	-1.0	-2.0650 µg/L	-2.0650 ppb	19:14:55
1	Pb 220.353†	87.4	3.9	0.9965 µg/L	0.9965 ppb	19:14:55
1	S 181.975 Axial†	12.3	-4.2	-18.040 µg/L	-18.040 ppb	19:14:55
1	Sb 206.836†	25.2	3.1	2.9527 µg/L	2.9527 ppb	19:14:55
1	Se 196.026†	15.7	-0.2	-0.2984 µg/L	-0.2984 ppb	19:14:55
1	SiO2†	1715.9	152.3	31.524 µg/L	31.524 ppb	19:14:34
1	Si 251.611†	519.7	179.3	14.390 µg/L	14.390 ppb	19:14:55
1	Sn 189.927†	-0.1	-0.8	-0.3554 µg/L	-0.3554 ppb	19:14:55
1	Ti 334.940†	221.5	142.2	0.3284 µg/L	0.3284 ppb	19:14:34
1	Tl 190.801†	-18.9	3.0	4.1937 µg/L	4.1937 ppb	19:14:55
1	U 409.014†	221.3	11.2	0.9124 µg/L	0.9124 ppb	19:14:34
1	V 292.402†	-13.8	33.8	0.3445 µg/L	0.3445 ppb	19:14:34
1	Zn 213.857†	495.7	-58.0	-1.4341 µg/L	-1.4341 ppb	19:14:55
2	Sc RADIAL	52347.5	52347.5	99.2 %		19:13:32
2	Al 396.153Radial†	-27.2	-1.0	-0.7040 µg/L	-0.7040 ppb	19:13:32
2	Ca 317.933Radial†	173.3	-8.6	-8.0945 µg/L	-8.0945 ppb	19:13:53
2	Fe 238.204 Radial†	16.7	1.1	10.039 µg/L	10.039 ppb	19:13:53
2	K 766.490 Radial†	180.7	-65.0	-44.432 µg/L	-44.432 ppb	19:13:32
2	Mg 279.077 IEC†	7.9	-4.7	-45.421 µg/L	-45.421 ppb	19:13:53
2	Na 589.592 Radial†	725.9	139.3	43.070 µg/L	43.070 ppb	19:13:32
2	Sr 421.552†	46.5	21.9	0.2176 µg/L	0.2176 ppb	19:13:32
2	Sc 361.383	1898551.5	1898551.5	99.749 %		19:15:01
2	Y 371.029	1306146.1	1306146.1	99.598 %		19:15:01
2	Ag 328.068†	-546.5	-49.0	-0.3726 µg/L	-0.3726 ppb	19:15:06
2	As 188.979†	-1.4	-2.3	-4.3892 µg/L	-4.3892 ppb	19:15:27
2	B 249.677†	402.9	-50.3	-2.1537 µg/L	-2.1537 ppb	19:15:27
2	Ba 233.527†	-13.6	6.8	0.1753 µg/L	0.1753 ppb	19:15:27
2	Be 313.107†	-3550.8	-21.5	-0.0135 µg/L	-0.0135 ppb	19:15:06
2	Cd 226.502†	-125.0	4.0	0.1066 µg/L	0.1066 ppb	19:15:27
2	Co 228.616†	-3.6	3.8	0.1850 µg/L	0.1850 ppb	19:15:27
2	Cr 267.716†	-33.9	12.1	0.2574 µg/L	0.2574 ppb	19:15:27
2	Cu 324.752†	3305.5	74.7	0.5006 µg/L	0.5006 ppb	19:15:06
2	Mn 257.610†	-208.9	21.4	0.0750 µg/L	0.0750 ppb	19:15:27
2	Mo 202.031†	-1.0	3.0	0.3126 µg/L	0.3126 ppb	19:15:27
2	Ni 231.604†	287.2	-0.1	-0.0045 µg/L	-0.0045 ppb	19:15:27
2	P 214.914†	15.9	-6.4	-13.415 µg/L	-13.415 ppb	19:15:27
2	Pb 220.353†	91.7	9.4	2.4050 µg/L	2.4050 ppb	19:15:27

2	S 181.975 Axial†	16.2	-0.1	-0.5986 µg/L	-0.5986 ppb	19:15:27
2	Sb 206.836†	23.9	2.2	2.0851 µg/L	2.0851 ppb	19:15:27
2	Se 196.026†	9.9	-5.8	-8.6002 µg/L	-8.6002 ppb	19:15:27
2	SiO2†	1740.9	199.7	41.349 µg/L	41.349 ppb	19:15:06
2	Si 251.611†	560.5	227.1	18.222 µg/L	18.222 ppb	19:15:27
2	Sn 189.927†	-0.0	-0.7	-0.3327 µg/L	-0.3327 ppb	19:15:27
2	Ti 334.940†	247.2	170.8	0.3951 µg/L	0.3951 ppb	19:15:06
2	Tl 190.801†	-24.7	-3.0	-4.1602 µg/L	-4.1602 ppb	19:15:27
2	U 409.014†	244.4	37.2	3.0392 µg/L	3.0392 ppb	19:15:06
2	V 292.402†	-42.5	4.8	0.0561 µg/L	0.0561 ppb	19:15:06
2	Zn 213.857†	503.8	-43.4	-1.0742 µg/L	-1.0742 ppb	19:15:27
3	Sc RADIAL	52913.0	52913.0	100 %		19:13:58
3	Al 396.153Radial†	-41.9	-15.4	-11.137 µg/L	-11.137 ppb	19:13:58
3	Ca 317.933Radial†	166.8	-16.8	-15.932 µg/L	-15.932 ppb	19:14:18
3	Fe 238.204 Radial†	16.3	0.5	4.5011 µg/L	4.5011 ppb	19:14:18
3	K 766.490 Radial†	199.4	-48.3	-33.027 µg/L	-33.027 ppb	19:13:58
3	Mg 279.077 IEC†	10.4	-2.3	-22.321 µg/L	-22.321 ppb	19:14:18
3	Na 589.592 Radial†	743.8	149.3	46.183 µg/L	46.183 ppb	19:13:58
3	Sr 421.552†	40.6	15.5	0.1537 µg/L	0.1537 ppb	19:13:58
3	Sc 361.383	1887384.3	1887384.3	99.162 %		19:15:33
3	Y 371.029	1297448.4	1297448.4	98.935 %		19:15:33
3	Ag 328.068†	-456.6	38.3	0.2946 µg/L	0.2946 ppb	19:15:39
3	As 188.979†	-2.0	-2.9	-5.4605 µg/L	-5.4605 ppb	19:15:59
3	B 249.677†	390.4	-60.5	-2.5883 µg/L	-2.5883 ppb	19:15:59
3	Ba 233.527†	-19.7	0.6	0.0170 µg/L	0.0170 ppb	19:15:59
3	Be 313.107†	-3477.8	31.1	0.0191 µg/L	0.0191 ppb	19:15:39
3	Cd 226.502†	-129.7	-1.4	-0.0390 µg/L	-0.0390 ppb	19:15:59
3	Co 228.616†	-5.5	1.9	0.0922 µg/L	0.0922 ppb	19:15:59
3	Cr 267.716†	-32.5	13.3	0.2827 µg/L	0.2827 ppb	19:15:59
3	Cu 324.752†	3341.2	130.3	0.8719 µg/L	0.8719 ppb	19:15:39
3	Mn 257.610†	-190.3	38.9	0.1319 µg/L	0.1319 ppb	19:15:59
3	Mo 202.031†	-2.5	1.5	0.1579 µg/L	0.1579 ppb	19:15:59
3	Ni 231.604†	282.5	-3.1	-0.1672 µg/L	-0.1672 ppb	19:15:59
3	P 214.914†	28.2	6.1	12.663 µg/L	12.663 ppb	19:15:59
3	Pb 220.353†	82.3	0.4	0.1102 µg/L	0.1102 ppb	19:15:59
3	S 181.975 Axial†	15.4	-0.8	-3.5372 µg/L	-3.5372 ppb	19:15:59
3	Sb 206.836†	20.7	-1.0	-0.9129 µg/L	-0.9129 ppb	19:15:59
3	Se 196.026†	15.9	0.2	0.3437 µg/L	0.3437 ppb	19:15:59
3	SiO2†	1765.6	234.9	48.635 µg/L	48.635 ppb	19:15:39
3	Si 251.611†	581.2	251.2	20.159 µg/L	20.159 ppb	19:15:59
3	Sn 189.927†	1.9	1.2	0.5471 µg/L	0.5471 ppb	19:15:59
3	Ti 334.940†	270.4	195.7	0.4501 µg/L	0.4501 ppb	19:15:39
3	Tl 190.801†	-21.7	-0.2	-0.2771 µg/L	-0.2771 ppb	19:15:59
3	U 409.014†	163.5	-42.9	-3.5041 µg/L	-3.5041 ppb	19:15:39
3	V 292.402†	-11.3	36.0	0.3639 µg/L	0.3639 ppb	19:15:39
3	Zn 213.857†	488.4	-56.0	-1.3855 µg/L	-1.3855 ppb	19:15:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1903174.8	99.992 %	0.9741			0.97%
Sc RADIAL	52821.4	100 %	0.8			0.82%
Y 371.029	1309065.9	99.821 %	1.0157			1.02%
Ag 328.068†	5.7	0.0455 µg/L	0.36424	0.0455 ppb	0.36424	801.09%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.9	-2.1367 µg/L	8.37647	-2.1367 ppb	8.37647	392.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.1	-0.2547 µg/L	8.10665	-0.2547 ppb	8.10665	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-57.9	-2.4818 µg/L	0.28995	-2.4818 ppb	0.28995	11.68%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.8	0.0458 µg/L	0.11776	0.0458 ppb	0.11776	257.05%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	19.9	0.0122 µg/L	0.02303	0.0122 ppb	0.02303	188.39%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.6	-7.1694 µg/L	9.26014	-7.1694 ppb	9.26014	129.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	2.8	0.0751 µg/L	0.10201	0.0751 ppb	0.10201	135.84%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	3.4	0.1619 µg/L	0.06148	0.1619 ppb	0.06148	37.98%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	8.7	0.1836 µg/L	0.15031	0.1836 ppb	0.15031	81.88%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	80.9	0.5419 µg/L	0.31143	0.5419 ppb	0.31143	57.48%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	1.0	9.4517 µg/L	4.68450	9.4517 ppb	4.68450	49.56%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-45.8	-31.314 µg/L	14.0524	-31.314 ppb	14.0524	44.88%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-3.5	-33.264 µg/L	11.5978	-33.264 ppb	11.5978	34.87%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	23.7	0.0820 µg/L	0.04672	0.0820 ppb	0.04672	56.95%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	1.1	0.1157 µg/L	0.22101	0.1157 ppb	0.22101	190.99%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	139.6	43.172 µg/L	2.9618	43.172 ppb	2.9618	6.86%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	-2.4	-0.1249 µg/L	0.10584	-0.1249 ppb	0.10584	84.73%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-0.4	-0.9390 µg/L	13.07508	-0.9390 ppb	13.07508	>999.9%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	4.6	1.1706 µg/L	1.15726	1.1706 ppb	1.15726	98.86%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-1.7	-7.3919 µg/L	9.33784	-7.3919 ppb	9.33784	126.32%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	1.4	1.3750 µg/L	2.02829	1.3750 ppb	2.02829	147.52%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-2.0	-2.8516 µg/L	4.98875	-2.8516 ppb	4.98875	174.94%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	195.6	40.502 µg/L	8.5870	40.502 ppb	8.5870	21.20%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	219.2	17.590 µg/L	2.9358	17.590 ppb	2.9358	16.69%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	-0.1	-0.0470 µg/L	0.51464	-0.0470 ppb	0.51464	>999.9%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	28.5	0.2829 µg/L	0.17134	0.2829 ppb	0.17134	60.57%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	169.6	0.3912 µg/L	0.06093	0.3912 ppb	0.06093	15.57%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	-0.1	-0.0812 µg/L	4.18041	-0.0812 ppb	4.18041	>999.9%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	1.8	0.1492 µg/L	3.33774	0.1492 ppb	3.33774	>999.9%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	24.9	0.2548 µg/L	0.17234	0.2548 ppb	0.17234	67.63%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	-52.5	-1.2979 µg/L	0.19525	-1.2979 ppb	0.19525	15.04%
	QC value within limits for Zn 213.857 Recovery = Not calculated					

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 2/24/2010 20:12:01

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410D.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/24/2010 20:12:03

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	53851.9	53851.9	102 %		20:12:37
1	Al 396.153Radial†	6948.0	6835.3	4943.5 µg/L	4943.5 ppb	20:12:37
1	Ca 317.933Radial†	5440.0	5147.8	4871.5 µg/L	4871.5 ppb	20:12:57
1	Fe 238.204 Radial†	574.1	546.8	4952.2 µg/L	4952.2 ppb	20:12:57
1	K 766.490 Radial†	7656.9	7256.3	4962.1 µg/L	4962.1 ppb	20:12:37
1	Mg 279.077 IEC†	544.3	520.6	4990.7 µg/L	4990.7 ppb	20:12:57
1	Na 589.592 Radial†	33283.6	32024.2	9904.2 µg/L	9904.2 ppb	20:12:37
1	Sr 421.552†	50595.8	49557.1	492.52 µg/L	492.52 ppb	20:12:37
1	Sc 361.383	1907694.4	1907694.4	100.23 %		20:14:00
1	Y 371.029	1306450.2	1306450.2	99.622 %		20:14:00
1	Ag 328.068†	66063.8	66411.3	509.63 µg/L	509.63 ppb	20:14:06
1	As 188.979†	260.9	259.4	493.60 µg/L	493.60 ppb	20:14:27
1	B 249.677†	12086.0	11604.2	494.46 µg/L	494.46 ppb	20:14:06
1	Ba 233.527†	19844.4	19819.5	509.23 µg/L	509.23 ppb	20:14:06
1	Be 313.107†	801983.0	803684.5	498.77 µg/L	498.77 ppb	20:14:00
1	Cd 226.502†	18858.3	18944.5	510.26 µg/L	510.26 ppb	20:14:06
1	Co 228.616†	10621.1	10604.3	512.02 µg/L	512.02 ppb	20:14:06
1	Cr 267.716†	24163.9	24154.6	511.98 µg/L	511.98 ppb	20:14:06
1	Cu 324.752†	79328.7	75907.9	508.10 µg/L	508.10 ppb	20:14:06
1	Mn 257.610†	151166.3	151050.9	506.55 µg/L	506.55 ppb	20:14:00
1	Mo 202.031†	5020.7	5013.3	518.80 µg/L	518.80 ppb	20:14:27
1	Ni 231.604†	9969.1	9658.3	511.95 µg/L	511.95 ppb	20:14:06
1	P 214.914†	1241.9	1216.8	2503.8 µg/L	2503.8 ppb	20:14:27
1	Pb 220.353†	2081.5	1994.2	512.45 µg/L	512.45 ppb	20:14:27
1	S 181.975 Axial†	252.7	235.8	1022.7 µg/L	1022.7 ppb	20:14:27
1	Sb 206.836†	567.0	543.9	518.05 µg/L	518.05 ppb	20:14:27
1	Se 196.026†	354.7	338.0	508.92 µg/L	508.92 ppb	20:14:27
1	SiO2†	27969.3	26359.7	5457.7 µg/L	5457.7 ppb	20:14:06
1	Si 251.611†	32183.1	31774.5	2549.9 µg/L	2549.9 ppb	20:14:06
1	Sn 189.927†	1166.6	1163.2	519.47 µg/L	519.47 ppb	20:14:27
1	Ti 334.940†	219919.0	219338.4	502.49 µg/L	502.49 ppb	20:14:00
1	Tl 190.801†	341.2	362.1	508.20 µg/L	508.20 ppb	20:14:27
1	U 409.014†	6301.1	6078.9	495.41 µg/L	495.41 ppb	20:14:06
1	V 292.402†	50107.3	50040.0	513.78 µg/L	513.78 ppb	20:14:06
1	Zn 213.857†	21230.2	20633.1	507.41 µg/L	507.41 ppb	20:14:06
2	Sc RADIAL	53881.6	53881.6	102 %		20:13:03
2	Al 396.153Radial†	6931.0	6814.9	4928.9 µg/L	4928.9 ppb	20:13:03
2	Ca 317.933Radial†	5441.2	5146.1	4869.8 µg/L	4869.8 ppb	20:13:23
2	Fe 238.204 Radial†	572.1	544.6	4931.8 µg/L	4931.8 ppb	20:13:23
2	K 766.490 Radial†	7597.1	7193.6	4919.2 µg/L	4919.2 ppb	20:13:03
2	Mg 279.077 IEC†	543.3	519.4	4978.7 µg/L	4978.7 ppb	20:13:23
2	Na 589.592 Radial†	33310.5	32032.5	9906.8 µg/L	9906.8 ppb	20:13:03
2	Sr 421.552†	50683.9	49616.0	493.11 µg/L	493.11 ppb	20:13:03
2	Sc 361.383	1916557.1	1916557.1	100.70 %		20:14:34
2	Y 371.029	1314304.6	1314304.6	100.22 %		20:14:34
2	Ag 328.068†	65941.3	65984.9	506.34 µg/L	506.34 ppb	20:14:39
2	As 188.979†	266.3	263.6	501.52 µg/L	501.52 ppb	20:15:00

2	B 249.677†	12051.5	11514.1	490.61 µg/L	490.61 ppb	20:14:39
2	Ba 233.527†	19710.0	19594.4	503.45 µg/L	503.45 ppb	20:14:39
2	Be 313.107†	805711.1	803686.7	498.77 µg/L	498.77 ppb	20:14:34
2	Cd 226.502†	18677.8	18678.2	503.09 µg/L	503.09 ppb	20:14:39
2	Co 228.616†	10555.2	10489.8	506.48 µg/L	506.48 ppb	20:14:39
2	Cr 267.716†	23939.9	23820.8	504.90 µg/L	504.90 ppb	20:14:39
2	Cu 324.752†	79042.5	75257.7	503.76 µg/L	503.76 ppb	20:14:39
2	Mn 257.610†	152005.4	151186.8	507.01 µg/L	507.01 ppb	20:14:34
2	Mo 202.031†	4963.5	4933.3	510.52 µg/L	510.52 ppb	20:15:00
2	Ni 231.604†	9936.2	9579.7	507.78 µg/L	507.78 ppb	20:14:39
2	P 214.914†	1237.1	1206.3	2482.2 µg/L	2482.2 ppb	20:15:00
2	Pb 220.353†	2063.0	1966.3	505.26 µg/L	505.26 ppb	20:15:00
2	S 181.975 Axial†	250.5	232.4	1007.8 µg/L	1007.8 ppb	20:15:00
2	Sb 206.836†	557.5	531.8	506.53 µg/L	506.53 ppb	20:15:00
2	Se 196.026†	363.7	345.4	519.72 µg/L	519.72 ppb	20:15:00
2	SiO2†	27913.6	26175.3	5419.5 µg/L	5419.5 ppb	20:14:39
2	Si 251.611†	32157.7	31600.8	2535.9 µg/L	2535.9 ppb	20:14:39
2	Sn 189.927†	1163.3	1154.6	515.61 µg/L	515.61 ppb	20:15:00
2	Ti 334.940†	220694.3	219093.7	501.93 µg/L	501.93 ppb	20:14:34
2	Tl 190.801†	345.6	364.9	512.16 µg/L	512.16 ppb	20:15:00
2	U 409.014†	6366.7	6115.0	498.35 µg/L	498.35 ppb	20:14:39
2	V 292.402†	49748.2	49452.2	507.74 µg/L	507.74 ppb	20:14:39
2	Zn 213.857†	21118.3	20424.1	502.26 µg/L	502.26 ppb	20:14:39
3	Sc RADIAL	53961.2	53961.2	102 %		20:13:28
3	Al 396.153Radial†	6877.7	6752.7	4885.5 µg/L	4885.5 ppb	20:13:28
3	Ca 317.933Radial†	5445.9	5142.7	4866.7 µg/L	4866.7 ppb	20:13:49
3	Fe 238.204 Radial†	573.0	544.6	4931.2 µg/L	4931.2 ppb	20:13:49
3	K 766.490 Radial†	7607.4	7192.7	4918.6 µg/L	4918.6 ppb	20:13:28
3	Mg 279.077 IEC†	538.9	514.3	4928.2 µg/L	4928.2 ppb	20:13:49
3	Na 589.592 Radial†	33244.6	31920.0	9872.0 µg/L	9872.0 ppb	20:13:28
3	Sr 421.552†	50480.4	49343.7	490.40 µg/L	490.40 ppb	20:13:28
3	Sc 361.383	1924197.0	1924197.0	101.10 %		20:15:07
3	Y 371.029	1318886.0	1318886.0	100.57 %		20:15:07
3	Ag 328.068†	62269.5	62092.9	476.34 µg/L	476.34 ppb	20:15:13
3	As 188.979†	232.7	229.3	436.45 µg/L	436.45 ppb	20:15:33
3	B 249.677†	11265.6	10689.2	455.24 µg/L	455.24 ppb	20:15:13
3	Ba 233.527†	18116.9	17940.8	460.94 µg/L	460.94 ppb	20:15:13
3	Be 313.107†	756126.3	751462.9	466.36 µg/L	466.36 ppb	20:15:07
3	Cd 226.502†	17092.3	17036.2	458.81 µg/L	458.81 ppb	20:15:13
3	Co 228.616†	9555.7	9459.5	456.67 µg/L	456.67 ppb	20:15:13
3	Cr 267.716†	21212.6	21028.7	445.72 µg/L	445.72 ppb	20:15:13
3	Cu 324.752†	72119.8	68098.4	455.90 µg/L	455.90 ppb	20:15:13
3	Mn 257.610†	143229.9	141907.1	475.92 µg/L	475.92 ppb	20:15:07
3	Mo 202.031†	4164.6	4123.5	426.75 µg/L	426.75 ppb	20:15:33
3	Ni 231.604†	9004.5	8618.8	456.86 µg/L	456.86 ppb	20:15:13
3	P 214.914†	1064.7	1030.9	2117.9 µg/L	2117.9 ppb	20:15:33
3	Pb 220.353†	1801.0	1698.9	436.47 µg/L	436.47 ppb	20:15:33
3	S 181.975 Axial†	220.9	202.2	876.71 µg/L	876.71 ppb	20:15:33
3	Sb 206.836†	472.5	445.6	424.04 µg/L	424.04 ppb	20:15:33
3	Se 196.026†	321.6	302.3	455.89 µg/L	455.89 ppb	20:15:33
3	SiO2†	26114.2	24285.4	5028.2 µg/L	5028.2 ppb	20:15:13
3	Si 251.611†	29977.8	29317.7	2352.7 µg/L	2352.7 ppb	20:15:13
3	Sn 189.927†	949.3	938.3	419.02 µg/L	419.02 ppb	20:15:33
3	Ti 334.940†	205882.7	203572.5	466.35 µg/L	466.35 ppb	20:15:07
3	Tl 190.801†	308.8	327.1	459.37 µg/L	459.37 ppb	20:15:33
3	U 409.014†	5740.4	5470.3	445.72 µg/L	445.72 ppb	20:15:13
3	V 292.402†	44661.8	44224.8	453.89 µg/L	453.89 ppb	20:15:13
3	Zn 213.857†	19245.6	18488.4	454.62 µg/L	454.62 ppb	20:15:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1916149.5	100.67 %	0.434			0.43%
Sc RADIAL	53898.2	102 %	0.1			0.10%
Y 371.029	1313213.6	100.14 %	0.480			0.48%
Ag 328.068†	64829.7	497.43 µg/L	18.345	497.43 ppb	18.345	3.69%
QC value within limits for Ag 328.068 Recovery = 99.49%						
Al 396.153Radial†	6800.9	4919.3 µg/L	30.15	4919.3 ppb	30.15	0.61%
QC value within limits for Al 396.153Radial Recovery = 98.39%						
As 188.979†	250.8	477.19 µg/L	35.502	477.19 ppb	35.502	7.44%

QC value within limits for As 188.979 Recovery = 95.44%					
B 249.677†	11269.2	480.10 µg/L	21.620	480.10 ppb	21.620 4.50%
QC value within limits for B 249.677 Recovery = 96.02%					
Ba 233.527†	19118.2	491.21 µg/L	26.369	491.21 ppb	26.369 5.37%
QC value within limits for Ba 233.527 Recovery = 98.24%					
Be 313.107†	786278.0	487.96 µg/L	18.711	487.96 ppb	18.711 3.83%
QC value within limits for Be 313.107 Recovery = 97.59%					
Ca 317.933Radial†	5145.5	4869.3 µg/L	2.44	4869.3 ppb	2.44 0.05%
QC value within limits for Ca 317.933Radial Recovery = 97.39%					
Cd 226.502†	18219.6	490.72 µg/L	27.868	490.72 ppb	27.868 5.68%
QC value within limits for Cd 226.502 Recovery = 98.14%					
Co 228.616†	10184.5	491.72 µg/L	30.481	491.72 ppb	30.481 6.20%
QC value within limits for Co 228.616 Recovery = 98.34%					
Cr 267.716†	23001.4	487.53 µg/L	36.382	487.53 ppb	36.382 7.46%
QC value within limits for Cr 267.716 Recovery = 97.51%					
Cu 324.752†	73088.0	489.25 µg/L	28.968	489.25 ppb	28.968 5.92%
QC value within limits for Cu 324.752 Recovery = 97.85%					
Fe 238.204 Radial†	545.3	4938.4 µg/L	11.94	4938.4 ppb	11.94 0.24%
QC value within limits for Fe 238.204 Radial Recovery = 98.77%					
K 766.490 Radial†	7214.2	4933.3 µg/L	24.96	4933.3 ppb	24.96 0.51%
QC value within limits for K 766.490 Radial Recovery = 98.67%					
Mg 279.077 IEC†	518.1	4965.9 µg/L	33.14	4965.9 ppb	33.14 0.67%
QC value within limits for Mg 279.077 IEC Recovery = 99.32%					
Mn 257.610†	148048.3	496.49 µg/L	17.820	496.49 ppb	17.820 3.59%
QC value within limits for Mn 257.610 Recovery = 99.30%					
Mo 202.031†	4690.0	485.36 µg/L	50.924	485.36 ppb	50.924 10.49%
QC value within limits for Mo 202.031 Recovery = 97.07%					
Na 589.592 Radial†	31992.2	9894.4 µg/L	19.39	9894.4 ppb	19.39 0.20%
QC value within limits for Na 589.592 Radial Recovery = 98.94%					
Ni 231.604†	9285.6	492.20 µg/L	30.675	492.20 ppb	30.675 6.23%
QC value within limits for Ni 231.604 Recovery = 98.44%					
P 214.914†	1151.3	2368.0 µg/L	216.85	2368.0 ppb	216.85 9.16%
QC value within limits for P 214.914 Recovery = 94.72%					
Pb 220.353†	1886.4	484.72 µg/L	41.947	484.72 ppb	41.947 8.65%
QC value within limits for Pb 220.353 Recovery = 96.94%					
S 181.975 Axial†	223.4	969.05 µg/L	80.310	969.05 ppb	80.310 8.29%
QC value within limits for S 181.975 Axial Recovery = 96.90%					
Sb 206.836†	507.1	482.87 µg/L	51.273	482.87 ppb	51.273 10.62%
QC value within limits for Sb 206.836 Recovery = 96.57%					
Se 196.026†	328.6	494.85 µg/L	34.166	494.85 ppb	34.166 6.90%
QC value within limits for Se 196.026 Recovery = 98.97%					
SiO2†	25606.8	5301.8 µg/L	237.70	5301.8 ppb	237.70 4.48%
QC value within limits for SiO2 Recovery = 99.15%					
Si 251.611†	30897.7	2479.5 µg/L	110.02	2479.5 ppb	110.02 4.44%
QC value within limits for Si 251.611 Recovery = 99.18%					
Sn 189.927†	1085.4	484.70 µg/L	56.914	484.70 ppb	56.914 11.74%
QC value within limits for Sn 189.927 Recovery = 96.94%					
Sr 421.552†	49505.6	492.01 µg/L	1.424	492.01 ppb	1.424 0.29%
QC value within limits for Sr 421.552 Recovery = 98.40%					
Ti 334.940†	214001.5	490.25 µg/L	20.704	490.25 ppb	20.704 4.22%
QC value within limits for Ti 334.940 Recovery = 98.05%					
Tl 190.801†	351.4	493.24 µg/L	29.403	493.24 ppb	29.403 5.96%
QC value within limits for Tl 190.801 Recovery = 98.65%					
U 409.014†	5888.1	479.83 µg/L	29.577	479.83 ppb	29.577 6.16%
QC value within limits for U 409.014 Recovery = 95.97%					
V 292.402†	47905.7	491.81 µg/L	32.975	491.81 ppb	32.975 6.70%
QC value within limits for V 292.402 Recovery = 98.36%					
Zn 213.857†	19848.5	488.10 µg/L	29.102	488.10 ppb	29.102 5.96%
QC value within limits for Zn 213.857 Recovery = 97.62%					
All analyte(s) passed QC.					

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 20:15:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52791.4	52791.4	100 %			20:16:15
1	Al 396.153Radial†	-28.3	-1.8	-1.3027 µg/L		-1.3027 ppb	20:16:15
1	Ca 317.933Radial†	181.6	-1.6	-1.5482 µg/L		-1.5482 ppb	20:16:36
1	Fe 238.204 Radial†	14.4	-1.4	-12.529 µg/L		-12.529 ppb	20:16:36
1	K 766.490 Radial†	230.1	-17.2	-11.749 µg/L		-11.749 ppb	20:16:15
1	Mg 279.077 IEC†	8.9	-3.9	-36.909 µg/L		-36.909 ppb	20:16:36
1	Na 589.592 Radial†	596.8	4.1	1.2603 µg/L		1.2603 ppb	20:16:15
1	Sr 421.552†	50.0	25.0	0.2485 µg/L		0.2485 ppb	20:16:15
1	Sc 361.383	1920257.0	1920257.0	100.89 %			20:17:38
1	Y 371.029	1320083.6	1320083.6	100.66 %			20:17:38
1	Ag 328.068†	-439.7	63.0	0.4777 µg/L		0.4777 ppb	20:17:43
1	As 188.979†	0.9	0.0	0.0587 µg/L		0.0587 ppb	20:18:04
1	B 249.677†	345.7	-111.5	-4.7608 µg/L		-4.7608 ppb	20:18:04
1	Ba 233.527†	-21.5	-0.9	-0.0224 µg/L		-0.0224 ppb	20:18:04
1	Be 313.107†	-3663.6	-93.1	-0.0579 µg/L		-0.0579 ppb	20:17:43
1	Cd 226.502†	-130.8	-0.3	-0.0073 µg/L		-0.0073 ppb	20:18:04
1	Co 228.616†	5.7	13.1	0.6335 µg/L		0.6335 ppb	20:18:04
1	Cr 267.716†	-36.6	9.9	0.2087 µg/L		0.2087 ppb	20:18:04
1	Cu 324.752†	3306.3	38.0	0.2524 µg/L		0.2524 ppb	20:17:43
1	Mn 257.610†	-214.8	17.9	0.0599 µg/L		0.0599 ppb	20:18:04
1	Mo 202.031†	-4.4	-0.4	-0.0368 µg/L		-0.0368 ppb	20:18:04
1	Ni 231.604†	291.2	0.6	0.0326 µg/L		0.0326 ppb	20:18:04
1	P 214.914†	27.6	5.0	10.457 µg/L		10.457 ppb	20:18:04
1	Pb 220.353†	89.8	6.4	1.6534 µg/L		1.6534 ppb	20:18:04
1	S 181.975 Axial†	14.7	-1.8	-7.6721 µg/L		-7.6721 ppb	20:18:04
1	Sb 206.836†	23.1	1.1	1.0234 µg/L		1.0234 ppb	20:18:04
1	Se 196.026†	14.3	-1.7	-2.4929 µg/L		-2.4929 ppb	20:18:04
1	SiO2†	1615.3	55.5	11.491 µg/L		11.491 ppb	20:17:43
1	Si 251.611†	383.2	44.9	3.6026 µg/L		3.6026 ppb	20:18:04
1	Sn 189.927†	3.8	3.1	1.3776 µg/L		1.3776 ppb	20:18:04
1	Ti 334.940†	174.6	96.1	0.2232 µg/L		0.2232 ppb	20:17:43
1	Tl 190.801†	-21.0	0.9	1.2529 µg/L		1.2529 ppb	20:18:04
1	U 409.014†	208.3	-1.4	-0.1090 µg/L		-0.1090 ppb	20:17:43
1	V 292.402†	-65.8	-17.8	-0.1817 µg/L		-0.1817 ppb	20:17:43
1	Zn 213.857†	486.0	-66.8	-1.6519 µg/L		-1.6519 ppb	20:18:04
2	Sc RADIAL	53054.1	53054.1	101 %			20:16:41
2	Al 396.153Radial†	-27.9	-1.3	-0.9687 µg/L		-0.9687 ppb	20:16:41
2	Ca 317.933Radial†	185.7	1.5	1.3957 µg/L		1.3957 ppb	20:17:02
2	Fe 238.204 Radial†	15.9	0.1	0.8055 µg/L		0.8055 ppb	20:17:02
2	K 766.490 Radial†	192.1	-56.1	-38.338 µg/L		-38.338 ppb	20:16:41
2	Mg 279.077 IEC†	9.3	-3.5	-33.174 µg/L		-33.174 ppb	20:17:02
2	Na 589.592 Radial†	519.2	-76.1	-23.544 µg/L		-23.544 ppb	20:16:41
2	Sr 421.552†	34.8	9.6	0.0953 µg/L		0.0953 ppb	20:16:41
2	Sc 361.383	1923128.9	1923128.9	101.04 %			20:18:10
2	Y 371.029	1322650.6	1322650.6	100.86 %			20:18:10
2	Ag 328.068†	-513.6	-9.5	-0.0728 µg/L		-0.0728 ppb	20:18:15
2	As 188.979†	-1.5	-2.3	-4.4269 µg/L		-4.4269 ppb	20:18:36
2	B 249.677†	335.4	-122.3	-5.2284 µg/L		-5.2284 ppb	20:18:36
2	Ba 233.527†	-24.8	-4.1	-0.1045 µg/L		-0.1045 ppb	20:18:36
2	Be 313.107†	-3531.3	43.3	0.0268 µg/L		0.0268 ppb	20:18:15
2	Cd 226.502†	-118.9	11.7	0.3151 µg/L		0.3151 ppb	20:18:36
2	Co 228.616†	-8.7	-1.1	-0.0546 µg/L		-0.0546 ppb	20:18:36
2	Cr 267.716†	-26.2	20.2	0.4271 µg/L		0.4271 ppb	20:18:36
2	Cu 324.752†	3321.9	48.6	0.3252 µg/L		0.3252 ppb	20:18:15
2	Mn 257.610†	-195.9	37.0	0.1253 µg/L		0.1253 ppb	20:18:36
2	Mo 202.031†	-1.3	2.7	0.2841 µg/L		0.2841 ppb	20:18:36
2	Ni 231.604†	283.6	-7.3	-0.3897 µg/L		-0.3897 ppb	20:18:36
2	P 214.914†	26.8	4.1	8.6681 µg/L		8.6681 ppb	20:18:36
2	Pb 220.353†	96.7	13.2	3.3811 µg/L		3.3811 ppb	20:18:36

2	S 181.975 Axial†	14.9	-1.6	-7.1001 µg/L	-7.1001 ppb	20:18:36
2	Sb 206.836†	23.9	1.9	1.7542 µg/L	1.7542 ppb	20:18:36
2	Se 196.026†	18.1	2.1	3.1002 µg/L	3.1002 ppb	20:18:36
2	SiO2†	1627.8	65.4	13.545 µg/L	13.545 ppb	20:18:15
2	Si 251.611†	405.1	66.0	5.2975 µg/L	5.2975 ppb	20:18:36
2	Sn 189.927†	0.4	-0.3	-0.1177 µg/L	-0.1177 ppb	20:18:36
2	Ti 334.940†	154.5	75.9	0.1766 µg/L	0.1766 ppb	20:18:15
2	Tl 190.801†	-22.5	-0.5	-0.7616 µg/L	-0.7616 ppb	20:18:36
2	U 409.014†	191.6	-18.2	-1.4864 µg/L	-1.4864 ppb	20:18:15
2	V 292.402†	-49.9	-1.9	-0.0176 µg/L	-0.0176 ppb	20:18:15
2	Zn 213.857†	497.7	-55.9	-1.3825 µg/L	-1.3825 ppb	20:18:36
3	Sc RADIAL	53440.2	53440.2	101 %		20:17:07
3	Al 396.153Radial†	-21.1	5.6	4.0731 µg/L	4.0731 ppb	20:17:07
3	Ca 317.933Radial†	188.4	2.9	2.7033 µg/L	2.7033 ppb	20:17:27
3	Fe 238.204 Radial†	14.9	-1.1	-9.8402 µg/L	-9.8402 ppb	20:17:27
3	K 766.490 Radial†	214.2	-35.6	-24.360 µg/L	-24.360 ppb	20:17:07
3	Mg 279.077 IEC†	7.7	-5.1	-48.611 µg/L	-48.611 ppb	20:17:27
3	Na 589.592 Radial†	582.3	-17.5	-5.4065 µg/L	-5.4065 ppb	20:17:07
3	Sr 421.552†	73.7	47.8	0.4747 µg/L	0.4747 ppb	20:17:07
3	Sc 361.383	1912526.0	1912526.0	100.48 %		20:18:42
3	Y 371.029	1315135.3	1315135.3	100.28 %		20:18:42
3	Ag 328.068†	-418.9	82.0	0.6243 µg/L	0.6243 ppb	20:18:48
3	As 188.979†	0.6	-0.2	-0.4162 µg/L	-0.4162 ppb	20:19:08
3	B 249.677†	339.4	-116.4	-4.9714 µg/L	-4.9714 ppb	20:19:08
3	Ba 233.527†	-10.9	9.7	0.2481 µg/L	0.2481 ppb	20:19:08
3	Be 313.107†	-3403.0	151.6	0.0940 µg/L	0.0940 ppb	20:18:48
3	Cd 226.502†	-135.9	-5.9	-0.1572 µg/L	-0.1572 ppb	20:19:08
3	Co 228.616†	-2.8	4.6	0.2236 µg/L	0.2236 ppb	20:19:08
3	Cr 267.716†	-21.2	25.0	0.5297 µg/L	0.5297 ppb	20:19:08
3	Cu 324.752†	3320.3	65.2	0.4348 µg/L	0.4348 ppb	20:18:48
3	Mn 257.610†	-179.9	51.8	0.1743 µg/L	0.1743 ppb	20:19:08
3	Mo 202.031†	1.5	5.6	0.5785 µg/L	0.5785 ppb	20:19:08
3	Ni 231.604†	281.2	-8.2	-0.4349 µg/L	-0.4349 ppb	20:19:08
3	P 214.914†	24.9	2.4	5.1042 µg/L	5.1042 ppb	20:19:08
3	Pb 220.353†	85.8	2.8	0.7213 µg/L	0.7213 ppb	20:19:08
3	S 181.975 Axial†	14.4	-2.0	-8.8668 µg/L	-8.8668 ppb	20:19:08
3	Sb 206.836†	23.6	1.6	1.5518 µg/L	1.5518 ppb	20:19:08
3	Se 196.026†	16.0	0.1	0.0959 µg/L	0.0959 ppb	20:19:08
3	SiO2†	1658.8	105.2	21.787 µg/L	21.787 ppb	20:18:48
3	Si 251.611†	432.2	95.3	7.6438 µg/L	7.6438 ppb	20:19:08
3	Sn 189.927†	1.6	0.9	0.3874 µg/L	0.3874 ppb	20:19:08
3	Ti 334.940†	293.0	214.7	0.4960 µg/L	0.4960 ppb	20:18:48
3	Tl 190.801†	-20.0	1.8	2.5100 µg/L	2.5100 ppb	20:19:08
3	U 409.014†	155.1	-53.4	-4.3582 µg/L	-4.3582 ppb	20:18:48
3	V 292.402†	-39.3	8.3	0.0846 µg/L	0.0846 ppb	20:18:48
3	Zn 213.857†	486.1	-64.8	-1.5995 µg/L	-1.5995 ppb	20:19:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1918637.3	100.80 %	0.288			0.29%
Sc RADIAL	53095.3	101 %	0.6			0.61%
Y 371.029	1319289.8	100.60 %	0.291			0.29%
Ag 328.068†	45.1	0.3431 µg/L	0.36753	0.3431 ppb	0.36753	107.12%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	0.8	0.6006 µg/L	3.01194	0.6006 ppb	3.01194	501.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.8	-1.5948 µg/L	2.46411	-1.5948 ppb	2.46411	154.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-116.7	-4.9869 µg/L	0.23416	-4.9869 ppb	0.23416	4.70%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.6	0.0404 µg/L	0.18451	0.0404 ppb	0.18451	456.73%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	34.0	0.0210 µg/L	0.07608	0.0210 ppb	0.07608	362.81%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.9	0.8502 µg/L	2.17761	0.8502 ppb	2.17761	256.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	1.8	0.0502 µg/L	0.24133	0.0502 ppb	0.24133	480.69%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.5	0.2675 µg/L	0.34615	0.2675 ppb	0.34615	129.39%

Cr	267.716†	18.3	0.3885 µg/L	0.16391	0.3885 ppb	0.16391	42.19%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	50.6	0.3375 µg/L	0.09181	0.3375 ppb	0.09181	27.21%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-0.8	-7.1880 µg/L	7.05197	-7.1880 ppb	7.05197	98.11%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-36.3	-24.815 µg/L	13.3005	-24.815 ppb	13.3005	53.60%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-4.1	-39.565 µg/L	8.0539	-39.565 ppb	8.0539	20.36%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	35.6	0.1198 µg/L	0.05737	0.1198 ppb	0.05737	47.87%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	2.7	0.2753 µg/L	0.30772	0.2753 ppb	0.30772	111.79%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-29.8	-9.2300 µg/L	12.83646	-9.2300 ppb	12.83646	139.07%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-5.0	-0.2640 µg/L	0.25782	-0.2640 ppb	0.25782	97.67%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	3.9	8.0765 µg/L	2.72519	8.0765 ppb	2.72519	33.74%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	7.5	1.9186 µg/L	1.34959	1.9186 ppb	1.34959	70.34%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-1.8	-7.8797 µg/L	0.90148	-7.8797 ppb	0.90148	11.44%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	1.5	1.4431 µg/L	0.37734	1.4431 ppb	0.37734	26.15%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.1	0.2344 µg/L	2.79912	0.2344 ppb	2.79912	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		75.4	15.608 µg/L	5.4489	15.608 ppb	5.4489	34.91%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	68.7	5.5146 µg/L	2.02935	5.5146 ppb	2.02935	36.80%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.2	0.5491 µg/L	0.76064	0.5491 ppb	0.76064	138.53%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	27.4	0.2728 µg/L	0.19087	0.2728 ppb	0.19087	69.96%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	128.9	0.2986 µg/L	0.17250	0.2986 ppb	0.17250	57.77%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.7	1.0004 µg/L	1.65038	1.0004 ppb	1.65038	164.97%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-24.3	-1.9845 µg/L	2.16796	-1.9845 ppb	2.16796	109.24%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-3.8	-0.0382 µg/L	0.13435	-0.0382 ppb	0.13435	351.50%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-62.5	-1.5447 µg/L	0.14284	-1.5447 ppb	0.14284	9.25%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 2/24/2010 21:05:07

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410D.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb
=====

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/24/2010 21:05:09

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	53538.8	53538.8	101 %		21:05:43
1	Al 396.153Radial†	6937.3	6864.6	4964.6 µg/L	4964.6 ppb	21:05:43
1	Ca 317.933Radial†	5471.3	5209.8	4930.2 µg/L	4930.2 ppb	21:06:03
1	Fe 238.204 Radial†	579.8	555.7	5032.6 µg/L	5032.6 ppb	21:06:03
1	K 766.490 Radial†	7585.0	7229.4	4943.7 µg/L	4943.7 ppb	21:05:43
1	Mg 279.077 IEC†	541.8	521.4	4997.6 µg/L	4997.6 ppb	21:06:03
1	Na 589.592 Radial†	33297.7	32228.9	9967.6 µg/L	9967.6 ppb	21:05:43
1	Sr 421.552†	50763.5	50012.4	497.04 µg/L	497.04 ppb	21:05:43
1	Sc 361.383	1918299.2	1918299.2	100.79 %		21:07:07
1	Y 371.029	1316440.6	1316440.6	100.38 %		21:07:07
1	Ag 328.068†	66175.9	66158.1	507.69 µg/L	507.69 ppb	21:07:12
1	As 188.979†	276.8	273.8	520.98 µg/L	520.98 ppb	21:07:33
1	B 249.677†	12136.8	11587.9	493.72 µg/L	493.72 ppb	21:07:12
1	Ba 233.527†	19827.2	19692.9	505.98 µg/L	505.98 ppb	21:07:12
1	Be 313.107†	815933.4	813102.5	504.61 µg/L	504.61 ppb	21:07:07
1	Cd 226.502†	18897.3	18879.1	508.49 µg/L	508.49 ppb	21:07:12
1	Co 228.616†	10595.5	10520.2	507.95 µg/L	507.95 ppb	21:07:12
1	Cr 267.716†	24166.1	24023.6	509.20 µg/L	509.20 ppb	21:07:12
1	Cu 324.752†	79178.3	75321.1	504.19 µg/L	504.19 ppb	21:07:12
1	Mn 257.610†	154349.6	153375.5	514.35 µg/L	514.35 ppb	21:07:07
1	Mo 202.031†	5096.5	5060.8	523.71 µg/L	523.71 ppb	21:07:33
1	Ni 231.604†	10015.1	9648.9	511.46 µg/L	511.46 ppb	21:07:12
1	P 214.914†	1268.0	1235.8	2544.3 µg/L	2544.3 ppb	21:07:33
1	Pb 220.353†	2112.6	2013.5	517.46 µg/L	517.46 ppb	21:07:33
1	S 181.975 Axial†	253.0	234.6	1017.7 µg/L	1017.7 ppb	21:07:33
1	Sb 206.836†	569.6	543.4	517.64 µg/L	517.64 ppb	21:07:33
1	Se 196.026†	367.8	349.1	525.48 µg/L	525.48 ppb	21:07:33
1	SiO2†	27915.4	26152.0	5414.7 µg/L	5414.7 ppb	21:07:12
1	Si 251.611†	32175.7	31589.7	2535.0 µg/L	2535.0 ppb	21:07:12
1	Sn 189.927†	1185.4	1175.5	524.92 µg/L	524.92 ppb	21:07:33
1	Ti 334.940†	222571.1	220756.8	505.74 µg/L	505.74 ppb	21:07:07
1	Tl 190.801†	352.2	371.1	520.80 µg/L	520.80 ppb	21:07:33
1	U 409.014†	6215.5	5959.2	485.62 µg/L	485.62 ppb	21:07:12
1	V 292.402†	50154.7	49810.6	511.49 µg/L	511.49 ppb	21:07:12
1	Zn 213.857†	21315.5	20600.6	506.61 µg/L	506.61 ppb	21:07:12
2	Sc RADIAL	53844.1	53844.1	102 %		21:06:09
2	Al 396.153Radial†	6931.4	6819.9	4932.5 µg/L	4932.5 ppb	21:06:09
2	Ca 317.933Radial†	5473.5	5181.4	4903.3 µg/L	4903.3 ppb	21:06:29
2	Fe 238.204 Radial†	573.8	546.6	4950.2 µg/L	4950.2 ppb	21:06:29
2	K 766.490 Radial†	7706.3	7305.8	4995.9 µg/L	4995.9 ppb	21:06:09
2	Mg 279.077 IEC†	550.5	526.9	5050.2 µg/L	5050.2 ppb	21:06:29
2	Na 589.592 Radial†	33314.9	32059.6	9915.2 µg/L	9915.2 ppb	21:06:09
2	Sr 421.552†	50779.0	49743.7	494.37 µg/L	494.37 ppb	21:06:09
2	Sc 361.383	1918808.0	1918808.0	100.81 %		21:07:40
2	Y 371.029	1315702.4	1315702.4	100.33 %		21:07:40
2	Ag 328.068†	66163.6	66128.6	507.46 µg/L	507.46 ppb	21:07:45
2	As 188.979†	270.6	267.6	509.15 µg/L	509.15 ppb	21:08:06

2	B 249.677†	12098.9	11547.1	492.01 µg/L	492.01 ppb	21:07:45
2	Ba 233.527†	19877.3	19737.4	507.12 µg/L	507.12 ppb	21:07:45
2	Be 313.107†	813054.6	810032.3	502.71 µg/L	502.71 ppb	21:07:40
2	Cd 226.502†	18877.8	18854.8	507.85 µg/L	507.85 ppb	21:07:45
2	Co 228.616†	10621.2	10543.0	509.04 µg/L	509.04 ppb	21:07:45
2	Cr 267.716†	24175.6	24026.6	509.26 µg/L	509.26 ppb	21:07:45
2	Cu 324.752†	79392.7	75513.0	505.46 µg/L	505.46 ppb	21:07:45
2	Mn 257.610†	153780.4	152770.4	512.31 µg/L	512.31 ppb	21:07:40
2	Mo 202.031†	5000.9	4964.6	513.76 µg/L	513.76 ppb	21:08:06
2	Ni 231.604†	10013.5	9644.7	511.23 µg/L	511.23 ppb	21:07:45
2	P 214.914†	1242.4	1210.0	2490.0 µg/L	2490.0 ppb	21:08:06
2	Pb 220.353†	2064.3	1965.1	504.98 µg/L	504.98 ppb	21:08:06
2	S 181.975 Axial†	247.9	229.6	995.60 µg/L	995.60 ppb	21:08:06
2	Sb 206.836†	564.5	538.2	512.55 µg/L	512.55 ppb	21:08:06
2	Se 196.026†	359.5	340.8	512.89 µg/L	512.89 ppb	21:08:06
2	SiO2†	27975.2	26203.9	5425.4 µg/L	5425.4 ppb	21:07:45
2	Si 251.611†	32310.3	31714.7	2545.1 µg/L	2545.1 ppb	21:07:45
2	Sn 189.927†	1168.2	1158.1	517.17 µg/L	517.17 ppb	21:08:06
2	Ti 334.940†	222603.4	220730.3	505.67 µg/L	505.67 ppb	21:07:40
2	Tl 190.801†	346.4	365.3	512.67 µg/L	512.67 ppb	21:08:06
2	U 409.014†	6347.4	6088.4	496.18 µg/L	496.18 ppb	21:07:45
2	V 292.402†	50146.0	49788.8	511.19 µg/L	511.19 ppb	21:07:45
2	Zn 213.857†	21323.8	20603.3	506.67 µg/L	506.67 ppb	21:07:45
3	Sc RADIAL	53307.8	53307.8	101 %		21:06:34
3	Al 396.153Radial†	6961.0	6917.6	5004.9 µg/L	5004.9 ppb	21:06:34
3	Ca 317.933Radial†	5505.3	5266.9	4984.2 µg/L	4984.2 ppb	21:06:55
3	Fe 238.204 Radial†	578.7	557.2	5044.5 µg/L	5044.5 ppb	21:06:55
3	K 766.490 Radial†	7610.0	7286.5	4982.7 µg/L	4982.7 ppb	21:06:34
3	Mg 279.077 IEC†	548.8	530.6	5084.1 µg/L	5084.1 ppb	21:06:55
3	Na 589.592 Radial†	33272.3	32345.9	10004 µg/L	10004 ppb	21:06:34
3	Sr 421.552†	50800.8	50266.0	499.57 µg/L	499.57 ppb	21:06:34
3	Sc 361.383	1913600.6	1913600.6	100.54 %		21:08:13
3	Y 371.029	1313539.4	1313539.4	100.16 %		21:08:13
3	Ag 328.068†	62464.1	62627.5	480.44 µg/L	480.44 ppb	21:08:19
3	As 188.979†	229.7	227.6	433.12 µg/L	433.12 ppb	21:08:39
3	B 249.677†	11282.7	10767.9	458.55 µg/L	458.55 ppb	21:08:19
3	Ba 233.527†	18220.3	18142.9	466.13 µg/L	466.13 ppb	21:08:19
3	Be 313.107†	762639.4	762082.5	472.95 µg/L	472.95 ppb	21:08:13
3	Cd 226.502†	17248.5	17285.3	465.51 µg/L	465.51 ppb	21:08:19
3	Co 228.616†	9615.5	9571.3	462.07 µg/L	462.07 ppb	21:08:19
3	Cr 267.716†	21269.5	21201.4	449.38 µg/L	449.38 ppb	21:08:19
3	Cu 324.752†	72089.4	68463.2	458.35 µg/L	458.35 ppb	21:08:19
3	Mn 257.610†	144552.1	144006.7	482.96 µg/L	482.96 ppb	21:08:13
3	Mo 202.031†	4206.2	4187.7	433.40 µg/L	433.40 ppb	21:08:39
3	Ni 231.604†	9076.2	8739.4	463.25 µg/L	463.25 ppb	21:08:19
3	P 214.914†	1081.6	1053.5	2165.2 µg/L	2165.2 ppb	21:08:39
3	Pb 220.353†	1819.4	1727.1	443.74 µg/L	443.74 ppb	21:08:39
3	S 181.975 Axial†	228.3	210.7	913.99 µg/L	913.99 ppb	21:08:39
3	Sb 206.836†	480.3	455.9	433.92 µg/L	433.92 ppb	21:08:39
3	Se 196.026†	328.0	310.4	468.10 µg/L	468.10 ppb	21:08:39
3	SiO2†	26115.5	24429.7	5058.1 µg/L	5058.1 ppb	21:08:19
3	Si 251.611†	29973.5	29477.7	2365.5 µg/L	2365.5 ppb	21:08:19
3	Sn 189.927†	964.3	958.4	428.00 µg/L	428.00 ppb	21:08:39
3	Ti 334.940†	207551.7	206360.2	472.73 µg/L	472.73 ppb	21:08:13
3	Tl 190.801†	309.8	329.8	463.15 µg/L	463.15 ppb	21:08:39
3	U 409.014†	5718.4	5479.9	446.47 µg/L	446.47 ppb	21:08:19
3	V 292.402†	44794.4	44601.3	457.78 µg/L	457.78 ppb	21:08:19
3	Zn 213.857†	19324.2	18671.9	459.12 µg/L	459.12 ppb	21:08:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1916902.6	100.71 %	0.151			0.15%
Sc RADIAL	53563.6	101 %	0.5			0.50%
Y 371.029	1315227.5	100.29 %	0.115			0.11%
Ag 328.068†	64971.4	498.53 µg/L	15.664	498.53 ppb	15.664	3.14%
QC value within limits for Ag 328.068 Recovery = 99.71%						
Al 396.153Radial†	6867.4	4967.3 µg/L	36.32	4967.3 ppb	36.32	0.73%
QC value within limits for Al 396.153Radial Recovery = 99.35%						
As 188.979†	256.3	487.75 µg/L	47.682	487.75 ppb	47.682	9.78%

QC value within limits for As 188.979 Recovery = 97.55%							
B 249.677†	11300.9	481.43 µg/L	19.830	481.43 ppb	19.830	4.12%	
QC value within limits for B 249.677 Recovery = 96.29%							
Ba 233.527†	19191.1	493.08 µg/L	23.342	493.08 ppb	23.342	4.73%	
QC value within limits for Ba 233.527 Recovery = 98.62%							
Be 313.107†	795072.4	493.42 µg/L	17.756	493.42 ppb	17.756	3.60%	
QC value within limits for Be 313.107 Recovery = 98.68%							
Ca 317.933Radial†	5219.4	4939.2 µg/L	41.21	4939.2 ppb	41.21	0.83%	
QC value within limits for Ca 317.933Radial Recovery = 98.78%							
Cd 226.502†	18339.7	493.95 µg/L	24.633	493.95 ppb	24.633	4.99%	
QC value within limits for Cd 226.502 Recovery = 98.79%							
Co 228.616†	10211.5	493.02 µg/L	26.810	493.02 ppb	26.810	5.44%	
QC value within limits for Co 228.616 Recovery = 98.60%							
Cr 267.716†	23083.9	489.28 µg/L	34.553	489.28 ppb	34.553	7.06%	
QC value within limits for Cr 267.716 Recovery = 97.86%							
Cu 324.752†	73099.1	489.34 µg/L	26.841	489.34 ppb	26.841	5.49%	
QC value within limits for Cu 324.752 Recovery = 97.87%							
Fe 238.204 Radial†	553.2	5009.1 µg/L	51.38	5009.1 ppb	51.38	1.03%	
QC value within limits for Fe 238.204 Radial Recovery = 100.18%							
K 766.490 Radial†	7273.9	4974.1 µg/L	27.17	4974.1 ppb	27.17	0.55%	
QC value within limits for K 766.490 Radial Recovery = 99.48%							
Mg 279.077 IEC†	526.3	5044.0 µg/L	43.61	5044.0 ppb	43.61	0.86%	
QC value within limits for Mg 279.077 IEC Recovery = 100.88%							
Mn 257.610†	150050.9	503.21 µg/L	17.565	503.21 ppb	17.565	3.49%	
QC value within limits for Mn 257.610 Recovery = 100.64%							
Mo 202.031†	4737.7	490.29 µg/L	49.522	490.29 ppb	49.522	10.10%	
QC value within limits for Mo 202.031 Recovery = 98.06%							
Na 589.592 Radial†	32211.5	9962.2 µg/L	44.52	9962.2 ppb	44.52	0.45%	
QC value within limits for Na 589.592 Radial Recovery = 99.62%							
Ni 231.604†	9344.4	495.32 µg/L	27.767	495.32 ppb	27.767	5.61%	
QC value within limits for Ni 231.604 Recovery = 99.06%							
P 214.914†	1166.4	2399.8 µg/L	204.98	2399.8 ppb	204.98	8.54%	
QC value within limits for P 214.914 Recovery = 95.99%							
Pb 220.353†	1901.9	488.72 µg/L	39.454	488.72 ppb	39.454	8.07%	
QC value within limits for Pb 220.353 Recovery = 97.74%							
S 181.975 Axial†	225.0	975.75 µg/L	54.608	975.75 ppb	54.608	5.60%	
QC value within limits for S 181.975 Axial Recovery = 97.57%							
Sb 206.836†	512.5	488.04 µg/L	46.935	488.04 ppb	46.935	9.62%	
QC value within limits for Sb 206.836 Recovery = 97.61%							
Se 196.026†	333.4	502.16 µg/L	30.159	502.16 ppb	30.159	6.01%	
QC value within limits for Se 196.026 Recovery = 100.43%							
SiO2†	25595.2	5299.4 µg/L	209.05	5299.4 ppb	209.05	3.94%	
QC value within limits for SiO2 Recovery = 99.10%							
Si 251.611†	30927.4	2481.9 µg/L	100.87	2481.9 ppb	100.87	4.06%	
QC value within limits for Si 251.611 Recovery = 99.28%							
Sn 189.927†	1097.3	490.03 µg/L	53.858	490.03 ppb	53.858	10.99%	
QC value within limits for Sn 189.927 Recovery = 98.01%							
Sr 421.552†	50007.4	496.99 µg/L	2.596	496.99 ppb	2.596	0.52%	
QC value within limits for Sr 421.552 Recovery = 99.40%							
Ti 334.940†	215949.1	494.71 µg/L	19.038	494.71 ppb	19.038	3.85%	
QC value within limits for Ti 334.940 Recovery = 98.94%							
Tl 190.801†	355.4	498.87 µg/L	31.208	498.87 ppb	31.208	6.26%	
QC value within limits for Tl 190.801 Recovery = 99.77%							
U 409.014†	5842.5	476.09 µg/L	26.188	476.09 ppb	26.188	5.50%	
QC value within limits for U 409.014 Recovery = 95.22%							
V 292.402†	48066.9	493.49 µg/L	30.922	493.49 ppb	30.922	6.27%	
QC value within limits for V 292.402 Recovery = 98.70%							
Zn 213.857†	19958.6	490.80 µg/L	27.435	490.80 ppb	27.435	5.59%	
QC value within limits for Zn 213.857 Recovery = 98.16%							

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 21:08:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52741.3	52741.3	99.9 %		21:09:21
1	Al 396.153Radial†	-14.0	12.5	9.0298 µg/L	9.0298 ppb	21:09:21
1	Ca 317.933Radial†	183.1	0.0	0.0290 µg/L	0.0290 ppb	21:09:41
1	Fe 238.204 Radial†	14.0	-1.8	-16.148 µg/L	-16.148 ppb	21:09:41
1	K 766.490 Radial†	236.1	-11.0	-7.4893 µg/L	-7.4893 ppb	21:09:21
1	Mg 279.077 IEC†	11.4	-1.3	-12.571 µg/L	-12.571 ppb	21:09:41
1	Na 589.592 Radial†	514.2	-78.0	-24.123 µg/L	-24.123 ppb	21:09:21
1	Sr 421.552†	50.5	25.5	0.2532 µg/L	0.2532 ppb	21:09:21
1	Sc 361.383	1876257.6	1876257.6	98.578 %		21:10:43
1	Y 371.029	1292519.9	1292519.9	98.559 %		21:10:43
1	Ag 328.068†	-456.8	35.4	0.2680 µg/L	0.2680 ppb	21:10:49
1	As 188.979†	-0.6	-1.5	-2.8705 µg/L	-2.8705 ppb	21:11:10
1	B 249.677†	333.0	-116.4	-4.9694 µg/L	-4.9694 ppb	21:11:10
1	Ba 233.527†	-22.6	-2.4	-0.0622 µg/L	-0.0622 ppb	21:11:10
1	Be 313.107†	-3587.3	-100.8	-0.0627 µg/L	-0.0627 ppb	21:10:49
1	Cd 226.502†	-131.3	-3.8	-0.1004 µg/L	-0.1004 ppb	21:11:10
1	Co 228.616†	1.0	8.5	0.4110 µg/L	0.4110 ppb	21:11:10
1	Cr 267.716†	-31.7	14.0	0.2965 µg/L	0.2965 ppb	21:11:10
1	Cu 324.752†	3325.3	134.2	0.8949 µg/L	0.8949 ppb	21:10:49
1	Mn 257.610†	-226.2	1.4	0.0029 µg/L	0.0029 ppb	21:11:10
1	Mo 202.031†	5.1	9.3	0.9585 µg/L	0.9585 ppb	21:11:10
1	Ni 231.604†	286.3	2.4	0.1291 µg/L	0.1291 ppb	21:11:10
1	P 214.914†	26.0	4.1	8.4549 µg/L	8.4549 ppb	21:11:10
1	Pb 220.353†	82.2	0.9	0.2202 µg/L	0.2202 ppb	21:11:10
1	S 181.975 Axial†	13.3	-2.8	-12.246 µg/L	-12.246 ppb	21:11:10
1	Sb 206.836†	23.9	2.4	2.3226 µg/L	2.3226 ppb	21:11:10
1	Se 196.026†	13.1	-2.5	-3.7136 µg/L	-3.7136 ppb	21:11:10
1	SiO2†	1617.1	94.9	19.639 µg/L	19.639 ppb	21:10:49
1	Si 251.611†	367.3	37.8	3.0306 µg/L	3.0306 ppb	21:11:10
1	Sn 189.927†	2.7	2.1	0.9247 µg/L	0.9247 ppb	21:11:10
1	Ti 334.940†	174.0	99.6	0.2292 µg/L	0.2292 ppb	21:10:49
1	Tl 190.801†	-24.3	-3.0	-4.1213 µg/L	-4.1213 ppb	21:11:10
1	U 409.014†	255.1	51.0	4.1680 µg/L	4.1680 ppb	21:10:49
1	V 292.402†	-62.6	-16.0	-0.1521 µg/L	-0.1521 ppb	21:10:49
1	Zn 213.857†	493.9	-47.5	-1.1763 µg/L	-1.1763 ppb	21:11:10
2	Sc RADIAL	52732.4	52732.4	99.9 %		21:09:47
2	Al 396.153Radial†	-37.0	-10.6	-7.6552 µg/L	-7.6552 ppb	21:09:47
2	Ca 317.933Radial†	189.3	6.2	5.8835 µg/L	5.8835 ppb	21:10:07
2	Fe 238.204 Radial†	14.8	-1.0	-8.9796 µg/L	-8.9796 ppb	21:10:07
2	K 766.490 Radial†	179.7	-67.3	-46.031 µg/L	-46.031 ppb	21:09:47
2	Mg 279.077 IEC†	9.7	-3.0	-28.631 µg/L	-28.631 ppb	21:10:07
2	Na 589.592 Radial†	477.1	-115.1	-35.600 µg/L	-35.600 ppb	21:09:47
2	Sr 421.552†	36.4	11.4	0.1131 µg/L	0.1131 ppb	21:09:47
2	Sc 361.383	1885307.0	1885307.0	99.053 %		21:11:16
2	Y 371.029	1298039.7	1298039.7	98.980 %		21:11:16
2	Ag 328.068†	-423.5	71.3	0.5431 µg/L	0.5431 ppb	21:11:22
2	As 188.979†	0.5	-0.4	-0.7655 µg/L	-0.7655 ppb	21:11:42
2	B 249.677†	337.9	-113.1	-4.8295 µg/L	-4.8295 ppb	21:11:42
2	Ba 233.527†	-15.3	5.1	0.1302 µg/L	0.1302 ppb	21:11:42
2	Be 313.107†	-3479.9	25.1	0.0155 µg/L	0.0155 ppb	21:11:22
2	Cd 226.502†	-134.4	-6.4	-0.1703 µg/L	-0.1703 ppb	21:11:42
2	Co 228.616†	1.3	8.7	0.4220 µg/L	0.4220 ppb	21:11:42
2	Cr 267.716†	-19.1	26.8	0.5683 µg/L	0.5683 ppb	21:11:42
2	Cu 324.752†	3330.8	123.6	0.8249 µg/L	0.8249 ppb	21:11:22
2	Mn 257.610†	-209.9	18.9	0.0633 µg/L	0.0633 ppb	21:11:42
2	Mo 202.031†	-1.0	3.1	0.3190 µg/L	0.3190 ppb	21:11:42
2	Ni 231.604†	294.0	8.9	0.4697 µg/L	0.4697 ppb	21:11:42
2	P 214.914†	16.9	-5.3	-11.100 µg/L	-11.100 ppb	21:11:42
2	Pb 220.353†	91.9	10.2	2.6184 µg/L	2.6184 ppb	21:11:42

2	S 181.975 Axial†	13.7	-2.5	-10.917 µg/L	-10.917 ppb	21:11:42
2	Sb 206.836†	23.4	1.9	1.7625 µg/L	1.7625 ppb	21:11:42
2	Se 196.026†	17.2	1.6	2.3458 µg/L	2.3458 ppb	21:11:42
2	SiO2†	1585.5	55.0	11.397 µg/L	11.397 ppb	21:11:22
2	Si 251.611†	389.2	58.0	4.6551 µg/L	4.6551 ppb	21:11:42
2	Sn 189.927†	3.6	3.0	1.3314 µg/L	1.3314 ppb	21:11:42
2	Ti 334.940†	232.5	157.8	0.3640 µg/L	0.3640 ppb	21:11:22
2	Tl 190.801†	-19.6	1.9	2.6945 µg/L	2.6945 ppb	21:11:42
2	U 409.014†	172.1	-34.0	-2.7744 µg/L	-2.7744 ppb	21:11:22
2	V 292.402†	-38.4	8.7	0.0877 µg/L	0.0877 ppb	21:11:22
2	Zn 213.857†	495.0	-48.8	-1.2099 µg/L	-1.2099 ppb	21:11:42
3	Sc RADIAL	52197.7	52197.7	98.9 %		21:10:13
3	Al 396.153Radial†	11.0	37.5	27.174 µg/L	27.174 ppb	21:10:13
3	Ca 317.933Radial†	176.7	-4.6	-4.3637 µg/L	-4.3637 ppb	21:10:33
3	Fe 238.204 Radial†	14.5	-1.1	-9.6722 µg/L	-9.6722 ppb	21:10:33
3	K 766.490 Radial†	215.6	-29.2	-19.948 µg/L	-19.948 ppb	21:10:13
3	Mg 279.077 IEC†	8.6	-4.0	-38.526 µg/L	-38.526 ppb	21:10:33
3	Na 589.592 Radial†	486.5	-100.6	-31.122 µg/L	-31.122 ppb	21:10:13
3	Sr 421.552†	40.6	16.0	0.1594 µg/L	0.1594 ppb	21:10:13
3	Sc 361.383	1870820.1	1870820.1	98.292 %		21:11:48
3	Y 371.029	1288978.2	1288978.2	98.289 %		21:11:48
3	Ag 328.068†	-453.6	37.3	0.2815 µg/L	0.2815 ppb	21:11:54
3	As 188.979†	-1.8	-2.7	-5.0740 µg/L	-5.0740 ppb	21:12:14
3	B 249.677†	332.6	-115.8	-4.9480 µg/L	-4.9480 ppb	21:12:14
3	Ba 233.527†	-13.8	6.5	0.1654 µg/L	0.1654 ppb	21:12:14
3	Be 313.107†	-3384.8	94.7	0.0587 µg/L	0.0587 ppb	21:11:54
3	Cd 226.502†	-124.9	2.2	0.0615 µg/L	0.0615 ppb	21:12:14
3	Co 228.616†	-8.5	-1.2	-0.0557 µg/L	-0.0557 ppb	21:12:14
3	Cr 267.716†	-25.7	20.0	0.4235 µg/L	0.4235 ppb	21:12:14
3	Cu 324.752†	3311.4	129.9	0.8669 µg/L	0.8669 ppb	21:11:54
3	Mn 257.610†	-174.7	53.1	0.1781 µg/L	0.1781 ppb	21:12:14
3	Mo 202.031†	8.0	12.2	1.2620 µg/L	1.2620 ppb	21:12:14
3	Ni 231.604†	284.2	1.2	0.0636 µg/L	0.0636 ppb	21:12:14
3	P 214.914†	29.8	8.0	16.696 µg/L	16.696 ppb	21:12:14
3	Pb 220.353†	93.8	12.9	3.3128 µg/L	3.3128 ppb	21:12:14
3	S 181.975 Axial†	14.6	-1.5	-6.5528 µg/L	-6.5528 ppb	21:12:14
3	Sb 206.836†	22.0	0.5	0.5148 µg/L	0.5148 ppb	21:12:14
3	Se 196.026†	10.4	-5.2	-7.7263 µg/L	-7.7263 ppb	21:12:14
3	SiO2†	1612.0	94.4	19.543 µg/L	19.543 ppb	21:11:54
3	Si 251.611†	393.4	65.3	5.2425 µg/L	5.2425 ppb	21:12:14
3	Sn 189.927†	3.6	2.9	1.3055 µg/L	1.3055 ppb	21:12:14
3	Ti 334.940†	187.2	113.4	0.2630 µg/L	0.2630 ppb	21:11:54
3	Tl 190.801†	-25.3	-4.1	-5.6236 µg/L	-5.6236 ppb	21:12:14
3	U 409.014†	226.1	22.2	1.8163 µg/L	1.8163 ppb	21:11:54
3	V 292.402†	-77.3	-31.2	-0.3051 µg/L	-0.3051 ppb	21:11:54
3	Zn 213.857†	490.2	-49.8	-1.2313 µg/L	-1.2313 ppb	21:12:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1877461.5	98.641 %		0.3845			0.39%
Sc RADIAL	52557.1	99.6 %		0.859			0.59%
Y 371.029	1293179.3	98.610 %		0.3482			0.35%
Ag 328.068†	48.0	0.3642 µg/L		0.15511	0.3642 ppb	0.15511	42.59%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	13.2	9.5161 µg/L		17.41953	9.5161 ppb	17.41953	183.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-1.5	-2.9033 µg/L		2.15447	-2.9033 ppb	2.15447	74.21%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-115.1	-4.9156 µg/L		0.07536	-4.9156 ppb	0.07536	1.53%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	3.0	0.0778 µg/L		0.12248	0.0778 ppb	0.12248	157.48%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	6.3	0.0038 µg/L		0.06150	0.0038 ppb	0.06150	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	0.5	0.5163 µg/L		5.14099	0.5163 ppb	5.14099	995.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-2.6	-0.0698 µg/L		0.11891	-0.0698 ppb	0.11891	170.47%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	5.4	0.2591 µg/L		0.27266	0.2591 ppb	0.27266	105.23%

Cr 267.716†	20.3	0.4295 µg/L	0.13600	0.4295 ppb	0.13600	31.67%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	129.2	0.8622 µg/L	0.03525	0.8622 ppb	0.03525	4.09%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.3	-11.600 µg/L	3.9537	-11.600 ppb	3.9537	34.08%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-35.8	-24.490 µg/L	19.6681	-24.490 ppb	19.6681	80.31%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.8	-26.576 µg/L	13.0990	-26.576 ppb	13.0990	49.29%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	24.4	0.0814 µg/L	0.08897	0.0814 ppb	0.08897	109.26%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	8.2	0.8465 µg/L	0.48141	0.8465 ppb	0.48141	56.87%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-97.9	-30.282 µg/L	5.7844	-30.282 ppb	5.7844	19.10%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	4.2	0.2208 µg/L	0.21805	0.2208 ppb	0.21805	98.74%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	2.3	4.6835 µg/L	14.27684	4.6835 ppb	14.27684	304.83%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	8.0	2.0505 µg/L	1.62262	2.0505 ppb	1.62262	79.13%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.3	-9.9053 µg/L	2.97845	-9.9053 ppb	2.97845	30.07%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.6	1.5333 µg/L	0.92542	1.5333 ppb	0.92542	60.35%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.0	-3.0314 µg/L	5.07058	-3.0314 ppb	5.07058	167.27%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	81.4	16.860 µg/L	4.7308	16.860 ppb	4.7308	28.06%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	53.7	4.3094 µg/L	1.14579	4.3094 ppb	1.14579	26.59%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.7	1.1872 µg/L	0.22773	1.1872 ppb	0.22773	19.18%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	17.6	0.1752 µg/L	0.07137	0.1752 ppb	0.07137	40.73%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	123.6	0.2854 µg/L	0.07014	0.2854 ppb	0.07014	24.58%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-1.7	-2.3501 µg/L	4.43287	-2.3501 ppb	4.43287	188.62%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	13.1	1.0700 µg/L	3.53090	1.0700 ppb	3.53090	330.00%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-12.9	-0.1232 µg/L	0.19796	-0.1232 ppb	0.19796	160.74%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-48.7	-1.2058 µg/L	0.02771	-1.2058 ppb	0.02771	2.30%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 4

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 21:51:31

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	53315.9	53315.9	101 %		21:52:10
1	Al 396.153Radial†	6850.9	6807.6	4923.6 µg/L	4923.6 ppb	21:52:10
1	Ca 317.933Radial†	5374.3	5136.3	4860.6 µg/L	4860.6 ppb	21:52:30
1	Fe 238.204 Radial†	569.2	547.7	4959.6 µg/L	4959.6 ppb	21:52:30
1	K 766.490 Radial†	7588.1	7263.7	4967.1 µg/L	4967.1 ppb	21:52:10
1	Mg 279.077 IEC†	534.2	516.0	4946.1 µg/L	4946.1 ppb	21:52:30
1	Na 589.592 Radial†	32931.8	32003.9	9898.0 µg/L	9898.0 ppb	21:52:10
1	Sr 421.552†	49885.8	49352.8	490.49 µg/L	490.49 ppb	21:52:10
1	Sc 361.383	1923939.2	1923939.2	101.08 %		21:53:34
1	Y 371.029	1319259.7	1319259.7	100.60 %		21:53:34
1	Ag 328.068†	65505.9	65302.8	501.11 µg/L	501.11 ppb	21:53:39
1	As 188.979†	267.4	263.7	501.78 µg/L	501.78 ppb	21:54:00
1	B 249.677†	11910.7	11328.9	482.66 µg/L	482.66 ppb	21:53:39
1	Ba 233.527†	19562.0	19372.9	497.76 µg/L	497.76 ppb	21:53:39
1	Be 313.107†	801147.4	796101.8	494.06 µg/L	494.06 ppb	21:53:34
1	Cd 226.502†	18574.9	18505.2	498.42 µg/L	498.42 ppb	21:53:39
1	Co 228.616†	10455.6	10351.0	499.78 µg/L	499.78 ppb	21:53:39
1	Cr 267.716†	23830.4	23621.2	500.67 µg/L	500.67 ppb	21:53:39
1	Cu 324.752†	78224.6	74147.4	496.34 µg/L	496.34 ppb	21:53:39
1	Mn 257.610†	151715.5	150320.7	504.11 µg/L	504.11 ppb	21:53:34
1	Mo 202.031†	4987.4	4938.1	511.01 µg/L	511.01 ppb	21:54:00
1	Ni 231.604†	9868.8	9475.1	502.25 µg/L	502.25 ppb	21:53:39
1	P 214.914†	1243.8	1208.2	2487.0 µg/L	2487.0 ppb	21:54:00
1	Pb 220.353†	2058.9	1954.3	502.21 µg/L	502.21 ppb	21:54:00
1	S 181.975 Axial†	250.7	231.6	1004.6 µg/L	1004.6 ppb	21:54:00
1	Sb 206.836†	557.4	529.6	504.47 µg/L	504.47 ppb	21:54:00
1	Se 196.026†	359.0	339.3	510.84 µg/L	510.84 ppb	21:54:00
1	SiO2†	27534.2	25693.6	5319.8 µg/L	5319.8 ppb	21:53:39
1	Si 251.611†	31743.5	31068.5	2493.2 µg/L	2493.2 ppb	21:53:39
1	Sn 189.927†	1155.8	1142.7	510.29 µg/L	510.29 ppb	21:54:00
1	Ti 334.940†	219340.1	216913.0	496.93 µg/L	496.93 ppb	21:53:34
1	Tl 190.801†	344.2	362.2	508.30 µg/L	508.30 ppb	21:54:00
1	U 409.014†	6300.2	6024.9	490.99 µg/L	490.99 ppb	21:53:39
1	V 292.402†	49392.6	48910.8	502.24 µg/L	502.24 ppb	21:53:39
1	Zn 213.857†	21031.3	20257.5	498.17 µg/L	498.17 ppb	21:53:39
2	Sc RADIAL	53150.2	53150.2	101 %		21:52:36
2	Al 396.153Radial†	6879.8	6857.4	4959.8 µg/L	4959.8 ppb	21:52:36
2	Ca 317.933Radial†	5403.8	5182.2	4904.0 µg/L	4904.0 ppb	21:52:56
2	Fe 238.204 Radial†	570.0	550.2	4982.6 µg/L	4982.6 ppb	21:52:56
2	K 766.490 Radial†	7598.3	7297.2	4990.0 µg/L	4990.0 ppb	21:52:36
2	Mg 279.077 IEC†	539.8	523.2	5015.2 µg/L	5015.2 ppb	21:52:56
2	Na 589.592 Radial†	32905.1	32079.0	9921.2 µg/L	9921.2 ppb	21:52:36
2	Sr 421.552†	49861.7	49482.8	491.78 µg/L	491.78 ppb	21:52:36
2	Sc 361.383	1926150.7	1926150.7	101.20 %		21:54:07
2	Y 371.029	1322200.6	1322200.6	100.82 %		21:54:07
2	Ag 328.068†	65490.6	65213.3	500.42 µg/L	500.42 ppb	21:54:13
2	As 188.979†	262.9	259.0	492.78 µg/L	492.78 ppb	21:54:33
2	B 249.677†	11931.2	11335.6	482.94 µg/L	482.94 ppb	21:54:13
2	Ba 233.527†	19564.9	19353.6	497.26 µg/L	497.26 ppb	21:54:13
2	Be 313.107†	800673.1	794723.1	493.20 µg/L	493.20 ppb	21:54:07
2	Cd 226.502†	18568.8	18478.1	497.68 µg/L	497.68 ppb	21:54:13
2	Co 228.616†	10454.9	10338.4	499.16 µg/L	499.16 ppb	21:54:13
2	Cr 267.716†	23777.2	23541.5	498.98 µg/L	498.98 ppb	21:54:13
2	Cu 324.752†	78345.2	74177.7	496.54 µg/L	496.54 ppb	21:54:13
2	Mn 257.610†	151615.5	150049.6	503.20 µg/L	503.20 ppb	21:54:07
2	Mo 202.031†	4925.5	4871.2	504.10 µg/L	504.10 ppb	21:54:33
2	Ni 231.604†	9842.9	9438.3	500.29 µg/L	500.29 ppb	21:54:13
2	P 214.914†	1222.3	1185.5	2439.3 µg/L	2439.3 ppb	21:54:33
2	Pb 220.353†	2048.8	1942.0	499.02 µg/L	499.02 ppb	21:54:33

2	S 181.975 Axial†	250.5	231.2	1002.7 µg/L	1002.7 ppb	21:54:33
2	Sb 206.836†	554.6	526.2	501.18 µg/L	501.18 ppb	21:54:33
2	Se 196.026†	352.1	332.2	500.25 µg/L	500.25 ppb	21:54:33
2	SiO2†	27663.0	25789.6	5339.6 µg/L	5339.6 ppb	21:54:13
2	Si 251.611†	31828.9	31116.8	2497.1 µg/L	2497.1 ppb	21:54:13
2	Sn 189.927†	1139.7	1125.5	502.63 µg/L	502.63 ppb	21:54:33
2	Ti 334.940†	219302.6	216626.9	496.27 µg/L	496.27 ppb	21:54:07
2	Tl 190.801†	342.8	360.5	505.89 µg/L	505.89 ppb	21:54:33
2	U 409.014†	6280.8	5998.6	488.84 µg/L	488.84 ppb	21:54:13
2	V 292.402†	49350.7	48813.3	501.20 µg/L	501.20 ppb	21:54:13
2	Zn 213.857†	20962.3	20165.5	495.89 µg/L	495.89 ppb	21:54:13
3	Sc RADIAL	53171.0	53171.0	101 %		21:53:02
3	Al 396.153Radial†	6867.0	6842.1	4950.3 µg/L	4950.3 ppb	21:53:02
3	Ca 317.933Radial†	5378.3	5154.8	4878.1 µg/L	4878.1 ppb	21:53:22
3	Fe 238.204 Radial†	564.7	544.7	4931.5 µg/L	4931.5 ppb	21:53:22
3	K 766.490 Radial†	7630.7	7326.4	5010.0 µg/L	5010.0 ppb	21:53:02
3	Mg 279.077 IEC†	536.5	519.8	4981.0 µg/L	4981.0 ppb	21:53:22
3	Na 589.592 Radial†	32960.7	32121.4	9934.3 µg/L	9934.3 ppb	21:53:02
3	Sr 421.552†	49930.0	49531.2	492.26 µg/L	492.26 ppb	21:53:02
3	Sc 361.383	1909511.5	1909511.5	100.33 %		21:54:40
3	Y 371.029	1311526.4	1311526.4	100.01 %		21:54:40
3	Ag 328.068†	61905.0	62203.2	477.17 µg/L	477.17 ppb	21:54:46
3	As 188.979†	232.6	230.9	439.50 µg/L	439.50 ppb	21:55:07
3	B 249.677†	11157.5	10667.1	454.29 µg/L	454.29 ppb	21:54:46
3	Ba 233.527†	17942.5	17904.8	460.02 µg/L	460.02 ppb	21:54:46
3	Be 313.107†	744950.7	746075.5	463.02 µg/L	463.02 ppb	21:54:40
3	Cd 226.502†	16948.9	17023.4	458.46 µg/L	458.46 ppb	21:54:46
3	Co 228.616†	9455.6	9432.4	455.37 µg/L	455.37 ppb	21:54:46
3	Cr 267.716†	20978.9	20957.1	444.21 µg/L	444.21 ppb	21:54:46
3	Cu 324.752†	71392.4	67922.0	454.72 µg/L	454.72 ppb	21:54:46
3	Mn 257.610†	141390.5	141163.2	473.42 µg/L	473.42 ppb	21:54:40
3	Mo 202.031†	4149.2	4139.8	428.44 µg/L	428.44 ppb	21:55:07
3	Ni 231.604†	8902.4	8585.5	455.09 µg/L	455.09 ppb	21:54:46
3	P 214.914†	1063.7	1037.9	2132.9 µg/L	2132.9 ppb	21:55:07
3	Pb 220.353†	1795.0	1706.6	438.48 µg/L	438.48 ppb	21:55:07
3	S 181.975 Axial†	216.8	199.7	866.16 µg/L	866.16 ppb	21:55:07
3	Sb 206.836†	479.8	456.4	434.38 µg/L	434.38 ppb	21:55:07
3	Se 196.026†	322.4	305.5	460.67 µg/L	460.67 ppb	21:55:07
3	SiO2†	25806.3	24177.1	5005.8 µg/L	5005.8 ppb	21:54:46
3	Si 251.611†	29667.5	29236.6	2346.2 µg/L	2346.2 ppb	21:54:46
3	Sn 189.927†	943.6	939.8	419.71 µg/L	419.71 ppb	21:55:07
3	Ti 334.940†	202774.2	202040.3	462.83 µg/L	462.83 ppb	21:54:40
3	Tl 190.801†	302.7	323.5	454.23 µg/L	454.23 ppb	21:55:07
3	U 409.014†	5622.8	5396.8	439.71 µg/L	439.71 ppb	21:54:46
3	V 292.402†	44208.5	44112.7	452.76 µg/L	452.76 ppb	21:54:46
3	Zn 213.857†	19069.6	18459.3	453.91 µg/L	453.91 ppb	21:54:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1919867.1	100.87 %	0.475			0.47%
Sc RADIAL	53212.4	101 %	0.2			0.17%
Y 371.029	1317662.2	100.48 %	0.420			0.42%
Ag 328.068†	64239.8	492.90 µg/L	13.626	492.90 ppb	13.626	2.76%
QC value within limits for Ag 328.068 Recovery = 98.58%						
Al 396.153Radial†	6835.7	4944.6 µg/L	18.79	4944.6 ppb	18.79	0.38%
QC value within limits for Al 396.153Radial Recovery = 98.89%						
As 188.979†	251.2	478.02 µg/L	33.663	478.02 ppb	33.663	7.04%
QC value within limits for As 188.979 Recovery = 95.60%						
B 249.677†	11110.5	473.30 µg/L	16.461	473.30 ppb	16.461	3.48%
QC value within limits for B 249.677 Recovery = 94.66%						
Ba 233.527†	18877.1	485.01 µg/L	21.647	485.01 ppb	21.647	4.46%
QC value within limits for Ba 233.527 Recovery = 97.00%						
Be 313.107†	778966.8	483.43 µg/L	17.682	483.43 ppb	17.682	3.66%
QC value within limits for Be 313.107 Recovery = 96.69%						
Ca 317.933Radial†	5157.8	4880.9 µg/L	21.84	4880.9 ppb	21.84	0.45%
QC value within limits for Ca 317.933Radial Recovery = 97.62%						
Cd 226.502†	18002.2	484.85 µg/L	22.862	484.85 ppb	22.862	4.72%
QC value within limits for Cd 226.502 Recovery = 96.97%						
Co 228.616†	10040.6	484.77 µg/L	25.462	484.77 ppb	25.462	5.25%

QC value within limits for Co 228.616 Recovery = 96.95%							
Cr 267.716†	22706.6	481.29 µg/L	32.123	481.29 ppb	32.123	6.67%	
QC value within limits for Cr 267.716 Recovery = 96.26%							
Cu 324.752†	72082.4	482.53 µg/L	24.088	482.53 ppb	24.088	4.99%	
QC value within limits for Cu 324.752 Recovery = 96.51%							
Fe 238.204 Radial†	547.5	4957.9 µg/L	25.58	4957.9 ppb	25.58	0.52%	
QC value within limits for Fe 238.204 Radial Recovery = 99.16%							
K 766.490 Radial†	7295.7	4989.0 µg/L	21.47	4989.0 ppb	21.47	0.43%	
QC value within limits for K 766.490 Radial Recovery = 99.78%							
Mg 279.077 IEC†	519.7	4980.8 µg/L	34.51	4980.8 ppb	34.51	0.69%	
QC value within limits for Mg 279.077 IEC Recovery = 99.62%							
Mn 257.610†	147177.9	493.58 µg/L	17.461	493.58 ppb	17.461	3.54%	
QC value within limits for Mn 257.610 Recovery = 98.72%							
Mo 202.031†	4649.7	481.18 µg/L	45.809	481.18 ppb	45.809	9.52%	
QC value within limits for Mo 202.031 Recovery = 96.24%							
Na 589.592 Radial†	32068.1	9917.8 µg/L	18.41	9917.8 ppb	18.41	0.19%	
QC value within limits for Na 589.592 Radial Recovery = 99.18%							
Ni 231.604†	9166.3	485.88 µg/L	26.677	485.88 ppb	26.677	5.49%	
QC value within limits for Ni 231.604 Recovery = 97.18%							
P 214.914†	1143.9	2353.0 µg/L	192.13	2353.0 ppb	192.13	8.17%	
QC value within limits for P 214.914 Recovery = 94.12%							
Pb 220.353†	1867.6	479.90 µg/L	35.914	479.90 ppb	35.914	7.48%	
QC value within limits for Pb 220.353 Recovery = 95.98%							
S 181.975 Axial†	220.9	957.84 µg/L	79.407	957.84 ppb	79.407	8.29%	
QC value within limits for S 181.975 Axial Recovery = 95.78%							
Sb 206.836†	504.1	480.01 µg/L	39.550	480.01 ppb	39.550	8.24%	
QC value within limits for Sb 206.836 Recovery = 96.00%							
Se 196.026†	325.7	490.58 µg/L	26.441	490.58 ppb	26.441	5.39%	
QC value within limits for Se 196.026 Recovery = 98.12%							
SiO2†	25220.1	5221.7 µg/L	187.28	5221.7 ppb	187.28	3.59%	
QC value within limits for SiO2 Recovery = 97.65%							
Si 251.611†	30474.0	2445.5 µg/L	86.02	2445.5 ppb	86.02	3.52%	
QC value within limits for Si 251.611 Recovery = 97.82%							
Sn 189.927†	1069.3	477.54 µg/L	50.230	477.54 ppb	50.230	10.52%	
QC value within limits for Sn 189.927 Recovery = 95.51%							
Sr 421.552†	49455.6	491.51 µg/L	0.917	491.51 ppb	0.917	0.19%	
QC value within limits for Sr 421.552 Recovery = 98.30%							
Ti 334.940†	211860.0	485.34 µg/L	19.497	485.34 ppb	19.497	4.02%	
QC value within limits for Ti 334.940 Recovery = 97.07%							
Tl 190.801†	348.7	489.47 µg/L	30.544	489.47 ppb	30.544	6.24%	
QC value within limits for Tl 190.801 Recovery = 97.89%							
U 409.014†	5806.8	473.18 µg/L	29.008	473.18 ppb	29.008	6.13%	
QC value within limits for U 409.014 Recovery = 94.64%							
V 292.402†	47278.9	485.40 µg/L	28.274	485.40 ppb	28.274	5.82%	
QC value within limits for V 292.402 Recovery = 97.08%							
Zn 213.857†	19627.4	482.66 µg/L	24.922	482.66 ppb	24.922	5.16%	
QC value within limits for Zn 213.857 Recovery = 96.53%							

All analyte(s) passed QC.

Sequence No.: 5
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:
 User canceled analysis.

Autosampler Location: 8
 Date Collected: 2/24/2010 21:55:16
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Analysis Begun

Start Time: 2/24/2010 21:56:25 Plasma On Time: 2/8/2010 03:37:33
 Logged In Analyst: optima Technique: ICP Continuous
 Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF
 Batch ID:
 Results Data Set: 022410
 Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 5 Autosampler Location: 8
 Sample ID: CCB Date Collected: 2/24/2010 21:56:25
 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. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52617.3	52617.3	99.7 %		21:56:59
1	Al 396.153Radial†	-29.7	-3.4	-2.4281 µg/L	-2.4281 ppb	21:56:59
1	Ca 317.933Radial†	177.8	-4.9	-4.6331 µg/L	-4.6331 ppb	21:57:20
1	Fe 238.204 Radial†	14.2	-1.5	-13.949 µg/L	-13.949 ppb	21:57:20
1	K 766.490 Radial†	187.6	-59.0	-40.347 µg/L	-40.347 ppb	21:56:59
1	Mg 279.077 IEC†	10.3	-2.4	-22.772 µg/L	-22.772 ppb	21:57:20
1	Na 589.592 Radial†	505.7	-85.4	-26.404 µg/L	-26.404 ppb	21:56:59
1	Sr 421.552†	47.2	22.3	0.2218 µg/L	0.2218 ppb	21:56:59
1	Sc 361.383	1877212.7	1877212.7	98.628 %		21:58:21
1	Y 371.029	1293110.5	1293110.5	98.604 %		21:58:21
1	Ag 328.068†	-492.2	-0.2	-0.0040 µg/L	-0.0040 ppb	21:58:27
1	As 188.979†	-0.9	-1.8	-3.4126 µg/L	-3.4126 ppb	21:58:48
1	B 249.677†	324.1	-125.6	-5.3625 µg/L	-5.3625 ppb	21:58:48
1	Ba 233.527†	-28.0	-7.9	-0.2022 µg/L	-0.2022 ppb	21:58:48
1	Be 313.107†	-3695.5	-208.6	-0.1296 µg/L	-0.1296 ppb	21:58:27
1	Cd 226.502†	-128.4	-0.8	-0.0194 µg/L	-0.0194 ppb	21:58:48
1	Co 228.616†	-2.8	4.6	0.2237 µg/L	0.2237 ppb	21:58:48
1	Cr 267.716†	-33.9	11.8	0.2500 µg/L	0.2500 ppb	21:58:48
1	Cu 324.752†	3252.2	58.3	0.3879 µg/L	0.3879 ppb	21:58:27
1	Mn 257.610†	-244.4	-17.0	-0.0580 µg/L	-0.0580 ppb	21:58:48
1	Mo 202.031†	-5.8	-1.8	-0.1861 µg/L	-0.1861 ppb	21:58:48
1	Ni 231.604†	294.4	10.5	0.5577 µg/L	0.5577 ppb	21:58:48
1	P 214.914†	25.1	3.1	6.5615 µg/L	6.5615 ppb	21:58:48
1	Pb 220.353†	88.5	7.2	1.8479 µg/L	1.8479 ppb	21:58:48
1	S 181.975 Axial†	11.1	-5.1	-22.143 µg/L	-22.143 ppb	21:58:48
1	Sb 206.836†	18.6	-2.9	-2.7842 µg/L	-2.7842 ppb	21:58:48
1	Se 196.026†	13.7	-2.0	-2.9415 µg/L	-2.9415 ppb	21:58:48
1	SiO2†	1591.9	68.5	14.180 µg/L	14.180 ppb	21:58:27
1	Si 251.611†	364.4	34.6	2.7784 µg/L	2.7784 ppb	21:58:48
1	Sn 189.927†	4.4	3.8	1.6889 µg/L	1.6889 ppb	21:58:48
1	Ti 334.940†	120.1	44.8	0.1045 µg/L	0.1045 ppb	21:58:27
1	Tl 190.801†	-20.5	1.0	1.3131 µg/L	1.3131 ppb	21:58:48
1	U 409.014†	166.6	-38.8	-3.1671 µg/L	-3.1671 ppb	21:58:27
1	V 292.402†	-70.5	-24.1	-0.2498 µg/L	-0.2498 ppb	21:58:27
1	Zn 213.857†	488.5	-53.2	-1.3186 µg/L	-1.3186 ppb	21:58:48
2	Sc RADIAL	52205.7	52205.7	98.9 %		21:57:25
2	Al 396.153Radial†	-15.6	10.7	7.7466 µg/L	7.7466 ppb	21:57:25
2	Ca 317.933Radial†	181.6	0.4	0.3435 µg/L	0.3435 ppb	21:57:45
2	Fe 238.204 Radial†	19.2	3.7	33.344 µg/L	33.344 ppb	21:57:45

2	K 766.490 Radial†	215.3	-29.5	-20.197	µg/L	-20.197	ppb	21:57:25
2	Mg 279.077 IEC†	10.3	-2.4	-22.588	µg/L	-22.588	ppb	21:57:45
2	Na 589.592 Radial†	467.6	-119.8	-37.062	µg/L	-37.062	ppb	21:57:25
2	Sr 421.552†	31.7	7.1	0.0703	µg/L	0.0703	ppb	21:57:25
2	Sc 361.383	1895477.2	1895477.2	99.588	%			21:58:54
2	Y 371.029	1305557.6	1305557.6	99.554	%			21:58:54
2	Ag 328.068†	-481.8	15.0	0.1170	µg/L	0.1170	ppb	21:58:59
2	As 188.979†	-1.7	-2.6	-4.8753	µg/L	-4.8753	ppb	21:59:20
2	B 249.677†	327.6	-125.3	-5.3735	µg/L	-5.3735	ppb	21:59:20
2	Ba 233.527†	-19.9	0.5	0.0142	µg/L	0.0142	ppb	21:59:20
2	Be 313.107†	-3595.8	-72.4	-0.0450	µg/L	-0.0450	ppb	21:58:59
2	Cd 226.502†	-130.8	-2.0	-0.0580	µg/L	-0.0580	ppb	21:59:20
2	Co 228.616†	-1.3	6.2	0.2977	µg/L	0.2977	ppb	21:59:20
2	Cr 267.716†	-37.4	8.6	0.1813	µg/L	0.1813	ppb	21:59:20
2	Cu 324.752†	3300.1	74.7	0.5041	µg/L	0.5041	ppb	21:58:59
2	Mn 257.610†	-237.4	-7.6	-0.0200	µg/L	-0.0200	ppb	21:59:20
2	Mo 202.031†	1.3	5.4	0.5563	µg/L	0.5563	ppb	21:59:20
2	Ni 231.604†	289.8	3.0	0.1602	µg/L	0.1602	ppb	21:59:20
2	P 214.914†	28.8	6.6	13.739	µg/L	13.739	ppb	21:59:20
2	Pb 220.353†	86.0	3.8	0.9626	µg/L	0.9626	ppb	21:59:20
2	S 181.975 Axial†	15.3	-1.0	-4.3547	µg/L	-4.3547	ppb	21:59:20
2	Sb 206.836†	25.8	4.1	3.8498	µg/L	3.8498	ppb	21:59:20
2	Se 196.026†	17.1	1.4	2.1828	µg/L	2.1828	ppb	21:59:20
2	SiO2†	1581.7	42.7	8.8360	µg/L	8.8360	ppb	21:58:59
2	Si 251.611†	385.0	51.7	4.1497	µg/L	4.1497	ppb	21:59:20
2	Sn 189.927†	3.6	2.9	1.3074	µg/L	1.3074	ppb	21:59:20
2	Ti 334.940†	121.2	44.8	0.1044	µg/L	0.1044	ppb	21:58:59
2	Tl 190.801†	-21.8	-0.2	-0.2319	µg/L	-0.2319	ppb	21:59:20
2	U 409.014†	244.7	37.9	3.0893	µg/L	3.0893	ppb	21:58:59
2	V 292.402†	-39.9	7.4	0.0869	µg/L	0.0869	ppb	21:58:59
2	Zn 213.857†	482.8	-63.7	-1.5802	µg/L	-1.5802	ppb	21:59:20
3	Sc RADIAL	51791.7	51791.7	98.1	%			21:57:51
3	Al 396.153Radial†	-42.1	-16.5	-11.953	µg/L	-11.953	ppb	21:57:51
3	Ca 317.933Radial†	174.2	-5.8	-5.4438	µg/L	-5.4438	ppb	21:58:11
3	Fe 238.204 Radial†	16.1	0.7	5.8992	µg/L	5.8992	ppb	21:58:11
3	K 766.490 Radial†	197.4	-46.1	-31.505	µg/L	-31.505	ppb	21:57:51
3	Mg 279.077 IEC†	8.2	-4.3	-41.367	µg/L	-41.367	ppb	21:58:11
3	Na 589.592 Radial†	493.5	-89.7	-27.747	µg/L	-27.747	ppb	21:57:51
3	Sr 421.552†	61.3	37.4	0.3717	µg/L	0.3717	ppb	21:57:51
3	Sc 361.383	1876365.9	1876365.9	98.584	%			21:59:26
3	Y 371.029	1291698.4	1291698.4	98.497	%			21:59:26
3	Ag 328.068†	-517.4	-26.1	-0.1989	µg/L	-0.1989	ppb	21:59:31
3	As 188.979†	-1.4	-2.3	-4.3682	µg/L	-4.3682	ppb	21:59:52
3	B 249.677†	330.6	-118.8	-5.0831	µg/L	-5.0831	ppb	21:59:52
3	Ba 233.527†	-14.5	5.7	0.1468	µg/L	0.1468	ppb	21:59:52
3	Be 313.107†	-3474.2	14.1	0.0088	µg/L	0.0088	ppb	21:59:31
3	Cd 226.502†	-124.5	3.0	0.0806	µg/L	0.0806	ppb	21:59:52
3	Co 228.616†	-10.6	-3.3	-0.1587	µg/L	-0.1587	ppb	21:59:52
3	Cr 267.716†	-36.2	9.4	0.2000	µg/L	0.2000	ppb	21:59:52
3	Cu 324.752†	3280.2	88.3	0.5910	µg/L	0.5910	ppb	21:59:31
3	Mn 257.610†	-223.2	4.4	0.0171	µg/L	0.0171	ppb	21:59:52
3	Mo 202.031†	-3.5	0.5	0.0509	µg/L	0.0509	ppb	21:59:52
3	Ni 231.604†	283.6	-0.3	-0.0139	µg/L	-0.0139	ppb	21:59:52
3	P 214.914†	19.2	-2.8	-5.9449	µg/L	-5.9449	ppb	21:59:52
3	Pb 220.353†	76.3	-5.2	-1.3376	µg/L	-1.3376	ppb	21:59:52
3	S 181.975 Axial†	12.2	-4.0	-17.140	µg/L	-17.140	ppb	21:59:52
3	Sb 206.836†	24.1	2.7	2.5430	µg/L	2.5430	ppb	21:59:52
3	Se 196.026†	10.3	-5.4	-7.9658	µg/L	-7.9658	ppb	21:59:52
3	SiO2†	1584.5	61.7	12.782	µg/L	12.782	ppb	21:59:31
3	Si 251.611†	383.0	53.6	4.3040	µg/L	4.3040	ppb	21:59:52
3	Sn 189.927†	2.8	2.2	0.9569	µg/L	0.9569	ppb	21:59:52
3	Ti 334.940†	105.7	30.2	0.0725	µg/L	0.0725	ppb	21:59:31
3	Tl 190.801†	-20.5	1.0	1.3195	µg/L	1.3195	ppb	21:59:52
3	U 409.014†	179.3	-25.9	-2.1179	µg/L	-2.1179	ppb	21:59:31
3	V 292.402†	-56.7	-10.1	-0.1031	µg/L	-0.1031	ppb	21:59:31
3	Zn 213.857†	483.7	-57.9	-1.4322	µg/L	-1.4322	ppb	21:59:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
---------	--------------------------	--------------------	----------	--------------------	----------	-----

Sc 361.383	1883018.6	98.933 %	0.5673		0.57%
Sc RADIAL	52204.9	98.9 %	0.78		0.79%
Y 371.029	1296788.8	98.885 %	0.5816		0.59%
Ag 328.068†	-3.7	-0.0286 µg/L	0.15935	-0.0286 ppb	0.15935 556.73%
QC value within limits for Ag 328.068 Recovery = Not calculated					
Al 396.153Radial†	-3.0	-2.2115 µg/L	9.85153	-2.2115 ppb	9.85153 445.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated					
As 188.979†	-2.2	-4.2187 µg/L	0.74273	-4.2187 ppb	0.74273 17.61%
QC value within limits for As 188.979 Recovery = Not calculated					
B 249.677†	-123.2	-5.2730 µg/L	0.16461	-5.2730 ppb	0.16461 3.12%
QC value within limits for B 249.677 Recovery = Not calculated					
Ba 233.527†	-0.5	-0.0137 µg/L	0.17616	-0.0137 ppb	0.17616 >999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated					
Be 313.107†	-89.0	-0.0553 µg/L	0.06973	-0.0553 ppb	0.06973 126.16%
QC value within limits for Be 313.107 Recovery = Not calculated					
Ca 317.933Radial†	-3.4	-3.2445 µg/L	3.13362	-3.2445 ppb	3.13362 96.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated					
Cd 226.502†	0.1	0.0011 µg/L	0.07154	0.0011 ppb	0.07154 >999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated					
Co 228.616†	2.5	0.1209 µg/L	0.24495	0.1209 ppb	0.24495 202.58%
QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716†	9.9	0.2104 µg/L	0.03551	0.2104 ppb	0.03551 16.88%
QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.752†	73.8	0.4943 µg/L	0.10190	0.4943 ppb	0.10190 20.61%
QC value within limits for Cu 324.752 Recovery = Not calculated					
Fe 238.204 Radial†	0.9	8.4316 µg/L	23.74822	8.4316 ppb	23.74822 281.66%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated					
K 766.490 Radial†	-44.9	-30.683 µg/L	10.0999	-30.683 ppb	10.0999 32.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated					
Mg 279.077 IEC†	-3.0	-28.909 µg/L	10.7894	-28.909 ppb	10.7894 37.32%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated					
Mn 257.610†	-6.7	-0.0203 µg/L	0.03756	-0.0203 ppb	0.03756 185.36%
QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.031†	1.4	0.1404 µg/L	0.37919	0.1404 ppb	0.37919 270.13%
QC value within limits for Mo 202.031 Recovery = Not calculated					
Na 589.592 Radial†	-98.3	-30.404 µg/L	5.8051	-30.404 ppb	5.8051 19.09%
QC value within limits for Na 589.592 Radial Recovery = Not calculated					
Ni 231.604†	4.4	0.2346 µg/L	0.29301	0.2346 ppb	0.29301 124.87%
QC value within limits for Ni 231.604 Recovery = Not calculated					
P 214.914†	2.3	4.7852 µg/L	9.96147	4.7852 ppb	9.96147 208.17%
QC value within limits for P 214.914 Recovery = Not calculated					
Pb 220.353†	1.9	0.4910 µg/L	1.64430	0.4910 ppb	1.64430 334.92%
QC value within limits for Pb 220.353 Recovery = Not calculated					
S 181.975 Axial†	-3.4	-14.546 µg/L	9.1737	-14.546 ppb	9.1737 63.07%
QC value within limits for S 181.975 Axial Recovery = Not calculated					
Sb 206.836†	1.3	1.2029 µg/L	3.51416	1.2029 ppb	3.51416 292.15%
QC value within limits for Sb 206.836 Recovery = Not calculated					
Se 196.026†	-2.0	-2.9082 µg/L	5.07440	-2.9082 ppb	5.07440 174.49%
QC value within limits for Se 196.026 Recovery = Not calculated					
SiO2†	57.6	11.932 µg/L	2.7712	11.932 ppb	2.7712 23.22%
QC value within limits for SiO2 Recovery = Not calculated					
Si 251.611†	46.7	3.7441 µg/L	0.83981	3.7441 ppb	0.83981 22.43%
QC value within limits for Si 251.611 Recovery = Not calculated					
Sn 189.927†	3.0	1.3178 µg/L	0.36612	1.3178 ppb	0.36612 27.78%
QC value within limits for Sn 189.927 Recovery = Not calculated					
Sr 421.552†	22.3	0.2213 µg/L	0.15072	0.2213 ppb	0.15072 68.12%
QC value within limits for Sr 421.552 Recovery = Not calculated					
Ti 334.940†	39.9	0.0938 µg/L	0.01845	0.0938 ppb	0.01845 19.67%
QC value within limits for Ti 334.940 Recovery = Not calculated					
Tl 190.801†	0.6	0.8002 µg/L	0.89386	0.8002 ppb	0.89386 111.71%
QC value within limits for Tl 190.801 Recovery = Not calculated					
U 409.014†	-9.0	-0.7319 µg/L	3.35061	-0.7319 ppb	3.35061 457.80%
QC value within limits for U 409.014 Recovery = Not calculated					
V 292.402†	-8.9	-0.0887 µg/L	0.16880	-0.0887 ppb	0.16880 190.32%
QC value within limits for V 292.402 Recovery = Not calculated					
Zn 213.857†	-58.3	-1.4436 µg/L	0.13115	-1.4436 ppb	0.13115 9.08%
QC value within limits for Zn 213.857 Recovery = Not calculated					
All analyte(s) passed QC.					

Sequence No.: 3
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/24/2010 22:07:21
 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	53185.0	53185.0	101 %		22:08:00
1	Al 396.153Radial†	6953.8	6926.3	5009.4 µg/L	5009.4 ppb	22:08:00
1	Ca 317.933Radial†	5426.5	5201.3	4922.1 µg/L	4922.1 ppb	22:08:20
1	Fe 238.204 Radial†	575.4	555.2	5028.2 µg/L	5028.2 ppb	22:08:20
1	K 766.490 Radial†	7631.3	7325.0	5009.0 µg/L	5009.0 ppb	22:08:00
1	Mg 279.077 IEC†	536.2	519.3	4977.9 µg/L	4977.9 ppb	22:08:20
1	Na 589.592 Radial†	33117.1	32268.0	9979.7 µg/L	9979.7 ppb	22:08:00
1	Sr 421.552†	50535.2	50118.7	498.10 µg/L	498.10 ppb	22:08:00
1	Sc 361.383	1904476.5	1904476.5	100.06 %		22:09:24
1	Y 371.029	1305706.7	1305706.7	99.565 %		22:09:24
1	Ag 328.068†	66173.4	66632.2	511.31 µg/L	511.31 ppb	22:09:30
1	As 188.979†	270.9	269.9	513.62 µg/L	513.62 ppb	22:09:50
1	B 249.677†	12095.8	11634.3	495.71 µg/L	495.71 ppb	22:09:30
1	Ba 233.527†	19810.3	19818.8	509.21 µg/L	509.21 ppb	22:09:30
1	Be 313.107†	797895.2	800951.1	497.07 µg/L	497.07 ppb	22:09:24
1	Cd 226.502†	18884.3	19002.3	511.81 µg/L	511.81 ppb	22:09:30
1	Co 228.616†	10629.0	10630.0	513.27 µg/L	513.27 ppb	22:09:30
1	Cr 267.716†	24088.3	24119.9	511.24 µg/L	511.24 ppb	22:09:30
1	Cu 324.752†	79186.3	75899.3	508.06 µg/L	508.06 ppb	22:09:30
1	Mn 257.610†	151063.5	151203.0	507.07 µg/L	507.07 ppb	22:09:24
1	Mo 202.031†	5065.3	5066.3	524.28 µg/L	524.28 ppb	22:09:50
1	Ni 231.604†	9975.2	9681.1	513.16 µg/L	513.16 ppb	22:09:30
1	P 214.914†	1259.9	1236.8	2546.0 µg/L	2546.0 ppb	22:09:50
1	Pb 220.353†	2103.1	2019.3	518.92 µg/L	518.92 ppb	22:09:50
1	S 181.975 Axial†	254.6	238.1	1032.7 µg/L	1032.7 ppb	22:09:50
1	Sb 206.836†	567.6	545.4	519.58 µg/L	519.58 ppb	22:09:50
1	Se 196.026†	370.8	354.8	533.94 µg/L	533.94 ppb	22:09:50
1	SiO2†	27796.5	26234.1	5431.7 µg/L	5431.7 ppb	22:09:30
1	Si 251.611†	32053.8	31699.6	2543.8 µg/L	2543.8 ppb	22:09:30
1	Sn 189.927†	1188.1	1186.7	529.93 µg/L	529.93 ppb	22:09:50
1	Ti 334.940†	218262.4	218053.4	499.54 µg/L	499.54 ppb	22:09:24
1	Tl 190.801†	342.2	363.7	510.33 µg/L	510.33 ppb	22:09:50
1	U 409.014†	6289.0	6077.4	495.27 µg/L	495.27 ppb	22:09:30
1	V 292.402†	49994.2	50011.4	513.54 µg/L	513.54 ppb	22:09:30
1	Zn 213.857†	21279.6	20718.2	509.51 µg/L	509.51 ppb	22:09:30
2	Sc RADIAL	54201.5	54201.5	103 %		22:08:26
2	Al 396.153Radial†	6967.0	6809.8	4925.3 µg/L	4925.3 ppb	22:08:26
2	Ca 317.933Radial†	5407.6	5081.9	4809.1 µg/L	4809.1 ppb	22:08:46
2	Fe 238.204 Radial†	572.7	541.9	4907.3 µg/L	4907.3 ppb	22:08:46
2	K 766.490 Radial†	7620.5	7172.4	4904.7 µg/L	4904.7 ppb	22:08:26
2	Mg 279.077 IEC†	540.5	513.5	4922.4 µg/L	4922.4 ppb	22:08:46
2	Na 589.592 Radial†	33188.8	31721.5	9810.6 µg/L	9810.6 ppb	22:08:26
2	Sr 421.552†	50627.6	49268.2	489.65 µg/L	489.65 ppb	22:08:26
2	Sc 361.383	1920540.7	1920540.7	100.90 %		22:09:57
2	Y 371.029	1315942.9	1315942.9	100.35 %		22:09:57
2	Ag 328.068†	65529.6	65441.0	502.17 µg/L	502.17 ppb	22:10:03
2	As 188.979†	270.1	266.9	507.82 µg/L	507.82 ppb	22:10:23
2	B 249.677†	11977.1	11415.6	486.40 µg/L	486.40 ppb	22:10:03
2	Ba 233.527†	19636.2	19480.6	500.52 µg/L	500.52 ppb	22:10:03
2	Be 313.107†	798574.6	794954.5	493.35 µg/L	493.35 ppb	22:09:57
2	Cd 226.502†	18696.4	18658.2	502.55 µg/L	502.55 ppb	22:10:03
2	Co 228.616†	10491.6	10405.0	502.39 µg/L	502.39 ppb	22:10:03
2	Cr 267.716†	23845.3	23677.7	501.87 µg/L	501.87 ppb	22:10:03
2	Cu 324.752†	78371.9	74430.2	498.22 µg/L	498.22 ppb	22:10:03
2	Mn 257.610†	151344.1	150218.3	503.76 µg/L	503.76 ppb	22:09:57
2	Mo 202.031†	4928.2	4888.1	505.85 µg/L	505.85 ppb	22:10:23
2	Ni 231.604†	9885.9	9509.3	504.06 µg/L	504.06 ppb	22:10:03
2	P 214.914†	1233.4	1200.1	2469.8 µg/L	2469.8 ppb	22:10:23
2	Pb 220.353†	2039.1	1938.2	498.06 µg/L	498.06 ppb	22:10:23

2	S 181.975 Axial†	246.2	227.6	987.07 µg/L	987.07 ppb	22:10:23
2	Sb 206.836†	557.2	530.4	505.16 µg/L	505.16 ppb	22:10:23
2	Se 196.026†	367.5	348.4	524.20 µg/L	524.20 ppb	22:10:23
2	SiO2†	27667.3	25873.8	5357.1 µg/L	5357.1 ppb	22:10:03
2	Si 251.611†	31803.9	31183.9	2502.5 µg/L	2502.5 ppb	22:10:03
2	Sn 189.927†	1150.4	1139.4	508.81 µg/L	508.81 ppb	22:10:23
2	Ti 334.940†	218608.1	216571.6	496.15 µg/L	496.15 ppb	22:09:57
2	Tl 190.801†	342.5	361.1	506.77 µg/L	506.77 ppb	22:10:23
2	U 409.014†	6298.9	6034.7	491.81 µg/L	491.81 ppb	22:10:03
2	V 292.402†	49525.7	49129.2	504.42 µg/L	504.42 ppb	22:10:03
2	Zn 213.857†	21106.7	20369.0	500.92 µg/L	500.92 ppb	22:10:03
3	Sc RADIAL	53056.9	53056.9	101 %		22:08:52
3	Al 396.153Radial†	6941.1	6930.4	5014.3 µg/L	5014.3 ppb	22:08:52
3	Ca 317.933Radial†	5413.8	5201.6	4922.4 µg/L	4922.4 ppb	22:09:12
3	Fe 238.204 Radial†	573.1	554.3	5018.3 µg/L	5018.3 ppb	22:09:12
3	K 766.490 Radial†	7654.0	7365.9	5037.0 µg/L	5037.0 ppb	22:08:52
3	Mg 279.077 IEC†	538.5	522.9	5010.6 µg/L	5010.6 ppb	22:09:12
3	Na 589.592 Radial†	33225.0	32454.6	10037 µg/L	10037 ppb	22:08:52
3	Sr 421.552†	50709.8	50413.4	501.03 µg/L	501.03 ppb	22:08:52
3	Sc 361.383	1918294.5	1918294.5	100.79 %		22:10:30
3	Y 371.029	1315612.0	1315612.0	100.32 %		22:10:30
3	Ag 328.068†	62396.4	62408.3	478.76 µg/L	478.76 ppb	22:10:36
3	As 188.979†	226.4	223.8	425.89 µg/L	425.89 ppb	22:10:57
3	B 249.677†	11356.9	10814.0	460.53 µg/L	460.53 ppb	22:10:36
3	Ba 233.527†	18156.7	18035.5	463.37 µg/L	463.37 ppb	22:10:36
3	Be 313.107†	755816.0	753456.3	467.60 µg/L	467.60 ppb	22:10:30
3	Cd 226.502†	17227.0	17221.9	463.80 µg/L	463.80 ppb	22:10:36
3	Co 228.616†	9602.5	9535.0	460.32 µg/L	460.32 ppb	22:10:36
3	Cr 267.716†	21259.9	21140.2	448.09 µg/L	448.09 ppb	22:10:36
3	Cu 324.752†	72032.1	68230.9	456.80 µg/L	456.80 ppb	22:10:36
3	Mn 257.610†	143217.0	142330.3	477.34 µg/L	477.34 ppb	22:10:30
3	Mo 202.031†	4160.7	4132.3	427.66 µg/L	427.66 ppb	22:10:57
3	Ni 231.604†	9019.8	8661.4	459.12 µg/L	459.12 ppb	22:10:36
3	P 214.914†	1054.1	1023.5	2102.5 µg/L	2102.5 ppb	22:10:57
3	Pb 220.353†	1817.2	1720.4	442.01 µg/L	442.01 ppb	22:10:57
3	S 181.975 Axial†	220.4	202.3	877.36 µg/L	877.36 ppb	22:10:57
3	Sb 206.836†	481.0	455.5	433.42 µg/L	433.42 ppb	22:10:57
3	Se 196.026†	312.5	294.3	444.17 µg/L	444.17 ppb	22:10:57
3	SiO2†	26051.0	24302.2	5031.7 µg/L	5031.7 ppb	22:10:36
3	Si 251.611†	29896.8	29328.6	2353.6 µg/L	2353.6 ppb	22:10:36
3	Sn 189.927†	952.6	944.5	421.77 µg/L	421.77 ppb	22:10:57
3	Ti 334.940†	205504.7	203824.1	466.92 µg/L	466.92 ppb	22:10:30
3	Tl 190.801†	300.9	320.3	449.91 µg/L	449.91 ppb	22:10:57
3	U 409.014†	5732.7	5480.2	446.51 µg/L	446.51 ppb	22:10:36
3	V 292.402†	44705.8	44404.4	455.74 µg/L	455.74 ppb	22:10:36
3	Zn 213.857†	19327.8	18628.5	458.07 µg/L	458.07 ppb	22:10:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1914437.2	100.58 %	0.457			0.45%
Sc RADIAL	53481.1	101 %	1.2			1.17%
Y 371.029	1312420.5	100.08 %	0.444			0.44%
Ag 328.068†	64827.2	497.41 µg/L	16.791	497.41 ppb	16.791	3.38%
QC value within limits for Ag 328.068 Recovery = 99.48%						
Al 396.153Radial†	6888.8	4983.0 µg/L	50.03	4983.0 ppb	50.03	1.00%
QC value within limits for Al 396.153Radial Recovery = 99.66%						
As 188.979†	253.5	482.44 µg/L	49.064	482.44 ppb	49.064	10.17%
QC value within limits for As 188.979 Recovery = 96.49%						
B 249.677†	11288.0	480.88 µg/L	18.225	480.88 ppb	18.225	3.79%
QC value within limits for B 249.677 Recovery = 96.18%						
Ba 233.527†	19111.6	491.04 µg/L	24.348	491.04 ppb	24.348	4.96%
QC value within limits for Ba 233.527 Recovery = 98.21%						
Be 313.107†	783120.6	486.01 µg/L	16.051	486.01 ppb	16.051	3.30%
QC value within limits for Be 313.107 Recovery = 97.20%						
Ca 317.933Radial†	5161.6	4884.6 µg/L	65.31	4884.6 ppb	65.31	1.34%
QC value within limits for Ca 317.933Radial Recovery = 97.69%						
Cd 226.502†	18294.1	492.72 µg/L	25.470	492.72 ppb	25.470	5.17%
QC value within limits for Cd 226.502 Recovery = 98.54%						
Co 228.616†	10190.0	491.99 µg/L	27.963	491.99 ppb	27.963	5.68%

Cr	267.716†	22979.3	487.07 µg/L	34.080	487.07 ppb	34.080	7.00%
QC value within limits for Co 228.616 Recovery = 98.40%							
Cu	324.752†	72853.5	487.69 µg/L	27.205	487.69 ppb	27.205	5.58%
QC value within limits for Cr 267.716 Recovery = 97.41%							
Fe	238.204 Radial†	550.5	4984.6 µg/L	67.11	4984.6 ppb	67.11	1.35%
QC value within limits for Cu 324.752 Recovery = 97.54%							
K	766.490 Radial†	7287.8	4983.6 µg/L	69.72	4983.6 ppb	69.72	1.40%
QC value within limits for Fe 238.204 Radial Recovery = 99.69%							
Mg	279.077 IEC†	518.6	4970.3 µg/L	44.58	4970.3 ppb	44.58	0.90%
QC value within limits for K 766.490 Radial Recovery = 99.67%							
Mn	257.610†	147917.2	496.06 µg/L	16.293	496.06 ppb	16.293	3.28%
QC value within limits for Mg 279.077 IEC Recovery = 99.41%							
Mo	202.031†	4695.6	485.93 µg/L	51.298	485.93 ppb	51.298	10.56%
QC value within limits for Mn 257.610 Recovery = 99.21%							
Na	589.592 Radial†	32148.1	9942.6 µg/L	117.83	9942.6 ppb	117.83	1.19%
QC value within limits for Mo 202.031 Recovery = 97.19%							
Ni	231.604†	9284.0	492.11 µg/L	28.935	492.11 ppb	28.935	5.88%
QC value within limits for Na 589.592 Radial Recovery = 99.43%							
P	214.914†	1153.5	2372.7 µg/L	237.12	2372.7 ppb	237.12	9.99%
QC value within limits for Ni 231.604 Recovery = 98.42%							
Pb	220.353†	1892.7	486.33 µg/L	39.775	486.33 ppb	39.775	8.18%
QC value within limits for P 214.914 Recovery = 94.91%							
S	181.975 Axial†	222.7	965.70 µg/L	79.828	965.70 ppb	79.828	8.27%
QC value within limits for Pb 220.353 Recovery = 97.27%							
Sb	206.836†	510.4	486.05 µg/L	46.147	486.05 ppb	46.147	9.49%
QC value within limits for S 181.975 Axial Recovery = 96.57%							
Se	196.026†	332.5	500.77 µg/L	49.261	500.77 ppb	49.261	9.84%
QC value within limits for Sb 206.836 Recovery = 97.21%							
SiO2†		25470.0	5273.5 µg/L	212.70	5273.5 ppb	212.70	4.03%
QC value within limits for Se 196.026 Recovery = 100.15%							
Si	251.611†	30737.4	2466.6 µg/L	100.07	2466.6 ppb	100.07	4.06%
QC value within limits for SiO2 Recovery = 98.62%							
Sn	189.927†	1090.2	486.84 µg/L	57.331	486.84 ppb	57.331	11.78%
QC value within limits for Si 251.611 Recovery = 98.67%							
Sr	421.552†	49933.4	496.26 µg/L	5.910	496.26 ppb	5.910	1.19%
QC value within limits for Sn 189.927 Recovery = 97.37%							
Ti	334.940†	212816.4	487.54 µg/L	17.935	487.54 ppb	17.935	3.68%
QC value within limits for Sr 421.552 Recovery = 99.25%							
Tl	190.801†	348.3	489.00 µg/L	33.906	489.00 ppb	33.906	6.93%
QC value within limits for Ti 334.940 Recovery = 97.51%							
U	409.014†	5864.1	477.86 µg/L	27.210	477.86 ppb	27.210	5.69%
QC value within limits for Tl 190.801 Recovery = 97.80%							
V	292.402†	47848.3	491.23 µg/L	31.078	491.23 ppb	31.078	6.33%
QC value within limits for U 409.014 Recovery = 95.57%							
Zn	213.857†	19905.2	489.50 µg/L	27.554	489.50 ppb	27.554	5.63%
QC value within limits for V 292.402 Recovery = 98.25%							
QC value within limits for Zn 213.857 Recovery = 97.90%							

All analyte(s) passed QC.

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 22:11:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52875.1	52875.1	100 %		22:11:39
1	Al 396.153Radial†	-7.7	18.7	13.559 µg/L	13.559 ppb	22:11:39
1	Ca 317.933Radial†	178.1	-5.5	-5.1918 µg/L	-5.1918 ppb	22:12:00
1	Fe 238.204 Radial†	16.3	0.5	4.8850 µg/L	4.8850 ppb	22:12:00
1	K 766.490 Radial†	204.1	-43.5	-29.721 µg/L	-29.721 ppb	22:11:39
1	Mg 279.077 IEC†	7.8	-5.0	-47.704 µg/L	-47.704 ppb	22:12:00
1	Na 589.592 Radial†	501.4	-92.1	-28.484 µg/L	-28.484 ppb	22:11:39
1	Sr 421.552†	12.6	-12.5	-0.1238 µg/L	-0.1238 ppb	22:11:39
1	Sc 361.383	1913338.3	1913338.3	100.53 %		22:13:02
1	Y 371.029	1316082.3	1316082.3	100.36 %		22:13:02
1	Ag 328.068†	-440.6	60.6	0.4628 µg/L	0.4628 ppb	22:13:07
1	As 188.979†	-2.7	-3.6	-6.8378 µg/L	-6.8378 ppb	22:13:28
1	B 249.677†	341.0	-114.9	-4.9171 µg/L	-4.9171 ppb	22:13:28
1	Ba 233.527†	-16.0	4.6	0.1175 µg/L	0.1175 ppb	22:13:28
1	Be 313.107†	-3564.7	-7.8	-0.0049 µg/L	-0.0049 ppb	22:13:07
1	Cd 226.502†	-132.0	-2.0	-0.0546 µg/L	-0.0546 ppb	22:13:28
1	Co 228.616†	-12.0	-4.5	-0.2176 µg/L	-0.2176 ppb	22:13:28
1	Cr 267.716†	-23.9	22.4	0.4738 µg/L	0.4738 ppb	22:13:28
1	Cu 324.752†	3232.5	-23.5	-0.1562 µg/L	-0.1562 ppb	22:13:07
1	Mn 257.610†	-225.5	6.5	0.0244 µg/L	0.0244 ppb	22:13:28
1	Mo 202.031†	4.6	8.6	0.8922 µg/L	0.8922 ppb	22:13:28
1	Ni 231.604†	284.7	-4.8	-0.2518 µg/L	-0.2518 ppb	22:13:28
1	P 214.914†	19.1	-3.4	-7.0411 µg/L	-7.0411 ppb	22:13:28
1	Pb 220.353†	88.8	5.8	1.4798 µg/L	1.4798 ppb	22:13:28
1	S 181.975 Axial†	17.9	1.4	6.2561 µg/L	6.2561 ppb	22:13:28
1	Sb 206.836†	26.2	4.2	4.0265 µg/L	4.0265 ppb	22:13:28
1	Se 196.026†	14.2	-1.7	-2.4600 µg/L	-2.4600 ppb	22:13:28
1	SiO2†	1577.3	23.5	4.8585 µg/L	4.8585 ppb	22:13:07
1	Si 251.611†	352.5	15.8	1.2641 µg/L	1.2641 ppb	22:13:28
1	Sn 189.927†	1.6	0.9	0.4064 µg/L	0.4064 ppb	22:13:28
1	Ti 334.940†	169.2	91.3	0.2131 µg/L	0.2131 ppb	22:13:07
1	Tl 190.801†	-27.8	-5.9	-8.2125 µg/L	-8.2125 ppb	22:13:28
1	U 409.014†	220.9	12.0	0.9770 µg/L	0.9770 ppb	22:13:07
1	V 292.402†	-30.9	16.7	0.1794 µg/L	0.1794 ppb	22:13:07
1	Zn 213.857†	502.5	-48.6	-1.2008 µg/L	-1.2008 ppb	22:13:28
2	Sc RADIAL	53050.7	53050.7	101 %		22:12:05
2	Al 396.153Radial†	-28.5	-1.9	-1.4220 µg/L	-1.4220 ppb	22:12:05
2	Ca 317.933Radial†	176.3	-7.9	-7.4606 µg/L	-7.4606 ppb	22:12:26
2	Fe 238.204 Radial†	17.2	1.3	11.941 µg/L	11.941 ppb	22:12:26
2	K 766.490 Radial†	168.9	-79.2	-54.160 µg/L	-54.160 ppb	22:12:05
2	Mg 279.077 IEC†	4.8	-7.9	-75.838 µg/L	-75.838 ppb	22:12:26
2	Na 589.592 Radial†	461.6	-133.4	-41.256 µg/L	-41.256 ppb	22:12:05
2	Sr 421.552†	34.5	9.3	0.0920 µg/L	0.0920 ppb	22:12:05
2	Sc 361.383	1915352.3	1915352.3	100.63 %		22:13:34
2	Y 371.029	1319608.0	1319608.0	100.62 %		22:13:34
2	Ag 328.068†	-467.2	34.6	0.2651 µg/L	0.2651 ppb	22:13:40
2	As 188.979†	-2.4	-3.2	-6.1843 µg/L	-6.1843 ppb	22:14:00
2	B 249.677†	317.8	-138.4	-5.9240 µg/L	-5.9240 ppb	22:14:00
2	Ba 233.527†	-14.4	6.2	0.1581 µg/L	0.1581 ppb	22:14:00
2	Be 313.107†	-3368.0	191.4	0.1188 µg/L	0.1188 ppb	22:13:40
2	Cd 226.502†	-128.6	1.5	0.0401 µg/L	0.0401 ppb	22:14:00
2	Co 228.616†	-1.5	5.9	0.2872 µg/L	0.2872 ppb	22:14:00
2	Cr 267.716†	-17.0	29.3	0.6205 µg/L	0.6205 ppb	22:14:00
2	Cu 324.752†	3253.4	-6.1	-0.0390 µg/L	-0.0390 ppb	22:13:40
2	Mn 257.610†	-201.3	30.8	0.1079 µg/L	0.1079 ppb	22:14:00
2	Mo 202.031†	5.0	9.0	0.9320 µg/L	0.9320 ppb	22:14:00
2	Ni 231.604†	293.2	3.4	0.1808 µg/L	0.1808 ppb	22:14:00
2	P 214.914†	22.1	-0.3	-0.6786 µg/L	-0.6786 ppb	22:14:00
2	Pb 220.353†	87.1	4.0	1.0352 µg/L	1.0352 ppb	22:14:00

2	S 181.975 Axial†	12.6	-3.8	-16.617 µg/L	-16.617 ppb	22:14:00
2	Sb 206.836†	23.8	1.8	1.7302 µg/L	1.7302 ppb	22:14:00
2	Se 196.026†	11.9	-4.0	-5.8145 µg/L	-5.8145 ppb	22:14:00
2	SiO2†	1585.3	29.7	6.1549 µg/L	6.1549 ppb	22:13:40
2	Si 251.611†	353.9	16.8	1.3495 µg/L	1.3495 ppb	22:14:00
2	Sn 189.927†	1.5	0.8	0.3251 µg/L	0.3251 ppb	22:14:00
2	Ti 334.940†	166.1	88.0	0.2077 µg/L	0.2077 ppb	22:13:40
2	Tl 190.801†	-24.3	-2.4	-3.3555 µg/L	-3.3555 ppb	22:14:00
2	U 409.014†	197.7	-11.3	-0.9240 µg/L	-0.9240 ppb	22:13:40
2	V 292.402†	-33.2	14.4	0.1552 µg/L	0.1552 ppb	22:13:40
2	Zn 213.857†	499.9	-51.7	-1.2771 µg/L	-1.2771 ppb	22:14:00
3	Sc RADIAL	52568.0	52568.0	99.6 %		22:12:31
3	Al 396.153Radial†	-32.1	-5.8	-4.1782 µg/L	-4.1782 ppb	22:12:31
3	Ca 317.933Radial†	173.6	-9.0	-8.4822 µg/L	-8.4822 ppb	22:12:52
3	Fe 238.204 Radial†	17.5	1.8	16.105 µg/L	16.105 ppb	22:12:52
3	K 766.490 Radial†	210.8	-35.6	-24.335 µg/L	-24.335 ppb	22:12:31
3	Mg 279.077 IEC†	6.5	-6.2	-59.317 µg/L	-59.317 ppb	22:12:52
3	Na 589.592 Radial†	504.8	-85.8	-26.521 µg/L	-26.521 ppb	22:12:31
3	Sr 421.552†	18.5	-6.5	-0.0644 µg/L	-0.0644 ppb	22:12:31
3	Sc 361.383	1891611.6	1891611.6	99.385 %		22:14:06
3	Y 371.029	1301889.8	1301889.8	99.274 %		22:14:06
3	Ag 328.068†	-481.4	14.4	0.1113 µg/L	0.1113 ppb	22:14:12
3	As 188.979†	-4.1	-5.0	-9.4479 µg/L	-9.4479 ppb	22:14:32
3	B 249.677†	348.9	-103.2	-4.4196 µg/L	-4.4196 ppb	22:14:32
3	Ba 233.527†	-7.9	12.5	0.3217 µg/L	0.3217 ppb	22:14:32
3	Be 313.107†	-3200.3	318.1	0.1974 µg/L	0.1974 ppb	22:14:12
3	Cd 226.502†	-127.7	0.9	0.0221 µg/L	0.0221 ppb	22:14:32
3	Co 228.616†	-4.5	2.9	0.1386 µg/L	0.1386 ppb	22:14:32
3	Cr 267.716†	-22.6	23.4	0.4962 µg/L	0.4962 ppb	22:14:32
3	Cu 324.752†	3269.1	50.3	0.3383 µg/L	0.3383 ppb	22:14:12
3	Mn 257.610†	-164.2	65.6	0.2244 µg/L	0.2244 ppb	22:14:32
3	Mo 202.031†	-1.5	2.6	0.2650 µg/L	0.2650 ppb	22:14:32
3	Ni 231.604†	298.0	11.9	0.6313 µg/L	0.6313 ppb	22:14:32
3	P 214.914†	16.0	-6.3	-13.180 µg/L	-13.180 ppb	22:14:32
3	Pb 220.353†	85.7	3.6	0.9309 µg/L	0.9309 ppb	22:14:32
3	S 181.975 Axial†	13.2	-3.0	-13.179 µg/L	-13.179 ppb	22:14:32
3	Sb 206.836†	27.7	6.0	5.7283 µg/L	5.7283 ppb	22:14:32
3	Se 196.026†	12.4	-3.3	-4.8108 µg/L	-4.8108 ppb	22:14:32
3	SiO2†	1568.6	32.7	6.7688 µg/L	6.7688 ppb	22:14:12
3	Si 251.611†	383.0	50.4	4.0481 µg/L	4.0481 ppb	22:14:32
3	Sn 189.927†	4.6	4.0	1.7582 µg/L	1.7582 ppb	22:14:32
3	Ti 334.940†	208.7	133.0	0.3095 µg/L	0.3095 ppb	22:14:12
3	Tl 190.801†	-20.0	1.6	2.2185 µg/L	2.2185 ppb	22:14:32
3	U 409.014†	232.4	26.0	2.1225 µg/L	2.1225 ppb	22:14:12
3	V 292.402†	-35.6	11.6	0.1249 µg/L	0.1249 ppb	22:14:12
3	Zn 213.857†	508.6	-36.7	-0.9101 µg/L	-0.9101 ppb	22:14:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1906767.4	100.18 %	0.692			0.69%
Sc RADIAL	52831.3	100 %	0.5			0.46%
Y 371.029	1312526.7	100.08 %	0.715			0.71%
Ag 328.068†	36.5	0.2797 µg/L	0.17620	0.2797 ppb	0.17620	62.99%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.7	2.6530 µg/L	9.54503	2.6530 ppb	9.54503	359.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.9	-7.4900 µg/L	1.72679	-7.4900 ppb	1.72679	23.05%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-118.8	-5.0869 µg/L	0.76644	-5.0869 ppb	0.76644	15.07%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.8	0.1991 µg/L	0.10811	0.1991 ppb	0.10811	54.29%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	167.3	0.1037 µg/L	0.10199	0.1037 ppb	0.10199	98.30%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.4	-7.0448 µg/L	1.68411	-7.0448 ppb	1.68411	23.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	0.1	0.0025 µg/L	0.05028	0.0025 ppb	0.05028	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.4	0.0694 µg/L	0.25942	0.0694 ppb	0.25942	373.63%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	25.0	0.5301 µg/L	0.07903	0.5301 ppb	0.07903	14.91%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	6.9	0.0477 µg/L	0.25838	0.0477 ppb	0.25838	541.63%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	1.2	10.977 µg/L	5.6718	10.977 ppb	5.6718	51.67%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-52.8	-36.072 µg/L	15.8945	-36.072 ppb	15.8945	44.06%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-6.4	-60.953 µg/L	14.1379	-60.953 ppb	14.1379	23.19%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	34.3	0.1189 µg/L	0.10045	0.1189 ppb	0.10045	84.49%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	6.7	0.6964 µg/L	0.37415	0.6964 ppb	0.37415	53.73%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-103.7	-32.087 µg/L	8.0011	-32.087 ppb	8.0011	24.94%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	3.5	0.1868 µg/L	0.44155	0.1868 ppb	0.44155	236.40%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-3.3	-6.9667 µg/L	6.25116	-6.9667 ppb	6.25116	89.73%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	4.5	1.1487 µg/L	0.29149	1.1487 ppb	0.29149	25.38%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-1.8	-7.8465 µg/L	12.33355	-7.8465 ppb	12.33355	157.19%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	4.0	3.8283 µg/L	2.00641	3.8283 ppb	2.00641	52.41%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-3.0	-4.3618 µg/L	1.72176	-4.3618 ppb	1.72176	39.47%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	28.6	5.9274 µg/L	0.97523	5.9274 ppb	0.97523	16.45%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	27.7	2.2206 µg/L	1.58325	2.2206 ppb	1.58325	71.30%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	1.9	0.8299 µg/L	0.80494	0.8299 ppb	0.80494	96.99%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	-3.2	-0.0321 µg/L	0.11146	-0.0321 ppb	0.11146	347.42%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	104.1	0.2434 µg/L	0.05730	0.2434 ppb	0.05730	23.54%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	-2.3	-3.1165 µg/L	5.21960	-3.1165 ppb	5.21960	167.48%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	8.9	0.7252 µg/L	1.53883	0.7252 ppb	1.53883	212.20%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	14.3	0.1532 µg/L	0.02728	0.1532 ppb	0.02728	17.81%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	-45.7	-1.1293 µg/L	0.19365	-1.1293 ppb	0.19365	17.15%
	QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 22:48:12

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	52993.8	52993.8	100 %		22:48:53
1	Al 396.153Radial†	6904.6	6902.2	4991.9 µg/L	4991.9 ppb	22:48:53
1	Ca 317.933Radial†	5411.5	5205.7	4926.3 µg/L	4926.3 ppb	22:49:13
1	Fe 238.204 Radial†	572.3	554.1	5018.3 µg/L	5018.3 ppb	22:49:13
1	K 766.490 Radial†	7658.9	7379.8	5046.5 µg/L	5046.5 ppb	22:48:53
1	Mg 279.077 IEC†	541.0	526.0	5041.8 µg/L	5041.8 ppb	22:49:13
1	Na 589.592 Radial†	33721.3	32988.2	10202 µg/L	10202 ppb	22:48:53
1	Sr 421.552†	50191.6	49957.4	496.50 µg/L	496.50 ppb	22:48:53
1	Sc 361.383	1902864.9	1902864.9	99.976 %		22:50:16
1	Y 371.029	1308927.8	1308927.8	99.811 %		22:50:16
1	Ag 328.068†	66367.6	66882.4	513.23 µg/L	513.23 ppb	22:50:22
1	As 188.979†	273.2	272.4	518.40 µg/L	518.40 ppb	22:50:43
1	B 249.677†	12231.0	11779.8	501.94 µg/L	501.94 ppb	22:50:22
1	Ba 233.527†	19867.2	19892.5	511.10 µg/L	511.10 ppb	22:50:22
1	Be 313.107†	807950.1	811683.7	503.73 µg/L	503.73 ppb	22:50:16
1	Cd 226.502†	18915.0	19048.9	513.07 µg/L	513.07 ppb	22:50:22
1	Co 228.616†	10637.8	10647.8	514.12 µg/L	514.12 ppb	22:50:22
1	Cr 267.716†	24180.7	24232.7	513.63 µg/L	513.63 ppb	22:50:22
1	Cu 324.752†	79378.3	76158.4	509.79 µg/L	509.79 ppb	22:50:22
1	Mn 257.610†	152935.0	153202.8	513.77 µg/L	513.77 ppb	22:50:16
1	Mo 202.031†	5057.7	5062.9	523.93 µg/L	523.93 ppb	22:50:43
1	Ni 231.604†	9989.5	9703.9	514.37 µg/L	514.37 ppb	22:50:22
1	P 214.914†	1262.1	1240.1	2552.8 µg/L	2552.8 ppb	22:50:43
1	Pb 220.353†	2123.9	2041.9	524.70 µg/L	524.70 ppb	22:50:43
1	S 181.975 Axial†	253.0	236.7	1026.5 µg/L	1026.5 ppb	22:50:43
1	Sb 206.836†	573.2	551.5	525.33 µg/L	525.33 ppb	22:50:43
1	Se 196.026†	365.3	349.6	526.14 µg/L	526.14 ppb	22:50:43
1	SiO2†	27935.0	26396.2	5465.2 µg/L	5465.2 ppb	22:50:22
1	Si 251.611†	32165.7	31838.6	2555.0 µg/L	2555.0 ppb	22:50:22
1	Sn 189.927†	1188.8	1188.4	530.68 µg/L	530.68 ppb	22:50:43
1	Ti 334.940†	221234.9	221211.5	506.78 µg/L	506.78 ppb	22:50:16
1	Tl 190.801†	351.4	373.2	523.65 µg/L	523.65 ppb	22:50:43
1	U 409.014†	6448.2	6242.0	508.71 µg/L	508.71 ppb	22:50:22
1	V 292.402†	50110.2	50169.8	515.17 µg/L	515.17 ppb	22:50:22
1	Zn 213.857†	21299.1	20755.8	510.43 µg/L	510.43 ppb	22:50:22
2	Sc RADIAL	53229.7	53229.7	101 %		22:49:19
2	Al 396.153Radial†	6906.6	6873.8	4971.6 µg/L	4971.6 ppb	22:49:19
2	Ca 317.933Radial†	5390.5	5161.0	4884.0 µg/L	4884.0 ppb	22:49:39
2	Fe 238.204 Radial†	573.1	552.5	5003.0 µg/L	5003.0 ppb	22:49:39
2	K 766.490 Radial†	7708.7	7395.4	5057.2 µg/L	5057.2 ppb	22:49:19
2	Mg 279.077 IEC†	537.4	520.1	4984.9 µg/L	4984.9 ppb	22:49:39
2	Na 589.592 Radial†	33797.8	32915.2	10180 µg/L	10180 ppb	22:49:19
2	Sr 421.552†	50278.3	49821.9	495.15 µg/L	495.15 ppb	22:49:19
2	Sc 361.383	1920385.2	1920385.2	100.90 %		22:50:50
2	Y 371.029	1320449.7	1320449.7	100.69 %		22:50:50
2	Ag 328.068†	65946.8	65859.7	505.38 µg/L	505.38 ppb	22:50:56
2	As 188.979†	267.6	264.4	503.10 µg/L	503.10 ppb	22:51:16
2	B 249.677†	12125.7	11563.8	492.69 µg/L	492.69 ppb	22:50:56
2	Ba 233.527†	19767.1	19611.9	503.89 µg/L	503.89 ppb	22:50:56
2	Be 313.107†	807374.5	803740.3	498.80 µg/L	498.80 ppb	22:50:50
2	Cd 226.502†	18729.7	18692.7	503.47 µg/L	503.47 ppb	22:50:56
2	Co 228.616†	10540.0	10453.8	504.74 µg/L	504.74 ppb	22:50:56
2	Cr 267.716†	23955.6	23788.9	504.23 µg/L	504.23 ppb	22:50:56
2	Cu 324.752†	78726.7	74788.2	500.63 µg/L	500.63 ppb	22:50:56
2	Mn 257.610†	153124.9	151995.4	509.73 µg/L	509.73 ppb	22:50:50
2	Mo 202.031†	4984.7	4944.5	511.68 µg/L	511.68 ppb	22:51:16
2	Ni 231.604†	9953.2	9576.8	507.63 µg/L	507.63 ppb	22:50:56
2	P 214.914†	1232.5	1199.2	2467.7 µg/L	2467.7 ppb	22:51:16
2	Pb 220.353†	2105.7	2004.5	515.09 µg/L	515.09 ppb	22:51:16

2	S 181.975 Axial†	256.3	237.6	1030.6 µg/L	1030.6 ppb	22:51:16
2	Sb 206.836†	567.9	541.1	515.35 µg/L	515.35 ppb	22:51:16
2	Se 196.026†	363.6	344.5	518.70 µg/L	518.70 ppb	22:51:16
2	SiO2†	27825.7	26032.9	5390.0 µg/L	5390.0 ppb	22:50:56
2	Si 251.611†	32048.7	31429.1	2522.1 µg/L	2522.1 ppb	22:50:56
2	Sn 189.927†	1165.2	1154.1	515.38 µg/L	515.38 ppb	22:51:16
2	Ti 334.940†	221030.2	218989.7	501.69 µg/L	501.69 ppb	22:50:50
2	Tl 190.801†	346.5	365.1	512.45 µg/L	512.45 ppb	22:51:16
2	U 409.014†	6282.8	6019.2	490.53 µg/L	490.53 ppb	22:50:56
2	V 292.402†	49739.8	49345.3	506.67 µg/L	506.67 ppb	22:50:56
2	Zn 213.857†	21155.4	20419.0	502.13 µg/L	502.13 ppb	22:50:56
3	Sc RADIAL	53225.6	53225.6	101 %		22:49:45
3	Al 396.153Radial†	6948.8	6916.2	5003.9 µg/L	5003.9 ppb	22:49:45
3	Ca 317.933Radial†	5481.0	5251.2	4969.3 µg/L	4969.3 ppb	22:50:05
3	Fe 238.204 Radial†	578.0	557.4	5046.4 µg/L	5046.4 ppb	22:50:05
3	K 766.490 Radial†	7673.0	7360.5	5033.3 µg/L	5033.3 ppb	22:49:45
3	Mg 279.077 IEC†	548.7	531.3	5091.4 µg/L	5091.4 ppb	22:50:05
3	Na 589.592 Radial†	33954.7	33073.4	10229 µg/L	10229 ppb	22:49:45
3	Sr 421.552†	50572.4	50117.2	498.09 µg/L	498.09 ppb	22:49:45
3	Sc 361.383	1906530.5	1906530.5	100.17 %		22:51:23
3	Y 371.029	1313702.9	1313702.9	100.17 %		22:51:23
3	Ag 328.068†	62701.5	63094.9	484.02 µg/L	484.02 ppb	22:51:29
3	As 188.979†	230.2	228.9	435.66 µg/L	435.66 ppb	22:51:49
3	B 249.677†	11452.9	10979.5	467.60 µg/L	467.60 ppb	22:51:29
3	Ba 233.527†	18241.2	18231.0	468.40 µg/L	468.40 ppb	22:51:29
3	Be 313.107†	754372.9	756642.8	469.57 µg/L	469.57 ppb	22:51:23
3	Cd 226.502†	17267.6	17367.9	467.73 µg/L	467.73 ppb	22:51:29
3	Co 228.616†	9638.3	9629.5	464.89 µg/L	464.89 ppb	22:51:29
3	Cr 267.716†	21316.4	21326.7	452.04 µg/L	452.04 ppb	22:51:29
3	Cu 324.752†	72324.8	68964.2	461.70 µg/L	461.70 ppb	22:51:29
3	Mn 257.610†	143015.1	143005.5	479.61 µg/L	479.61 ppb	22:51:23
3	Mo 202.031†	4200.7	4197.7	434.43 µg/L	434.43 ppb	22:51:49
3	Ni 231.604†	9064.5	8761.3	464.41 µg/L	464.41 ppb	22:51:29
3	P 214.914†	1076.1	1052.0	2161.8 µg/L	2161.8 ppb	22:51:49
3	Pb 220.353†	1853.8	1768.1	454.27 µg/L	454.27 ppb	22:51:49
3	S 181.975 Axial†	226.1	209.4	907.98 µg/L	907.98 ppb	22:51:49
3	Sb 206.836†	483.3	460.6	438.38 µg/L	438.38 ppb	22:51:49
3	Se 196.026†	316.6	300.3	453.07 µg/L	453.07 ppb	22:51:49
3	SiO2†	26083.5	24494.1	5071.4 µg/L	5071.4 ppb	22:51:29
3	Si 251.611†	29995.7	29610.4	2376.2 µg/L	2376.2 ppb	22:51:29
3	Sn 189.927†	977.4	975.1	435.46 µg/L	435.46 ppb	22:51:49
3	Ti 334.940†	205225.0	204803.0	469.16 µg/L	469.16 ppb	22:51:23
3	Tl 190.801†	311.6	332.8	467.22 µg/L	467.22 ppb	22:51:49
3	U 409.014†	5755.0	5537.5	451.18 µg/L	451.18 ppb	22:51:29
3	V 292.402†	44884.7	44856.7	460.39 µg/L	460.39 ppb	22:51:29
3	Zn 213.857†	19366.0	18784.9	461.91 µg/L	461.91 ppb	22:51:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1909926.9	100.35 %	0.486			0.48%
Sc RADIAL	53149.7	101 %	0.3			0.25%
Y 371.029	1314360.1	100.22 %	0.441			0.44%
Ag 328.068†	65279.0	500.88 µg/L	15.117	500.88 ppb	15.117	3.02%
QC value within limits for Ag 328.068 Recovery = 100.18%						
Al 396.153Radial†	6897.4	4989.1 µg/L	16.34	4989.1 ppb	16.34	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.78%						
As 188.979†	255.2	485.72 µg/L	44.023	485.72 ppb	44.023	9.06%
QC value within limits for As 188.979 Recovery = 97.14%						
B 249.677†	11441.0	487.41 µg/L	17.767	487.41 ppb	17.767	3.65%
QC value within limits for B 249.677 Recovery = 97.48%						
Ba 233.527†	19245.2	494.46 µg/L	22.863	494.46 ppb	22.863	4.62%
QC value within limits for Ba 233.527 Recovery = 98.89%						
Be 313.107†	790689.0	490.70 µg/L	18.463	490.70 ppb	18.463	3.76%
QC value within limits for Be 313.107 Recovery = 98.14%						
Ca 317.933Radial†	5206.0	4926.5 µg/L	42.68	4926.5 ppb	42.68	0.87%
QC value within limits for Ca 317.933Radial Recovery = 98.53%						
Cd 226.502†	18369.8	494.76 µg/L	23.889	494.76 ppb	23.889	4.83%
QC value within limits for Cd 226.502 Recovery = 98.95%						
Co 228.616†	10243.7	494.58 µg/L	26.136	494.58 ppb	26.136	5.28%

QC value within limits for Co 228.616 Recovery = 98.92%						
Cr 267.716†	23116.1	489.97 µg/L	33.179	489.97 ppb	33.179	6.77%
QC value within limits for Cr 267.716 Recovery = 97.99%						
Cu 324.752†	73303.6	490.71 µg/L	25.533	490.71 ppb	25.533	5.20%
QC value within limits for Cu 324.752 Recovery = 98.14%						
Fe 238.204 Radial†	554.7	5022.6 µg/L	22.01	5022.6 ppb	22.01	0.44%
QC value within limits for Fe 238.204 Radial Recovery = 100.45%						
K 766.490 Radial†	7378.6	5045.7 µg/L	11.94	5045.7 ppb	11.94	0.24%
QC value within limits for K 766.490 Radial Recovery = 100.91%						
Mg 279.077 IEC†	525.8	5039.4 µg/L	53.27	5039.4 ppb	53.27	1.06%
QC value within limits for Mg 279.077 IEC Recovery = 100.79%						
Mn 257.610†	149401.3	501.03 µg/L	18.667	501.03 ppb	18.667	3.73%
QC value within limits for Mn 257.610 Recovery = 100.21%						
Mo 202.031†	4735.1	490.02 µg/L	48.526	490.02 ppb	48.526	9.90%
QC value within limits for Mo 202.031 Recovery = 98.00%						
Na 589.592 Radial†	32992.3	10204 µg/L	24.5	10204 ppb	24.5	0.24%
QC value within limits for Na 589.592 Radial Recovery = 102.04%						
Ni 231.604†	9347.3	495.47 µg/L	27.108	495.47 ppb	27.108	5.47%
QC value within limits for Ni 231.604 Recovery = 99.09%						
P 214.914†	1163.8	2394.1 µg/L	205.64	2394.1 ppb	205.64	8.59%
QC value within limits for P 214.914 Recovery = 95.76%						
Pb 220.353†	1938.2	498.02 µg/L	38.193	498.02 ppb	38.193	7.67%
QC value within limits for Pb 220.353 Recovery = 99.60%						
S 181.975 Axial†	227.9	988.34 µg/L	69.626	988.34 ppb	69.626	7.04%
QC value within limits for S 181.975 Axial Recovery = 98.83%						
Sb 206.836†	517.8	493.02 µg/L	47.585	493.02 ppb	47.585	9.65%
QC value within limits for Sb 206.836 Recovery = 98.60%						
Se 196.026†	331.5	499.30 µg/L	40.211	499.30 ppb	40.211	8.05%
QC value within limits for Se 196.026 Recovery = 99.86%						
SiO2†	25641.1	5308.9 µg/L	209.08	5308.9 ppb	209.08	3.94%
QC value within limits for SiO2 Recovery = 99.28%						
Si 251.611†	30959.4	2484.4 µg/L	95.18	2484.4 ppb	95.18	3.83%
QC value within limits for Si 251.611 Recovery = 99.38%						
Sn 189.927†	1105.9	493.84 µg/L	51.137	493.84 ppb	51.137	10.35%
QC value within limits for Sn 189.927 Recovery = 98.77%						
Sr 421.552†	49965.5	496.58 µg/L	1.469	496.58 ppb	1.469	0.30%
QC value within limits for Sr 421.552 Recovery = 99.32%						
Ti 334.940†	215001.4	492.54 µg/L	20.409	492.54 ppb	20.409	4.14%
QC value within limits for Ti 334.940 Recovery = 98.51%						
Tl 190.801†	357.0	501.11 µg/L	29.877	501.11 ppb	29.877	5.96%
QC value within limits for Tl 190.801 Recovery = 100.22%						
U 409.014†	5932.9	483.47 µg/L	29.407	483.47 ppb	29.407	6.08%
QC value within limits for U 409.014 Recovery = 96.69%						
V 292.402†	48124.0	494.08 µg/L	29.478	494.08 ppb	29.478	5.97%
QC value within limits for V 292.402 Recovery = 98.82%						
Zn 213.857†	19986.6	491.49 µg/L	25.950	491.49 ppb	25.950	5.28%
QC value within limits for Zn 213.857 Recovery = 98.30%						
All analyte(s) passed QC.						

Sequence No.: 14
 Sample ID: PQL
 Analyst:
 Initial Sample Wt:
 Dilution:
 User canceled analysis.

Autosampler Location: 101
 Date Collected: 2/24/2010 22:52:00
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Analysis Begun

Start Time: 2/24/2010 22:52:36 Plasma On Time: 2/8/2010 03:37:33
 Logged In Analyst: optima Technique: ICP Continuous
 Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF
 Batch ID:
 Results Data Set: 022410
 Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 14 Autosampler Location: 101
 Sample ID: PQL Date Collected: 2/24/2010 22:52:36
 Analyst: Data Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53421.2	53421.2	101 %		22:53:22
1	Al 396.153Radial†	282.2	305.2	221.01 µg/L	221.01 ppb	22:53:22
1	Ca 317.933Radial†	386.5	198.6	187.90 µg/L	187.90 ppb	22:53:42
1	Fe 238.204 Radial†	23.0	7.0	63.415 µg/L	63.415 ppb	22:53:42
1	K 766.490 Radial†	413.7	161.5	110.41 µg/L	110.41 ppb	22:53:22
1	Mg 279.077 IEC†	42.6	29.4	281.74 µg/L	281.74 ppb	22:53:42
1	Na 589.592 Radial†	2031.1	1413.9	437.27 µg/L	437.27 ppb	22:53:22
1	Sr 421.552†	556.4	524.7	5.2143 µg/L	5.2143 ppb	22:53:22
1	Sc 361.383	1944374.9	1944374.9	102.16 %		22:54:44
1	Y 371.029	1341351.4	1341351.4	102.28 %		22:54:44
1	Ag 328.068†	163.8	659.1	5.0548 µg/L	5.0548 ppb	22:54:50
1	As 188.979†	18.2	16.9	32.234 µg/L	32.234 ppb	22:55:10
1	B 249.677†	1526.0	1039.6	44.430 µg/L	44.430 ppb	22:54:50
1	Ba 233.527†	176.5	193.2	4.9642 µg/L	4.9642 ppb	22:55:10
1	Be 313.107†	4573.4	8015.1	4.9742 µg/L	4.9742 ppb	22:54:50
1	Cd 226.502†	61.5	189.6	5.1042 µg/L	5.1042 ppb	22:55:10
1	Co 228.616†	95.8	101.2	4.8926 µg/L	4.8926 ppb	22:55:10
1	Cr 267.716†	197.7	239.6	5.0790 µg/L	5.0790 ppb	22:55:10
1	Cu 324.752†	4849.6	1508.1	10.090 µg/L	10.090 ppb	22:54:50
1	Mn 257.610†	2865.8	3036.1	10.170 µg/L	10.170 ppb	22:54:50
1	Mo 202.031†	97.2	99.2	10.266 µg/L	10.266 ppb	22:55:10
1	Ni 231.604†	393.6	97.3	5.1578 µg/L	5.1578 ppb	22:55:10
1	P 214.914†	93.9	69.6	145.11 µg/L	145.11 ppb	22:55:10
1	Pb 220.353†	149.9	64.2	16.454 µg/L	16.454 ppb	22:55:10
1	S 181.975 Axial†	36.5	19.4	84.184 µg/L	84.184 ppb	22:55:10
1	Sb 206.836†	33.7	11.1	10.656 µg/L	10.656 ppb	22:55:10
1	Se 196.026†	33.4	16.9	24.919 µg/L	24.919 ppb	22:55:10
1	SiO2†	2638.9	1037.6	214.82 µg/L	214.82 ppb	22:54:50
1	Si 251.611†	1582.0	1213.7	97.397 µg/L	97.397 ppb	22:55:10
1	Sn 189.927†	33.4	32.0	14.325 µg/L	14.325 ppb	22:55:10
1	Ti 334.940†	2274.4	2149.4	4.9080 µg/L	4.9080 ppb	22:54:50
1	Tl 190.801†	-7.6	14.3	19.931 µg/L	19.931 ppb	22:55:10
1	U 409.014†	843.3	617.7	50.419 µg/L	50.419 ppb	22:54:50
1	V 292.402†	399.9	438.9	4.6019 µg/L	4.6019 ppb	22:54:50
1	Zn 213.857†	893.4	326.0	8.0168 µg/L	8.0168 ppb	22:55:10
2	Sc RADIAL	53574.5	53574.5	102 %		22:53:48
2	Al 396.153Radial†	287.1	309.3	223.96 µg/L	223.96 ppb	22:53:48
2	Ca 317.933Radial†	385.7	196.7	186.18 µg/L	186.18 ppb	22:54:08
2	Fe 238.204 Radial†	25.9	9.8	88.566 µg/L	88.566 ppb	22:54:08

2	K 766.490 Radial†	426.7	173.1	118.38 µg/L	118.38 ppb	22:53:48
2	Mg 279.077 IEC†	44.2	30.8	294.86 µg/L	294.86 ppb	22:54:08
2	Na 589.592 Radial†	1955.7	1333.9	412.55 µg/L	412.55 ppb	22:53:48
2	Sr 421.552†	529.2	496.3	4.9324 µg/L	4.9324 ppb	22:53:48
2	Sc 361.383	1941760.8	1941760.8	102.02 %		22:55:16
2	Y 371.029	1340872.8	1340872.8	102.25 %		22:55:16
2	Ag 328.068†	221.6	716.0	5.4926 µg/L	5.4926 ppb	22:55:22
2	As 188.979†	17.4	16.2	30.939 µg/L	30.939 ppb	22:55:43
2	B 249.677†	1538.0	1053.4	45.009 µg/L	45.009 ppb	22:55:22
2	Ba 233.527†	184.0	200.8	5.1590 µg/L	5.1590 ppb	22:55:43
2	Be 313.107†	4614.1	8061.0	5.0027 µg/L	5.0027 ppb	22:55:22
2	Cd 226.502†	55.5	183.8	4.9459 µg/L	4.9459 ppb	22:55:43
2	Co 228.616†	100.0	105.5	5.0982 µg/L	5.0982 ppb	22:55:43
2	Cr 267.716†	207.8	249.8	5.2950 µg/L	5.2950 ppb	22:55:43
2	Cu 324.752†	4869.5	1534.0	10.267 µg/L	10.267 ppb	22:55:22
2	Mn 257.610†	2919.1	3092.1	10.360 µg/L	10.360 ppb	22:55:22
2	Mo 202.031†	95.5	97.7	10.107 µg/L	10.107 ppb	22:55:43
2	Ni 231.604†	388.7	93.0	4.9308 µg/L	4.9308 ppb	22:55:43
2	P 214.914†	96.3	72.1	150.31 µg/L	150.31 ppb	22:55:43
2	Pb 220.353†	144.1	58.7	15.046 µg/L	15.046 ppb	22:55:43
2	S 181.975 Axial†	38.9	21.8	94.561 µg/L	94.561 ppb	22:55:43
2	Sb 206.836†	25.7	3.4	3.3443 µg/L	3.3443 ppb	22:55:43
2	Se 196.026†	39.6	23.0	33.982 µg/L	33.982 ppb	22:55:43
2	SiO2†	2650.2	1052.2	217.85 µg/L	217.85 ppb	22:55:22
2	Si 251.611†	1602.4	1235.8	99.170 µg/L	99.170 ppb	22:55:43
2	Sn 189.927†	24.4	23.2	10.379 µg/L	10.379 ppb	22:55:43
2	Ti 334.940†	2257.2	2135.6	4.8752 µg/L	4.8752 ppb	22:55:22
2	Tl 190.801†	-6.0	15.8	22.099 µg/L	22.099 ppb	22:55:43
2	U 409.014†	809.1	585.3	47.770 µg/L	47.770 ppb	22:55:22
2	V 292.402†	434.5	473.4	4.9511 µg/L	4.9511 ppb	22:55:22
2	Zn 213.857†	890.9	324.8	7.9852 µg/L	7.9852 ppb	22:55:43
3	Sc RADIAL	53197.7	53197.7	101 %		22:54:13
3	Al 396.153Radial†	279.5	303.7	219.94 µg/L	219.94 ppb	22:54:13
3	Ca 317.933Radial†	391.0	204.6	193.66 µg/L	193.66 ppb	22:54:34
3	Fe 238.204 Radial†	26.8	10.8	97.636 µg/L	97.636 ppb	22:54:34
3	K 766.490 Radial†	467.4	216.5	148.08 µg/L	148.08 ppb	22:54:13
3	Mg 279.077 IEC†	39.3	26.3	251.64 µg/L	251.64 ppb	22:54:34
3	Na 589.592 Radial†	1936.7	1328.7	410.93 µg/L	410.93 ppb	22:54:13
3	Sr 421.552†	557.4	527.9	5.2469 µg/L	5.2469 ppb	22:54:13
3	Sc 361.383	1937031.5	1937031.5	101.77 %		22:55:49
3	Y 371.029	1335907.5	1335907.5	101.87 %		22:55:49
3	Ag 328.068†	197.8	693.2	5.3144 µg/L	5.3144 ppb	22:55:54
3	As 188.979†	16.3	15.2	28.940 µg/L	28.940 ppb	22:56:15
3	B 249.677†	1552.6	1071.4	45.772 µg/L	45.772 ppb	22:55:54
3	Ba 233.527†	155.0	172.8	4.4384 µg/L	4.4384 ppb	22:56:15
3	Be 313.107†	4084.8	7552.0	4.6868 µg/L	4.6868 ppb	22:55:54
3	Cd 226.502†	38.9	167.6	4.5085 µg/L	4.5085 ppb	22:56:15
3	Co 228.616†	88.9	94.8	4.5819 µg/L	4.5819 ppb	22:56:15
3	Cr 267.716†	161.9	205.2	4.3500 µg/L	4.3500 ppb	22:56:15
3	Cu 324.752†	4753.8	1431.9	9.5856 µg/L	9.5856 ppb	22:55:54
3	Mn 257.610†	2738.6	2921.8	9.7925 µg/L	9.7925 ppb	22:55:54
3	Mo 202.031†	77.1	79.8	8.2583 µg/L	8.2583 ppb	22:56:15
3	Ni 231.604†	378.6	84.0	4.4549 µg/L	4.4549 ppb	22:56:15
3	P 214.914†	82.5	58.8	122.38 µg/L	122.38 ppb	22:56:15
3	Pb 220.353†	148.6	63.5	16.270 µg/L	16.270 ppb	22:56:15
3	S 181.975 Axial†	36.9	19.9	86.361 µg/L	86.361 ppb	22:56:15
3	Sb 206.836†	28.9	6.6	6.3338 µg/L	6.3338 ppb	22:56:15
3	Se 196.026†	36.8	20.4	30.210 µg/L	30.210 ppb	22:56:15
3	SiO2†	2572.7	982.4	203.40 µg/L	203.40 ppb	22:55:54
3	Si 251.611†	1463.0	1102.7	88.488 µg/L	88.488 ppb	22:56:15
3	Sn 189.927†	26.3	25.2	11.260 µg/L	11.260 ppb	22:56:15
3	Ti 334.940†	2156.4	2041.9	4.6640 µg/L	4.6640 ppb	22:55:54
3	Tl 190.801†	-8.2	13.6	19.057 µg/L	19.057 ppb	22:56:15
3	U 409.014†	757.2	536.2	43.761 µg/L	43.761 ppb	22:55:54
3	V 292.402†	367.2	408.3	4.2716 µg/L	4.2716 ppb	22:55:54
3	Zn 213.857†	828.4	265.5	6.5218 µg/L	6.5218 ppb	22:56:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
---------	--------------------------	--------------------	----------	--------------------	----------	-----

Sc 361.383	1941055.7	101.98 %	0.196			0.19%
Sc RADIAL	53397.8	101 %	0.4			0.35%
Y 371.029	1339377.2	102.13 %	0.230			0.23%
Ag 328.068†	689.4	5.2873 µg/L	0.22015	5.2873 ppb	0.22015	4.16%
QC value within limits for Ag 328.068 Recovery = 105.75%						
Al 396.153Radial†	306.1	221.63 µg/L	2.083	221.63 ppb	2.083	0.94%
QC value within limits for Al 396.153Radial Recovery = 110.82%						
As 188.979†	16.1	30.704 µg/L	1.6592	30.704 ppb	1.6592	5.40%
QC value within limits for As 188.979 Recovery = 102.35%						
B 249.677†	1054.8	45.070 µg/L	0.6735	45.070 ppb	0.6735	1.49%
QC value within limits for B 249.677 Recovery = 90.14%						
Ba 233.527†	188.9	4.8539 µg/L	0.37274	4.8539 ppb	0.37274	7.68%
QC value within limits for Ba 233.527 Recovery = 97.08%						
Be 313.107†	7876.0	4.8879 µg/L	0.17476	4.8879 ppb	0.17476	3.58%
QC value within limits for Be 313.107 Recovery = 97.76%						
Ca 317.933Radial†	200.0	189.25 µg/L	3.919	189.25 ppb	3.919	2.07%
QC value within limits for Ca 317.933Radial Recovery = 94.62%						
Cd 226.502†	180.3	4.8528 µg/L	0.30854	4.8528 ppb	0.30854	6.36%
QC value within limits for Cd 226.502 Recovery = 97.06%						
Co 228.616†	100.5	4.8576 µg/L	0.25993	4.8576 ppb	0.25993	5.35%
QC value within limits for Co 228.616 Recovery = 97.15%						
Cr 267.716†	231.6	4.9080 µg/L	0.49515	4.9080 ppb	0.49515	10.09%
QC value within limits for Cr 267.716 Recovery = 98.16%						
Cu 324.752†	1491.4	9.9807 µg/L	0.35339	9.9807 ppb	0.35339	3.54%
QC value within limits for Cu 324.752 Recovery = 99.81%						
Fe 238.204 Radial†	9.2	83.206 µg/L	17.7294	83.206 ppb	17.7294	21.31%
QC value within limits for Fe 238.204 Radial Recovery = 83.21%						
K 766.490 Radial†	183.7	125.62 µg/L	19.850	125.62 ppb	19.850	15.80%
QC value within limits for K 766.490 Radial Recovery = 83.75%						
Mg 279.077 IEC†	28.8	276.08 µg/L	22.157	276.08 ppb	22.157	8.03%
QC value within limits for Mg 279.077 IEC Recovery = 92.03%						
Mn 257.610†	3016.7	10.107 µg/L	0.2889	10.107 ppb	0.2889	2.86%
QC value within limits for Mn 257.610 Recovery = 101.07%						
Mo 202.031†	92.2	9.5438 µg/L	1.11609	9.5438 ppb	1.11609	11.69%
QC value within limits for Mo 202.031 Recovery = 95.44%						
Na 589.592 Radial†	1358.8	420.25 µg/L	14.763	420.25 ppb	14.763	3.51%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 140.08%						
Ni 231.604†	91.4	4.8478 µg/L	0.35875	4.8478 ppb	0.35875	7.40%
QC value within limits for Ni 231.604 Recovery = 96.96%						
P 214.914†	66.8	139.27 µg/L	14.854	139.27 ppb	14.854	10.67%
QC value within limits for P 214.914 Recovery = 92.84%						
Pb 220.353†	62.1	15.923 µg/L	0.7655	15.923 ppb	0.7655	4.81%
QC value greater than the upper limit for Pb 220.353 Recovery = 159.23%						
S 181.975 Axial†	20.4	88.369 µg/L	5.4720	88.369 ppb	5.4720	6.19%
QC value within limits for S 181.975 Axial Recovery = 88.37%						
Sb 206.836†	7.1	6.7779 µg/L	3.67583	6.7779 ppb	3.67583	54.23%
QC value less than the lower limit for Sb 206.836 Recovery = 67.78%						
Se 196.026†	20.1	29.703 µg/L	4.5524	29.703 ppb	4.5524	15.33%
QC value within limits for Se 196.026 Recovery = 99.01%						
SiO2†	1024.1	212.03 µg/L	7.621	212.03 ppb	7.621	3.59%
QC value within limits for SiO2 Recovery = 99.54%						
Si 251.611†	1184.1	95.018 µg/L	5.7243	95.018 ppb	5.7243	6.02%
QC value within limits for Si 251.611 Recovery = 95.02%						
Sn 189.927†	26.8	11.988 µg/L	2.0715	11.988 ppb	2.0715	17.28%
QC value within limits for Sn 189.927 Recovery = 119.88%						
Sr 421.552†	516.3	5.1312 µg/L	0.17291	5.1312 ppb	0.17291	3.37%
QC value within limits for Sr 421.552 Recovery = 102.62%						
Ti 334.940†	2109.0	4.8158 µg/L	0.13241	4.8158 ppb	0.13241	2.75%
QC value within limits for Ti 334.940 Recovery = 96.32%						
Tl 190.801†	14.6	20.362 µg/L	1.5662	20.362 ppb	1.5662	7.69%
QC value within limits for Tl 190.801 Recovery = 101.81%						
U 409.014†	579.7	47.317 µg/L	3.3522	47.317 ppb	3.3522	7.08%
QC value within limits for U 409.014 Recovery = 94.63%						
V 292.402†	440.2	4.6082 µg/L	0.33982	4.6082 ppb	0.33982	7.37%
QC value within limits for V 292.402 Recovery = 92.16%						
Zn 213.857†	305.5	7.5079 µg/L	0.85418	7.5079 ppb	0.85418	11.38%
QC value within limits for Zn 213.857 Recovery = 75.08%						
QC Failed. Continue with analysis.						

Sequence No.: 15
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/24/2010 22:56:24
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53217.2	53217.2	101 %			22:56:58
1	Al 396.153Radial†	-23.8	2.8	2.0702 µg/L		2.0702 ppb	22:56:58
1	Ca 317.933Radial†	171.3	-13.4	-12.670 µg/L		-12.670 ppb	22:57:18
1	Fe 238.204 Radial†	15.3	-0.6	-5.7259 µg/L		-5.7259 ppb	22:57:18
1	K 766.490 Radial†	265.9	16.5	11.255 µg/L		11.255 ppb	22:56:58
1	Mg 279.077 IEC†	9.6	-3.2	-30.911 µg/L		-30.911 ppb	22:57:18
1	Na 589.592 Radial†	987.4	386.6	119.56 µg/L		119.56 ppb	22:56:58
1	Sr 421.552†	46.4	21.0	0.2087 µg/L		0.2087 ppb	22:56:58
1	Sc 361.383	1904482.9	1904482.9	100.06 %			22:58:20
1	Y 371.029	1312176.3	1312176.3	100.06 %			22:58:20
1	Ag 328.068†	-518.5	-19.4	-0.1467 µg/L		-0.1467 ppb	22:58:26
1	As 188.979†	1.4	0.5	1.0451 µg/L		1.0451 ppb	22:58:46
1	B 249.677†	379.7	-74.7	-3.1928 µg/L		-3.1928 ppb	22:58:46
1	Ba 233.527†	-13.0	7.5	0.1921 µg/L		0.1921 ppb	22:58:46
1	Be 313.107†	-3539.8	0.6	0.0004 µg/L		0.0004 ppb	22:58:26
1	Cd 226.502†	-129.4	0.0	0.0012 µg/L		0.0012 ppb	22:58:46
1	Co 228.616†	-5.4	2.1	0.1000 µg/L		0.1000 ppb	22:58:46
1	Cr 267.716†	-48.2	-2.0	-0.0427 µg/L		-0.0427 ppb	22:58:46
1	Cu 324.752†	3245.3	4.2	0.0274 µg/L		0.0274 ppb	22:58:26
1	Mn 257.610†	-236.1	-5.2	-0.0168 µg/L		-0.0168 ppb	22:58:46
1	Mo 202.031†	-6.3	-2.3	-0.2369 µg/L		-0.2369 ppb	22:58:46
1	Ni 231.604†	282.7	-5.4	-0.2879 µg/L		-0.2879 ppb	22:58:46
1	P 214.914†	12.1	-10.3	-21.483 µg/L		-21.483 ppb	22:58:46
1	Pb 220.353†	114.2	31.6	8.1135 µg/L		8.1135 ppb	22:58:46
1	S 181.975 Axial†	12.0	-4.3	-18.860 µg/L		-18.860 ppb	22:58:46
1	Sb 206.836†	25.1	3.3	3.0878 µg/L		3.0878 ppb	22:58:46
1	Se 196.026†	18.5	2.6	3.9206 µg/L		3.9206 ppb	22:58:46
1	SiO2†	1602.0	55.4	11.474 µg/L		11.474 ppb	22:58:26
1	Si 251.611†	338.3	3.2	0.2549 µg/L		0.2549 ppb	22:58:46
1	Sn 189.927†	4.5	3.8	1.6776 µg/L		1.6776 ppb	22:58:46
1	Ti 334.940†	106.5	29.5	0.0698 µg/L		0.0698 ppb	22:58:26
1	Tl 190.801†	-17.8	3.9	5.4042 µg/L		5.4042 ppb	22:58:46
1	U 409.014†	186.3	-21.6	-1.7630 µg/L		-1.7630 ppb	22:58:26
1	V 292.402†	-26.7	20.8	0.2066 µg/L		0.2066 ppb	22:58:26
1	Zn 213.857†	487.4	-61.4	-1.5171 µg/L		-1.5171 ppb	22:58:46
2	Sc RADIAL	52697.0	52697.0	99.9 %			22:57:24
2	Al 396.153Radial†	-16.4	10.1	7.2960 µg/L		7.2960 ppb	22:57:24
2	Ca 317.933Radial†	179.4	-3.6	-3.3729 µg/L		-3.3729 ppb	22:57:44
2	Fe 238.204 Radial†	14.9	-0.9	-7.7484 µg/L		-7.7484 ppb	22:57:44
2	K 766.490 Radial†	248.6	1.8	1.2096 µg/L		1.2096 ppb	22:57:24
2	Mg 279.077 IEC†	9.9	-2.8	-26.982 µg/L		-26.982 ppb	22:57:44
2	Na 589.592 Radial†	962.3	371.1	114.77 µg/L		114.77 ppb	22:57:24
2	Sr 421.552†	51.7	26.7	0.2658 µg/L		0.2658 ppb	22:57:24
2	Sc 361.383	1900159.7	1900159.7	99.834 %			22:58:52
2	Y 371.029	1309969.5	1309969.5	99.890 %			22:58:52
2	Ag 328.068†	-488.3	9.7	0.0724 µg/L		0.0724 ppb	22:58:58
2	As 188.979†	2.2	1.4	2.6441 µg/L		2.6441 ppb	22:59:19
2	B 249.677†	375.3	-78.2	-3.3410 µg/L		-3.3410 ppb	22:59:19
2	Ba 233.527†	-18.1	2.3	0.0588 µg/L		0.0588 ppb	22:59:19
2	Be 313.107†	-3573.8	-41.5	-0.0258 µg/L		-0.0258 ppb	22:58:58
2	Cd 226.502†	-129.5	-0.3	-0.0076 µg/L		-0.0076 ppb	22:59:19
2	Co 228.616†	-6.1	1.3	0.0641 µg/L		0.0641 ppb	22:59:19
2	Cr 267.716†	-53.8	-7.7	-0.1637 µg/L		-0.1637 ppb	22:59:19
2	Cu 324.752†	3254.9	21.3	0.1410 µg/L		0.1410 ppb	22:58:58
2	Mn 257.610†	-254.9	-24.5	-0.0821 µg/L		-0.0821 ppb	22:59:19
2	Mo 202.031†	-3.1	1.0	0.1029 µg/L		0.1029 ppb	22:59:19
2	Ni 231.604†	287.1	-0.4	-0.0210 µg/L		-0.0210 ppb	22:59:19
2	P 214.914†	9.1	-13.2	-27.593 µg/L		-27.593 ppb	22:59:19
2	Pb 220.353†	103.8	21.4	5.4998 µg/L		5.4998 ppb	22:59:19

2	S 181.975 Axial†	12.7	-3.6	-15.741 µg/L	-15.741 ppb	22:59:19
2	Sb 206.836†	25.2	3.5	3.2874 µg/L	3.2874 ppb	22:59:19
2	Se 196.026†	17.4	1.6	2.4303 µg/L	2.4303 ppb	22:59:19
2	SiO2†	1581.0	38.1	7.8792 µg/L	7.8792 ppb	22:58:58
2	Si 251.611†	375.3	41.0	3.2937 µg/L	3.2937 ppb	22:59:19
2	Sn 189.927†	7.7	7.0	3.1386 µg/L	3.1386 ppb	22:59:19
2	Ti 334.940†	101.7	24.9	0.0591 µg/L	0.0591 ppb	22:58:58
2	Tl 190.801†	-21.0	0.7	0.9244 µg/L	0.9244 ppb	22:59:19
2	U 409.014†	205.8	-1.7	-0.1346 µg/L	-0.1346 ppb	22:58:58
2	V 292.402†	-56.8	-9.4	-0.0960 µg/L	-0.0960 ppb	22:58:58
2	Zn 213.857†	493.7	-54.0	-1.3358 µg/L	-1.3358 ppb	22:59:19
3	Sc RADIAL	52881.7	52881.7	100 %		22:57:49
3	Al 396.153Radial†	-29.9	-3.4	-2.4272 µg/L	-2.4272 ppb	22:57:49
3	Ca 317.933Radial†	182.3	-1.3	-1.2071 µg/L	-1.2071 ppb	22:58:10
3	Fe 238.204 Radial†	16.1	0.3	2.6217 µg/L	2.6217 ppb	22:58:10
3	K 766.490 Radial†	239.4	-8.3	-5.6549 µg/L	-5.6549 ppb	22:57:49
3	Mg 279.077 IEC†	10.5	-2.2	-21.122 µg/L	-21.122 ppb	22:58:10
3	Na 589.592 Radial†	934.6	340.1	105.18 µg/L	105.18 ppb	22:57:49
3	Sr 421.552†	46.3	21.2	0.2103 µg/L	0.2103 ppb	22:57:49
3	Sc 361.383	1897185.8	1897185.8	99.677 %		22:59:25
3	Y 371.029	1309116.3	1309116.3	99.825 %		22:59:25
3	Ag 328.068†	-478.5	18.7	0.1438 µg/L	0.1438 ppb	22:59:30
3	As 188.979†	1.0	0.2	0.3642 µg/L	0.3642 ppb	22:59:51
3	B 249.677†	358.8	-94.2	-4.0301 µg/L	-4.0301 ppb	22:59:51
3	Ba 233.527†	-16.8	3.6	0.0935 µg/L	0.0935 ppb	22:59:51
3	Be 313.107†	-3512.0	14.9	0.0092 µg/L	0.0092 ppb	22:59:30
3	Cd 226.502†	-129.9	-1.0	-0.0278 µg/L	-0.0278 ppb	22:59:51
3	Co 228.616†	-10.0	-2.6	-0.1250 µg/L	-0.1250 ppb	22:59:51
3	Cr 267.716†	-44.0	2.0	0.0430 µg/L	0.0430 ppb	22:59:51
3	Cu 324.752†	3303.4	75.0	0.5019 µg/L	0.5019 ppb	22:59:30
3	Mn 257.610†	-250.3	-20.3	-0.0667 µg/L	-0.0667 ppb	22:59:51
3	Mo 202.031†	-9.4	-5.3	-0.5530 µg/L	-0.5530 ppb	22:59:51
3	Ni 231.604†	283.8	-3.2	-0.1705 µg/L	-0.1705 ppb	22:59:51
3	P 214.914†	24.5	2.3	4.7456 µg/L	4.7456 ppb	22:59:51
3	Pb 220.353†	100.3	18.0	4.6301 µg/L	4.6301 ppb	22:59:51
3	S 181.975 Axial†	14.1	-2.2	-9.7501 µg/L	-9.7501 ppb	22:59:51
3	Sb 206.836†	22.6	0.9	0.8256 µg/L	0.8256 ppb	22:59:51
3	Se 196.026†	19.6	3.9	5.7965 µg/L	5.7965 ppb	22:59:51
3	SiO2†	1559.9	19.4	4.0159 µg/L	4.0159 ppb	22:59:30
3	Si 251.611†	339.3	5.5	0.4452 µg/L	0.4452 ppb	22:59:51
3	Sn 189.927†	9.1	8.4	3.7413 µg/L	3.7413 ppb	22:59:51
3	Ti 334.940†	145.7	69.2	0.1603 µg/L	0.1603 ppb	22:59:30
3	Tl 190.801†	-25.3	-3.6	-5.0351 µg/L	-5.0351 ppb	22:59:51
3	U 409.014†	245.2	38.2	3.1165 µg/L	3.1165 ppb	22:59:30
3	V 292.402†	-35.0	12.3	0.1244 µg/L	0.1244 ppb	22:59:30
3	Zn 213.857†	475.7	-71.2	-1.7630 µg/L	-1.7630 ppb	22:59:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1900609.4	99.857 %	0.1928			0.19%
Sc RADIAL	52932.0	100 %	0.5			0.50%
Y 371.029	1310420.7	99.924 %	0.1204			0.12%
Ag 328.068†	3.0	0.0232 µg/L	0.15139	0.0232 ppb	0.15139	653.44%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.2	2.3130 µg/L	4.86613	2.3130 ppb	4.86613	210.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.7	1.3511 µg/L	1.17037	1.3511 ppb	1.17037	86.62%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-82.4	-3.5213 µg/L	0.44685	-3.5213 ppb	0.44685	12.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.5	0.1148 µg/L	0.06916	0.1148 ppb	0.06916	60.23%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-8.6	-0.0054 µg/L	0.01817	-0.0054 ppb	0.01817	336.29%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-6.1	-5.7500 µg/L	6.09003	-5.7500 ppb	6.09003	105.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.4	-0.0114 µg/L	0.01490	-0.0114 ppb	0.01490	130.57%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.3	0.0130 µg/L	0.12084	0.0130 ppb	0.12084	927.14%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		-2.6	-0.0544 µg/L	0.10383	-0.0544 ppb	0.10383 190.70%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		33.5	0.2234 µg/L	0.24774	0.2234 ppb	0.24774 110.88%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		-0.4	-3.6175 µg/L	5.49718	-3.6175 ppb	5.49718 151.96%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		3.3	2.2699 µg/L	8.50462	2.2699 ppb	8.50462 374.68%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		-2.7	-26.338 µg/L	4.9260	-26.338 ppb	4.9260 18.70%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		-16.7	-0.0552 µg/L	0.03413	-0.0552 ppb	0.03413 61.82%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		-2.2	-0.2290 µg/L	0.32804	-0.2290 ppb	0.32804 143.25%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		365.9	113.17 µg/L	7.323	113.17 ppb	7.323 6.47%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		-3.0	-0.1598 µg/L	0.13374	-0.1598 ppb	0.13374 83.68%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-7.1	-14.777 µg/L	17.1808	-14.777 ppb	17.1808 116.27%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		23.7	6.0811 µg/L	1.81305	6.0811 ppb	1.81305 29.81%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		-3.4	-14.784 µg/L	4.6297	-14.784 ppb	4.6297 31.32%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		2.5	2.4003 µg/L	1.36735	2.4003 ppb	1.36735 56.97%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		2.7	4.0491 µg/L	1.68680	4.0491 ppb	1.68680 41.66%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated			
		37.6	7.7899 µg/L	3.73005	7.7899 ppb	3.73005 47.88%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated			
		16.6	1.3313 µg/L	1.70218	1.3313 ppb	1.70218 127.86%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		6.4	2.8525 µg/L	1.06121	2.8525 ppb	1.06121 37.20%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		23.0	0.2283 µg/L	0.03249	0.2283 ppb	0.03249 14.23%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		41.2	0.0964 µg/L	0.05558	0.0964 ppb	0.05558 57.68%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		0.3	0.4312 µg/L	5.23709	0.4312 ppb	5.23709 >999.9%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		5.0	0.4063 µg/L	2.48428	0.4063 ppb	2.48428 611.44%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		7.9	0.0783 µg/L	0.15650	0.0783 ppb	0.15650 199.82%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		-62.2	-1.5387 µg/L	0.21441	-1.5387 ppb	0.21441 13.93%
		QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

=====

Analysis Begun

Start Time: 2/24/2010 23:11:40

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/24/2010 23:11:42

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	85569.1	85569.1	162 %		23:12:17
1	Al 396.153Radial†	-13.5	18.1	11.755 µg/L	11.755 ppb	23:12:17
1	Ca 317.933Radial†	1455.9	714.7	676.33 µg/L	676.33 ppb	23:12:37
1	Fe 238.204 Radial†	144.5	73.3	662.82 µg/L	662.82 ppb	23:12:37
1	K 766.490 Radial†	243.1	-97.2	-66.498 µg/L	-66.498 ppb	23:12:17
1	Mg 279.077 IEC†	139.5	73.3	702.77 µg/L	702.77 ppb	23:12:37
1	Na 589.592 Radial†	670.4	-179.1	-55.386 µg/L	-55.386 ppb	23:12:17
1	Sr 421.552†	9.9	-18.9	-0.1879 µg/L	-0.1879 ppb	23:12:17
1	Sc 361.383	2842560.7	2842560.7	149.35 %		23:13:40
1	Y 371.029	1957163.3	1957163.3	149.24 %		23:13:40
1	Ag 328.068†	-270.4	317.8	2.4686 µg/L	2.4686 ppb	23:13:45
1	As 188.979†	48.8	31.8	60.517 µg/L	60.517 ppb	23:14:06
1	B 249.677†	348.8	-220.6	-9.7771 µg/L	-9.7771 ppb	23:13:45
1	Ba 233.527†	20.4	34.1	0.8767 µg/L	0.8767 ppb	23:13:45
1	Be 313.107†	169809.5	117239.5	72.786 µg/L	72.786 ppb	23:13:40
1	Cd 226.502†	-84.7	72.6	1.8779 µg/L	1.8779 ppb	23:13:45
1	Co 228.616†	12.4	15.7	0.8191 µg/L	0.8191 ppb	23:13:45
1	Cr 267.716†	41.1	73.6	1.5606 µg/L	1.5606 ppb	23:13:45
1	Cu 324.752†	2847.8	-1332.2	-8.8134 µg/L	-8.8134 ppb	23:13:45
1	Mn 257.610†	121.5	312.1	1.1059 µg/L	1.1059 ppb	23:13:45
1	Mo 202.031†	955.1	643.5	66.598 µg/L	66.598 ppb	23:14:06
1	Ni 231.604†	314.0	-77.8	-4.1185 µg/L	-4.1185 ppb	23:13:45
1	P 214.914†	252.2	146.5	308.72 µg/L	308.72 ppb	23:14:06
1	Pb 220.353†	478.6	237.9	61.288 µg/L	61.288 ppb	23:14:06
1	S 181.975 Axial†	57.7	22.2	96.493 µg/L	96.493 ppb	23:14:06
1	Sb 206.836†	118.8	57.8	55.779 µg/L	55.779 ppb	23:14:06
1	Se 196.026†	78.9	37.0	55.898 µg/L	55.898 ppb	23:14:06
1	SiO2†	1359.9	-635.0	-131.48 µg/L	-131.48 ppb	23:13:45
1	Si 251.611†	362.0	-92.5	-7.4198 µg/L	-7.4198 ppb	23:13:45
1	Sn 189.927†	216.1	144.0	64.302 µg/L	64.302 ppb	23:14:06
1	Ti 334.940†	713.9	401.0	0.8746 µg/L	0.8746 ppb	23:13:45
1	Tl 190.801†	47.1	53.2	73.871 µg/L	73.871 ppb	23:14:06
1	U 409.014†	261.3	-32.8	-2.8144 µg/L	-2.8144 ppb	23:13:45
1	V 292.402†	60.7	88.1	1.4856 µg/L	1.4856 ppb	23:13:45
1	Zn 213.857†	524.3	-197.4	-4.9274 µg/L	-4.9274 ppb	23:13:45
2	Sc RADIAL	78479.7	78479.7	149 %		23:12:42
2	Al 396.153Radial†	1467.9	1013.5	733.96 µg/L	733.96 ppb	23:12:42
2	Ca 317.933Radial†	1169.7	603.3	570.92 µg/L	570.92 ppb	23:13:03
2	Fe 238.204 Radial†	113.7	60.7	548.59 µg/L	548.59 ppb	23:13:03
2	K 766.490 Radial†	1774.9	946.3	647.12 µg/L	647.12 ppb	23:12:42
2	Mg 279.077 IEC†	104.2	57.3	549.21 µg/L	549.21 ppb	23:13:03
2	Na 589.592 Radial†	7666.7	4562.9	1411.2 µg/L	1411.2 ppb	23:12:42
2	Sr 421.552†	10413.5	6977.4	69.345 µg/L	69.345 ppb	23:12:42
2	Sc 361.383	2919395.7	2919395.7	153.38 %		23:14:12
2	Y 371.029	2011320.4	2011320.4	153.37 %		23:14:12
2	Ag 328.068†	-409.2	232.0	1.8064 µg/L	1.8064 ppb	23:14:18
2	As 188.979†	22.0	13.5	25.679 µg/L	25.679 ppb	23:14:38

2	B 249.677†	334.1	-236.4	-10.392 µg/L	-10.392 ppb	23:14:18
2	Ba 233.527†	7.6	25.4	0.6534 µg/L	0.6534 ppb	23:14:18
2	Be 313.107†	102824.0	70575.2	43.816 µg/L	43.816 ppb	23:14:12
2	Cd 226.502†	-95.8	66.9	1.7346 µg/L	1.7346 ppb	23:14:18
2	Co 228.616†	-0.3	7.3	0.3786 µg/L	0.3786 ppb	23:14:18
2	Cr 267.716†	-0.5	45.8	0.9708 µg/L	0.9708 ppb	23:14:18
2	Cu 324.752†	2824.2	-1397.8	-9.2677 µg/L	-9.2677 ppb	23:14:18
2	Mn 257.610†	-67.0	187.1	0.6779 µg/L	0.6779 ppb	23:14:18
2	Mo 202.031†	463.3	306.1	31.688 µg/L	31.688 ppb	23:14:38
2	Ni 231.604†	302.8	-90.6	-4.7995 µg/L	-4.7995 ppb	23:14:18
2	P 214.914†	130.9	63.0	133.35 µg/L	133.35 ppb	23:14:38
2	Pb 220.353†	279.1	99.4	25.654 µg/L	25.654 ppb	23:14:38
2	S 181.975 Axial†	37.1	7.8	33.847 µg/L	33.847 ppb	23:14:38
2	Sb 206.836†	74.5	26.7	25.813 µg/L	25.813 ppb	23:14:38
2	Se 196.026†	34.9	7.0	11.171 µg/L	11.171 ppb	23:14:38
2	SiO2†	1360.1	-658.8	-136.40 µg/L	-136.40 ppb	23:14:18
2	Si 251.611†	296.1	-141.8	-11.381 µg/L	-11.381 ppb	23:14:18
2	Sn 189.927†	104.1	67.2	30.005 µg/L	30.005 ppb	23:14:38
2	Ti 334.940†	388.1	176.0	0.3693 µg/L	0.3693 ppb	23:14:18
2	Tl 190.801†	13.8	30.7	42.656 µg/L	42.656 ppb	23:14:38
2	U 409.014†	327.2	5.5	0.3415 µg/L	0.3415 ppb	23:14:18
2	V 292.402†	16.7	58.3	0.9033 µg/L	0.9033 ppb	23:14:18
2	Zn 213.857†	504.0	-219.9	-5.4667 µg/L	-5.4667 ppb	23:14:18
3	Sc RADIAL	79890.9	79890.9	151 %		23:13:08
3	Al 396.153Radial†	1776.9	1200.2	868.92 µg/L	868.92 ppb	23:13:08
3	Ca 317.933Radial†	384.7	70.9	67.100 µg/L	67.100 ppb	23:13:29
3	Fe 238.204 Radial†	28.9	3.3	31.424 µg/L	31.424 ppb	23:13:29
3	K 766.490 Radial†	2099.6	1139.7	779.39 µg/L	779.39 ppb	23:13:08
3	Mg 279.077 IEC†	21.9	1.7	17.238 µg/L	17.238 ppb	23:13:29
3	Na 589.592 Radial†	9046.9	5383.5	1665.0 µg/L	1665.0 ppb	23:13:08
3	Sr 421.552†	12743.5	8392.8	83.412 µg/L	83.412 ppb	23:13:08
3	Sc 361.383	3063284.4	3063284.4	160.94 %		23:14:45
3	Y 371.029	2109820.8	2109820.8	160.88 %		23:14:45
3	Ag 328.068†	13947.4	9164.8	70.280 µg/L	70.280 ppb	23:14:50
3	As 188.979†	38.3	22.9	43.615 µg/L	43.615 ppb	23:15:11
3	B 249.677†	2783.3	1275.2	54.623 µg/L	54.623 ppb	23:14:50
3	Ba 233.527†	4237.9	2653.7	68.183 µg/L	68.183 ppb	23:14:50
3	Be 313.107†	-2362.8	2070.1	1.2600 µg/L	1.2600 ppb	23:14:45
3	Cd 226.502†	3818.1	2501.7	67.446 µg/L	67.446 ppb	23:14:50
3	Co 228.616†	2231.1	1393.7	67.276 µg/L	67.276 ppb	23:14:50
3	Cr 267.716†	5150.0	3246.0	68.802 µg/L	68.802 ppb	23:14:50
3	Cu 324.752†	19585.1	8929.8	59.697 µg/L	59.697 ppb	23:14:50
3	Mn 257.610†	32365.9	20340.9	68.155 µg/L	68.155 ppb	23:14:50
3	Mo 202.031†	747.3	468.4	48.456 µg/L	48.456 ppb	23:15:11
3	Ni 231.604†	2343.9	1168.4	61.918 µg/L	61.918 ppb	23:14:50
3	P 214.914†	201.1	102.6	209.95 µg/L	209.95 ppb	23:15:11
3	Pb 220.353†	375.5	150.8	38.745 µg/L	38.745 ppb	23:15:11
3	S 181.975 Axial†	44.1	11.1	48.009 µg/L	48.009 ppb	23:15:11
3	Sb 206.836†	102.1	41.6	39.492 µg/L	39.492 ppb	23:15:11
3	Se 196.026†	55.4	18.6	27.653 µg/L	27.653 ppb	23:15:11
3	SiO2†	7784.9	3291.4	681.48 µg/L	681.48 ppb	23:14:50
3	Si 251.611†	8027.4	4652.8	373.38 µg/L	373.38 ppb	23:14:50
3	Sn 189.927†	175.0	108.0	48.232 µg/L	48.232 ppb	23:15:11
3	Ti 334.940†	46596.0	28874.7	66.191 µg/L	66.191 ppb	23:14:50
3	Tl 190.801†	29.6	40.1	56.440 µg/L	56.440 ppb	23:15:11
3	U 409.014†	1627.2	803.3	65.584 µg/L	65.584 ppb	23:14:50
3	V 292.402†	10838.5	6781.8	69.385 µg/L	69.385 ppb	23:14:50
3	Zn 213.857†	4753.9	2405.3	59.198 µg/L	59.198 ppb	23:14:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2941746.9	154.56 %	5.887			3.81%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 154.6%						
Sc RADIAL	81313.2	154 %	7.1			4.62%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 154.1%						
Y 371.029	2026101.5	154.50 %	5.902			3.82%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 154.5%						
Ag 328.068†	3238.2	24.852 µg/L	39.3433	24.852 ppb	39.3433	158.31%
QC value less than the lower limit for Ag 328.068 Recovery = 4.97%						

Al 396.153Radial†	744.0	538.21 µg/L	460.889	538.21 ppb	460.889	85.63%
QC value less than the lower limit for Al 396.153Radial				Recovery = 10.76%		
As 188.979†	22.7	43.270 µg/L	17.4215	43.270 ppb	17.4215	40.26%
QC value less than the lower limit for As 188.979				Recovery = 8.65%		
B 249.677†	272.7	11.485 µg/L	37.3602	11.485 ppb	37.3602	325.31%
QC value less than the lower limit for B 249.677				Recovery = 2.30%		
Ba 233.527†	904.4	23.238 µg/L	38.9239	23.238 ppb	38.9239	167.50%
QC value less than the lower limit for Ba 233.527				Recovery = 4.65%		
Be 313.107†	63295.0	39.287 µg/L	35.9776	39.287 ppb	35.9776	91.58%
QC value less than the lower limit for Be 313.107				Recovery = 7.86%		
Ca 317.933Radial†	463.0	438.12 µg/L	325.605	438.12 ppb	325.605	74.32%
QC value less than the lower limit for Ca 317.933Radial				Recovery = 8.76%		
Cd 226.502†	880.4	23.686 µg/L	37.8971	23.686 ppb	37.8971	160.00%
QC value less than the lower limit for Cd 226.502				Recovery = 4.74%		
Co 228.616†	472.2	22.825 µg/L	38.4968	22.825 ppb	38.4968	168.66%
QC value less than the lower limit for Co 228.616				Recovery = 4.56%		
Cr 267.716†	1121.8	23.778 µg/L	38.9930	23.778 ppb	38.9930	163.99%
QC value less than the lower limit for Cr 267.716				Recovery = 4.76%		
Cu 324.752†	2066.6	13.872 µg/L	39.6862	13.872 ppb	39.6862	286.09%
QC value less than the lower limit for Cu 324.752				Recovery = 2.77%		
Fe 238.204 Radial†	45.8	414.28 µg/L	336.445	414.28 ppb	336.445	81.21%
QC value less than the lower limit for Fe 238.204 Radial				Recovery = 8.29%		
K 766.490 Radial†	662.9	453.34 µg/L	455.024	453.34 ppb	455.024	100.37%
QC value less than the lower limit for K 766.490 Radial				Recovery = 9.07%		
Mg 279.077 IEC†	44.1	423.07 µg/L	359.753	423.07 ppb	359.753	85.03%
QC value less than the lower limit for Mg 279.077 IEC				Recovery = 8.46%		
Mn 257.610†	6946.7	23.313 µg/L	38.8352	23.313 ppb	38.8352	166.58%
QC value less than the lower limit for Mn 257.610				Recovery = 4.66%		
Mo 202.031†	472.7	48.914 µg/L	17.4596	48.914 ppb	17.4596	35.69%
QC value less than the lower limit for Mo 202.031				Recovery = 9.78%		
Na 589.592 Radial†	3255.8	1006.9 µg/L	928.70	1006.9 ppb	928.70	92.23%
QC value less than the lower limit for Na 589.592 Radial				Recovery = 10.07%		
Ni 231.604†	333.3	17.667 µg/L	38.3242	17.667 ppb	38.3242	216.93%
QC value less than the lower limit for Ni 231.604				Recovery = 3.53%		
P 214.914†	104.1	217.34 µg/L	87.919	217.34 ppb	87.919	40.45%
QC value less than the lower limit for P 214.914				Recovery = 8.69%		
Pb 220.353†	162.7	41.896 µg/L	18.0244	41.896 ppb	18.0244	43.02%
QC value less than the lower limit for Pb 220.353				Recovery = 8.38%		
S 181.975 Axial†	13.7	59.450 µg/L	32.8527	59.450 ppb	32.8527	55.26%
QC value less than the lower limit for S 181.975 Axial				Recovery = 5.94%		
Sb 206.836†	42.0	40.362 µg/L	15.0018	40.362 ppb	15.0018	37.17%
QC value less than the lower limit for Sb 206.836				Recovery = 8.07%		
Se 196.026†	20.9	31.574 µg/L	22.6197	31.574 ppb	22.6197	71.64%
QC value less than the lower limit for Se 196.026				Recovery = 6.31%		
SiO2†	665.9	137.86 µg/L	470.791	137.86 ppb	470.791	341.49%
QC value less than the lower limit for SiO2				Recovery = 2.58%		
Si 251.611†	1472.8	118.19 µg/L	221.008	118.19 ppb	221.008	186.99%
QC value less than the lower limit for Si 251.611				Recovery = 4.73%		
Sn 189.927†	106.4	47.513 µg/L	17.1597	47.513 ppb	17.1597	36.12%
QC value less than the lower limit for Sn 189.927				Recovery = 9.50%		
Sr 421.552†	5117.1	50.856 µg/L	44.7615	50.856 ppb	44.7615	88.02%
QC value less than the lower limit for Sr 421.552				Recovery = 10.17%		
Ti 334.940†	9817.3	22.478 µg/L	37.8571	22.478 ppb	37.8571	168.42%
QC value less than the lower limit for Ti 334.940				Recovery = 4.50%		
Tl 190.801†	41.4	57.656 µg/L	15.6426	57.656 ppb	15.6426	27.13%
QC value less than the lower limit for Tl 190.801				Recovery = 11.53%		
U 409.014†	258.7	21.037 µg/L	38.6109	21.037 ppb	38.6109	183.54%
QC value less than the lower limit for U 409.014				Recovery = 4.21%		
V 292.402†	2309.4	23.925 µg/L	39.3710	23.925 ppb	39.3710	164.56%
QC value less than the lower limit for V 292.402				Recovery = 4.78%		
Zn 213.857†	662.7	16.268 µg/L	37.1795	16.268 ppb	37.1795	228.54%
QC value less than the lower limit for Zn 213.857				Recovery = 3.25%		

Internal Standard Check failed. Continue with analysis.

QC Failed. Continue with analysis.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 23:15:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	69531.7	69531.7	132 %			23:15:53
1	Al 396.153Radial†	6.9	31.7	22.926 µg/L	22.926 ppb	22.926 ppb	23:15:53
1	Ca 317.933Radial†	238.0	-2.6	-2.4631 µg/L	-2.4631 ppb	-2.4631 ppb	23:16:14
1	Fe 238.204 Radial†	16.3	-3.4	-30.923 µg/L	-30.923 ppb	-30.923 ppb	23:16:14
1	K 766.490 Radial†	193.4	-100.4	-68.652 µg/L	-68.652 ppb	-68.652 ppb	23:15:53
1	Mg 279.077 IEC†	9.9	-5.2	-49.943 µg/L	-49.943 ppb	-49.943 ppb	23:16:14
1	Na 589.592 Radial†	703.0	-59.0	-18.236 µg/L	-18.236 ppb	-18.236 ppb	23:15:53
1	Sr 421.552†	60.4	20.8	0.2066 µg/L	0.2066 ppb	0.2066 ppb	23:15:53
1	Sc 361.383	2798557.3	2798557.3	147.04 %			23:17:16
1	Y 371.029	1927072.7	1927072.7	146.95 %			23:17:16
1	Ag 328.068†	-419.8	213.3	1.6238 µg/L	1.6238 ppb	1.6238 ppb	23:17:21
1	As 188.979†	-3.4	-3.2	-6.1147 µg/L	-6.1147 ppb	-6.1147 ppb	23:17:42
1	B 249.677†	326.4	-232.2	-9.9122 µg/L	-9.9122 ppb	-9.9122 ppb	23:17:42
1	Ba 233.527†	-13.9	11.0	0.2831 µg/L	0.2831 ppb	0.2831 ppb	23:17:42
1	Be 313.107†	-2613.9	1760.5	1.0929 µg/L	1.0929 ppb	1.0929 ppb	23:17:21
1	Cd 226.502†	-125.7	43.9	1.1811 µg/L	1.1811 ppb	1.1811 ppb	23:17:42
1	Co 228.616†	2.9	9.4	0.4545 µg/L	0.4545 ppb	0.4545 ppb	23:17:42
1	Cr 267.716†	-18.2	33.8	0.7155 µg/L	0.7155 ppb	0.7155 ppb	23:17:42
1	Cu 324.752†	2896.5	-1269.1	-8.4880 µg/L	-8.4880 ppb	-8.4880 ppb	23:17:21
1	Mn 257.610†	-143.6	133.2	0.4441 µg/L	0.4441 ppb	0.4441 ppb	23:17:42
1	Mo 202.031†	7.2	8.9	0.9227 µg/L	0.9227 ppb	0.9227 ppb	23:17:42
1	Ni 231.604†	288.9	-91.5	-4.8550 µg/L	-4.8550 ppb	-4.8550 ppb	23:17:42
1	P 214.914†	20.3	-8.5	-16.924 µg/L	-16.924 ppb	-16.924 ppb	23:17:42
1	Pb 220.353†	95.0	-17.9	-4.5856 µg/L	-4.5856 ppb	-4.5856 ppb	23:17:42
1	S 181.975 Axial†	14.6	-6.5	-28.004 µg/L	-28.004 ppb	-28.004 ppb	23:17:42
1	Sb 206.836†	25.2	-4.6	-4.4023 µg/L	-4.4023 ppb	-4.4023 ppb	23:17:42
1	Se 196.026†	10.7	-8.6	-12.749 µg/L	-12.749 ppb	-12.749 ppb	23:17:42
1	SiO2†	1520.9	-511.2	-105.84 µg/L	-105.84 ppb	-105.84 ppb	23:17:21
1	Si 251.611†	485.1	-5.0	-0.3984 µg/L	-0.3984 ppb	-0.3984 ppb	23:17:42
1	Sn 189.927†	4.3	2.2	0.9820 µg/L	0.9820 ppb	0.9820 ppb	23:17:42
1	Ti 334.940†	327.7	145.9	0.3383 µg/L	0.3383 ppb	0.3383 ppb	23:17:21
1	Tl 190.801†	-21.7	7.0	9.6522 µg/L	9.6522 ppb	9.6522 ppb	23:17:42
1	U 409.014†	242.8	-42.6	-3.4776 µg/L	-3.4776 ppb	-3.4776 ppb	23:17:21
1	V 292.402†	-49.6	13.7	0.1406 µg/L	0.1406 ppb	0.1406 ppb	23:17:21
1	Zn 213.857†	485.1	-218.5	-5.3730 µg/L	-5.3730 ppb	-5.3730 ppb	23:17:42
2	Sc RADIAL	84338.8	84338.8	160 %			23:16:19
2	Al 396.153Radial†	-38.4	2.4	1.7294 µg/L	1.7294 ppb	1.7294 ppb	23:16:19
2	Ca 317.933Radial†	246.0	-29.3	-27.732 µg/L	-27.732 ppb	-27.732 ppb	23:16:40
2	Fe 238.204 Radial†	17.2	-5.0	-45.093 µg/L	-45.093 ppb	-45.093 ppb	23:16:40
2	K 766.490 Radial†	217.5	-111.1	-75.962 µg/L	-75.962 ppb	-75.962 ppb	23:16:19
2	Mg 279.077 IEC†	8.9	-7.1	-68.165 µg/L	-68.165 ppb	-68.165 ppb	23:16:40
2	Na 589.592 Radial†	618.9	-205.3	-63.492 µg/L	-63.492 ppb	-63.492 ppb	23:16:19
2	Sr 421.552†	4.7	-22.1	-0.2192 µg/L	-0.2192 ppb	-0.2192 ppb	23:16:19
2	Sc 361.383	2758843.8	2758843.8	144.95 %			23:17:48
2	Y 371.029	1899661.4	1899661.4	144.86 %			23:17:48
2	Ag 328.068†	-414.3	213.0	1.6216 µg/L	1.6216 ppb	1.6216 ppb	23:17:53
2	As 188.979†	1.4	0.1	0.2057 µg/L	0.2057 ppb	0.2057 ppb	23:18:14
2	B 249.677†	326.7	-228.8	-9.7578 µg/L	-9.7578 ppb	-9.7578 ppb	23:18:14
2	Ba 233.527†	3.5	22.9	0.5882 µg/L	0.5882 ppb	0.5882 ppb	23:18:14
2	Be 313.107†	-2454.7	1844.8	1.1451 µg/L	1.1451 ppb	1.1451 ppb	23:17:53
2	Cd 226.502†	-104.7	57.1	1.5391 µg/L	1.5391 ppb	1.5391 ppb	23:18:14
2	Co 228.616†	8.5	13.3	0.6443 µg/L	0.6443 ppb	0.6443 ppb	23:18:14
2	Cr 267.716†	9.2	52.5	1.1122 µg/L	1.1122 ppb	1.1122 ppb	23:18:14
2	Cu 324.752†	2825.3	-1289.9	-8.6290 µg/L	-8.6290 ppb	-8.6290 ppb	23:17:53
2	Mn 257.610†	-39.6	203.5	0.6786 µg/L	0.6786 ppb	0.6786 ppb	23:18:14
2	Mo 202.031†	8.5	9.9	1.0236 µg/L	1.0236 ppb	1.0236 ppb	23:18:14
2	Ni 231.604†	286.9	-90.1	-4.7801 µg/L	-4.7801 ppb	-4.7801 ppb	23:18:14
2	P 214.914†	23.4	-6.2	-11.925 µg/L	-11.925 ppb	-11.925 ppb	23:18:14
2	Pb 220.353†	96.5	-16.0	-4.0869 µg/L	-4.0869 ppb	-4.0869 ppb	23:18:14

2	S 181.975 Axial†	11.3	-8.6	-37.101 µg/L	-37.101 ppb	23:18:14
2	Sb 206.836†	23.8	-5.4	-5.0972 µg/L	-5.0972 ppb	23:18:14
2	Se 196.026†	15.3	-5.3	-7.8804 µg/L	-7.8804 ppb	23:18:14
2	SiO2†	1506.9	-506.0	-104.76 µg/L	-104.76 ppb	23:17:53
2	Si 251.611†	457.1	-19.5	-1.5664 µg/L	-1.5664 ppb	23:18:14
2	Sn 189.927†	7.5	4.5	2.0078 µg/L	2.0078 ppb	23:18:14
2	Ti 334.940†	361.4	172.4	0.4000 µg/L	0.4000 ppb	23:17:53
2	Tl 190.801†	-22.1	6.5	8.9666 µg/L	8.9666 ppb	23:18:14
2	U 409.014†	255.5	-31.5	-2.5629 µg/L	-2.5629 ppb	23:17:53
2	V 292.402†	-26.8	29.0	0.2961 µg/L	0.2961 ppb	23:17:53
2	Zn 213.857†	495.7	-206.5	-5.0738 µg/L	-5.0738 ppb	23:18:14
3	Sc RADIAL	73032.4	73032.4	138 %		23:16:45
3	Al 396.153Radial†	-0.9	25.8	18.646 µg/L	18.646 ppb	23:16:45
3	Ca 317.933Radial†	249.5	-3.0	-2.7940 µg/L	-2.7940 ppb	23:17:05
3	Fe 238.204 Radial†	16.6	-3.8	-34.058 µg/L	-34.058 ppb	23:17:05
3	K 766.490 Radial†	147.1	-140.9	-96.364 µg/L	-96.364 ppb	23:16:45
3	Mg 279.077 IEC†	10.5	-5.1	-48.779 µg/L	-48.779 ppb	23:17:05
3	Na 589.592 Radial†	748.3	-51.8	-16.020 µg/L	-16.020 ppb	23:16:45
3	Sr 421.552†	80.1	32.8	0.3263 µg/L	0.3263 ppb	23:16:45
3	Sc 361.383	2800988.7	2800988.7	147.16 %		23:18:20
3	Y 371.029	1928959.0	1928959.0	147.09 %		23:18:20
3	Ag 328.068†	-473.4	177.1	1.3474 µg/L	1.3474 ppb	23:18:26
3	As 188.979†	-0.3	-1.0	-1.9920 µg/L	-1.9920 ppb	23:18:46
3	B 249.677†	323.3	-234.5	-10.009 µg/L	-10.009 ppb	23:18:46
3	Ba 233.527†	20.9	34.7	0.8891 µg/L	0.8891 ppb	23:18:46
3	Be 313.107†	-2771.6	1654.9	1.0274 µg/L	1.0274 ppb	23:18:26
3	Cd 226.502†	-102.4	59.8	1.6099 µg/L	1.6099 ppb	23:18:46
3	Co 228.616†	10.9	14.8	0.7177 µg/L	0.7177 ppb	23:18:46
3	Cr 267.716†	12.1	54.4	1.1521 µg/L	1.1521 ppb	23:18:46
3	Cu 324.752†	2707.8	-1399.1	-9.3571 µg/L	-9.3571 ppb	23:18:26
3	Mn 257.610†	68.5	277.4	0.9268 µg/L	0.9268 ppb	23:18:46
3	Mo 202.031†	22.2	19.2	1.9815 µg/L	1.9815 ppb	23:18:46
3	Ni 231.604†	303.2	-81.9	-4.3486 µg/L	-4.3486 ppb	23:18:46
3	P 214.914†	23.5	-6.3	-12.265 µg/L	-12.265 ppb	23:18:46
3	Pb 220.353†	85.6	-24.4	-6.2295 µg/L	-6.2295 ppb	23:18:46
3	S 181.975 Axial†	12.3	-8.0	-34.847 µg/L	-34.847 ppb	23:18:46
3	Sb 206.836†	21.3	-7.3	-6.9414 µg/L	-6.9414 ppb	23:18:46
3	Se 196.026†	9.7	-9.2	-13.691 µg/L	-13.691 ppb	23:18:46
3	SiO2†	1291.5	-668.0	-138.30 µg/L	-138.30 ppb	23:18:26
3	Si 251.611†	572.5	54.1	4.3435 µg/L	4.3435 ppb	23:18:46
3	Sn 189.927†	1.3	0.2	0.0771 µg/L	0.0771 ppb	23:18:46
3	Ti 334.940†	173.1	40.6	0.0969 µg/L	0.0969 ppb	23:18:26
3	Tl 190.801†	-18.7	9.0	12.479 µg/L	12.479 ppb	23:18:46
3	U 409.014†	127.6	-121.1	-9.8803 µg/L	-9.8803 ppb	23:18:26
3	V 292.402†	-66.2	2.4	0.0285 µg/L	0.0285 ppb	23:18:26
3	Zn 213.857†	510.0	-202.0	-4.9630 µg/L	-4.9630 ppb	23:18:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2786129.9	146.38 %	1.243			0.85%
Sc RADIAL	75634.3	143 %	14.7			10.23%
Y 371.029	1918564.4	146.30 %	1.250			0.85%
Ag 328.068†	201.1	1.5309 µg/L	0.15894	1.5309 ppb	0.15894	10.38%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	20.0	14.434 µg/L	11.2084	14.434 ppb	11.2084	77.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.4	-2.6337 µg/L	3.20873	-2.6337 ppb	3.20873	121.83%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-231.8	-9.8929 µg/L	0.12666	-9.8929 ppb	0.12666	1.28%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	22.9	0.5868 µg/L	0.30303	0.5868 ppb	0.30303	51.64%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	1753.4	1.0885 µg/L	0.05900	1.0885 ppb	0.05900	5.42%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-11.6	-10.996 µg/L	14.4945	-10.996 ppb	14.4945	131.81%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	53.6	1.4434 µg/L	0.22991	1.4434 ppb	0.22991	15.93%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	12.5	0.6055 µg/L	0.13584	0.6055 ppb	0.13584	22.43%

QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716†	46.9	0.9933 µg/L	0.24136	0.9933 ppb	0.24136 24.30%
QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.752†	-1319.4	-8.8247 µg/L	0.46643	-8.8247 ppb	0.46643 5.29%
QC value within limits for Cu 324.752 Recovery = Not calculated					
Fe 238.204 Radial†	-4.1	-36.691 µg/L	7.4431	-36.691 ppb	7.4431 20.29%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated					
K 766.490 Radial†	-117.5	-80.326 µg/L	14.3621	-80.326 ppb	14.3621 17.88%
QC value within limits for K 766.490 Radial Recovery = Not calculated					
Mg 279.077 IEC†	-5.8	-55.629 µg/L	10.8718	-55.629 ppb	10.8718 19.54%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated					
Mn 257.610†	204.7	0.6832 µg/L	0.24138	0.6832 ppb	0.24138 35.33%
QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.031†	12.7	1.3093 µg/L	0.58435	1.3093 ppb	0.58435 44.63%
QC value within limits for Mo 202.031 Recovery = Not calculated					
Na 589.592 Radial†	-105.4	-32.582 µg/L	26.7913	-32.582 ppb	26.7913 82.23%
QC value within limits for Na 589.592 Radial Recovery = Not calculated					
Ni 231.604†	-87.8	-4.6612 µg/L	0.27329	-4.6612 ppb	0.27329 5.86%
QC value within limits for Ni 231.604 Recovery = Not calculated					
P 214.914†	-7.0	-13.705 µg/L	2.7932	-13.705 ppb	2.7932 20.38%
QC value within limits for P 214.914 Recovery = Not calculated					
Pb 220.353†	-19.4	-4.9673 µg/L	1.12113	-4.9673 ppb	1.12113 22.57%
QC value within limits for Pb 220.353 Recovery = Not calculated					
S 181.975 Axial†	-7.7	-33.317 µg/L	4.7373	-33.317 ppb	4.7373 14.22%
QC value within limits for S 181.975 Axial Recovery = Not calculated					
Sb 206.836†	-5.8	-5.4803 µg/L	1.31222	-5.4803 ppb	1.31222 23.94%
QC value within limits for Sb 206.836 Recovery = Not calculated					
Se 196.026†	-7.7	-11.440 µg/L	3.1186	-11.440 ppb	3.1186 27.26%
QC value within limits for Se 196.026 Recovery = Not calculated					
SiO2†	-561.7	-116.30 µg/L	19.059	-116.30 ppb	19.059 16.39%
QC value within limits for SiO2 Recovery = Not calculated					
Si 251.611†	9.9	0.7929 µg/L	3.12989	0.7929 ppb	3.12989 394.73%
QC value within limits for Si 251.611 Recovery = Not calculated					
Sn 189.927†	2.3	1.0223 µg/L	0.96599	1.0223 ppb	0.96599 94.49%
QC value within limits for Sn 189.927 Recovery = Not calculated					
Sr 421.552†	10.5	0.1046 µg/L	0.28671	0.1046 ppb	0.28671 274.13%
QC value within limits for Sr 421.552 Recovery = Not calculated					
Ti 334.940†	119.6	0.2784 µg/L	0.16018	0.2784 ppb	0.16018 57.53%
QC value within limits for Ti 334.940 Recovery = Not calculated					
Tl 190.801†	7.5	10.366 µg/L	1.8617	10.366 ppb	1.8617 17.96%
QC value within limits for Tl 190.801 Recovery = Not calculated					
U 409.014†	-65.1	-5.3069 µg/L	3.98699	-5.3069 ppb	3.98699 75.13%
QC value within limits for U 409.014 Recovery = Not calculated					
V 292.402†	15.0	0.1551 µg/L	0.13440	0.1551 ppb	0.13440 86.66%
QC value within limits for V 292.402 Recovery = Not calculated					
Zn 213.857†	-209.0	-5.1366 µg/L	0.21206	-5.1366 ppb	0.21206 4.13%
QC value within limits for Zn 213.857 Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 10
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/24/2010 23:44:27
 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	82587.0	82587.0	156 %		23:45:06
1	Al 396.153Radial†	-10.2	19.9	14.419 µg/L	14.419 ppb	23:45:06
1	Ca 317.933Radial†	259.6	-17.4	-16.430 µg/L	-16.430 ppb	23:45:26
1	Fe 238.204 Radial†	16.1	-5.5	-49.516 µg/L	-49.516 ppb	23:45:26
1	K 766.490 Radial†	173.1	-136.6	-93.379 µg/L	-93.379 ppb	23:45:06
1	Mg 279.077 IEC†	8.9	-7.0	-67.223 µg/L	-67.223 ppb	23:45:26
1	Na 589.592 Radial†	611.4	-201.8	-62.424 µg/L	-62.424 ppb	23:45:06
1	Sr 421.552†	12.4	-17.1	-0.1699 µg/L	-0.1699 ppb	23:45:06
1	Sc 361.383	3011543.8	3011543.8	158.23 %		23:46:28
1	Y 371.029	2074208.7	2074208.7	158.17 %		23:46:28
1	Ag 328.068†	-359.0	271.9	2.0731 µg/L	2.0731 ppb	23:46:34
1	As 188.979†	-1.2	-1.6	-3.1396 µg/L	-3.1396 ppb	23:46:54
1	B 249.677†	321.5	-251.0	-10.707 µg/L	-10.707 ppb	23:46:54
1	Ba 233.527†	-10.9	13.6	0.3504 µg/L	0.3504 ppb	23:46:54
1	Be 313.107†	-1638.0	2503.0	1.5537 µg/L	1.5537 ppb	23:46:34
1	Cd 226.502†	-125.2	50.3	1.3541 µg/L	1.3541 ppb	23:46:54
1	Co 228.616†	-1.9	6.2	0.2997 µg/L	0.2997 ppb	23:46:54
1	Cr 267.716†	-13.4	37.7	0.7981 µg/L	0.7981 ppb	23:46:54
1	Cu 324.752†	3026.3	-1326.4	-8.8735 µg/L	-8.8735 ppb	23:46:34
1	Mn 257.610†	-153.0	134.1	0.4455 µg/L	0.4455 ppb	23:46:54
1	Mo 202.031†	-3.8	1.7	0.1693 µg/L	0.1693 ppb	23:46:54
1	Ni 231.604†	300.2	-98.3	-5.2155 µg/L	-5.2155 ppb	23:46:54
1	P 214.914†	24.5	-6.8	-13.331 µg/L	-13.331 ppb	23:46:54
1	Pb 220.353†	88.3	-26.7	-6.8513 µg/L	-6.8513 ppb	23:46:54
1	S 181.975 Axial†	15.0	-6.9	-29.820 µg/L	-29.820 ppb	23:46:54
1	Sb 206.836†	16.2	-11.6	-10.982 µg/L	-10.982 ppb	23:46:54
1	Se 196.026†	17.6	-4.7	-7.0172 µg/L	-7.0172 ppb	23:46:54
1	SiO2†	2001.0	-280.9	-58.161 µg/L	-58.161 ppb	23:46:34
1	Si 251.611†	437.5	-58.4	-4.6830 µg/L	-4.6830 ppb	23:46:54
1	Sn 189.927†	-0.0	-0.7	-0.3168 µg/L	-0.3168 ppb	23:46:54
1	Ti 334.940†	608.8	307.8	0.7107 µg/L	0.7107 ppb	23:46:34
1	Tl 190.801†	-25.2	5.8	7.9828 µg/L	7.9828 ppb	23:46:54
1	U 409.014†	309.8	-12.0	-0.9686 µg/L	-0.9686 ppb	23:46:34
1	V 292.402†	39.4	72.4	0.7303 µg/L	0.7303 ppb	23:46:34
1	Zn 213.857†	485.5	-241.7	-5.9414 µg/L	-5.9414 ppb	23:46:54
2	Sc RADIAL	80901.7	80901.7	153 %		23:45:32
2	Al 396.153Radial†	81.3	79.5	57.598 µg/L	57.598 ppb	23:45:32
2	Ca 317.933Radial†	253.4	-17.9	-16.968 µg/L	-16.968 ppb	23:45:52
2	Fe 238.204 Radial†	16.9	-4.8	-42.958 µg/L	-42.958 ppb	23:45:52
2	K 766.490 Radial†	249.0	-84.8	-57.977 µg/L	-57.977 ppb	23:45:32
2	Mg 279.077 IEC†	9.8	-6.3	-60.565 µg/L	-60.565 ppb	23:45:52
2	Na 589.592 Radial†	1606.5	455.4	140.84 µg/L	140.84 ppb	23:45:32
2	Sr 421.552†	77.5	25.5	0.2539 µg/L	0.2539 ppb	23:45:32
2	Sc 361.383	3002894.6	3002894.6	157.77 %		23:47:00
2	Y 371.029	2068665.4	2068665.4	157.74 %		23:47:00
2	Ag 328.068†	-535.2	159.6	1.2140 µg/L	1.2140 ppb	23:47:06
2	As 188.979†	0.5	-0.6	-1.0636 µg/L	-1.0636 ppb	23:47:26
2	B 249.677†	339.8	-238.8	-10.187 µg/L	-10.187 ppb	23:47:26
2	Ba 233.527†	8.3	25.7	0.6604 µg/L	0.6604 ppb	23:47:26
2	Be 313.107†	-2666.9	1847.9	1.1472 µg/L	1.1472 ppb	23:47:06
2	Cd 226.502†	-107.8	61.0	1.6426 µg/L	1.6426 ppb	23:47:26
2	Co 228.616†	4.4	10.2	0.4945 µg/L	0.4945 ppb	23:47:26
2	Cr 267.716†	-2.1	44.8	0.9487 µg/L	0.9487 ppb	23:47:26
2	Cu 324.752†	2668.0	-1548.1	-10.354 µg/L	-10.354 ppb	23:47:06
2	Mn 257.610†	-7.2	226.2	0.7547 µg/L	0.7547 ppb	23:47:26
2	Mo 202.031†	9.3	9.9	1.0246 µg/L	1.0246 ppb	23:47:26
2	Ni 231.604†	295.2	-100.9	-5.3528 µg/L	-5.3528 ppb	23:47:26
2	P 214.914†	36.4	0.8	2.7243 µg/L	2.7243 ppb	23:47:26
2	Pb 220.353†	84.9	-28.8	-7.3527 µg/L	-7.3527 ppb	23:47:26

2	S 181.975 Axial†	17.4	-5.4	-23.255 µg/L	-23.255 ppb	23:47:26
2	Sb 206.836†	22.6	-7.5	-7.0806 µg/L	-7.0806 ppb	23:47:26
2	Se 196.026†	14.9	-6.4	-9.5547 µg/L	-9.5547 ppb	23:47:26
2	SiO2†	1248.1	-754.5	-156.22 µg/L	-156.22 ppb	23:47:06
2	Si 251.611†	1031.2	318.7	25.576 µg/L	25.576 ppb	23:47:26
2	Sn 189.927†	-0.3	-0.9	-0.3891 µg/L	-0.3891 ppb	23:47:26
2	Ti 334.940†	185.6	40.7	0.0977 µg/L	0.0977 ppb	23:47:06
2	Tl 190.801†	-21.8	7.9	10.894 µg/L	10.894 ppb	23:47:26
2	U 409.014†	170.6	-99.6	-8.1300 µg/L	-8.1300 ppb	23:47:06
2	V 292.402†	-54.5	12.9	0.1275 µg/L	0.1275 ppb	23:47:06
2	Zn 213.857†	506.3	-227.6	-5.5912 µg/L	-5.5912 ppb	23:47:26
3	Sc RADIAL	80229.0	80229.0	152 %		23:45:57
3	Al 396.153Radial†	26.9	44.1	31.979 µg/L	31.979 ppb	23:45:57
3	Ca 317.933Radial†	251.4	-17.8	-16.883 µg/L	-16.883 ppb	23:46:18
3	Fe 238.204 Radial†	16.7	-4.7	-42.870 µg/L	-42.870 ppb	23:46:18
3	K 766.490 Radial†	238.8	-90.1	-61.601 µg/L	-61.601 ppb	23:45:57
3	Mg 279.077 IEC†	10.2	-6.0	-57.602 µg/L	-57.602 ppb	23:46:18
3	Na 589.592 Radial†	1021.9	79.6	24.623 µg/L	24.623 ppb	23:45:57
3	Sr 421.552†	32.6	-3.6	-0.0357 µg/L	-0.0357 ppb	23:45:57
3	Sc 361.383	2984724.1	2984724.1	156.82 %		23:47:32
3	Y 371.029	2055915.4	2055915.4	156.77 %		23:47:32
3	Ag 328.068†	-438.1	219.4	1.6700 µg/L	1.6700 ppb	23:47:38
3	As 188.979†	-1.5	-1.8	-3.4095 µg/L	-3.4095 ppb	23:47:59
3	B 249.677†	336.6	-239.5	-10.220 µg/L	-10.220 ppb	23:47:59
3	Ba 233.527†	-0.4	20.2	0.5189 µg/L	0.5189 ppb	23:47:59
3	Be 313.107†	-2617.5	1869.1	1.1604 µg/L	1.1604 ppb	23:47:38
3	Cd 226.502†	-113.1	57.2	1.5415 µg/L	1.5415 ppb	23:47:59
3	Co 228.616†	6.2	11.4	0.5504 µg/L	0.5504 ppb	23:47:59
3	Cr 267.716†	2.3	47.6	1.0081 µg/L	1.0081 ppb	23:47:59
3	Cu 324.752†	2644.2	-1552.9	-10.387 µg/L	-10.387 ppb	23:47:38
3	Mn 257.610†	-46.6	201.1	0.6704 µg/L	0.6704 ppb	23:47:59
3	Mo 202.031†	5.6	7.6	0.7887 µg/L	0.7887 ppb	23:47:59
3	Ni 231.604†	296.3	-99.1	-5.2575 µg/L	-5.2575 ppb	23:47:59
3	P 214.914†	35.9	0.6	2.2894 µg/L	2.2894 ppb	23:47:59
3	Pb 220.353†	88.7	-26.0	-6.6510 µg/L	-6.6510 ppb	23:47:59
3	S 181.975 Axial†	15.8	-6.3	-27.322 µg/L	-27.322 ppb	23:47:59
3	Sb 206.836†	13.1	-13.5	-12.786 µg/L	-12.786 ppb	23:47:59
3	Se 196.026†	20.6	-2.7	-4.0591 µg/L	-4.0591 ppb	23:47:59
3	SiO2†	1258.5	-743.0	-153.84 µg/L	-153.84 ppb	23:47:38
3	Si 251.611†	900.2	239.2	19.193 µg/L	19.193 ppb	23:47:59
3	Sn 189.927†	-0.7	-1.1	-0.5047 µg/L	-0.5047 ppb	23:47:59
3	Ti 334.940†	136.1	9.8	0.0268 µg/L	0.0268 ppb	23:47:38
3	Tl 190.801†	-19.1	9.5	13.178 µg/L	13.178 ppb	23:47:59
3	U 409.014†	301.7	-15.4	-1.2522 µg/L	-1.2522 ppb	23:47:38
3	V 292.402†	-51.3	14.7	0.1512 µg/L	0.1512 ppb	23:47:38
3	Zn 213.857†	496.2	-232.1	-5.7019 µg/L	-5.7019 ppb	23:47:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2999720.9	157.60 %	0.719			0.46%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 157.6%						
Sc RADIAL	81239.2	154 %	2.3			1.50%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 153.9%						
Y 371.029	2066263.1	157.56 %	0.715			0.45%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 157.6%						
Ag 328.068†	217.0	1.6524 µg/L	0.42982	1.6524 ppb	0.42982	26.01%
QC value less than the lower limit for Ag 328.068 Recovery = 0.33%						
Al 396.153Radial†	47.8	34.665 µg/L	21.7144	34.665 ppb	21.7144	62.64%
QC value less than the lower limit for Al 396.153Radial Recovery = 0.69%						
As 188.979†	-1.3	-2.5375 µg/L	1.28363	-2.5375 ppb	1.28363	50.59%
QC value less than the lower limit for As 188.979 Recovery = -0.51%						
B 249.677†	-243.1	-10.371 µg/L	0.2909	-10.371 ppb	0.2909	2.81%
QC value less than the lower limit for B 249.677 Recovery = -2.07%						
Ba 233.527†	19.9	0.5099 µg/L	0.15521	0.5099 ppb	0.15521	30.44%
QC value less than the lower limit for Ba 233.527 Recovery = 0.10%						
Be 313.107†	2073.3	1.2871 µg/L	0.23097	1.2871 ppb	0.23097	17.95%
QC value less than the lower limit for Be 313.107 Recovery = 0.26%						
Ca 317.933Radial†	-17.7	-16.760 µg/L	0.2894	-16.760 ppb	0.2894	1.73%
QC value less than the lower limit for Ca 317.933Radial Recovery = -0.34%						

Cd 226.502†	56.2	1.5127 µg/L	0.14641	1.5127 ppb	0.14641	9.68%
QC value less than the lower limit for Cd 226.502			Recovery = 0.30%			
Co 228.616†	9.3	0.4482 µg/L	0.13159	0.4482 ppb	0.13159	29.36%
QC value less than the lower limit for Co 228.616			Recovery = 0.09%			
Cr 267.716†	43.3	0.9183 µg/L	0.10825	0.9183 ppb	0.10825	11.79%
QC value less than the lower limit for Cr 267.716			Recovery = 0.18%			
Cu 324.752†	-1475.8	-9.8714 µg/L	0.86438	-9.8714 ppb	0.86438	8.76%
QC value less than the lower limit for Cu 324.752			Recovery = -1.97%			
Fe 238.204 Radial†	-5.0	-45.115 µg/L	3.8117	-45.115 ppb	3.8117	8.45%
QC value less than the lower limit for Fe 238.204 Radial			Recovery = -0.90%			
K 766.490 Radial†	-103.8	-70.986 µg/L	19.4775	-70.986 ppb	19.4775	27.44%
QC value less than the lower limit for K 766.490 Radial			Recovery = -1.42%			
Mg 279.077 IEC†	-6.5	-61.797 µg/L	4.9275	-61.797 ppb	4.9275	7.97%
QC value less than the lower limit for Mg 279.077 IEC			Recovery = -1.24%			
Mn 257.610†	187.1	0.6235 µg/L	0.15986	0.6235 ppb	0.15986	25.64%
QC value less than the lower limit for Mn 257.610			Recovery = 0.12%			
Mo 202.031†	6.4	0.6609 µg/L	0.44178	0.6609 ppb	0.44178	66.85%
QC value less than the lower limit for Mo 202.031			Recovery = 0.13%			
Na 589.592 Radial†	111.0	34.345 µg/L	101.9776	34.345 ppb	101.9776	296.92%
QC value less than the lower limit for Na 589.592 Radial			Recovery = 0.34%			
Ni 231.604†	-99.4	-5.2753 µg/L	0.07038	-5.2753 ppb	0.07038	1.33%
QC value less than the lower limit for Ni 231.604			Recovery = -1.06%			
P 214.914†	-1.8	-2.7724 µg/L	9.14662	-2.7724 ppb	9.14662	329.91%
QC value less than the lower limit for P 214.914			Recovery = -0.11%			
Pb 220.353†	-27.2	-6.9517 µg/L	0.36147	-6.9517 ppb	0.36147	5.20%
QC value less than the lower limit for Pb 220.353			Recovery = -1.39%			
S 181.975 Axial†	-6.2	-26.799 µg/L	3.3135	-26.799 ppb	3.3135	12.36%
QC value less than the lower limit for S 181.975 Axial			Recovery = -2.68%			
Sb 206.836†	-10.8	-10.283 µg/L	2.9161	-10.283 ppb	2.9161	28.36%
QC value less than the lower limit for Sb 206.836			Recovery = -2.06%			
Se 196.026†	-4.6	-6.8770 µg/L	2.75045	-6.8770 ppb	2.75045	39.99%
QC value less than the lower limit for Se 196.026			Recovery = -1.38%			
SiO2†	-592.8	-122.74 µg/L	55.941	-122.74 ppb	55.941	45.58%
QC value less than the lower limit for SiO2			Recovery = -2.30%			
Si 251.611†	166.5	13.362 µg/L	15.9502	13.362 ppb	15.9502	119.37%
QC value less than the lower limit for Si 251.611			Recovery = 0.53%			
Sn 189.927†	-0.9	-0.4035 µg/L	0.09478	-0.4035 ppb	0.09478	23.49%
QC value less than the lower limit for Sn 189.927			Recovery = -0.08%			
Sr 421.552†	1.6	0.0161 µg/L	0.21658	0.0161 ppb	0.21658	>999.9%
QC value less than the lower limit for Sr 421.552			Recovery = 0.00%			
Ti 334.940†	119.4	0.2784 µg/L	0.37604	0.2784 ppb	0.37604	135.09%
QC value less than the lower limit for Ti 334.940			Recovery = 0.06%			
Tl 190.801†	7.7	10.685 µg/L	2.6037	10.685 ppb	2.6037	24.37%
QC value less than the lower limit for Tl 190.801			Recovery = 2.14%			
U 409.014†	-42.3	-3.4503 µg/L	4.05524	-3.4503 ppb	4.05524	117.53%
QC value less than the lower limit for U 409.014			Recovery = -0.69%			
V 292.402†	33.3	0.3363 µg/L	0.34138	0.3363 ppb	0.34138	101.50%
QC value less than the lower limit for V 292.402			Recovery = 0.07%			
Zn 213.857†	-233.8	-5.7448 µg/L	0.17904	-5.7448 ppb	0.17904	3.12%
QC value less than the lower limit for Zn 213.857			Recovery = -1.15%			

Internal Standard Check failed. Continue with analysis.

QC Failed. Continue with analysis.

Sequence No.: 11
 Sample ID: PQL
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 101
 Date Collected: 2/24/2010 23:48:08
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51990.2	51990.2	98.5 %		23:48:44
1	Al 396.153Radial†	234.5	264.5	191.51 µg/L	191.51 ppb	23:48:44
1	Ca 317.933Radial†	377.8	200.3	189.57 µg/L	189.57 ppb	23:49:04
1	Fe 238.204 Radial†	27.7	12.4	111.71 µg/L	111.71 ppb	23:49:04
1	K 766.490 Radial†	431.2	190.5	130.28 µg/L	130.28 ppb	23:48:44
1	Mg 279.077 IEC†	39.8	27.7	265.21 µg/L	265.21 ppb	23:49:04
1	Na 589.592 Radial†	1641.2	1073.4	331.97 µg/L	331.97 ppb	23:48:44
1	Sr 421.552†	547.3	530.5	5.2724 µg/L	5.2724 ppb	23:48:44
1	Sc 361.383	1864661.0	1864661.0	97.969 %		23:50:06
1	Y 371.029	1287391.2	1287391.2	98.168 %		23:50:06
1	Ag 328.068†	233.9	737.5	5.6559 µg/L	5.6559 ppb	23:50:12
1	As 188.979†	14.0	13.5	25.663 µg/L	25.663 ppb	23:50:32
1	B 249.677†	1461.0	1037.1	44.298 µg/L	44.298 ppb	23:50:12
1	Ba 233.527†	184.5	208.8	5.3642 µg/L	5.3642 ppb	23:50:32
1	Be 313.107†	4487.4	8118.7	5.0384 µg/L	5.0384 ppb	23:50:12
1	Cd 226.502†	61.4	192.0	5.1645 µg/L	5.1645 ppb	23:50:32
1	Co 228.616†	93.7	103.0	4.9795 µg/L	4.9795 ppb	23:50:32
1	Cr 267.716†	192.6	242.7	5.1435 µg/L	5.1435 ppb	23:50:32
1	Cu 324.752†	4805.3	1665.9	11.151 µg/L	11.151 ppb	23:50:12
1	Mn 257.610†	2846.0	3135.8	10.511 µg/L	10.511 ppb	23:50:12
1	Mo 202.031†	89.9	95.8	9.9115 µg/L	9.9115 ppb	23:50:32
1	Ni 231.604†	378.9	98.8	5.2356 µg/L	5.2356 ppb	23:50:32
1	P 214.914†	97.0	76.6	159.75 µg/L	159.75 ppb	23:50:32
1	Pb 220.353†	134.4	54.7	14.002 µg/L	14.002 ppb	23:50:32
1	S 181.975 Axial†	39.9	24.4	105.75 µg/L	105.75 ppb	23:50:32
1	Sb 206.836†	31.1	9.9	9.4757 µg/L	9.4757 ppb	23:50:32
1	Se 196.026†	29.3	14.0	20.834 µg/L	20.834 ppb	23:50:32
1	SiO2†	2586.0	1094.1	226.52 µg/L	226.52 ppb	23:50:12
1	Si 251.611†	1556.1	1253.5	100.59 µg/L	100.59 ppb	23:50:32
1	Sn 189.927†	26.9	26.8	11.977 µg/L	11.977 ppb	23:50:32
1	Ti 334.940†	2266.6	2236.6	5.1092 µg/L	5.1092 ppb	23:50:12
1	Tl 190.801†	-7.4	14.1	19.773 µg/L	19.773 ppb	23:50:32
1	U 409.014†	894.2	705.0	57.541 µg/L	57.541 ppb	23:50:12
1	V 292.402†	390.6	446.2	4.6863 µg/L	4.6863 ppb	23:50:12
1	Zn 213.857†	883.8	353.6	8.6958 µg/L	8.6958 ppb	23:50:32
2	Sc RADIAL	51941.1	51941.1	98.4 %		23:49:10
2	Al 396.153Radial†	238.3	268.6	194.48 µg/L	194.48 ppb	23:49:10
2	Ca 317.933Radial†	375.5	198.3	187.69 µg/L	187.69 ppb	23:49:30
2	Fe 238.204 Radial†	26.3	11.0	99.435 µg/L	99.435 ppb	23:49:30
2	K 766.490 Radial†	436.6	196.4	134.33 µg/L	134.33 ppb	23:49:10
2	Mg 279.077 IEC†	40.2	28.1	269.09 µg/L	269.09 ppb	23:49:30
2	Na 589.592 Radial†	1633.1	1066.7	329.90 µg/L	329.90 ppb	23:49:10
2	Sr 421.552†	530.7	514.2	5.1106 µg/L	5.1106 ppb	23:49:10
2	Sc 361.383	1863838.0	1863838.0	97.925 %		23:50:38
2	Y 371.029	1287720.7	1287720.7	98.193 %		23:50:38
2	Ag 328.068†	235.7	739.5	5.6714 µg/L	5.6714 ppb	23:50:44
2	As 188.979†	8.2	7.6	14.397 µg/L	14.397 ppb	23:51:04
2	B 249.677†	1490.0	1067.4	45.600 µg/L	45.600 ppb	23:50:44
2	Ba 233.527†	176.5	200.7	5.1555 µg/L	5.1555 ppb	23:51:04
2	Be 313.107†	4495.1	8128.6	5.0445 µg/L	5.0445 ppb	23:50:44
2	Cd 226.502†	57.9	188.4	5.0707 µg/L	5.0707 ppb	23:51:04
2	Co 228.616†	99.6	109.1	5.2726 µg/L	5.2726 ppb	23:51:04
2	Cr 267.716†	201.7	252.2	5.3442 µg/L	5.3442 ppb	23:51:04
2	Cu 324.752†	4767.0	1628.9	10.903 µg/L	10.903 ppb	23:50:44
2	Mn 257.610†	2846.4	3137.5	10.515 µg/L	10.515 ppb	23:50:44
2	Mo 202.031†	85.9	91.7	9.4940 µg/L	9.4940 ppb	23:51:04
2	Ni 231.604†	395.8	116.2	6.1597 µg/L	6.1597 ppb	23:51:04
2	P 214.914†	96.8	76.5	159.55 µg/L	159.55 ppb	23:51:04
2	Pb 220.353†	126.5	46.6	11.938 µg/L	11.938 ppb	23:51:04

2	S 181.975 Axial†	37.4	21.9	94.842 µg/L	94.842 ppb	23:51:04
2	Sb 206.836†	33.7	12.6	12.056 µg/L	12.056 ppb	23:51:04
2	Se 196.026†	32.0	16.9	25.050 µg/L	25.050 ppb	23:51:04
2	SiO2†	2592.8	1102.1	228.19 µg/L	228.19 ppb	23:50:44
2	Si 251.611†	1556.7	1254.8	100.69 µg/L	100.69 ppb	23:51:04
2	Sn 189.927†	30.4	30.3	13.557 µg/L	13.557 ppb	23:51:04
2	Ti 334.940†	2289.4	2260.9	5.1646 µg/L	5.1646 ppb	23:50:44
2	Tl 190.801†	-2.8	18.9	26.291 µg/L	26.291 ppb	23:51:04
2	U 409.014†	805.1	614.3	50.141 µg/L	50.141 ppb	23:50:44
2	V 292.402†	405.3	461.3	4.8279 µg/L	4.8279 ppb	23:50:44
2	Zn 213.857†	880.5	350.7	8.6197 µg/L	8.6197 ppb	23:51:04
3	Sc RADIAL	51795.2	51795.2	98.1 %		23:49:36
3	Al 396.153Radial†	267.1	298.6	216.26 µg/L	216.26 ppb	23:49:36
3	Ca 317.933Radial†	378.9	202.8	191.92 µg/L	191.92 ppb	23:49:56
3	Fe 238.204 Radial†	26.3	11.0	99.568 µg/L	99.568 ppb	23:49:56
3	K 766.490 Radial†	447.9	209.1	143.02 µg/L	143.02 ppb	23:49:36
3	Mg 279.077 IEC†	41.9	30.0	287.14 µg/L	287.14 ppb	23:49:56
3	Na 589.592 Radial†	1596.2	1033.8	319.73 µg/L	319.73 ppb	23:49:36
3	Sr 421.552†	552.6	538.0	5.3467 µg/L	5.3467 ppb	23:49:36
3	Sc 361.383	1859709.7	1859709.7	97.708 %		23:51:10
3	Y 371.029	1284335.9	1284335.9	97.935 %		23:51:10
3	Ag 328.068†	162.0	664.6	5.0968 µg/L	5.0968 ppb	23:51:16
3	As 188.979†	14.5	14.0	26.585 µg/L	26.585 ppb	23:51:36
3	B 249.677†	1463.5	1043.6	44.584 µg/L	44.584 ppb	23:51:16
3	Ba 233.527†	163.7	188.0	4.8283 µg/L	4.8283 ppb	23:51:36
3	Be 313.107†	4135.2	7770.4	4.8223 µg/L	4.8223 ppb	23:51:16
3	Cd 226.502†	39.8	170.1	4.5759 µg/L	4.5759 ppb	23:51:36
3	Co 228.616†	87.7	97.2	4.6968 µg/L	4.6968 ppb	23:51:36
3	Cr 267.716†	181.1	231.4	4.9053 µg/L	4.9053 ppb	23:51:36
3	Cu 324.752†	4675.5	1546.1	10.349 µg/L	10.349 ppb	23:51:16
3	Mn 257.610†	2690.2	2984.1	10.000 µg/L	10.000 ppb	23:51:16
3	Mo 202.031†	81.9	87.9	9.0952 µg/L	9.0952 ppb	23:51:36
3	Ni 231.604†	372.8	93.5	4.9594 µg/L	4.9594 ppb	23:51:36
3	P 214.914†	86.7	66.4	138.23 µg/L	138.23 ppb	23:51:36
3	Pb 220.353†	124.6	45.0	11.511 µg/L	11.511 ppb	23:51:36
3	S 181.975 Axial†	34.7	19.2	83.178 µg/L	83.178 ppb	23:51:36
3	Sb 206.836†	24.8	3.5	3.4427 µg/L	3.4427 ppb	23:51:36
3	Se 196.026†	26.7	11.5	17.034 µg/L	17.034 ppb	23:51:36
3	SiO2†	2587.7	1102.8	228.33 µg/L	228.33 ppb	23:51:16
3	Si 251.611†	1428.3	1126.9	90.434 µg/L	90.434 ppb	23:51:36
3	Sn 189.927†	17.4	17.1	7.6719 µg/L	7.6719 ppb	23:51:36
3	Ti 334.940†	2126.1	2099.0	4.7920 µg/L	4.7920 ppb	23:51:16
3	Tl 190.801†	-4.1	17.5	24.365 µg/L	24.365 ppb	23:51:36
3	U 409.014†	826.9	638.5	52.112 µg/L	52.112 ppb	23:51:16
3	V 292.402†	350.7	406.3	4.2683 µg/L	4.2683 ppb	23:51:16
3	Zn 213.857†	827.2	298.1	7.3242 µg/L	7.3242 ppb	23:51:36

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1862736.2	97.867 %	0.1394			0.14%
Sc RADIAL	51908.8	98.4 %	0.19			0.20%
Y 371.029	1286482.6	98.099 %	0.1423			0.15%
Ag 328.068†	713.9	5.4747 µg/L	0.32736	5.4747 ppb	0.32736	5.98%
QC value within limits for Ag 328.068 Recovery = 109.49%						
Al 396.153Radial†	277.2	200.75 µg/L	13.514	200.75 ppb	13.514	6.73%
QC value within limits for Al 396.153Radial Recovery = 100.37%						
As 188.979†	11.7	22.215 µg/L	6.7864	22.215 ppb	6.7864	30.55%
QC value within limits for As 188.979 Recovery = 74.05%						
B 249.677†	1049.4	44.827 µg/L	0.6841	44.827 ppb	0.6841	1.53%
QC value within limits for B 249.677 Recovery = 89.65%						
Ba 233.527†	199.2	5.1160 µg/L	0.27012	5.1160 ppb	0.27012	5.28%
QC value within limits for Ba 233.527 Recovery = 102.32%						
Be 313.107†	8005.9	4.9684 µg/L	0.12658	4.9684 ppb	0.12658	2.55%
QC value within limits for Be 313.107 Recovery = 99.37%						
Ca 317.933Radial†	200.5	189.73 µg/L	2.119	189.73 ppb	2.119	1.12%
QC value within limits for Ca 317.933Radial Recovery = 94.86%						
Cd 226.502†	183.5	4.9370 µg/L	0.31624	4.9370 ppb	0.31624	6.41%
QC value within limits for Cd 226.502 Recovery = 98.74%						
Co 228.616†	103.1	4.9829 µg/L	0.28792	4.9829 ppb	0.28792	5.78%

QC value within limits for Co 228.616 Recovery = 99.66%							
Cr 267.716†	242.1	5.1310 µg/L	0.21973	5.1310 ppb	0.21973	4.28%	
QC value within limits for Cr 267.716 Recovery = 102.62%							
Cu 324.752†	1613.6	10.801 µg/L	0.4106	10.801 ppb	0.4106	3.80%	
QC value within limits for Cu 324.752 Recovery = 108.01%							
Fe 238.204 Radial†	11.4	103.57 µg/L	7.048	103.57 ppb	7.048	6.80%	
QC value within limits for Fe 238.204 Radial Recovery = 103.57%							
K 766.490 Radial†	198.7	135.88 µg/L	6.512	135.88 ppb	6.512	4.79%	
QC value within limits for K 766.490 Radial Recovery = 90.58%							
Mg 279.077 IEC†	28.6	273.81 µg/L	11.705	273.81 ppb	11.705	4.27%	
QC value within limits for Mg 279.077 IEC Recovery = 91.27%							
Mn 257.610†	3085.8	10.342 µg/L	0.2959	10.342 ppb	0.2959	2.86%	
QC value within limits for Mn 257.610 Recovery = 103.42%							
Mo 202.031†	91.8	9.5002 µg/L	0.40815	9.5002 ppb	0.40815	4.30%	
QC value within limits for Mo 202.031 Recovery = 95.00%							
Na 589.592 Radial†	1058.0	327.20 µg/L	6.556	327.20 ppb	6.556	2.00%	
QC value within limits for Na 589.592 Radial Recovery = 109.07%							
Ni 231.604†	102.8	5.4516 µg/L	0.62861	5.4516 ppb	0.62861	11.53%	
QC value within limits for Ni 231.604 Recovery = 109.03%							
P 214.914†	73.2	152.51 µg/L	12.366	152.51 ppb	12.366	8.11%	
QC value within limits for P 214.914 Recovery = 101.67%							
Pb 220.353†	48.8	12.484 µg/L	1.3322	12.484 ppb	1.3322	10.67%	
QC value within limits for Pb 220.353 Recovery = 124.84%							
S 181.975 Axial†	21.8	94.591 µg/L	11.2892	94.591 ppb	11.2892	11.93%	
QC value within limits for S 181.975 Axial Recovery = 94.59%							
Sb 206.836†	8.7	8.3249 µg/L	4.42058	8.3249 ppb	4.42058	53.10%	
QC value within limits for Sb 206.836 Recovery = 83.25%							
Se 196.026†	14.2	20.972 µg/L	4.0098	20.972 ppb	4.0098	19.12%	
QC value less than the lower limit for Se 196.026 Recovery = 69.91%							
SiO2†	1099.7	227.68 µg/L	1.006	227.68 ppb	1.006	0.44%	
QC value within limits for SiO2 Recovery = 106.89%							
Si 251.611†	1211.7	97.239 µg/L	5.8935	97.239 ppb	5.8935	6.06%	
QC value within limits for Si 251.611 Recovery = 97.24%							
Sn 189.927†	24.7	11.069 µg/L	3.0458	11.069 ppb	3.0458	27.52%	
QC value within limits for Sn 189.927 Recovery = 110.69%							
Sr 421.552†	527.6	5.2432 µg/L	0.12070	5.2432 ppb	0.12070	2.30%	
QC value within limits for Sr 421.552 Recovery = 104.86%							
Ti 334.940†	2198.8	5.0219 µg/L	0.20101	5.0219 ppb	0.20101	4.00%	
QC value within limits for Ti 334.940 Recovery = 100.44%							
Tl 190.801†	16.8	23.476 µg/L	3.3486	23.476 ppb	3.3486	14.26%	
QC value within limits for Tl 190.801 Recovery = 117.38%							
U 409.014†	652.6	53.265 µg/L	3.8321	53.265 ppb	3.8321	7.19%	
QC value within limits for U 409.014 Recovery = 106.53%							
V 292.402†	437.9	4.5942 µg/L	0.29097	4.5942 ppb	0.29097	6.33%	
QC value within limits for V 292.402 Recovery = 91.88%							
Zn 213.857†	334.1	8.2132 µg/L	0.77086	8.2132 ppb	0.77086	9.39%	
QC value within limits for Zn 213.857 Recovery = 82.13%							
QC Failed. Continue with analysis.							

Sequence No.: 12

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/24/2010 23:51:46

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	82604.8	82604.8	157 %		23:52:20
1	Al 396.153Radial†	-15.6	16.5	11.947 µg/L	11.947 ppb	23:52:20
1	Ca 317.933Radial†	262.8	-15.3	-14.523 µg/L	-14.523 ppb	23:52:40
1	Fe 238.204 Radial†	18.8	-3.8	-34.116 µg/L	-34.116 ppb	23:52:40
1	K 766.490 Radial†	195.1	-122.6	-83.806 µg/L	-83.806 ppb	23:52:20
1	Mg 279.077 IEC†	11.5	-5.4	-51.406 µg/L	-51.406 ppb	23:52:40
1	Na 589.592 Radial†	548.3	-242.2	-74.914 µg/L	-74.914 ppb	23:52:20
1	Sr 421.552†	14.2	-16.0	-0.1587 µg/L	-0.1587 ppb	23:52:20
1	Sc 361.383	3001570.6	3001570.6	157.70 %		23:53:42
1	Y 371.029	2068181.9	2068181.9	157.71 %		23:53:42
1	Ag 328.068†	-394.3	248.8	1.8958 µg/L	1.8958 ppb	23:53:47
1	As 188.979†	-2.0	-2.1	-4.0101 µg/L	-4.0101 ppb	23:54:08
1	B 249.677†	341.8	-237.4	-10.134 µg/L	-10.134 ppb	23:54:08
1	Ba 233.527†	-6.0	16.7	0.4290 µg/L	0.4290 ppb	23:54:08
1	Be 313.107†	-1640.9	2497.7	1.5505 µg/L	1.5505 ppb	23:53:47
1	Cd 226.502†	-129.9	47.0	1.2636 µg/L	1.2636 ppb	23:54:08
1	Co 228.616†	-5.7	3.9	0.1853 µg/L	0.1853 ppb	23:54:08
1	Cr 267.716†	-9.5	40.1	0.8500 µg/L	0.8500 ppb	23:54:08
1	Cu 324.752†	2993.8	-1340.7	-8.9669 µg/L	-8.9669 ppb	23:53:47
1	Mn 257.610†	-68.5	187.4	0.6253 µg/L	0.6253 ppb	23:54:08
1	Mo 202.031†	0.0	4.1	0.4212 µg/L	0.4212 ppb	23:54:08
1	Ni 231.604†	287.8	-105.5	-5.5989 µg/L	-5.5989 ppb	23:54:08
1	P 214.914†	34.2	-0.6	-0.3408 µg/L	-0.3408 ppb	23:54:08
1	Pb 220.353†	86.0	-28.0	-7.1765 µg/L	-7.1765 ppb	23:54:08
1	S 181.975 Axial†	14.1	-7.4	-32.070 µg/L	-32.070 ppb	23:54:08
1	Sb 206.836†	25.3	-5.8	-5.4846 µg/L	-5.4846 ppb	23:54:08
1	Se 196.026†	21.5	-2.2	-3.3022 µg/L	-3.3022 ppb	23:54:08
1	SiO2†	1716.0	-457.4	-94.712 µg/L	-94.712 ppb	23:53:47
1	Si 251.611†	390.0	-87.6	-7.0280 µg/L	-7.0280 ppb	23:54:08
1	Sn 189.927†	1.3	0.1	0.0423 µg/L	0.0423 ppb	23:54:08
1	Ti 334.940†	529.0	258.5	0.5964 µg/L	0.5964 ppb	23:53:47
1	Tl 190.801†	-28.6	3.6	4.9520 µg/L	4.9520 ppb	23:54:08
1	U 409.014†	357.2	18.7	1.5343 µg/L	1.5343 ppb	23:53:47
1	V 292.402†	-16.6	36.9	0.3771 µg/L	0.3771 ppb	23:53:47
1	Zn 213.857†	485.9	-240.3	-5.9087 µg/L	-5.9087 ppb	23:54:08
2	Sc RADIAL	82972.8	82972.8	157 %		23:52:46
2	Al 396.153Radial†	-9.7	20.3	14.666 µg/L	14.666 ppb	23:52:46
2	Ca 317.933Radial†	261.1	-17.1	-16.227 µg/L	-16.227 ppb	23:53:06
2	Fe 238.204 Radial†	16.1	-5.5	-49.750 µg/L	-49.750 ppb	23:53:06
2	K 766.490 Radial†	128.4	-165.5	-113.16 µg/L	-113.16 ppb	23:52:46
2	Mg 279.077 IEC†	10.4	-6.1	-58.620 µg/L	-58.620 ppb	23:53:06
2	Na 589.592 Radial†	536.9	-251.0	-77.642 µg/L	-77.642 ppb	23:52:46
2	Sr 421.552†	27.4	-7.6	-0.0756 µg/L	-0.0756 ppb	23:52:46
2	Sc 361.383	3007968.2	3007968.2	158.04 %		23:54:14
2	Y 371.029	2073762.6	2073762.6	158.13 %		23:54:14
2	Ag 328.068†	-401.3	244.9	1.8643 µg/L	1.8643 ppb	23:54:20
2	As 188.979†	4.2	1.8	3.4433 µg/L	3.4433 ppb	23:54:40
2	B 249.677†	414.2	-192.1	-8.1863 µg/L	-8.1863 ppb	23:54:40
2	Ba 233.527†	14.7	29.8	0.7646 µg/L	0.7646 ppb	23:54:40
2	Be 313.107†	-2644.2	1865.1	1.1579 µg/L	1.1579 ppb	23:54:20
2	Cd 226.502†	-103.4	63.9	1.7216 µg/L	1.7216 ppb	23:54:40
2	Co 228.616†	17.8	18.7	0.9046 µg/L	0.9046 ppb	23:54:40
2	Cr 267.716†	14.0	55.0	1.1650 µg/L	1.1650 ppb	23:54:40
2	Cu 324.752†	2703.5	-1528.4	-10.224 µg/L	-10.224 ppb	23:54:20
2	Mn 257.610†	179.9	344.7	1.1505 µg/L	1.1505 ppb	23:54:40
2	Mo 202.031†	14.7	13.4	1.3802 µg/L	1.3802 ppb	23:54:40
2	Ni 231.604†	287.1	-106.3	-5.6439 µg/L	-5.6439 ppb	23:54:40
2	P 214.914†	24.7	-6.7	-13.003 µg/L	-13.003 ppb	23:54:40
2	Pb 220.353†	91.2	-24.8	-6.3491 µg/L	-6.3491 ppb	23:54:40

2	S 181.975 Axial†	16.6	-5.8	-25.358 µg/L	-25.358 ppb	23:54:40
2	Sb 206.836†	21.3	-8.4	-7.9150 µg/L	-7.9150 ppb	23:54:40
2	Se 196.026†	24.5	-0.3	-0.5060 µg/L	-0.5060 ppb	23:54:40
2	SiO2†	1242.4	-759.4	-157.24 µg/L	-157.24 ppb	23:54:20
2	Si 251.611†	767.5	150.7	12.096 µg/L	12.096 ppb	23:54:40
2	Sn 189.927†	-0.4	-1.0	-0.4384 µg/L	-0.4384 ppb	23:54:40
2	Ti 334.940†	161.5	25.2	0.0622 µg/L	0.0622 ppb	23:54:20
2	Tl 190.801†	-21.8	7.9	10.932 µg/L	10.932 ppb	23:54:40
2	U 409.014†	210.7	-74.4	-6.0706 µg/L	-6.0706 ppb	23:54:20
2	V 292.402†	-35.6	24.9	0.2538 µg/L	0.2538 ppb	23:54:20
2	Zn 213.857†	516.3	-221.8	-5.4457 µg/L	-5.4457 ppb	23:54:40
3	Sc RADIAL	79869.7	79869.7	151 %		23:53:11
3	Al 396.153Radial†	18.0	38.4	27.781 µg/L	27.781 ppb	23:53:11
3	Ca 317.933Radial†	259.5	-11.8	-11.134 µg/L	-11.134 ppb	23:53:32
3	Fe 238.204 Radial†	18.7	-3.4	-30.909 µg/L	-30.909 ppb	23:53:32
3	K 766.490 Radial†	221.2	-101.0	-69.090 µg/L	-69.090 ppb	23:53:11
3	Mg 279.077 IEC†	5.3	-9.2	-88.040 µg/L	-88.040 ppb	23:53:32
3	Na 589.592 Radial†	732.9	-108.3	-33.482 µg/L	-33.482 ppb	23:53:11
3	Sr 421.552†	108.1	46.4	0.4610 µg/L	0.4610 ppb	23:53:11
3	Sc 361.383	2986925.0	2986925.0	156.93 %		23:54:46
3	Y 371.029	2057163.1	2057163.1	156.87 %		23:54:46
3	Ag 328.068†	-499.2	180.7	1.3761 µg/L	1.3761 ppb	23:54:52
3	As 188.979†	3.0	1.0	1.9909 µg/L	1.9909 ppb	23:55:12
3	B 249.677†	425.7	-182.9	-7.8054 µg/L	-7.8054 ppb	23:55:12
3	Ba 233.527†	3.1	22.5	0.5768 µg/L	0.5768 ppb	23:55:12
3	Be 313.107†	-2704.3	1815.0	1.1268 µg/L	1.1268 ppb	23:54:52
3	Cd 226.502†	-107.8	60.6	1.6317 µg/L	1.6317 ppb	23:55:12
3	Co 228.616†	3.6	9.7	0.4705 µg/L	0.4705 ppb	23:55:12
3	Cr 267.716†	5.6	49.7	1.0536 µg/L	1.0536 ppb	23:55:12
3	Cu 324.752†	2660.5	-1543.8	-10.324 µg/L	-10.324 ppb	23:54:52
3	Mn 257.610†	109.6	300.7	1.0069 µg/L	1.0069 ppb	23:55:12
3	Mo 202.031†	4.9	7.2	0.7443 µg/L	0.7443 ppb	23:55:12
3	Ni 231.604†	293.9	-100.7	-5.3436 µg/L	-5.3436 ppb	23:55:12
3	P 214.914†	23.8	-7.1	-13.837 µg/L	-13.837 ppb	23:55:12
3	Pb 220.353†	87.9	-26.6	-6.7880 µg/L	-6.7880 ppb	23:55:12
3	S 181.975 Axial†	14.6	-7.0	-30.503 µg/L	-30.503 ppb	23:55:12
3	Sb 206.836†	24.0	-6.5	-6.1498 µg/L	-6.1498 ppb	23:55:12
3	Se 196.026†	14.3	-6.7	-9.9670 µg/L	-9.9670 ppb	23:55:12
3	SiO2†	1237.9	-756.8	-156.68 µg/L	-156.68 ppb	23:54:52
3	Si 251.611†	600.0	47.4	3.8053 µg/L	3.8053 ppb	23:55:12
3	Sn 189.927†	4.6	2.2	0.9852 µg/L	0.9852 ppb	23:55:12
3	Ti 334.940†	99.1	-13.8	-0.0249 µg/L	-0.0249 ppb	23:54:52
3	Tl 190.801†	-19.7	9.2	12.697 µg/L	12.697 ppb	23:55:12
3	U 409.014†	134.7	-122.0	-9.9533 µg/L	-9.9533 ppb	23:54:52
3	V 292.402†	-38.8	22.7	0.2248 µg/L	0.2248 ppb	23:54:52
3	Zn 213.857†	500.6	-229.5	-5.6369 µg/L	-5.6369 ppb	23:55:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2998821.3	157.56 %	0.567			0.36%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 157.6%						
Sc RADIAL	81815.8	155 %	3.2			2.07%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 155.0%						
Y 371.029	2066369.2	157.57 %	0.644			0.41%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 157.6%						
Ag 328.068†	224.8	1.7121 µg/L	0.29137	1.7121 ppb	0.29137	17.02%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	25.0	18.131 µg/L	8.4668	18.131 ppb	8.4668	46.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.3	0.4747 µg/L	3.95123	0.4747 ppb	3.95123	832.36%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-204.2	-8.7085 µg/L	1.24890	-8.7085 ppb	1.24890	14.34%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	23.0	0.5901 µg/L	0.16819	0.5901 ppb	0.16819	28.50%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	2059.3	1.2784 µg/L	0.23612	1.2784 ppb	0.23612	18.47%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-14.8	-13.961 µg/L	2.5925	-13.961 ppb	2.5925	18.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						

Cd 226.502†	57.2	1.5390 µg/L	0.24267	1.5390 ppb	0.24267	15.77%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.8	0.5201 µg/L	0.36219	0.5201 ppb	0.36219	69.63%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	48.3	1.0229 µg/L	0.15976	1.0229 ppb	0.15976	15.62%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1471.0	-9.8382 µg/L	0.75622	-9.8382 ppb	0.75622	7.69%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-4.2	-38.259 µg/L	10.0801	-38.259 ppb	10.0801	26.35%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-129.7	-88.687 µg/L	22.4387	-88.687 ppb	22.4387	25.30%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-6.9	-66.022 µg/L	19.4062	-66.022 ppb	19.4062	29.39%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	277.6	0.9276 µg/L	0.27144	0.9276 ppb	0.27144	29.26%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	8.2	0.8485 µg/L	0.48791	0.8485 ppb	0.48791	57.50%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-200.5	-62.013 µg/L	24.7463	-62.013 ppb	24.7463	39.91%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-104.2	-5.5288 µg/L	0.16193	-5.5288 ppb	0.16193	2.93%
QC value less than the lower limit for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.8	-9.0602 µg/L	7.56271	-9.0602 ppb	7.56271	83.47%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-26.5	-6.7712 µg/L	0.41391	-6.7712 ppb	0.41391	6.11%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-6.8	-29.310 µg/L	3.5115	-29.310 ppb	3.5115	11.98%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-6.9	-6.5164 µg/L	1.25601	-6.5164 ppb	1.25601	19.27%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.1	-4.5917 µg/L	4.86054	-4.5917 ppb	4.86054	105.85%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-657.9	-136.21 µg/L	35.941	-136.21 ppb	35.941	26.39%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	36.9	2.9578 µg/L	9.59022	2.9578 ppb	9.59022	324.23%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	0.4	0.1963 µg/L	0.72419	0.1963 ppb	0.72419	368.84%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	7.6	0.0756 µg/L	0.33639	0.0756 ppb	0.33639	445.22%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	90.0	0.2112 µg/L	0.33639	0.2112 ppb	0.33639	159.24%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.9	9.5270 µg/L	4.05917	9.5270 ppb	4.05917	42.61%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-59.2	-4.8299 µg/L	5.84346	-4.8299 ppb	5.84346	120.99%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	28.2	0.2852 µg/L	0.08087	0.2852 ppb	0.08087	28.35%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-230.5	-5.6638 µg/L	0.23264	-5.6638 ppb	0.23264	4.11%
QC value within limits for Zn 213.857 Recovery = Not calculated						
Internal Standard Check failed. Continue with analysis.						
QC Failed. Continue with analysis.						

Sequence No.: 14

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/24/2010 23:58:58

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	82737.4	82737.4	157 %				23:59:33
1	Al 396.153Radial†	-21.5	12.7	9.2293 µg/L		9.2293 ppb		23:59:33
1	Ca 317.933Radial†	263.7	-15.0	-14.211 µg/L		-14.211 ppb		23:59:54
1	Fe 238.204 Radial†	15.5	-5.9	-53.132 µg/L		-53.132 ppb		23:59:54
1	K 766.490 Radial†	205.9	-115.8	-79.214 µg/L		-79.214 ppb		23:59:33
1	Mg 279.077 IEC†	8.5	-7.3	-69.891 µg/L		-69.891 ppb		23:59:54
1	Na 589.592 Radial†	549.2	-242.2	-74.914 µg/L		-74.914 ppb		23:59:33
1	Sr 421.552†	30.6	-5.5	-0.0548 µg/L		-0.0548 ppb		23:59:33
1	Sc 361.383	3012106.1	3012106.1	158.25 %				00:00:55
1	Y 371.029	2076611.5	2076611.5	158.35 %				00:00:55
1	Ag 328.068†	-494.2	186.5	1.4183 µg/L		1.4183 ppb		00:01:01
1	As 188.979†	-2.1	-2.2	-4.1366 µg/L		-4.1366 ppb		00:01:22
1	B 249.677†	295.0	-267.8	-11.422 µg/L		-11.422 ppb		00:01:22
1	Ba 233.527†	-20.9	7.3	0.1872 µg/L		0.1872 ppb		00:01:22
1	Be 313.107†	-2862.1	1729.7	1.0739 µg/L		1.0739 ppb		00:01:01
1	Cd 226.502†	-133.1	45.2	1.2184 µg/L		1.2184 ppb		00:01:22
1	Co 228.616†	-6.0	3.7	0.1770 µg/L		0.1770 ppb		00:01:22
1	Cr 267.716†	-26.4	29.4	0.6233 µg/L		0.6233 ppb		00:01:22
1	Cu 324.752†	2773.6	-1486.5	-9.9439 µg/L		-9.9439 ppb		00:01:01
1	Mn 257.610†	-206.5	100.3	0.3319 µg/L		0.3319 ppb		00:01:22
1	Mo 202.031†	-1.9	2.8	0.2921 µg/L		0.2921 ppb		00:01:22
1	Ni 231.604†	278.6	-112.0	-5.9417 µg/L		-5.9417 ppb		00:01:22
1	P 214.914†	23.1	-7.7	-15.066 µg/L		-15.066 ppb		00:01:22
1	Pb 220.353†	79.6	-32.3	-8.2617 µg/L		-8.2617 ppb		00:01:22
1	S 181.975 Axial†	12.0	-8.8	-38.142 µg/L		-38.142 ppb		00:01:22
1	Sb 206.836†	23.5	-7.0	-6.6020 µg/L		-6.6020 ppb		00:01:22
1	Se 196.026†	19.4	-3.6	-5.3496 µg/L		-5.3496 ppb		00:01:22
1	SiO2†	1499.8	-597.9	-123.78 µg/L		-123.78 ppb		00:01:01
1	Si 251.611†	300.3	-145.1	-11.645 µg/L		-11.645 ppb		00:01:22
1	Sn 189.927†	6.4	3.3	1.4818 µg/L		1.4818 ppb		00:01:22
1	Ti 334.940†	109.5	-7.8	-0.0125 µg/L		-0.0125 ppb		00:01:01
1	Tl 190.801†	-22.8	7.3	10.073 µg/L		10.073 ppb		00:01:22
1	U 409.014†	186.5	-89.9	-7.3360 µg/L		-7.3360 ppb		00:01:01
1	V 292.402†	-64.9	6.4	0.0550 µg/L		0.0550 ppb		00:01:01
1	Zn 213.857†	469.7	-251.7	-6.1846 µg/L		-6.1846 ppb		00:01:22
2	Sc RADIAL	78766.7	78766.7	149 %				23:59:59
2	Al 396.153Radial†	-0.1	26.4	19.136 µg/L		19.136 ppb		23:59:59
2	Ca 317.933Radial†	249.3	-16.2	-15.295 µg/L		-15.295 ppb		00:00:19
2	Fe 238.204 Radial†	16.2	-4.9	-44.223 µg/L		-44.223 ppb		00:00:19
2	K 766.490 Radial†	210.3	-106.3	-72.690 µg/L		-72.690 ppb		23:59:59
2	Mg 279.077 IEC†	7.5	-7.7	-73.793 µg/L		-73.793 ppb		00:00:19
2	Na 589.592 Radial†	507.6	-252.5	-78.080 µg/L		-78.080 ppb		23:59:59
2	Sr 421.552†	44.1	4.5	0.0451 µg/L		0.0451 ppb		23:59:59
2	Sc 361.383	2995708.0	2995708.0	157.39 %				00:01:28
2	Y 371.029	2065972.9	2065972.9	157.54 %				00:01:28
2	Ag 328.068†	-458.8	207.3	1.5778 µg/L		1.5778 ppb		00:01:33
2	As 188.979†	1.1	-0.2	-0.2908 µg/L		-0.2908 ppb		00:01:54
2	B 249.677†	297.5	-265.2	-11.316 µg/L		-11.316 ppb		00:01:54
2	Ba 233.527†	-17.2	9.5	0.2446 µg/L		0.2446 ppb		00:01:54
2	Be 313.107†	-2663.4	1846.0	1.1460 µg/L		1.1460 ppb		00:01:33
2	Cd 226.502†	-133.8	44.4	1.1942 µg/L		1.1942 ppb		00:01:54
2	Co 228.616†	-10.1	1.0	0.0499 µg/L		0.0499 ppb		00:01:54
2	Cr 267.716†	-22.2	32.0	0.6788 µg/L		0.6788 ppb		00:01:54
2	Cu 324.752†	2672.7	-1541.0	-10.307 µg/L		-10.307 ppb		00:01:33
2	Mn 257.610†	-214.1	94.8	0.3147 µg/L		0.3147 ppb		00:01:54
2	Mo 202.031†	-5.3	0.7	0.0679 µg/L		0.0679 ppb		00:01:54
2	Ni 231.604†	273.8	-114.0	-6.0520 µg/L		-6.0520 ppb		00:01:54
2	P 214.914†	22.8	-7.9	-15.339 µg/L		-15.339 ppb		00:01:54
2	Pb 220.353†	84.0	-29.2	-7.4642 µg/L		-7.4642 ppb		00:01:54

2	S 181.975 Axial†	15.7	-6.4	-27.830 µg/L	-27.830 ppb	00:01:54
2	Sb 206.836†	19.5	-9.4	-8.9240 µg/L	-8.9240 ppb	00:01:54
2	Se 196.026†	18.3	-4.2	-6.3106 µg/L	-6.3106 ppb	00:01:54
2	SiO2†	1214.4	-774.0	-160.26 µg/L	-160.26 ppb	00:01:33
2	Si 251.611†	371.3	-98.9	-7.9404 µg/L	-7.9404 ppb	00:01:54
2	Sn 189.927†	3.5	1.5	0.6662 µg/L	0.6662 ppb	00:01:54
2	Ti 334.940†	198.7	49.3	0.1186 µg/L	0.1186 ppb	00:01:33
2	Tl 190.801†	-23.5	6.8	9.4138 µg/L	9.4138 ppb	00:01:54
2	U 409.014†	217.7	-69.5	-5.6661 µg/L	-5.6661 ppb	00:01:33
2	V 292.402†	-47.4	17.3	0.1665 µg/L	0.1665 ppb	00:01:33
2	Zn 213.857†	474.5	-247.0	-6.0680 µg/L	-6.0680 ppb	00:01:54
3	Sc RADIAL	82681.6	82681.6	157 %		00:00:25
3	Al 396.153Radial†	-19.7	13.8	10.029 µg/L	10.029 ppb	00:00:25
3	Ca 317.933Radial†	258.7	-18.1	-17.141 µg/L	-17.141 ppb	00:00:45
3	Fe 238.204 Radial†	18.6	-3.9	-34.895 µg/L	-34.895 ppb	00:00:45
3	K 766.490 Radial†	229.0	-101.0	-69.068 µg/L	-69.068 ppb	00:00:25
3	Mg 279.077 IEC†	11.3	-5.5	-52.982 µg/L	-52.982 ppb	00:00:45
3	Na 589.592 Radial†	527.4	-255.9	-79.147 µg/L	-79.147 ppb	00:00:25
3	Sr 421.552†	45.8	4.2	0.0416 µg/L	0.0416 ppb	00:00:25
3	Sc 361.383	3034217.4	3034217.4	159.42 %		00:02:00
3	Y 371.029	2090829.6	2090829.6	159.43 %		00:02:00
3	Ag 328.068†	-458.5	211.2	1.6077 µg/L	1.6077 ppb	00:02:05
3	As 188.979†	-2.9	-2.7	-5.0893 µg/L	-5.0893 ppb	00:02:26
3	B 249.677†	293.3	-270.2	-11.535 µg/L	-11.535 ppb	00:02:26
3	Ba 233.527†	-30.0	1.6	0.0424 µg/L	0.0424 ppb	00:02:26
3	Be 313.107†	-2677.7	1858.6	1.1539 µg/L	1.1539 ppb	00:02:05
3	Cd 226.502†	-140.5	41.2	1.1081 µg/L	1.1081 ppb	00:02:26
3	Co 228.616†	-8.6	2.0	0.0989 µg/L	0.0989 ppb	00:02:26
3	Cr 267.716†	-24.1	31.0	0.6564 µg/L	0.6564 ppb	00:02:26
3	Cu 324.752†	2664.6	-1567.6	-10.484 µg/L	-10.484 ppb	00:02:05
3	Mn 257.610†	-197.7	106.8	0.3554 µg/L	0.3554 ppb	00:02:26
3	Mo 202.031†	-4.5	1.2	0.1259 µg/L	0.1259 ppb	00:02:26
3	Ni 231.604†	278.6	-113.2	-6.0095 µg/L	-6.0095 ppb	00:02:26
3	P 214.914†	28.8	-4.3	-7.8532 µg/L	-7.8532 ppb	00:02:26
3	Pb 220.353†	82.4	-30.9	-7.9009 µg/L	-7.9009 ppb	00:02:26
3	S 181.975 Axial†	11.3	-9.3	-40.289 µg/L	-40.289 ppb	00:02:26
3	Sb 206.836†	21.8	-8.1	-7.7223 µg/L	-7.7223 ppb	00:02:26
3	Se 196.026†	20.7	-2.8	-4.2236 µg/L	-4.2236 ppb	00:02:26
3	SiO2†	1271.1	-748.2	-154.91 µg/L	-154.91 ppb	00:02:05
3	Si 251.611†	390.4	-90.0	-7.2203 µg/L	-7.2203 ppb	00:02:26
3	Sn 189.927†	-1.3	-1.5	-0.6729 µg/L	-0.6729 ppb	00:02:26
3	Ti 334.940†	150.9	17.7	0.0445 µg/L	0.0445 ppb	00:02:05
3	Tl 190.801†	-20.4	8.9	12.334 µg/L	12.334 ppb	00:02:26
3	U 409.014†	250.4	-50.7	-4.1327 µg/L	-4.1327 ppb	00:02:05
3	V 292.402†	-59.5	10.1	0.0969 µg/L	0.0969 ppb	00:02:05
3	Zn 213.857†	462.6	-258.3	-6.3490 µg/L	-6.3490 ppb	00:02:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	3014010.5	158.35 %	1.015			0.64%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 158.4%						
Sc RADIAL	81395.2	154 %	4.3			2.80%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 154.2%						
Y 371.029	2077804.7	158.44 %	0.951			0.60%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 158.4%						
Ag 328.068†	201.7	1.5346 µg/L	0.10181	1.5346 ppb	0.10181	6.63%
QC value less than the lower limit for Ag 328.068 Recovery = 0.31%						
Al 396.153Radial†	17.7	12.798 µg/L	5.5034	12.798 ppb	5.5034	43.00%
QC value less than the lower limit for Al 396.153Radial Recovery = 0.26%						
As 188.979†	-1.7	-3.1722 µg/L	2.54046	-3.1722 ppb	2.54046	80.09%
QC value less than the lower limit for As 188.979 Recovery = -0.63%						
B 249.677†	-267.7	-11.424 µg/L	0.1095	-11.424 ppb	0.1095	0.96%
QC value less than the lower limit for B 249.677 Recovery = -2.28%						
Ba 233.527†	6.2	0.1581 µg/L	0.10421	0.1581 ppb	0.10421	65.94%
QC value less than the lower limit for Ba 233.527 Recovery = 0.03%						
Be 313.107†	1811.4	1.1246 µg/L	0.04409	1.1246 ppb	0.04409	3.92%
QC value less than the lower limit for Be 313.107 Recovery = 0.22%						
Ca 317.933Radial†	-16.4	-15.549 µg/L	1.4813	-15.549 ppb	1.4813	9.53%
QC value less than the lower limit for Ca 317.933Radial Recovery = -0.31%						

Cd 226.502†	43.6	1.1736 µg/L	0.05798	1.1736 ppb	0.05798	4.94%
QC value less than the lower limit for Cd 226.502			Recovery = 0.23%			
Co 228.616†	2.2	0.1086 µg/L	0.06411	0.1086 ppb	0.06411	59.02%
QC value less than the lower limit for Co 228.616			Recovery = 0.02%			
Cr 267.716†	30.8	0.6529 µg/L	0.02793	0.6529 ppb	0.02793	4.28%
QC value less than the lower limit for Cr 267.716			Recovery = 0.13%			
Cu 324.752†	-1531.7	-10.245 µg/L	0.2753	-10.245 ppb	0.2753	2.69%
QC value less than the lower limit for Cu 324.752			Recovery = -2.05%			
Fe 238.204 Radial†	-4.9	-44.083 µg/L	9.1194	-44.083 ppb	9.1194	20.69%
QC value less than the lower limit for Fe 238.204 Radial			Recovery = -0.88%			
K 766.490 Radial†	-107.7	-73.657 µg/L	5.1413	-73.657 ppb	5.1413	6.98%
QC value less than the lower limit for K 766.490 Radial			Recovery = -1.47%			
Mg 279.077 IEC†	-6.8	-65.555 µg/L	11.0621	-65.555 ppb	11.0621	16.87%
QC value less than the lower limit for Mg 279.077 IEC			Recovery = -1.31%			
Mn 257.610†	100.6	0.3340 µg/L	0.02042	0.3340 ppb	0.02042	6.12%
QC value less than the lower limit for Mn 257.610			Recovery = 0.07%			
Mo 202.031†	1.6	0.1620 µg/L	0.11635	0.1620 ppb	0.11635	71.84%
QC value less than the lower limit for Mo 202.031			Recovery = 0.03%			
Na 589.592 Radial†	-250.2	-77.380 µg/L	2.2015	-77.380 ppb	2.2015	2.85%
QC value less than the lower limit for Na 589.592 Radial			Recovery = -0.77%			
Ni 231.604†	-113.1	-6.0011 µg/L	0.05564	-6.0011 ppb	0.05564	0.93%
QC value less than the lower limit for Ni 231.604			Recovery = -1.20%			
P 214.914†	-6.6	-12.753 µg/L	4.2453	-12.753 ppb	4.2453	33.29%
QC value less than the lower limit for P 214.914			Recovery = -0.51%			
Pb 220.353†	-30.8	-7.8756 µg/L	0.39933	-7.8756 ppb	0.39933	5.07%
QC value less than the lower limit for Pb 220.353			Recovery = -1.58%			
S 181.975 Axial†	-8.2	-35.420 µg/L	6.6607	-35.420 ppb	6.6607	18.80%
QC value less than the lower limit for S 181.975 Axial			Recovery = -3.54%			
Sb 206.836†	-8.2	-7.7494 µg/L	1.16125	-7.7494 ppb	1.16125	14.98%
QC value less than the lower limit for Sb 206.836			Recovery = -1.55%			
Se 196.026†	-3.5	-5.2946 µg/L	1.04459	-5.2946 ppb	1.04459	19.73%
QC value less than the lower limit for Se 196.026			Recovery = -1.06%			
SiO2†	-706.7	-146.32 µg/L	19.698	-146.32 ppb	19.698	13.46%
QC value less than the lower limit for SiO2			Recovery = -2.74%			
Si 251.611†	-111.3	-8.9351 µg/L	2.37390	-8.9351 ppb	2.37390	26.57%
QC value less than the lower limit for Si 251.611			Recovery = -0.36%			
Sn 189.927†	1.1	0.4917 µg/L	1.08788	0.4917 ppb	1.08788	221.25%
QC value less than the lower limit for Sn 189.927			Recovery = 0.10%			
Sr 421.552†	1.1	0.0106 µg/L	0.05671	0.0106 ppb	0.05671	533.35%
QC value less than the lower limit for Sr 421.552			Recovery = 0.00%			
Ti 334.940†	19.7	0.0502 µg/L	0.06575	0.0502 ppb	0.06575	131.00%
QC value less than the lower limit for Ti 334.940			Recovery = 0.01%			
Tl 190.801†	7.7	10.607 µg/L	1.5313	10.607 ppb	1.5313	14.44%
QC value less than the lower limit for Tl 190.801			Recovery = 2.12%			
U 409.014†	-70.0	-5.7116 µg/L	1.60214	-5.7116 ppb	1.60214	28.05%
QC value less than the lower limit for U 409.014			Recovery = -1.14%			
V 292.402†	11.3	0.1061 µg/L	0.05631	0.1061 ppb	0.05631	53.05%
QC value less than the lower limit for V 292.402			Recovery = 0.02%			
Zn 213.857†	-252.3	-6.2006 µg/L	0.14116	-6.2006 ppb	0.14116	2.28%
QC value less than the lower limit for Zn 213.857			Recovery = -1.24%			

Internal Standard Check failed. Continue with analysis.

QC Failed. Continue with analysis.

Sequence No.: 15

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 00:02:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	83853.1	83853.1	159 %		00:03:08
1	Al 396.153Radial†	-29.1	8.1	5.9008 µg/L	5.9008 ppb	00:03:08
1	Ca 317.933Radial†	254.4	-23.1	-21.878 µg/L	-21.878 ppb	00:03:29
1	Fe 238.204 Radial†	15.9	-5.7	-51.902 µg/L	-51.902 ppb	00:03:29
1	K 766.490 Radial†	199.8	-121.4	-83.023 µg/L	-83.023 ppb	00:03:08
1	Mg 279.077 IEC†	9.4	-6.8	-65.095 µg/L	-65.095 ppb	00:03:29
1	Na 589.592 Radial†	472.8	-295.0	-91.230 µg/L	-91.230 ppb	00:03:08
1	Sr 421.552†	28.7	-6.9	-0.0689 µg/L	-0.0689 ppb	00:03:08
1	Sc 361.383	2982251.9	2982251.9	156.69 %		00:04:31
1	Y 371.029	2057681.1	2057681.1	156.91 %		00:04:31
1	Ag 328.068†	-434.0	221.8	1.6868 µg/L	1.6868 ppb	00:04:36
1	As 188.979†	-2.4	-2.4	-4.6184 µg/L	-4.6184 ppb	00:04:57
1	B 249.677†	293.8	-266.7	-11.375 µg/L	-11.375 ppb	00:04:57
1	Ba 233.527†	-17.3	9.4	0.2417 µg/L	0.2417 ppb	00:04:57
1	Be 313.107†	-2665.2	1837.3	1.1406 µg/L	1.1406 ppb	00:04:36
1	Cd 226.502†	-139.4	40.4	1.0888 µg/L	1.0888 ppb	00:04:57
1	Co 228.616†	-2.7	5.7	0.2757 µg/L	0.2757 ppb	00:04:57
1	Cr 267.716†	-23.8	31.0	0.6561 µg/L	0.6561 ppb	00:04:57
1	Cu 324.752†	2624.2	-1564.3	-10.464 µg/L	-10.464 ppb	00:04:36
1	Mn 257.610†	-194.2	106.9	0.3538 µg/L	0.3538 ppb	00:04:57
1	Mo 202.031†	-3.7	1.7	0.1713 µg/L	0.1713 ppb	00:04:57
1	Ni 231.604†	285.9	-105.5	-5.6011 µg/L	-5.6011 ppb	00:04:57
1	P 214.914†	17.9	-10.9	-21.775 µg/L	-21.775 ppb	00:04:57
1	Pb 220.353†	87.4	-26.8	-6.8506 µg/L	-6.8506 ppb	00:04:57
1	S 181.975 Axial†	9.9	-10.0	-43.453 µg/L	-43.453 ppb	00:04:57
1	Sb 206.836†	16.1	-11.6	-10.967 µg/L	-10.967 ppb	00:04:57
1	Se 196.026†	11.1	-8.7	-12.995 µg/L	-12.995 ppb	00:04:57
1	SiO2†	1211.6	-772.3	-159.91 µg/L	-159.91 ppb	00:04:36
1	Si 251.611†	324.6	-127.7	-10.251 µg/L	-10.251 ppb	00:04:57
1	Sn 189.927†	1.9	0.5	0.2153 µg/L	0.2153 ppb	00:04:57
1	Ti 334.940†	120.1	-0.3	0.0041 µg/L	0.0041 ppb	00:04:36
1	Tl 190.801†	-22.7	7.2	9.9771 µg/L	9.9771 ppb	00:04:57
1	U 409.014†	273.7	-33.1	-2.6942 µg/L	-2.6942 ppb	00:04:36
1	V 292.402†	-67.0	4.7	0.0417 µg/L	0.0417 ppb	00:04:36
1	Zn 213.857†	468.1	-249.8	-6.1378 µg/L	-6.1378 ppb	00:04:57
2	Sc RADIAL	83020.4	83020.4	157 %		00:03:34
2	Al 396.153Radial†	-25.6	10.2	7.3563 µg/L	7.3563 ppb	00:03:34
2	Ca 317.933Radial†	258.0	-19.2	-18.188 µg/L	-18.188 ppb	00:03:55
2	Fe 238.204 Radial†	14.1	-6.8	-61.563 µg/L	-61.563 ppb	00:03:55
2	K 766.490 Radial†	156.7	-147.6	-100.91 µg/L	-100.91 ppb	00:03:34
2	Mg 279.077 IEC†	8.7	-7.2	-69.099 µg/L	-69.099 ppb	00:03:55
2	Na 589.592 Radial†	539.5	-249.6	-77.200 µg/L	-77.200 ppb	00:03:34
2	Sr 421.552†	32.7	-4.2	-0.0419 µg/L	-0.0419 ppb	00:03:34
2	Sc 361.383	3013063.4	3013063.4	158.31 %		00:05:03
2	Y 371.029	2076717.6	2076717.6	158.36 %		00:05:03
2	Ag 328.068†	-407.3	241.5	1.8380 µg/L	1.8380 ppb	00:05:09
2	As 188.979†	-6.1	-4.7	-8.9459 µg/L	-8.9459 ppb	00:05:29
2	B 249.677†	289.6	-271.3	-11.567 µg/L	-11.567 ppb	00:05:29
2	Ba 233.527†	-11.5	13.2	0.3395 µg/L	0.3395 ppb	00:05:29
2	Be 313.107†	-2723.4	1817.9	1.1287 µg/L	1.1287 ppb	00:05:09
2	Cd 226.502†	-131.9	46.0	1.2412 µg/L	1.2412 ppb	00:05:29
2	Co 228.616†	-5.7	3.9	0.1866 µg/L	0.1866 ppb	00:05:29
2	Cr 267.716†	-26.3	29.5	0.6255 µg/L	0.6255 ppb	00:05:29
2	Cu 324.752†	2584.1	-1606.7	-10.749 µg/L	-10.749 ppb	00:05:09
2	Mn 257.610†	-203.6	102.2	0.3371 µg/L	0.3371 ppb	00:05:29
2	Mo 202.031†	-3.7	1.7	0.1755 µg/L	0.1755 ppb	00:05:29
2	Ni 231.604†	286.5	-107.0	-5.6789 µg/L	-5.6789 ppb	00:05:29
2	P 214.914†	23.6	-7.4	-14.386 µg/L	-14.386 ppb	00:05:29
2	Pb 220.353†	83.2	-30.0	-7.6729 µg/L	-7.6729 ppb	00:05:29

2	S 181.975 Axial†	10.2	-9.9	-42.937 µg/L	-42.937 ppb	00:05:29
2	Sb 206.836†	20.5	-8.8	-8.3823 µg/L	-8.3823 ppb	00:05:29
2	Se 196.026†	16.3	-5.5	-8.3066 µg/L	-8.3066 ppb	00:05:29
2	SiO2†	1241.0	-761.6	-157.69 µg/L	-157.69 ppb	00:05:09
2	Si 251.611†	328.0	-127.7	-10.244 µg/L	-10.244 ppb	00:05:29
2	Sn 189.927†	-2.2	-2.1	-0.9392 µg/L	-0.9392 ppb	00:05:29
2	Ti 334.940†	53.6	-43.1	-0.0936 µg/L	-0.0936 ppb	00:05:09
2	Tl 190.801†	-23.6	6.8	9.4335 µg/L	9.4335 ppb	00:05:29
2	U 409.014†	243.1	-54.2	-4.4177 µg/L	-4.4177 ppb	00:05:09
2	V 292.402†	-27.6	30.0	0.2951 µg/L	0.2951 ppb	00:05:09
2	Zn 213.857†	464.8	-254.9	-6.2632 µg/L	-6.2632 ppb	00:05:29
3	Sc RADIAL	80124.6	80124.6	152 %		00:04:00
3	Al 396.153Radial†	-23.1	11.3	8.1545 µg/L	8.1545 ppb	00:04:00
3	Ca 317.933Radial†	259.5	-12.3	-11.637 µg/L	-11.637 ppb	00:04:21
3	Fe 238.204 Radial†	15.6	-5.5	-49.528 µg/L	-49.528 ppb	00:04:21
3	K 766.490 Radial†	170.2	-135.1	-92.366 µg/L	-92.366 ppb	00:04:00
3	Mg 279.077 IEC†	10.7	-5.6	-54.063 µg/L	-54.063 ppb	00:04:21
3	Na 589.592 Radial†	559.7	-223.9	-69.249 µg/L	-69.249 ppb	00:04:00
3	Sr 421.552†	63.3	16.7	0.1656 µg/L	0.1656 ppb	00:04:00
3	Sc 361.383	3050286.3	3050286.3	160.26 %		00:05:35
3	Y 371.029	2103390.9	2103390.9	160.39 %		00:05:35
3	Ag 328.068†	-450.8	217.5	1.6553 µg/L	1.6553 ppb	00:05:41
3	As 188.979†	-1.4	-1.8	-3.3521 µg/L	-3.3521 ppb	00:06:01
3	B 249.677†	294.9	-270.2	-11.527 µg/L	-11.527 ppb	00:06:01
3	Ba 233.527†	-16.8	10.0	0.2574 µg/L	0.2574 ppb	00:06:01
3	Be 313.107†	-2577.7	1929.8	1.1981 µg/L	1.1981 ppb	00:05:41
3	Cd 226.502†	-135.2	45.0	1.2117 µg/L	1.2117 ppb	00:06:01
3	Co 228.616†	-4.6	4.6	0.2204 µg/L	0.2204 ppb	00:06:01
3	Cr 267.716†	-25.0	30.5	0.6463 µg/L	0.6463 ppb	00:06:01
3	Cu 324.752†	2665.6	-1575.8	-10.541 µg/L	-10.541 ppb	00:05:41
3	Mn 257.610†	-211.7	98.7	0.3264 µg/L	0.3264 ppb	00:06:01
3	Mo 202.031†	-3.2	2.1	0.2135 µg/L	0.2135 ppb	00:06:01
3	Ni 231.604†	275.0	-116.4	-6.1774 µg/L	-6.1774 ppb	00:06:01
3	P 214.914†	22.3	-8.4	-16.560 µg/L	-16.560 ppb	00:06:01
3	Pb 220.353†	84.0	-30.2	-7.7169 µg/L	-7.7169 ppb	00:06:01
3	S 181.975 Axial†	8.1	-11.3	-49.035 µg/L	-49.035 ppb	00:06:01
3	Sb 206.836†	23.2	-7.3	-6.9429 µg/L	-6.9429 ppb	00:06:01
3	Se 196.026†	18.7	-4.2	-6.2712 µg/L	-6.2712 ppb	00:06:01
3	SiO2†	1263.4	-757.2	-156.78 µg/L	-156.78 ppb	00:05:41
3	Si 251.611†	373.6	-101.8	-8.1663 µg/L	-8.1663 ppb	00:06:01
3	Sn 189.927†	0.7	-0.3	-0.1160 µg/L	-0.1160 ppb	00:06:01
3	Ti 334.940†	175.9	32.8	0.0793 µg/L	0.0793 ppb	00:05:41
3	Tl 190.801†	-19.9	9.3	12.852 µg/L	12.852 ppb	00:06:01
3	U 409.014†	197.1	-84.8	-6.9158 µg/L	-6.9158 ppb	00:05:41
3	V 292.402†	-47.6	17.7	0.1699 µg/L	0.1699 ppb	00:05:41
3	Zn 213.857†	464.6	-258.6	-6.3547 µg/L	-6.3547 ppb	00:06:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	3015200.5	158.42 %	1.790			1.13%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 158.4%						
Sc RADIAL	82332.7	156 %	3.7			2.38%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 156.0%						
Y 371.029	2079263.2	158.55 %	1.751			1.10%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 158.6%						
Ag 328.068†	226.9	1.7267 µg/L	0.09769	1.7267 ppb	0.09769	5.66%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.9	7.1372 µg/L	1.14273	7.1372 ppb	1.14273	16.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.0	-5.6388 µg/L	2.93315	-5.6388 ppb	2.93315	52.02%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-269.4	-11.490 µg/L	0.1015	-11.490 ppb	0.1015	0.88%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.9	0.2795 µg/L	0.05254	0.2795 ppb	0.05254	18.79%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	1861.7	1.1558 µg/L	0.03709	1.1558 ppb	0.03709	3.21%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-18.2	-17.234 µg/L	5.1870	-17.234 ppb	5.1870	30.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						

Cd 226.502†	43.8	1.1806 µg/L	0.08084	1.1806 ppb	0.08084	6.85%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.7	0.2276 µg/L	0.04496	0.2276 ppb	0.04496	19.76%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	30.3	0.6426 µg/L	0.01563	0.6426 ppb	0.01563	2.43%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1582.3	-10.585 µg/L	0.1475	-10.585 ppb	0.1475	1.39%
QC value less than the lower limit for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-6.0	-54.331 µg/L	6.3746	-54.331 ppb	6.3746	11.73%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-134.7	-92.098 µg/L	8.9450	-92.098 ppb	8.9450	9.71%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-6.6	-62.752 µg/L	7.7869	-62.752 ppb	7.7869	12.41%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	102.6	0.3391 µg/L	0.01379	0.3391 ppb	0.01379	4.07%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	1.8	0.1868 µg/L	0.02326	0.1868 ppb	0.02326	12.45%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-256.2	-79.226 µg/L	11.1296	-79.226 ppb	11.1296	14.05%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-109.6	-5.8191 µg/L	0.31271	-5.8191 ppb	0.31271	5.37%
QC value less than the lower limit for Ni 231.604 Recovery = Not calculated						
P 214.914†	-8.9	-17.574 µg/L	3.7971	-17.574 ppb	3.7971	21.61%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-29.0	-7.4135 µg/L	0.48794	-7.4135 ppb	0.48794	6.58%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-10.4	-45.142 µg/L	3.3819	-45.142 ppb	3.3819	7.49%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-9.2	-8.7639 µg/L	2.03879	-8.7639 ppb	2.03879	23.26%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.1	-9.1908 µg/L	3.44779	-9.1908 ppb	3.44779	37.51%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-763.7	-158.13 µg/L	1.608	-158.13 ppb	1.608	1.02%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-119.1	-9.5539 µg/L	1.20171	-9.5539 ppb	1.20171	12.58%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-0.6	-0.2800 µg/L	0.59444	-0.2800 ppb	0.59444	212.33%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	1.8	0.0183 µg/L	0.12829	0.0183 ppb	0.12829	702.41%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-3.5	-0.0034 µg/L	0.08669	-0.0034 ppb	0.08669	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	7.8	10.754 µg/L	1.8371	10.754 ppb	1.8371	17.08%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-57.4	-4.6759 µg/L	2.12261	-4.6759 ppb	2.12261	45.39%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	17.5	0.1689 µg/L	0.12667	0.1689 ppb	0.12667	74.99%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-254.4	-6.2519 µg/L	0.10887	-6.2519 ppb	0.10887	1.74%
QC value within limits for Zn 213.857 Recovery = Not calculated						
Internal Standard Check failed. Continue with analysis.						
QC Failed. Continue with analysis.						

=====

Analysis Begun

Start Time: 2/25/2010 00:22:33

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/25/2010 00:22:35

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	52523.4	52523.4	99.5 %		00:23:09
1	Al 396.153Radial†	6765.9	6824.5	4935.9 µg/L	4935.9 ppb	00:23:09
1	Ca 317.933Radial†	5381.0	5223.4	4943.0 µg/L	4943.0 ppb	00:23:30
1	Fe 238.204 Radial†	571.8	558.7	5059.5 µg/L	5059.5 ppb	00:23:30
1	K 766.490 Radial†	7505.5	7293.9	4987.8 µg/L	4987.8 ppb	00:23:09
1	Mg 279.077 IEC†	532.4	522.2	5005.2 µg/L	5005.2 ppb	00:23:30
1	Na 589.592 Radial†	32482.4	32044.1	9910.4 µg/L	9910.4 ppb	00:23:09
1	Sr 421.552†	49507.2	49717.4	494.11 µg/L	494.11 ppb	00:23:09
1	Sc 361.383	1901014.7	1901014.7	99.879 %		00:24:33
1	Y 371.029	1306255.7	1306255.7	99.607 %		00:24:33
1	Ag 328.068†	64213.2	64790.0	497.23 µg/L	497.23 ppb	00:24:39
1	As 188.979†	264.3	263.7	501.89 µg/L	501.89 ppb	00:24:59
1	B 249.677†	11874.3	11434.5	487.14 µg/L	487.14 ppb	00:24:39
1	Ba 233.527†	19477.2	19521.4	501.57 µg/L	501.57 ppb	00:24:39
1	Be 313.107†	794019.9	798523.2	495.57 µg/L	495.57 ppb	00:24:33
1	Cd 226.502†	18585.8	18737.8	504.67 µg/L	504.67 ppb	00:24:39
1	Co 228.616†	10440.0	10460.1	505.06 µg/L	505.06 ppb	00:24:39
1	Cr 267.716†	23713.6	23788.6	504.22 µg/L	504.22 ppb	00:24:39
1	Cu 324.752†	77559.6	74414.7	498.14 µg/L	498.14 ppb	00:24:39
1	Mn 257.610†	150173.4	150586.7	505.01 µg/L	505.01 ppb	00:24:33
1	Mo 202.031†	4903.0	4913.1	508.43 µg/L	508.43 ppb	00:24:59
1	Ni 231.604†	9792.6	9516.5	504.44 µg/L	504.44 ppb	00:24:39
1	P 214.914†	1222.9	1202.0	2473.7 µg/L	2473.7 ppb	00:24:59
1	Pb 220.353†	2056.9	1976.8	507.98 µg/L	507.98 ppb	00:24:59
1	S 181.975 Axial†	245.4	229.3	994.58 µg/L	994.58 ppb	00:24:59
1	Sb 206.836†	537.3	516.2	491.68 µg/L	491.68 ppb	00:24:59
1	Se 196.026†	355.6	340.2	512.33 µg/L	512.33 ppb	00:24:59
1	SiO2†	27256.8	25744.3	5330.3 µg/L	5330.3 ppb	00:24:39
1	Si 251.611†	31357.3	31060.5	2492.6 µg/L	2492.6 ppb	00:24:39
1	Sn 189.927†	1138.5	1139.2	508.71 µg/L	508.71 ppb	00:24:59
1	Ti 334.940†	214816.0	215000.1	492.54 µg/L	492.54 ppb	00:24:33
1	Tl 190.801†	337.9	360.0	505.20 µg/L	505.20 ppb	00:24:59
1	U 409.014†	6235.5	6035.3	491.83 µg/L	491.83 ppb	00:24:39
1	V 292.402†	49119.4	49226.5	505.45 µg/L	505.45 ppb	00:24:39
1	Zn 213.857†	20850.1	20326.9	499.87 µg/L	499.87 ppb	00:24:39
2	Sc RADIAL	53302.5	53302.5	101 %		00:23:35
2	Al 396.153Radial†	6830.2	6788.8	4910.0 µg/L	4910.0 ppb	00:23:35
2	Ca 317.933Radial†	5373.7	5137.1	4861.4 µg/L	4861.4 ppb	00:23:56
2	Fe 238.204 Radial†	563.5	542.1	4909.7 µg/L	4909.7 ppb	00:23:56
2	K 766.490 Radial†	7519.9	7198.0	4922.2 µg/L	4922.2 ppb	00:23:35
2	Mg 279.077 IEC†	536.1	518.1	4966.1 µg/L	4966.1 ppb	00:23:56
2	Na 589.592 Radial†	32627.0	31710.3	9807.2 µg/L	9807.2 ppb	00:23:35
2	Sr 421.552†	49953.9	49432.6	491.28 µg/L	491.28 ppb	00:23:35
2	Sc 361.383	1882342.2	1882342.2	98.898 %		00:25:07
2	Y 371.029	1293256.8	1293256.8	98.616 %		00:25:07
2	Ag 328.068†	64197.3	65411.8	501.99 µg/L	501.99 ppb	00:25:12
2	As 188.979†	258.2	260.2	495.22 µg/L	495.22 ppb	00:25:33

2	B 249.677†	11851.7	11529.6	491.28 µg/L	491.28 ppb	00:25:12
2	Ba 233.527†	19465.6	19703.1	506.24 µg/L	506.24 ppb	00:25:12
2	Be 313.107†	789109.1	801443.8	497.38 µg/L	497.38 ppb	00:25:07
2	Cd 226.502†	18503.1	18838.7	507.41 µg/L	507.41 ppb	00:25:12
2	Co 228.616†	10385.5	10508.8	507.41 µg/L	507.41 ppb	00:25:12
2	Cr 267.716†	23540.3	23848.9	505.50 µg/L	505.50 ppb	00:25:12
2	Cu 324.752†	77565.4	75190.9	503.31 µg/L	503.31 ppb	00:25:12
2	Mn 257.610†	149094.3	150987.1	506.34 µg/L	506.34 ppb	00:25:07
2	Mo 202.031†	4854.5	4912.7	508.39 µg/L	508.39 ppb	00:25:33
2	Ni 231.604†	9768.2	9589.1	508.29 µg/L	508.29 ppb	00:25:12
2	P 214.914†	1209.9	1201.0	2471.3 µg/L	2471.3 ppb	00:25:33
2	Pb 220.353†	2038.0	1978.1	508.30 µg/L	508.30 ppb	00:25:33
2	S 181.975 Axial†	247.5	233.9	1014.4 µg/L	1014.4 ppb	00:25:33
2	Sb 206.836†	541.1	525.3	500.32 µg/L	500.32 ppb	00:25:33
2	Se 196.026†	359.3	347.5	522.84 µg/L	522.84 ppb	00:25:33
2	SiO2†	27227.2	25985.1	5380.1 µg/L	5380.1 ppb	00:25:12
2	Si 251.611†	31378.3	31393.2	2519.3 µg/L	2519.3 ppb	00:25:12
2	Sn 189.927†	1123.7	1135.5	507.10 µg/L	507.10 ppb	00:25:33
2	Ti 334.940†	213430.9	215733.1	494.22 µg/L	494.22 ppb	00:25:07
2	Tl 190.801†	339.8	365.3	512.58 µg/L	512.58 ppb	00:25:33
2	U 409.014†	6215.6	6077.1	495.27 µg/L	495.27 ppb	00:25:12
2	V 292.402†	49092.5	49687.2	510.11 µg/L	510.11 ppb	00:25:12
2	Zn 213.857†	20837.4	20521.2	504.66 µg/L	504.66 ppb	00:25:12
3	Sc RADIAL	52980.7	52980.7	100 %		00:24:01
3	Al 396.153Radial†	6816.8	6816.5	4931.9 µg/L	4931.9 ppb	00:24:01
3	Ca 317.933Radial†	5351.0	5146.8	4870.6 µg/L	4870.6 ppb	00:24:22
3	Fe 238.204 Radial†	561.4	543.4	4920.3 µg/L	4920.3 ppb	00:24:22
3	K 766.490 Radial†	7484.8	7208.3	4929.2 µg/L	4929.2 ppb	00:24:01
3	Mg 279.077 IEC†	531.9	517.0	4954.6 µg/L	4954.6 ppb	00:24:22
3	Na 589.592 Radial†	32637.0	31916.5	9870.9 µg/L	9870.9 ppb	00:24:01
3	Sr 421.552†	49757.3	49537.2	492.32 µg/L	492.32 ppb	00:24:01
3	Sc 361.383	1892907.8	1892907.8	99.453 %		00:25:40
3	Y 371.029	1301669.6	1301669.6	99.257 %		00:25:40
3	Ag 328.068†	61004.5	61839.0	474.44 µg/L	474.44 ppb	00:25:46
3	As 188.979†	220.9	221.3	421.06 µg/L	421.06 ppb	00:26:06
3	B 249.677†	11218.1	10825.7	461.08 µg/L	461.08 ppb	00:25:46
3	Ba 233.527†	17955.2	18074.5	464.38 µg/L	464.38 ppb	00:25:46
3	Be 313.107†	743165.3	750793.4	465.95 µg/L	465.95 ppb	00:25:40
3	Cd 226.502†	17047.9	17271.1	465.14 µg/L	465.14 ppb	00:25:46
3	Co 228.616†	9456.2	9515.6	459.39 µg/L	459.39 ppb	00:25:46
3	Cr 267.716†	20988.6	21150.2	448.30 µg/L	448.30 ppb	00:25:46
3	Cu 324.752†	70963.0	68114.5	456.00 µg/L	456.00 ppb	00:25:46
3	Mn 257.610†	141413.7	142422.7	477.64 µg/L	477.64 ppb	00:25:40
3	Mo 202.031†	4032.5	4058.7	420.05 µg/L	420.05 ppb	00:26:06
3	Ni 231.604†	8932.3	8693.5	460.82 µg/L	460.82 ppb	00:25:46
3	P 214.914†	1038.9	1022.3	2099.8 µg/L	2099.8 ppb	00:26:06
3	Pb 220.353†	1765.6	1692.7	434.87 µg/L	434.87 ppb	00:26:06
3	S 181.975 Axial†	209.2	194.0	841.40 µg/L	841.40 ppb	00:26:06
3	Sb 206.836†	455.4	436.1	414.91 µg/L	414.91 ppb	00:26:06
3	Se 196.026†	311.8	297.7	449.08 µg/L	449.08 ppb	00:26:06
3	SiO2†	25652.2	24247.8	5020.4 µg/L	5020.4 ppb	00:25:46
3	Si 251.611†	29303.8	29130.2	2337.7 µg/L	2337.7 ppb	00:25:46
3	Sn 189.927†	920.6	925.0	413.07 µg/L	413.07 ppb	00:26:06
3	Ti 334.940†	199760.6	200783.0	459.95 µg/L	459.95 ppb	00:25:40
3	Tl 190.801†	296.6	319.9	449.35 µg/L	449.35 ppb	00:26:06
3	U 409.014†	5681.8	5505.3	448.57 µg/L	448.57 ppb	00:25:46
3	V 292.402†	44437.5	44729.5	458.96 µg/L	458.96 ppb	00:25:46
3	Zn 213.857†	19016.9	18573.1	456.70 µg/L	456.70 ppb	00:25:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1892088.3	99.410 %	0.4919			0.49%
Sc RADIAL	52935.6	100 %	0.7			0.74%
Y 371.029	1300394.1	99.160 %	0.5027			0.51%
Ag 328.068†	64013.6	491.22 µg/L	14.726	491.22 ppb	14.726	3.00%
QC value within limits for Ag 328.068 Recovery = 98.24%						
Al 396.153Radial†	6809.9	4925.9 µg/L	13.94	4925.9 ppb	13.94	0.28%
QC value within limits for Al 396.153Radial Recovery = 98.52%						
As 188.979†	248.4	472.72 µg/L	44.863	472.72 ppb	44.863	9.49%

QC value within limits for As 188.979 Recovery = 94.54%							
B 249.677†	11263.3	479.83 µg/L	16.371	479.83 ppb	16.371	3.41%	
QC value within limits for B 249.677 Recovery = 95.97%							
Ba 233.527†	19099.7	490.73 µg/L	22.939	490.73 ppb	22.939	4.67%	
QC value within limits for Ba 233.527 Recovery = 98.15%							
Be 313.107†	783586.8	486.30 µg/L	17.648	486.30 ppb	17.648	3.63%	
QC value within limits for Be 313.107 Recovery = 97.26%							
Ca 317.933Radial†	5169.1	4891.7 µg/L	44.71	4891.7 ppb	44.71	0.91%	
QC value within limits for Ca 317.933Radial Recovery = 97.83%							
Cd 226.502†	18282.5	492.41 µg/L	23.656	492.41 ppb	23.656	4.80%	
QC value within limits for Cd 226.502 Recovery = 98.48%							
Co 228.616†	10161.5	490.62 µg/L	27.069	490.62 ppb	27.069	5.52%	
QC value within limits for Co 228.616 Recovery = 98.12%							
Cr 267.716†	22929.2	486.01 µg/L	32.659	486.01 ppb	32.659	6.72%	
QC value within limits for Cr 267.716 Recovery = 97.20%							
Cu 324.752†	72573.4	485.82 µg/L	25.947	485.82 ppb	25.947	5.34%	
QC value within limits for Cu 324.752 Recovery = 97.16%							
Fe 238.204 Radial†	548.1	4963.2 µg/L	83.57	4963.2 ppb	83.57	1.68%	
QC value within limits for Fe 238.204 Radial Recovery = 99.26%							
K 766.490 Radial†	7233.4	4946.4 µg/L	36.03	4946.4 ppb	36.03	0.73%	
QC value within limits for K 766.490 Radial Recovery = 98.93%							
Mg 279.077 IEC†	519.1	4975.3 µg/L	26.51	4975.3 ppb	26.51	0.53%	
QC value within limits for Mg 279.077 IEC Recovery = 99.51%							
Mn 257.610†	147998.9	496.33 µg/L	16.197	496.33 ppb	16.197	3.26%	
QC value within limits for Mn 257.610 Recovery = 99.27%							
Mo 202.031†	4628.2	478.96 µg/L	51.014	478.96 ppb	51.014	10.65%	
QC value within limits for Mo 202.031 Recovery = 95.79%							
Na 589.592 Radial†	31890.3	9862.8 µg/L	52.09	9862.8 ppb	52.09	0.53%	
QC value within limits for Na 589.592 Radial Recovery = 98.63%							
Ni 231.604†	9266.4	491.18 µg/L	26.364	491.18 ppb	26.364	5.37%	
QC value within limits for Ni 231.604 Recovery = 98.24%							
P 214.914†	1141.8	2348.3 µg/L	215.18	2348.3 ppb	215.18	9.16%	
QC value within limits for P 214.914 Recovery = 93.93%							
Pb 220.353†	1882.6	483.72 µg/L	42.305	483.72 ppb	42.305	8.75%	
QC value within limits for Pb 220.353 Recovery = 96.74%							
S 181.975 Axial†	219.1	950.12 µg/L	94.675	950.12 ppb	94.675	9.96%	
QC value within limits for S 181.975 Axial Recovery = 95.01%							
Sb 206.836†	492.5	468.97 µg/L	47.013	468.97 ppb	47.013	10.02%	
QC value within limits for Sb 206.836 Recovery = 93.79%							
Se 196.026†	328.5	494.75 µg/L	39.899	494.75 ppb	39.899	8.06%	
QC value within limits for Se 196.026 Recovery = 98.95%							
SiO2†	25325.8	5243.6 µg/L	194.88	5243.6 ppb	194.88	3.72%	
QC value within limits for SiO2 Recovery = 98.06%							
Si 251.611†	30528.0	2449.8 µg/L	98.05	2449.8 ppb	98.05	4.00%	
QC value within limits for Si 251.611 Recovery = 97.99%							
Sn 189.927†	1066.6	476.29 µg/L	54.760	476.29 ppb	54.760	11.50%	
QC value within limits for Sn 189.927 Recovery = 95.26%							
Sr 421.552†	49562.4	492.57 µg/L	1.432	492.57 ppb	1.432	0.29%	
QC value within limits for Sr 421.552 Recovery = 98.51%							
Ti 334.940†	210505.4	482.24 µg/L	19.319	482.24 ppb	19.319	4.01%	
QC value within limits for Ti 334.940 Recovery = 96.45%							
Tl 190.801†	348.4	489.04 µg/L	34.575	489.04 ppb	34.575	7.07%	
QC value within limits for Tl 190.801 Recovery = 97.81%							
U 409.014†	5872.6	478.56 µg/L	26.023	478.56 ppb	26.023	5.44%	
QC value within limits for U 409.014 Recovery = 95.71%							
V 292.402†	47881.1	491.51 µg/L	28.278	491.51 ppb	28.278	5.75%	
QC value within limits for V 292.402 Recovery = 98.30%							
Zn 213.857†	19807.1	487.08 µg/L	26.415	487.08 ppb	26.415	5.42%	
QC value within limits for Zn 213.857 Recovery = 97.42%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 00:26:16

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52917.7	52917.7	100 %		00:26:49
1	Al 396.153Radial†	-14.8	11.7	8.4044 µg/L	8.4044 ppb	00:26:49
1	Ca 317.933Radial†	174.4	-9.3	-8.8112 µg/L	-8.8112 ppb	00:27:09
1	Fe 238.204 Radial†	14.1	-1.7	-15.690 µg/L	-15.690 ppb	00:27:09
1	K 766.490 Radial†	168.6	-79.1	-54.078 µg/L	-54.078 ppb	00:26:49
1	Mg 279.077 IEC†	10.4	-2.4	-22.708 µg/L	-22.708 ppb	00:27:09
1	Na 589.592 Radial†	625.6	31.4	9.6992 µg/L	9.6992 ppb	00:26:49
1	Sr 421.552†	22.7	-2.4	-0.0235 µg/L	-0.0235 ppb	00:26:49
1	Sc 361.383	1888066.0	1888066.0	99.198 %		00:28:11
1	Y 371.029	1303801.6	1303801.6	99.420 %		00:28:11
1	Ag 328.068†	-379.6	116.1	0.8880 µg/L	0.8880 ppb	00:28:16
1	As 188.979†	-0.8	-1.7	-3.2149 µg/L	-3.2149 ppb	00:28:37
1	B 249.677†	355.0	-96.4	-4.1094 µg/L	-4.1094 ppb	00:28:37
1	Ba 233.527†	38.4	59.2	1.5205 µg/L	1.5205 ppb	00:28:37
1	Be 313.107†	-1939.2	1583.4	0.9825 µg/L	0.9825 ppb	00:28:16
1	Cd 226.502†	-66.5	62.3	1.6826 µg/L	1.6826 ppb	00:28:37
1	Co 228.616†	37.2	44.9	2.1723 µg/L	2.1723 ppb	00:28:37
1	Cr 267.716†	56.7	103.3	2.1895 µg/L	2.1895 ppb	00:28:37
1	Cu 324.752†	3374.5	162.7	1.0855 µg/L	1.0855 ppb	00:28:16
1	Mn 257.610†	264.2	497.1	1.6644 µg/L	1.6644 ppb	00:28:37
1	Mo 202.031†	21.4	25.6	2.6516 µg/L	2.6516 ppb	00:28:37
1	Ni 231.604†	317.4	32.0	1.6967 µg/L	1.6967 ppb	00:28:37
1	P 214.914†	21.0	-1.2	-2.4981 µg/L	-2.4981 ppb	00:28:37
1	Pb 220.353†	98.0	16.3	4.1851 µg/L	4.1851 ppb	00:28:37
1	S 181.975 Axial†	15.1	-1.2	-5.0056 µg/L	-5.0056 ppb	00:28:37
1	Sb 206.836†	32.5	10.9	10.365 µg/L	10.365 ppb	00:28:37
1	Se 196.026†	11.6	-4.1	-6.0872 µg/L	-6.0872 ppb	00:28:37
1	SiO2†	1651.7	119.5	24.738 µg/L	24.738 ppb	00:28:16
1	Si 251.611†	425.0	93.6	7.5090 µg/L	7.5090 ppb	00:28:37
1	Sn 189.927†	9.8	9.1	4.0778 µg/L	4.0778 ppb	00:28:37
1	Ti 334.940†	629.5	557.6	1.2799 µg/L	1.2799 ppb	00:28:16
1	Tl 190.801†	-18.6	2.9	4.0717 µg/L	4.0717 ppb	00:28:37
1	U 409.014†	234.4	28.5	2.3272 µg/L	2.3272 ppb	00:28:16
1	V 292.402†	19.7	67.3	0.7082 µg/L	0.7082 ppb	00:28:16
1	Zn 213.857†	533.0	-11.2	-0.2850 µg/L	-0.2850 ppb	00:28:37
2	Sc RADIAL	52776.4	52776.4	100 %		00:27:15
2	Al 396.153Radial†	-10.9	15.6	11.147 µg/L	11.147 ppb	00:27:15
2	Ca 317.933Radial†	176.6	-6.7	-6.3181 µg/L	-6.3181 ppb	00:27:35
2	Fe 238.204 Radial†	14.6	-1.2	-10.627 µg/L	-10.627 ppb	00:27:35
2	K 766.490 Radial†	181.2	-66.0	-45.155 µg/L	-45.155 ppb	00:27:15
2	Mg 279.077 IEC†	11.0	-1.7	-15.962 µg/L	-15.962 ppb	00:27:35
2	Na 589.592 Radial†	563.5	-29.1	-8.9848 µg/L	-8.9848 ppb	00:27:15
2	Sr 421.552†	67.2	42.2	0.4196 µg/L	0.4196 ppb	00:27:15
2	Sc 361.383	1893640.3	1893640.3	99.491 %		00:28:43
2	Y 371.029	1307128.2	1307128.2	99.673 %		00:28:43
2	Ag 328.068†	-164.7	333.2	2.5586 µg/L	2.5586 ppb	00:28:49
2	As 188.979†	3.3	2.5	4.7010 µg/L	4.7010 ppb	00:29:09
2	B 249.677†	424.2	-27.9	-1.1759 µg/L	-1.1759 ppb	00:29:09
2	Ba 233.527†	161.1	182.4	4.6842 µg/L	4.6842 ppb	00:29:09
2	Be 313.107†	1737.1	5284.2	3.2792 µg/L	3.2792 ppb	00:28:49
2	Cd 226.502†	43.8	173.4	4.6776 µg/L	4.6776 ppb	00:29:09
2	Co 228.616†	100.6	108.6	5.2463 µg/L	5.2463 ppb	00:29:09
2	Cr 267.716†	232.4	279.7	5.9276 µg/L	5.9276 ppb	00:29:09
2	Cu 324.752†	3754.9	535.0	3.5746 µg/L	3.5746 ppb	00:28:49
2	Mn 257.610†	1255.0	1492.2	4.9990 µg/L	4.9990 ppb	00:29:09
2	Mo 202.031†	55.4	59.7	6.1745 µg/L	6.1745 ppb	00:29:09
2	Ni 231.604†	385.4	99.4	5.2665 µg/L	5.2665 ppb	00:29:09
2	P 214.914†	27.9	5.7	11.702 µg/L	11.702 ppb	00:29:09
2	Pb 220.353†	96.6	14.5	3.7369 µg/L	3.7369 ppb	00:29:09

2	S 181.975 Axial†	12.4	-3.9	-17.104 µg/L	-17.104 ppb	00:29:09
2	Sb 206.836†	33.7	12.0	11.435 µg/L	11.435 ppb	00:29:09
2	Se 196.026†	21.4	5.7	8.4781 µg/L	8.4781 ppb	00:29:09
2	SiO2†	1716.4	179.6	37.185 µg/L	37.185 ppb	00:28:49
2	Si 251.611†	623.2	291.5	23.390 µg/L	23.390 ppb	00:29:09
2	Sn 189.927†	15.2	14.6	6.5240 µg/L	6.5240 ppb	00:29:09
2	Ti 334.940†	1712.5	1644.3	3.7704 µg/L	3.7704 ppb	00:28:49
2	Tl 190.801†	-23.2	-1.6	-2.1511 µg/L	-2.1511 ppb	00:29:09
2	U 409.014†	336.9	130.9	10.689 µg/L	10.689 ppb	00:28:49
2	V 292.402†	257.3	306.1	3.1756 µg/L	3.1756 ppb	00:28:49
2	Zn 213.857†	666.9	121.8	2.9885 µg/L	2.9885 ppb	00:29:09
3	Sc RADIAL	53090.6	53090.6	101 %		00:27:41
3	Al 396.153Radial†	-8.1	18.4	13.143 µg/L	13.143 ppb	00:27:41
3	Ca 317.933Radial†	174.5	-9.8	-9.2604 µg/L	-9.2604 ppb	00:28:01
3	Fe 238.204 Radial†	16.4	0.6	5.3321 µg/L	5.3321 ppb	00:28:01
3	K 766.490 Radial†	178.4	-69.9	-47.767 µg/L	-47.767 ppb	00:27:41
3	Mg 279.077 IEC†	7.8	-5.0	-47.895 µg/L	-47.895 ppb	00:28:01
3	Na 589.592 Radial†	627.6	31.3	9.6906 µg/L	9.6906 ppb	00:27:41
3	Sr 421.552†	64.4	39.0	0.3879 µg/L	0.3879 ppb	00:27:41
3	Sc 361.383	1896181.0	1896181.0	99.625 %		00:29:15
3	Y 371.029	1309319.9	1309319.9	99.840 %		00:29:15
3	Ag 328.068†	410.3	910.7	6.9846 µg/L	6.9846 ppb	00:29:21
3	As 188.979†	4.4	3.5	6.6988 µg/L	6.6988 ppb	00:29:41
3	B 249.677†	495.7	43.3	1.8647 µg/L	1.8647 ppb	00:29:41
3	Ba 233.527†	286.8	308.4	7.9215 µg/L	7.9215 ppb	00:29:41
3	Be 313.107†	8048.7	11617.2	7.2095 µg/L	7.2095 ppb	00:29:21
3	Cd 226.502†	161.7	291.7	7.8644 µg/L	7.8644 ppb	00:29:41
3	Co 228.616†	165.3	173.3	8.3709 µg/L	8.3709 ppb	00:29:41
3	Cr 267.716†	370.1	417.7	8.8515 µg/L	8.8515 ppb	00:29:41
3	Cu 324.752†	4282.5	1059.5	7.0833 µg/L	7.0833 ppb	00:29:21
3	Mn 257.610†	2203.1	2442.2	8.1853 µg/L	8.1853 ppb	00:29:41
Saturated within auto integration window (code 4)						
3	Mo 202.031†	84.4	88.8	9.1838 µg/L	9.1838 ppb	00:29:41
3	Ni 231.604†	444.9	158.6	8.4079 µg/L	8.4079 ppb	00:29:41
3	P 214.914†	35.2	13.0	26.589 µg/L	26.589 ppb	00:29:41
3	Pb 220.353†	119.8	37.7	9.7004 µg/L	9.7004 ppb	00:29:41
3	S 181.975 Axial†	17.3	1.0	4.3062 µg/L	4.3062 ppb	00:29:41
3	Sb 206.836†	29.9	8.2	7.8125 µg/L	7.8125 ppb	00:29:41
3	Se 196.026†	25.4	9.6	14.349 µg/L	14.349 ppb	00:29:41
3	SiO2†	1946.3	408.1	84.493 µg/L	84.493 ppb	00:29:21
3	Si 251.611†	836.3	504.5	40.488 µg/L	40.488 ppb	00:29:41
3	Sn 189.927†	17.6	17.0	7.5760 µg/L	7.5760 ppb	00:29:41
3	Ti 334.940†	3369.6	3305.4	7.5807 µg/L	7.5807 ppb	00:29:21
3	Tl 190.801†	-15.0	6.7	9.3643 µg/L	9.3643 ppb	00:29:41
3	U 409.014†	316.2	109.7	8.9546 µg/L	8.9546 ppb	00:29:21
3	V 292.402†	637.1	686.9	7.0679 µg/L	7.0679 ppb	00:29:21
3	Zn 213.857†	802.4	256.9	6.3172 µg/L	6.3172 ppb	00:29:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1892629.1	99.438 %	0.2181			0.22%
Sc RADIAL	52928.2	100 %	0.3			0.30%
Y 371.029	1306749.9	99.644 %	0.2119			0.21%
Ag 328.068†	453.3	3.4771 µg/L	3.15034	3.4771 ppb	3.15034	90.60%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.2	10.898 µg/L	2.3792	10.898 ppb	2.3792	21.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	2.7283 µg/L	5.24300	2.7283 ppb	5.24300	192.17%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-27.0	-1.1402 µg/L	2.98722	-1.1402 ppb	2.98722	261.99%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	183.3	4.7087 µg/L	3.20058	4.7087 ppb	3.20058	67.97%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	6161.6	3.8238 µg/L	3.14901	3.8238 ppb	3.14901	82.35%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.6	-8.1299 µg/L	1.58506	-8.1299 ppb	1.58506	19.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	175.8	4.7415 µg/L	3.09136	4.7415 ppb	3.09136	65.20%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	109.0	5.2632 µg/L	3.09934	5.2632 ppb	3.09934	58.89%
QC value greater than the upper limit for Co 228.616 Recovery = Not calculated						
Cr 267.716†	266.9	5.6562 µg/L	3.33931	5.6562 ppb	3.33931	59.04%
QC value greater than the upper limit for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	585.7	3.9145 µg/L	3.01335	3.9145 ppb	3.01335	76.98%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.8	-6.9950 µg/L	10.97164	-6.9950 ppb	10.97164	156.85%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-71.7	-49.000 µg/L	4.5875	-49.000 ppb	4.5875	9.36%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-3.0	-28.855 µg/L	16.8304	-28.855 ppb	16.8304	58.33%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	1477.2	4.9495 µg/L	3.26070	4.9495 ppb	3.26070	65.88%
Saturated within auto integration window (code 4)						
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	58.0	6.0033 µg/L	3.26946	6.0033 ppb	3.26946	54.46%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	11.2	3.4683 µg/L	10.78471	3.4683 ppb	10.78471	310.95%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	96.7	5.1237 µg/L	3.35788	5.1237 ppb	3.35788	65.54%
QC value greater than the upper limit for Ni 231.604 Recovery = Not calculated						
P 214.914†	5.8	11.931 µg/L	14.5448	11.931 ppb	14.5448	121.91%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	22.9	5.8741 µg/L	3.32121	5.8741 ppb	3.32121	56.54%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.4	-5.9345 µg/L	10.73538	-5.9345 ppb	10.73538	180.90%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	10.4	9.8710 µg/L	1.86136	9.8710 ppb	1.86136	18.86%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.8	5.5800 µg/L	10.52186	5.5800 ppb	10.52186	188.56%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	235.7	48.805 µg/L	31.5267	48.805 ppb	31.5267	64.60%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	296.5	23.795 µg/L	16.4931	23.795 ppb	16.4931	69.31%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	13.6	6.0592 µg/L	1.79481	6.0592 ppb	1.79481	29.62%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	26.3	0.2613 µg/L	0.24714	0.2613 ppb	0.24714	94.58%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	1835.7	4.2103 µg/L	3.17338	4.2103 ppb	3.17338	75.37%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	2.7	3.7617 µg/L	5.76396	3.7617 ppb	5.76396	153.23%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	89.7	7.3235 µg/L	4.41296	7.3235 ppb	4.41296	60.26%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	353.4	3.6506 µg/L	3.20632	3.6506 ppb	3.20632	87.83%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	122.5	3.0069 µg/L	3.30113	3.0069 ppb	3.30113	109.79%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====
Analysis Begun

Start Time: 2/25/2010 00:55:37

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/25/2010 00:55:39

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	52593.1	52593.1	99.7 %		00:56:13
1	Al 396.153Radial†	6720.9	6770.4	4896.8 µg/L	4896.8 ppb	00:56:13
1	Ca 317.933Radial†	5236.4	5071.1	4798.9 µg/L	4798.9 ppb	00:56:33
1	Fe 238.204 Radial†	553.5	539.6	4886.6 µg/L	4886.6 ppb	00:56:33
1	K 766.490 Radial†	7402.7	7180.9	4910.5 µg/L	4910.5 ppb	00:56:13
1	Mg 279.077 IEC†	525.3	514.3	4930.0 µg/L	4930.0 ppb	00:56:33
1	Na 589.592 Radial†	32137.9	31655.2	9790.1 µg/L	9790.1 ppb	00:56:13
1	Sr 421.552†	48876.4	49018.5	487.17 µg/L	487.17 ppb	00:56:13
1	Sc 361.383	1888625.2	1888625.2	99.228 %		00:57:37
1	Y 371.029	1295993.7	1295993.7	98.824 %		00:57:37
1	Ag 328.068†	62891.4	63879.7	490.23 µg/L	490.23 ppb	00:57:42
1	As 188.979†	257.9	259.1	493.02 µg/L	493.02 ppb	00:58:03
1	B 249.677†	11573.0	11208.9	477.56 µg/L	477.56 ppb	00:57:42
1	Ba 233.527†	19005.2	19173.6	492.63 µg/L	492.63 ppb	00:57:42
1	Be 313.107†	781071.9	790689.6	490.70 µg/L	490.70 ppb	00:57:37
1	Cd 226.502†	18033.7	18303.4	492.98 µg/L	492.98 ppb	00:57:42
1	Co 228.616†	10157.7	10244.2	494.62 µg/L	494.62 ppb	00:57:42
1	Cr 267.716†	23069.4	23295.1	493.76 µg/L	493.76 ppb	00:57:42
1	Cu 324.752†	75930.4	73282.3	490.54 µg/L	490.54 ppb	00:57:42
1	Mn 257.610†	147676.0	149056.3	499.87 µg/L	499.87 ppb	00:57:37
1	Mo 202.031†	4794.6	4836.0	500.45 µg/L	500.45 ppb	00:58:03
1	Ni 231.604†	9560.3	9346.7	495.44 µg/L	495.44 ppb	00:57:42
1	P 214.914†	1199.3	1186.3	2441.5 µg/L	2441.5 ppb	00:58:03
1	Pb 220.353†	1996.2	1929.2	495.75 µg/L	495.75 ppb	00:58:03
1	S 181.975 Axial†	244.8	230.4	999.09 µg/L	999.09 ppb	00:58:03
1	Sb 206.836†	526.2	508.5	484.40 µg/L	484.40 ppb	00:58:03
1	Se 196.026†	354.0	341.0	513.17 µg/L	513.17 ppb	00:58:03
1	SiO2†	26585.8	25247.2	5227.3 µg/L	5227.3 ppb	00:57:42
1	Si 251.611†	30543.8	30446.6	2443.3 µg/L	2443.3 ppb	00:57:42
1	Sn 189.927†	1117.5	1125.5	502.61 µg/L	502.61 ppb	00:58:03
1	Ti 334.940†	211776.2	213347.6	488.76 µg/L	488.76 ppb	00:57:37
1	Tl 190.801†	331.0	355.3	498.63 µg/L	498.63 ppb	00:58:03
1	U 409.014†	6097.0	5936.6	483.80 µg/L	483.80 ppb	00:57:42
1	V 292.402†	47945.0	48365.6	496.60 µg/L	496.60 ppb	00:57:42
1	Zn 213.857†	20278.6	19888.0	489.06 µg/L	489.06 ppb	00:57:42
2	Sc RADIAL	52951.7	52951.7	100 %		00:56:39
2	Al 396.153Radial†	6694.6	6698.5	4845.0 µg/L	4845.0 ppb	00:56:39
2	Ca 317.933Radial†	5230.6	5029.7	4759.7 µg/L	4759.7 ppb	00:56:59
2	Fe 238.204 Radial†	547.7	530.1	4800.3 µg/L	4800.3 ppb	00:56:59
2	K 766.490 Radial†	7363.7	7091.6	4849.5 µg/L	4849.5 ppb	00:56:39
2	Mg 279.077 IEC†	518.4	503.9	4829.7 µg/L	4829.7 ppb	00:56:59
2	Na 589.592 Radial†	32076.7	31375.9	9703.7 µg/L	9703.7 ppb	00:56:39
2	Sr 421.552†	48793.3	48603.6	483.04 µg/L	483.04 ppb	00:56:39
2	Sc 361.383	1890060.1	1890060.1	99.303 %		00:58:10
2	Y 371.029	1297712.9	1297712.9	98.955 %		00:58:10
2	Ag 328.068†	63134.3	64076.2	491.72 µg/L	491.72 ppb	00:58:16
2	As 188.979†	251.5	252.4	480.33 µg/L	480.33 ppb	00:58:36

2	B 249.677†	11631.3	11258.8	479.74 µg/L	479.74 ppb	00:58:16
2	Ba 233.527†	19053.8	19208.0	493.52 µg/L	493.52 ppb	00:58:16
2	Be 313.107†	773352.1	782318.0	485.51 µg/L	485.51 ppb	00:58:10
2	Cd 226.502†	18112.5	18368.9	494.76 µg/L	494.76 ppb	00:58:16
2	Co 228.616†	10183.4	10262.3	495.50 µg/L	495.50 ppb	00:58:16
2	Cr 267.716†	23146.4	23355.0	495.03 µg/L	495.03 ppb	00:58:16
2	Cu 324.752†	76067.9	73362.6	491.07 µg/L	491.07 ppb	00:58:16
2	Mn 257.610†	146300.7	147558.3	494.84 µg/L	494.84 ppb	00:58:10
2	Mo 202.031†	4677.4	4714.3	487.86 µg/L	487.86 ppb	00:58:36
2	Ni 231.604†	9556.6	9335.7	494.85 µg/L	494.85 ppb	00:58:16
2	P 214.914†	1189.4	1175.4	2418.6 µg/L	2418.6 ppb	00:58:36
2	Pb 220.353†	1980.5	1911.9	491.27 µg/L	491.27 ppb	00:58:36
2	S 181.975 Axial†	241.9	227.2	985.37 µg/L	985.37 ppb	00:58:36
2	Sb 206.836†	523.9	505.8	481.59 µg/L	481.59 ppb	00:58:36
2	Se 196.026†	346.8	333.4	501.88 µg/L	501.88 ppb	00:58:36
2	SiO2†	26802.8	25445.3	5268.4 µg/L	5268.4 ppb	00:58:16
2	Si 251.611†	30727.8	30608.6	2456.3 µg/L	2456.3 ppb	00:58:16
2	Sn 189.927†	1093.5	1100.5	491.44 µg/L	491.44 ppb	00:58:36
2	Ti 334.940†	209338.8	210731.1	482.77 µg/L	482.77 ppb	00:58:10
2	Tl 190.801†	333.8	357.9	502.11 µg/L	502.11 ppb	00:58:36
2	U 409.014†	6033.5	5868.0	478.22 µg/L	478.22 ppb	00:58:16
2	V 292.402†	48067.5	48452.3	497.37 µg/L	497.37 ppb	00:58:16
2	Zn 213.857†	20372.9	19967.4	491.04 µg/L	491.04 ppb	00:58:16
3	Sc RADIAL	52956.0	52956.0	100 %		00:57:04
3	Al 396.153Radial†	6711.9	6715.2	4858.8 µg/L	4858.8 ppb	00:57:04
3	Ca 317.933Radial†	5267.1	5065.7	4793.8 µg/L	4793.8 ppb	00:57:25
3	Fe 238.204 Radial†	554.5	536.8	4860.1 µg/L	4860.1 ppb	00:57:25
3	K 766.490 Radial†	7437.1	7164.2	4899.1 µg/L	4899.1 ppb	00:57:04
3	Mg 279.077 IEC†	526.0	511.5	4901.0 µg/L	4901.0 ppb	00:57:25
3	Na 589.592 Radial†	32282.4	31578.3	9766.3 µg/L	9766.3 ppb	00:57:04
3	Sr 421.552†	48940.7	48746.6	484.46 µg/L	484.46 ppb	00:57:04
3	Sc 361.383	1888962.4	1888962.4	99.245 %		00:58:43
3	Y 371.029	1297560.5	1297560.5	98.944 %		00:58:43
3	Ag 328.068†	58715.4	59660.7	457.72 µg/L	457.72 ppb	00:58:49
3	As 188.979†	212.5	213.3	405.88 µg/L	405.88 ppb	00:59:09
3	B 249.677†	10767.7	10395.4	442.68 µg/L	442.68 ppb	00:58:49
3	Ba 233.527†	17173.0	17324.1	445.10 µg/L	445.10 ppb	00:58:49
3	Be 313.107†	715431.5	724409.6	449.57 µg/L	449.57 ppb	00:58:43
3	Cd 226.502†	16275.1	16528.2	445.11 µg/L	445.11 ppb	00:58:49
3	Co 228.616†	9076.9	9153.4	441.90 µg/L	441.90 ppb	00:58:49
3	Cr 267.716†	20005.9	20204.1	428.25 µg/L	428.25 ppb	00:58:49
3	Cu 324.752†	68238.5	65518.3	438.64 µg/L	438.64 ppb	00:58:49
3	Mn 257.610†	136085.1	137350.7	460.64 µg/L	460.64 ppb	00:58:43
3	Mo 202.031†	3855.7	3889.1	402.50 µg/L	402.50 ppb	00:59:09
3	Ni 231.604†	8546.9	8323.9	441.22 µg/L	441.22 ppb	00:58:49
3	P 214.914†	998.1	983.4	2019.8 µg/L	2019.8 ppb	00:59:09
3	Pb 220.353†	1700.0	1630.4	418.86 µg/L	418.86 ppb	00:59:09
3	S 181.975 Axial†	210.3	195.5	848.03 µg/L	848.03 ppb	00:59:09
3	Sb 206.836†	430.6	412.1	392.10 µg/L	392.10 ppb	00:59:09
3	Se 196.026†	304.0	290.5	438.26 µg/L	438.26 ppb	00:59:09
3	SiO2†	24620.5	23262.2	4816.3 µg/L	4816.3 ppb	00:58:49
3	Si 251.611†	28167.1	28046.4	2250.7 µg/L	2250.7 ppb	00:58:49
3	Sn 189.927†	879.0	885.0	395.23 µg/L	395.23 ppb	00:59:09
3	Ti 334.940†	192565.6	193952.9	444.30 µg/L	444.30 ppb	00:58:43
3	Tl 190.801†	293.9	317.9	446.32 µg/L	446.32 ppb	00:59:09
3	U 409.014†	5362.6	5195.5	423.29 µg/L	423.29 ppb	00:58:49
3	V 292.402†	42584.1	42955.4	440.76 µg/L	440.76 ppb	00:58:49
3	Zn 213.857†	18197.3	17787.2	437.36 µg/L	437.36 ppb	00:58:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1889215.9	99.259 %	0.0394			0.04%
Sc RADIAL	52833.6	100 %	0.4			0.39%
Y 371.029	1297089.0	98.908 %	0.0726			0.07%
Ag 328.068†	62538.9	479.89 µg/L	19.215	479.89 ppb	19.215	4.00%
QC value within limits for Ag 328.068 Recovery = 95.98%						
Al 396.153Radial†	6728.0	4866.9 µg/L	26.84	4866.9 ppb	26.84	0.55%
QC value within limits for Al 396.153Radial Recovery = 97.34%						
As 188.979†	241.6	459.74 µg/L	47.078	459.74 ppb	47.078	10.24%

QC value within limits for As 188.979 Recovery = 91.95%						
B 249.677†	10954.3	466.66 µg/L	20.795	466.66 ppb	20.795	4.46%
QC value within limits for B 249.677 Recovery = 93.33%						
Ba 233.527†	18568.6	477.08 µg/L	27.702	477.08 ppb	27.702	5.81%
QC value within limits for Ba 233.527 Recovery = 95.42%						
Be 313.107†	765805.7	475.26 µg/L	22.399	475.26 ppb	22.399	4.71%
QC value within limits for Be 313.107 Recovery = 95.05%						
Ca 317.933Radial†	5055.5	4784.1 µg/L	21.29	4784.1 ppb	21.29	0.45%
QC value within limits for Ca 317.933Radial Recovery = 95.68%						
Cd 226.502†	17733.5	477.62 µg/L	28.163	477.62 ppb	28.163	5.90%
QC value within limits for Cd 226.502 Recovery = 95.52%						
Co 228.616†	9886.6	477.34 µg/L	30.697	477.34 ppb	30.697	6.43%
QC value within limits for Co 228.616 Recovery = 95.47%						
Cr 267.716†	22284.8	472.35 µg/L	38.193	472.35 ppb	38.193	8.09%
QC value within limits for Cr 267.716 Recovery = 94.47%						
Cu 324.752†	70721.1	473.42 µg/L	30.119	473.42 ppb	30.119	6.36%
QC value within limits for Cu 324.752 Recovery = 94.68%						
Fe 238.204 Radial†	535.5	4849.0 µg/L	44.17	4849.0 ppb	44.17	0.91%
QC value within limits for Fe 238.204 Radial Recovery = 96.98%						
K 766.490 Radial†	7145.6	4886.4 µg/L	32.44	4886.4 ppb	32.44	0.66%
QC value within limits for K 766.490 Radial Recovery = 97.73%						
Mg 279.077 IEC†	509.9	4886.9 µg/L	51.60	4886.9 ppb	51.60	1.06%
QC value within limits for Mg 279.077 IEC Recovery = 97.74%						
Mn 257.610†	144655.1	485.12 µg/L	21.342	485.12 ppb	21.342	4.40%
QC value within limits for Mn 257.610 Recovery = 97.02%						
Mo 202.031†	4479.8	463.61 µg/L	53.293	463.61 ppb	53.293	11.50%
QC value within limits for Mo 202.031 Recovery = 92.72%						
Na 589.592 Radial†	31536.5	9753.4 µg/L	44.63	9753.4 ppb	44.63	0.46%
QC value within limits for Na 589.592 Radial Recovery = 97.53%						
Ni 231.604†	9002.1	477.17 µg/L	31.132	477.17 ppb	31.132	6.52%
QC value within limits for Ni 231.604 Recovery = 95.43%						
P 214.914†	1115.0	2293.3 µg/L	237.14	2293.3 ppb	237.14	10.34%
QC value within limits for P 214.914 Recovery = 91.73%						
Pb 220.353†	1823.8	468.63 µg/L	43.156	468.63 ppb	43.156	9.21%
QC value within limits for Pb 220.353 Recovery = 93.73%						
S 181.975 Axial†	217.7	944.16 µg/L	83.536	944.16 ppb	83.536	8.85%
QC value within limits for S 181.975 Axial Recovery = 94.42%						
Sb 206.836†	475.5	452.70 µg/L	52.495	452.70 ppb	52.495	11.60%
QC value within limits for Sb 206.836 Recovery = 90.54%						
Se 196.026†	321.6	484.43 µg/L	40.387	484.43 ppb	40.387	8.34%
QC value within limits for Se 196.026 Recovery = 96.89%						
SiO2†	24651.6	5104.0 µg/L	249.97	5104.0 ppb	249.97	4.90%
QC value within limits for SiO2 Recovery = 95.45%						
Si 251.611†	29700.5	2383.4 µg/L	115.14	2383.4 ppb	115.14	4.83%
QC value within limits for Si 251.611 Recovery = 95.34%						
Sn 189.927†	1037.0	463.09 µg/L	59.039	463.09 ppb	59.039	12.75%
QC value within limits for Sn 189.927 Recovery = 92.62%						
Sr 421.552†	48789.6	484.89 µg/L	2.095	484.89 ppb	2.095	0.43%
QC value within limits for Sr 421.552 Recovery = 96.98%						
Ti 334.940†	206010.5	471.94 µg/L	24.125	471.94 ppb	24.125	5.11%
QC value within limits for Ti 334.940 Recovery = 94.39%						
Tl 190.801†	343.7	482.35 µg/L	31.257	482.35 ppb	31.257	6.48%
QC value within limits for Tl 190.801 Recovery = 96.47%						
U 409.014†	5666.7	461.77 µg/L	33.441	461.77 ppb	33.441	7.24%
QC value within limits for U 409.014 Recovery = 92.35%						
V 292.402†	46591.1	478.24 µg/L	32.465	478.24 ppb	32.465	6.79%
QC value within limits for V 292.402 Recovery = 95.65%						
Zn 213.857†	19214.2	472.49 µg/L	30.439	472.49 ppb	30.439	6.44%
QC value within limits for Zn 213.857 Recovery = 94.50%						
All analyte(s) passed QC.						

Sequence No.: 2
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/25/2010 00:59:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52186.3	52186.3	98.9 %		00:59:52
1	Al 396.153Radial†	-14.4	11.9	8.5373 µg/L	8.5373 ppb	00:59:52
1	Ca 317.933Radial†	174.2	-7.0	-6.6463 µg/L	-6.6463 ppb	01:00:13
1	Fe 238.204 Radial†	17.2	1.6	14.471 µg/L	14.471 ppb	01:00:13
1	K 766.490 Radial†	181.1	-64.1	-43.822 µg/L	-43.822 ppb	00:59:52
1	Mg 279.077 IEC†	10.0	-2.6	-25.001 µg/L	-25.001 ppb	01:00:13
1	Na 589.592 Radial†	582.9	-3.1	-0.9573 µg/L	-0.9573 ppb	00:59:52
1	Sr 421.552†	27.9	3.2	0.0315 µg/L	0.0315 ppb	00:59:52
1	Sc 361.383	1879645.2	1879645.2	98.756 %		01:01:15
1	Y 371.029	1295228.4	1295228.4	98.766 %		01:01:15
1	Ag 328.068†	-374.4	119.7	0.9186 µg/L	0.9186 ppb	01:01:20
1	As 188.979†	1.8	0.9	1.7942 µg/L	1.7942 ppb	01:01:41
1	B 249.677†	366.1	-83.4	-3.5721 µg/L	-3.5721 ppb	01:01:41
1	Ba 233.527†	39.4	60.3	1.5493 µg/L	1.5493 ppb	01:01:41
1	Be 313.107†	-1789.3	1726.4	1.0713 µg/L	1.0713 ppb	01:01:20
1	Cd 226.502†	-65.1	63.4	1.7086 µg/L	1.7086 ppb	01:01:41
1	Co 228.616†	38.5	46.4	2.2419 µg/L	2.2419 ppb	01:01:41
1	Cr 267.716†	56.9	103.8	2.1988 µg/L	2.1988 ppb	01:01:41
1	Cu 324.752†	3365.9	169.2	1.1329 µg/L	1.1329 ppb	01:01:20
1	Mn 257.610†	303.7	538.3	1.8066 µg/L	1.8066 ppb	01:01:41
1	Mo 202.031†	21.7	26.0	2.6891 µg/L	2.6891 ppb	01:01:41
1	Ni 231.604†	321.5	37.6	1.9931 µg/L	1.9931 ppb	01:01:41
1	P 214.914†	16.8	-5.4	-11.299 µg/L	-11.299 ppb	01:01:41
1	Pb 220.353†	96.5	15.2	3.9025 µg/L	3.9025 ppb	01:01:41
1	S 181.975 Axial†	22.9	6.8	29.409 µg/L	29.409 ppb	01:01:41
1	Sb 206.836†	28.7	7.3	6.9349 µg/L	6.9349 ppb	01:01:41
1	Se 196.026†	10.8	-4.9	-7.2394 µg/L	-7.2394 ppb	01:01:41
1	SiO2†	1591.7	66.2	13.708 µg/L	13.708 ppb	01:01:20
1	Si 251.611†	422.9	93.4	7.4923 µg/L	7.4923 ppb	01:01:41
1	Sn 189.927†	11.8	11.3	5.0349 µg/L	5.0349 ppb	01:01:41
1	Ti 334.940†	633.7	564.7	1.2964 µg/L	1.2964 ppb	01:01:20
1	Tl 190.801†	-20.1	1.3	1.8348 µg/L	1.8348 ppb	01:01:41
1	U 409.014†	207.8	2.6	0.2135 µg/L	0.2135 ppb	01:01:20
1	V 292.402†	34.5	82.4	0.8636 µg/L	0.8636 ppb	01:01:20
1	Zn 213.857†	531.1	-10.7	-0.2746 µg/L	-0.2746 ppb	01:01:41
2	Sc RADIAL	52590.6	52590.6	99.7 %		01:00:18
2	Al 396.153Radial†	-13.8	12.6	9.0195 µg/L	9.0195 ppb	01:00:18
2	Ca 317.933Radial†	173.3	-9.3	-8.8443 µg/L	-8.8443 ppb	01:00:38
2	Fe 238.204 Radial†	15.6	-0.1	-0.9691 µg/L	-0.9691 ppb	01:00:38
2	K 766.490 Radial†	169.4	-77.2	-52.817 µg/L	-52.817 ppb	01:00:18
2	Mg 279.077 IEC†	11.5	-1.2	-11.019 µg/L	-11.019 ppb	01:00:38
2	Na 589.592 Radial†	566.9	-23.7	-7.3233 µg/L	-7.3233 ppb	01:00:18
2	Sr 421.552†	76.4	51.6	0.5128 µg/L	0.5128 ppb	01:00:18
2	Sc 361.383	1887368.0	1887368.0	99.162 %		01:01:47
2	Y 371.029	1301487.4	1301487.4	99.243 %		01:01:47
2	Ag 328.068†	-106.0	391.9	3.0102 µg/L	3.0102 ppb	01:01:52
2	As 188.979†	-3.0	-3.9	-7.4133 µg/L	-7.4133 ppb	01:02:13
2	B 249.677†	429.0	-21.6	-0.9118 µg/L	-0.9118 ppb	01:02:13
2	Ba 233.527†	185.1	207.2	5.3201 µg/L	5.3201 ppb	01:02:13
2	Be 313.107†	2360.4	5918.6	3.6729 µg/L	3.6729 ppb	01:01:52
2	Cd 226.502†	61.6	191.5	5.1644 µg/L	5.1644 ppb	01:02:13
2	Co 228.616†	103.5	111.8	5.4018 µg/L	5.4018 ppb	01:02:13
2	Cr 267.716†	268.0	316.4	6.7038 µg/L	6.7038 ppb	01:02:13
2	Cu 324.752†	3768.8	561.6	3.7537 µg/L	3.7537 ppb	01:01:52
2	Mn 257.610†	1450.4	1693.5	5.6744 µg/L	5.6744 ppb	01:02:13
2	Mo 202.031†	56.9	61.4	6.3537 µg/L	6.3537 ppb	01:02:13
2	Ni 231.604†	388.4	103.7	5.4954 µg/L	5.4954 ppb	01:02:13
2	P 214.914†	32.5	10.4	21.488 µg/L	21.488 ppb	01:02:13
2	Pb 220.353†	114.0	32.4	8.3313 µg/L	8.3313 ppb	01:02:13

2	S 181.975 Axial†	14.8	-1.4	-6.2283 µg/L	-6.2283 ppb	01:02:13
2	Sb 206.836†	32.0	10.5	9.9919 µg/L	9.9919 ppb	01:02:13
2	Se 196.026†	14.4	-1.3	-1.8938 µg/L	-1.8938 ppb	01:02:13
2	SiO2†	1727.3	196.3	40.653 µg/L	40.653 ppb	01:01:52
2	Si 251.611†	637.5	308.0	24.714 µg/L	24.714 ppb	01:02:13
2	Sn 189.927†	9.9	9.3	4.1550 µg/L	4.1550 ppb	01:02:13
2	Ti 334.940†	1873.1	1812.0	4.1544 µg/L	4.1544 ppb	01:01:52
2	Tl 190.801†	-16.5	5.0	7.0169 µg/L	7.0169 ppb	01:02:13
2	U 409.014†	222.8	17.0	1.3848 µg/L	1.3848 ppb	01:01:52
2	V 292.402†	312.1	362.2	3.7392 µg/L	3.7392 ppb	01:01:52
2	Zn 213.857†	687.2	144.6	3.5508 µg/L	3.5508 ppb	01:02:13
3	Sc RADIAL	52151.8	52151.8	98.8 %		01:00:44
3	Al 396.153Radial†	-4.6	21.8	15.612 µg/L	15.612 ppb	01:00:44
3	Ca 317.933Radial†	179.0	-2.1	-1.9423 µg/L	-1.9423 ppb	01:01:04
3	Fe 238.204 Radial†	16.1	0.5	4.8121 µg/L	4.8121 ppb	01:01:04
3	K 766.490 Radial†	176.9	-68.2	-46.653 µg/L	-46.653 ppb	01:00:44
3	Mg 279.077 IEC†	13.5	0.9	8.7060 µg/L	8.7060 ppb	01:01:04
3	Na 589.592 Radial†	540.9	-45.2	-13.968 µg/L	-13.968 ppb	01:00:44
3	Sr 421.552†	68.2	43.9	0.4368 µg/L	0.4368 ppb	01:00:44
3	Sc 361.383	1890646.2	1890646.2	99.334 %		01:02:19
3	Y 371.029	1303424.4	1303424.4	99.391 %		01:02:19
3	Ag 328.068†	482.6	984.6	7.5536 µg/L	7.5536 ppb	01:02:24
3	As 188.979†	3.9	3.1	5.8360 µg/L	5.8360 ppb	01:02:45
3	B 249.677†	517.0	66.3	2.8470 µg/L	2.8470 ppb	01:02:45
3	Ba 233.527†	331.9	354.6	9.1083 µg/L	9.1083 ppb	01:02:45
3	Be 313.107†	9454.9	13056.5	8.1028 µg/L	8.1028 ppb	01:02:24
3	Cd 226.502†	201.7	332.4	8.9619 µg/L	8.9619 ppb	01:02:45
3	Co 228.616†	178.2	186.8	9.0214 µg/L	9.0214 ppb	01:02:45
3	Cr 267.716†	408.1	457.0	9.6856 µg/L	9.6856 ppb	01:02:45
3	Cu 324.752†	4426.5	1217.1	8.1366 µg/L	8.1366 ppb	01:02:24
3	Mn 257.610†	2249.0	2494.9	8.3596 µg/L	8.3596 ppb	01:02:45
Saturated within auto integration window (code 4)						
3	Mo 202.031†	86.8	91.4	9.4575 µg/L	9.4575 ppb	01:02:45
3	Ni 231.604†	448.3	163.3	8.6535 µg/L	8.6535 ppb	01:02:45
3	P 214.914†	39.3	17.2	35.385 µg/L	35.385 ppb	01:02:45
3	Pb 220.353†	124.8	43.1	11.064 µg/L	11.064 ppb	01:02:45
3	S 181.975 Axial†	21.2	5.0	21.606 µg/L	21.606 ppb	01:02:45
3	Sb 206.836†	38.3	16.8	15.937 µg/L	15.937 ppb	01:02:45
3	Se 196.026†	19.1	3.4	5.0319 µg/L	5.0319 ppb	01:02:45
3	SiO2†	1958.2	425.7	88.142 µg/L	88.142 ppb	01:02:24
3	Si 251.611†	890.4	561.5	45.059 µg/L	45.059 ppb	01:02:45
3	Sn 189.927†	20.7	20.1	8.9783 µg/L	8.9783 ppb	01:02:45
3	Ti 334.940†	3709.3	3657.2	8.3828 µg/L	8.3828 ppb	01:02:24
3	Tl 190.801†	-17.9	3.7	5.2625 µg/L	5.2625 ppb	01:02:45
3	U 409.014†	361.4	156.0	12.739 µg/L	12.739 ppb	01:02:24
3	V 292.402†	720.6	772.9	7.9475 µg/L	7.9475 ppb	01:02:24
3	Zn 213.857†	834.0	291.1	7.1577 µg/L	7.1577 ppb	01:02:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1885886.5	99.084 %	0.2968			0.30%
Sc RADIAL	52309.6	99.1 %	0.46			0.47%
Y 371.029	1300046.8	99.133 %	0.3266			0.33%
Ag 328.068†	498.8	3.8274 µg/L	3.39215	3.8274 ppb	3.39215	88.63%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.4	11.056 µg/L	3.9530	11.056 ppb	3.9530	35.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.0	0.0723 µg/L	6.79040	0.0723 ppb	6.79040	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-12.9	-0.5456 µg/L	3.22517	-0.5456 ppb	3.22517	591.12%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	207.4	5.3259 µg/L	3.77950	5.3259 ppb	3.77950	70.97%
QC value greater than the upper limit for Ba 233.527 Recovery = Not calculated						
Be 313.107†	6900.5	4.2823 µg/L	3.55513	4.2823 ppb	3.55513	83.02%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-6.1	-5.8110 µg/L	3.52599	-5.8110 ppb	3.52599	60.68%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	195.8	5.2783 µg/L	3.62801	5.2783 ppb	3.62801	68.73%
QC value greater than the upper limit for Cd 226.502 Recovery = Not calculated						

Co 228.616†	115.0	5.5550 µg/L	3.39231	5.5550 ppb	3.39231	61.07%
QC value greater than the upper limit for Co 228.616 Recovery = Not calculated						
Cr 267.716†	292.4	6.1961 µg/L	3.76912	6.1961 ppb	3.76912	60.83%
QC value greater than the upper limit for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	649.3	4.3411 µg/L	3.53865	4.3411 ppb	3.53865	81.52%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.7	6.1048 µg/L	7.80100	6.1048 ppb	7.80100	127.78%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-69.8	-47.764 µg/L	4.5994	-47.764 ppb	4.5994	9.63%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.0	-9.1044 µg/L	16.93464	-9.1044 ppb	16.93464	186.00%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	1575.6	5.2802 µg/L	3.29426	5.2802 ppb	3.29426	62.39%
Saturated within auto integration window (code 4)						
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	59.6	6.1667 µg/L	3.38811	6.1667 ppb	3.38811	54.94%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-24.0	-7.4161 µg/L	6.50577	-7.4161 ppb	6.50577	87.72%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	101.5	5.3806 µg/L	3.33169	5.3806 ppb	3.33169	61.92%
QC value greater than the upper limit for Ni 231.604 Recovery = Not calculated						
P 214.914†	7.4	15.191 µg/L	23.9705	15.191 ppb	23.9705	157.79%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	30.2	7.7660 µg/L	3.61416	7.7660 ppb	3.61416	46.54%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	3.4	14.929 µg/L	18.7334	14.929 ppb	18.7334	125.48%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	11.5	10.954 µg/L	4.5774	10.954 ppb	4.5774	41.79%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.9	-1.3671 µg/L	6.15257	-1.3671 ppb	6.15257	450.05%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	229.4	47.501 µg/L	37.6867	47.501 ppb	37.6867	79.34%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	320.9	25.755 µg/L	18.8047	25.755 ppb	18.8047	73.01%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	13.6	6.0561 µg/L	2.56868	6.0561 ppb	2.56868	42.41%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	32.9	0.3271 µg/L	0.25873	0.3271 ppb	0.25873	79.11%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	2011.3	4.6112 µg/L	3.56521	4.6112 ppb	3.56521	77.32%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.4	4.7048 µg/L	2.63568	4.7048 ppb	2.63568	56.02%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	58.5	4.7791 µg/L	6.91836	4.7791 ppb	6.91836	144.76%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	405.8	4.1835 µg/L	3.56281	4.1835 ppb	3.56281	85.16%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	141.7	3.4780 µg/L	3.71669	3.4780 ppb	3.71669	106.86%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====

Analysis Begun

Start Time: 2/25/2010 01:16:09

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410.SIF

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/25/2010 01:16:12

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	52646.8	52646.8	99.8 %		01:16:45
1	Al 396.153Radial†	6640.0	6682.3	4833.0 µg/L	4833.0 ppb	01:16:45
1	Ca 317.933Radial†	5217.1	5046.4	4775.6 µg/L	4775.6 ppb	01:17:06
1	Fe 238.204 Radial†	550.8	536.4	4857.5 µg/L	4857.5 ppb	01:17:06
1	K 766.490 Radial†	7376.3	7146.8	4887.2 µg/L	4887.2 ppb	01:16:45
1	Mg 279.077 IEC†	514.3	502.8	4819.1 µg/L	4819.1 ppb	01:17:06
1	Na 589.592 Radial†	31867.6	31351.4	9696.2 µg/L	9696.2 ppb	01:16:45
1	Sr 421.552†	48495.1	48586.2	482.87 µg/L	482.87 ppb	01:16:45
1	Sc 361.383	1889599.7	1889599.7	99.279 %		01:18:09
1	Y 371.029	1298130.7	1298130.7	98.987 %		01:18:09
1	Ag 328.068†	63245.8	64204.0	492.71 µg/L	492.71 ppb	01:18:15
1	As 188.979†	257.5	258.5	491.88 µg/L	491.88 ppb	01:18:36
1	B 249.677†	11635.0	11265.3	480.00 µg/L	480.00 ppb	01:18:15
1	Ba 233.527†	19148.4	19307.9	496.09 µg/L	496.09 ppb	01:18:15
1	Be 313.107†	778867.8	788063.5	489.07 µg/L	489.07 ppb	01:18:09
1	Cd 226.502†	18220.3	18482.0	497.80 µg/L	497.80 ppb	01:18:15
1	Co 228.616†	10223.9	10305.6	497.60 µg/L	497.60 ppb	01:18:15
1	Cr 267.716†	23260.3	23475.4	497.58 µg/L	497.58 ppb	01:18:15
1	Cu 324.752†	76103.2	73416.9	491.44 µg/L	491.44 ppb	01:18:15
1	Mn 257.610†	147375.1	148676.4	498.59 µg/L	498.59 ppb	01:18:09
1	Mo 202.031†	4782.2	4821.0	498.90 µg/L	498.90 ppb	01:18:36
1	Ni 231.604†	9642.5	9424.5	499.56 µg/L	499.56 ppb	01:18:15
1	P 214.914†	1201.5	1187.9	2444.9 µg/L	2444.9 ppb	01:18:36
1	Pb 220.353†	2000.6	1932.6	496.60 µg/L	496.60 ppb	01:18:36
1	S 181.975 Axial†	242.4	227.8	987.95 µg/L	987.95 ppb	01:18:36
1	Sb 206.836†	531.0	513.1	488.63 µg/L	488.63 ppb	01:18:36
1	Se 196.026†	354.3	341.1	513.31 µg/L	513.31 ppb	01:18:36
1	SiO2†	26780.8	25429.8	5265.1 µg/L	5265.1 ppb	01:18:15
1	Si 251.611†	30761.6	30650.2	2459.6 µg/L	2459.6 ppb	01:18:15
1	Sn 189.927†	1115.6	1123.0	501.51 µg/L	501.51 ppb	01:18:36
1	Ti 334.940†	210387.6	211838.8	485.31 µg/L	485.31 ppb	01:18:09
1	Tl 190.801†	332.0	356.1	499.78 µg/L	499.78 ppb	01:18:36
1	U 409.014†	6176.9	6014.0	490.12 µg/L	490.12 ppb	01:18:15
1	V 292.402†	48268.7	48666.8	499.65 µg/L	499.65 ppb	01:18:15
1	Zn 213.857†	20451.6	20051.7	493.10 µg/L	493.10 ppb	01:18:15
2	Sc RADIAL	51994.2	51994.2	98.5 %		01:17:11
2	Al 396.153Radial†	6619.2	6744.8	4878.6 µg/L	4878.6 ppb	01:17:11
2	Ca 317.933Radial†	5211.3	5106.1	4832.0 µg/L	4832.0 ppb	01:17:32
2	Fe 238.204 Radial†	550.2	542.7	4914.1 µg/L	4914.1 ppb	01:17:32
2	K 766.490 Radial†	7332.6	7195.3	4920.3 µg/L	4920.3 ppb	01:17:11
2	Mg 279.077 IEC†	517.4	512.5	4911.9 µg/L	4911.9 ppb	01:17:32
2	Na 589.592 Radial†	31732.7	31615.5	9777.8 µg/L	9777.8 ppb	01:17:11
2	Sr 421.552†	48069.3	48764.2	484.64 µg/L	484.64 ppb	01:17:11
2	Sc 361.383	1877115.7	1877115.7	98.623 %		01:18:43
2	Y 371.029	1289396.5	1289396.5	98.321 %		01:18:43
2	Ag 328.068†	62288.4	63656.9	488.51 µg/L	488.51 ppb	01:18:48
2	As 188.979†	252.4	255.0	485.33 µg/L	485.33 ppb	01:19:09

2	B 249.677†	11476.0	11182.0	476.39 µg/L	476.39 ppb	01:18:48
2	Ba 233.527†	18751.6	19033.9	489.05 µg/L	489.05 ppb	01:18:48
2	Be 313.107†	763002.8	777194.5	482.33 µg/L	482.33 ppb	01:18:43
2	Cd 226.502†	17871.7	18250.6	491.55 µg/L	491.55 ppb	01:18:48
2	Co 228.616†	10016.8	10164.1	490.76 µg/L	490.76 ppb	01:18:48
2	Cr 267.716†	22739.6	23103.2	489.69 µg/L	489.69 ppb	01:18:48
2	Cu 324.752†	75034.5	72843.1	487.61 µg/L	487.61 ppb	01:18:48
2	Mn 257.610†	144139.5	146382.9	490.91 µg/L	490.91 ppb	01:18:43
2	Mo 202.031†	4617.6	4686.1	484.95 µg/L	484.95 ppb	01:19:09
2	Ni 231.604†	9433.5	9277.2	491.75 µg/L	491.75 ppb	01:18:48
2	P 214.914†	1159.5	1153.3	2372.5 µg/L	2372.5 ppb	01:19:09
2	Pb 220.353†	1961.4	1906.2	489.80 µg/L	489.80 ppb	01:19:09
2	S 181.975 Axial†	233.2	220.1	954.73 µg/L	954.73 ppb	01:19:09
2	Sb 206.836†	508.3	493.6	470.05 µg/L	470.05 ppb	01:19:09
2	Se 196.026†	343.3	332.3	500.33 µg/L	500.33 ppb	01:19:09
2	SiO2†	26428.5	25251.9	5228.3 µg/L	5228.3 ppb	01:18:48
2	Si 251.611†	30245.4	30332.8	2434.2 µg/L	2434.2 ppb	01:18:48
2	Sn 189.927†	1070.4	1084.7	484.38 µg/L	484.38 ppb	01:19:09
2	Ti 334.940†	206361.4	209165.8	479.17 µg/L	479.17 ppb	01:18:43
2	Tl 190.801†	326.7	352.9	495.25 µg/L	495.25 ppb	01:19:09
2	U 409.014†	6032.7	5909.1	481.55 µg/L	481.55 ppb	01:18:48
2	V 292.402†	47297.7	48005.5	492.82 µg/L	492.82 ppb	01:18:48
2	Zn 213.857†	20076.4	19808.3	487.11 µg/L	487.11 ppb	01:18:48
3	Sc RADIAL	52509.0	52509.0	99.5 %		01:17:37
3	Al 396.153Radial†	6642.2	6702.1	4849.5 µg/L	4849.5 ppb	01:17:37
3	Ca 317.933Radial†	5229.2	5072.3	4800.0 µg/L	4800.0 ppb	01:17:57
3	Fe 238.204 Radial†	550.8	537.8	4868.7 µg/L	4868.7 ppb	01:17:57
3	K 766.490 Radial†	7343.6	7133.4	4878.0 µg/L	4878.0 ppb	01:17:37
3	Mg 279.077 IEC†	523.0	512.9	4914.7 µg/L	4914.7 ppb	01:17:57
3	Na 589.592 Radial†	32020.4	31588.8	9769.6 µg/L	9769.6 ppb	01:17:37
3	Sr 421.552†	48655.5	48875.0	485.74 µg/L	485.74 ppb	01:17:37
3	Sc 361.383	1891559.3	1891559.3	99.382 %		01:19:16
3	Y 371.029	1299745.9	1299745.9	99.110 %		01:19:16
3	Ag 328.068†	57293.7	58148.9	446.12 µg/L	446.12 ppb	01:19:22
3	As 188.979†	210.4	210.9	401.32 µg/L	401.32 ppb	01:19:42
3	B 249.677†	10460.5	10071.4	428.80 µg/L	428.80 ppb	01:19:22
3	Ba 233.527†	16662.9	16787.1	431.30 µg/L	431.30 ppb	01:19:22
3	Be 313.107†	701516.5	709418.4	440.27 µg/L	440.27 ppb	01:19:16
3	Cd 226.502†	15808.1	16035.8	431.84 µg/L	431.84 ppb	01:19:22
3	Co 228.616†	8785.9	8848.0	427.15 µg/L	427.15 ppb	01:19:22
3	Cr 267.716†	19456.1	19623.2	415.94 µg/L	415.94 ppb	01:19:22
3	Cu 324.752†	66409.4	63583.4	425.71 µg/L	425.71 ppb	01:19:22
3	Mn 257.610†	133000.3	134058.4	449.61 µg/L	449.61 ppb	01:19:16
3	Mo 202.031†	3786.5	3814.1	394.74 µg/L	394.74 ppb	01:19:42
3	Ni 231.604†	8324.3	8088.1	428.73 µg/L	428.73 ppb	01:19:22
3	P 214.914†	970.0	953.7	1958.9 µg/L	1958.9 ppb	01:19:42
3	Pb 220.353†	1669.1	1596.9	410.29 µg/L	410.29 ppb	01:19:42
3	S 181.975 Axial†	202.3	187.2	811.68 µg/L	811.68 ppb	01:19:42
3	Sb 206.836†	436.8	417.7	397.46 µg/L	397.46 ppb	01:19:42
3	Se 196.026†	292.1	278.1	419.86 µg/L	419.86 ppb	01:19:42
3	SiO2†	23885.5	22488.5	4656.2 µg/L	4656.2 ppb	01:19:22
3	Si 251.611†	27338.3	27173.5	2180.6 µg/L	2180.6 ppb	01:19:22
3	Sn 189.927†	859.9	864.5	386.09 µg/L	386.09 ppb	01:19:42
3	Ti 334.940†	188628.0	189724.4	434.60 µg/L	434.60 ppb	01:19:16
3	Tl 190.801†	278.3	301.7	423.80 µg/L	423.80 ppb	01:19:42
3	U 409.014†	5156.1	4980.4	405.72 µg/L	405.72 ppb	01:19:22
3	V 292.402†	41390.8	41695.7	427.88 µg/L	427.88 ppb	01:19:22
3	Zn 213.857†	17729.7	17291.5	425.16 µg/L	425.16 ppb	01:19:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1886091.6	99.095 %	0.4116			0.42%
Sc RADIAL	52383.3	99.3 %	0.65			0.66%
Y 371.029	1295757.7	98.806 %	0.4246			0.43%
Ag 328.068†	62003.3	475.78 µg/L	25.775	475.78 ppb	25.775	5.42%
QC value within limits for Ag 328.068 Recovery = 95.16%						
Al 396.153Radial†	6709.7	4853.7 µg/L	23.06	4853.7 ppb	23.06	0.48%
QC value within limits for Al 396.153Radial Recovery = 97.07%						
As 188.979†	241.5	459.51 µg/L	50.498	459.51 ppb	50.498	10.99%

QC value within limits for As 188.979 Recovery = 91.90%							
B 249.677†	10839.6	461.73 µg/L	28.572	461.73 ppb	28.572	6.19%	
QC value within limits for B 249.677 Recovery = 92.35%							
Ba 233.527†	18376.3	472.14 µg/L	35.544	472.14 ppb	35.544	7.53%	
QC value within limits for Ba 233.527 Recovery = 94.43%							
Be 313.107†	758225.5	470.56 µg/L	26.447	470.56 ppb	26.447	5.62%	
QC value within limits for Be 313.107 Recovery = 94.11%							
Ca 317.933Radial†	5074.9	4802.5 µg/L	28.33	4802.5 ppb	28.33	0.59%	
QC value within limits for Ca 317.933Radial Recovery = 96.05%							
Cd 226.502†	17589.5	473.73 µg/L	36.416	473.73 ppb	36.416	7.69%	
QC value within limits for Cd 226.502 Recovery = 94.75%							
Co 228.616†	9772.6	471.84 µg/L	38.849	471.84 ppb	38.849	8.23%	
QC value within limits for Co 228.616 Recovery = 94.37%							
Cr 267.716†	22067.3	467.74 µg/L	45.033	467.74 ppb	45.033	9.63%	
QC value within limits for Cr 267.716 Recovery = 93.55%							
Cu 324.752†	69947.8	468.25 µg/L	36.895	468.25 ppb	36.895	7.88%	
QC value within limits for Cu 324.752 Recovery = 93.65%							
Fe 238.204 Radial†	538.9	4880.1 µg/L	29.99	4880.1 ppb	29.99	0.61%	
QC value within limits for Fe 238.204 Radial Recovery = 97.60%							
K 766.490 Radial†	7158.5	4895.2 µg/L	22.26	4895.2 ppb	22.26	0.45%	
QC value within limits for K 766.490 Radial Recovery = 97.90%							
Mg 279.077 IEC†	509.4	4881.9 µg/L	54.38	4881.9 ppb	54.38	1.11%	
QC value within limits for Mg 279.077 IEC Recovery = 97.64%							
Mn 257.610†	143039.2	479.71 µg/L	26.343	479.71 ppb	26.343	5.49%	
QC value within limits for Mn 257.610 Recovery = 95.94%							
Mo 202.031†	4440.4	459.53 µg/L	56.538	459.53 ppb	56.538	12.30%	
QC value within limits for Mo 202.031 Recovery = 91.91%							
Na 589.592 Radial†	31518.6	9747.9 µg/L	44.95	9747.9 ppb	44.95	0.46%	
QC value within limits for Na 589.592 Radial Recovery = 97.48%							
Ni 231.604†	8929.9	473.35 µg/L	38.837	473.35 ppb	38.837	8.20%	
QC value within limits for Ni 231.604 Recovery = 94.67%							
P 214.914†	1098.3	2258.8 µg/L	262.22	2258.8 ppb	262.22	11.61%	
QC value within limits for P 214.914 Recovery = 90.35%							
Pb 220.353†	1811.9	465.56 µg/L	47.990	465.56 ppb	47.990	10.31%	
QC value within limits for Pb 220.353 Recovery = 93.11%							
S 181.975 Axial†	211.7	918.12 µg/L	93.666	918.12 ppb	93.666	10.20%	
QC value within limits for S 181.975 Axial Recovery = 91.81%							
Sb 206.836†	474.8	452.05 µg/L	48.182	452.05 ppb	48.182	10.66%	
QC value within limits for Sb 206.836 Recovery = 90.41%							
Se 196.026†	317.1	477.83 µg/L	50.626	477.83 ppb	50.626	10.59%	
QC value within limits for Se 196.026 Recovery = 95.57%							
SiO2†	24390.1	5049.9 µg/L	341.47	5049.9 ppb	341.47	6.76%	
QC value within limits for SiO2 Recovery = 94.43%							
Si 251.611†	29385.5	2358.1 µg/L	154.25	2358.1 ppb	154.25	6.54%	
QC value within limits for Si 251.611 Recovery = 94.33%							
Sn 189.927†	1024.1	457.32 µg/L	62.282	457.32 ppb	62.282	13.62%	
QC value within limits for Sn 189.927 Recovery = 91.46%							
Sr 421.552†	48741.8	484.42 µg/L	1.448	484.42 ppb	1.448	0.30%	
QC value within limits for Sr 421.552 Recovery = 96.88%							
Ti 334.940†	203576.3	466.36 µg/L	27.672	466.36 ppb	27.672	5.93%	
QC value within limits for Ti 334.940 Recovery = 93.27%							
Tl 190.801†	336.9	472.94 µg/L	42.620	472.94 ppb	42.620	9.01%	
QC value within limits for Tl 190.801 Recovery = 94.59%							
U 409.014†	5634.5	459.13 µg/L	46.455	459.13 ppb	46.455	10.12%	
QC value within limits for U 409.014 Recovery = 91.83%							
V 292.402†	46122.7	473.45 µg/L	39.616	473.45 ppb	39.616	8.37%	
QC value within limits for V 292.402 Recovery = 94.69%							
Zn 213.857†	19050.5	468.46 µg/L	37.618	468.46 ppb	37.618	8.03%	
QC value within limits for Zn 213.857 Recovery = 93.69%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 01:19:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52284.6	52284.6	99.1 %			01:20:24
1	Al 396.153Radial†	-31.2	-5.0	-3.6812 µg/L	-3.6812 ppb		01:20:24
1	Ca 317.933Radial†	172.8	-8.8	-8.3407 µg/L	-8.3407 ppb		01:20:45
1	Fe 238.204 Radial†	16.5	0.9	7.7662 µg/L	7.7662 ppb		01:20:45
1	K 766.490 Radial†	212.3	-32.9	-22.524 µg/L	-22.524 ppb		01:20:24
1	Mg 279.077 IEC†	8.1	-4.6	-43.727 µg/L	-43.727 ppb		01:20:45
1	Na 589.592 Radial†	575.7	-11.5	-3.5446 µg/L	-3.5446 ppb		01:20:24
1	Sr 421.552†	61.6	37.1	0.3690 µg/L	0.3690 ppb		01:20:24
1	Sc 361.383	1890053.8	1890053.8	99.303 %			01:21:46
1	Y 371.029	1304616.2	1304616.2	99.482 %			01:21:46
1	Ag 328.068†	-438.3	57.4	0.4379 µg/L	0.4379 ppb		01:21:52
1	As 188.979†	-0.7	-1.6	-2.9813 µg/L	-2.9813 ppb		01:22:13
1	B 249.677†	333.8	-118.1	-5.0520 µg/L	-5.0520 ppb		01:22:13
1	Ba 233.527†	-17.1	3.3	0.0839 µg/L	0.0839 ppb		01:22:13
1	Be 313.107†	-3270.5	244.8	0.1519 µg/L	0.1519 ppb		01:21:52
1	Cd 226.502†	-122.8	5.6	0.1515 µg/L	0.1515 ppb		01:22:13
1	Co 228.616†	-8.6	-1.2	-0.0564 µg/L	-0.0564 ppb		01:22:13
1	Cr 267.716†	-20.2	25.8	0.5466 µg/L	0.5466 ppb		01:22:13
1	Cu 324.752†	3186.5	-30.2	-0.2006 µg/L	-0.2006 ppb		01:21:52
1	Mn 257.610†	-210.4	18.9	0.0662 µg/L	0.0662 ppb		01:22:13
1	Mo 202.031†	8.6	12.7	1.3191 µg/L	1.3191 ppb		01:22:13
1	Ni 231.604†	293.1	7.2	0.3813 µg/L	0.3813 ppb		01:22:13
1	P 214.914†	15.6	-6.6	-13.769 µg/L	-13.769 ppb		01:22:13
1	Pb 220.353†	80.3	-1.6	-0.4245 µg/L	-0.4245 ppb		01:22:13
1	S 181.975 Axial†	18.2	1.9	8.3837 µg/L	8.3837 ppb		01:22:13
1	Sb 206.836†	23.3	1.7	1.6082 µg/L	1.6082 ppb		01:22:13
1	Se 196.026†	16.4	0.7	1.1390 µg/L	1.1390 ppb		01:22:13
1	SiO2†	1531.9	-2.9	-0.5990 µg/L	-0.5990 ppb		01:21:52
1	Si 251.611†	336.9	4.4	0.3532 µg/L	0.3532 ppb		01:22:13
1	Sn 189.927†	1.8	1.1	0.5050 µg/L	0.5050 ppb		01:22:13
1	Ti 334.940†	194.7	119.1	0.2763 µg/L	0.2763 ppb		01:21:52
1	Tl 190.801†	-19.5	2.1	2.9114 µg/L	2.9114 ppb		01:22:13
1	U 409.014†	268.7	62.8	5.1299 µg/L	5.1299 ppb		01:21:52
1	V 292.402†	-49.6	-2.5	-0.0079 µg/L	-0.0079 ppb		01:21:52
1	Zn 213.857†	554.1	9.5	0.2350 µg/L	0.2350 ppb		01:22:13
2	Sc RADIAL	52487.6	52487.6	99.5 %			01:20:50
2	Al 396.153Radial†	-20.3	6.0	4.3201 µg/L	4.3201 ppb		01:20:50
2	Ca 317.933Radial†	174.4	-7.8	-7.4226 µg/L	-7.4226 ppb		01:21:10
2	Fe 238.204 Radial†	14.4	-1.3	-11.725 µg/L	-11.725 ppb		01:21:10
2	K 766.490 Radial†	125.4	-121.0	-82.777 µg/L	-82.777 ppb		01:20:50
2	Mg 279.077 IEC†	9.7	-3.0	-28.693 µg/L	-28.693 ppb		01:21:10
2	Na 589.592 Radial†	581.3	-8.1	-2.5043 µg/L	-2.5043 ppb		01:20:50
2	Sr 421.552†	49.6	24.8	0.2468 µg/L	0.2468 ppb		01:20:50
2	Sc 361.383	1909221.3	1909221.3	100.31 %			01:22:19
2	Y 371.029	1317177.7	1317177.7	100.44 %			01:22:19
2	Ag 328.068†	-512.9	-12.6	-0.0983 µg/L	-0.0983 ppb		01:22:24
2	As 188.979†	-1.9	-2.8	-5.3365 µg/L	-5.3365 ppb		01:22:45
2	B 249.677†	326.5	-128.7	-5.4975 µg/L	-5.4975 ppb		01:22:45
2	Ba 233.527†	-8.2	12.3	0.3146 µg/L	0.3146 ppb		01:22:45
2	Be 313.107†	-3053.6	494.0	0.3066 µg/L	0.3066 ppb		01:22:24
2	Cd 226.502†	-123.0	6.7	0.1820 µg/L	0.1820 ppb		01:22:45
2	Co 228.616†	-1.2	6.3	0.3028 µg/L	0.3028 ppb		01:22:45
2	Cr 267.716†	-9.7	36.5	0.7725 µg/L	0.7725 ppb		01:22:45
2	Cu 324.752†	3227.1	-22.0	-0.1487 µg/L	-0.1487 ppb		01:22:24
2	Mn 257.610†	-131.6	99.7	0.3335 µg/L	0.3335 ppb		01:22:45
2	Mo 202.031†	6.1	10.1	1.0457 µg/L	1.0457 ppb		01:22:45
2	Ni 231.604†	298.9	10.0	0.5299 µg/L	0.5299 ppb		01:22:45
2	P 214.914†	22.2	-0.2	-0.3972 µg/L	-0.3972 ppb		01:22:45
2	Pb 220.353†	86.6	3.8	0.9690 µg/L	0.9690 ppb		01:22:45

2	S 181.975 Axial†	12.5	-3.9	-17.043 µg/L	-17.043 ppb	01:22:45
2	Sb 206.836†	30.5	8.6	8.1847 µg/L	8.1847 ppb	01:22:45
2	Se 196.026†	16.3	0.4	0.6362 µg/L	0.6362 ppb	01:22:45
2	SiO2†	1541.7	-8.7	-1.7957 µg/L	-1.7957 ppb	01:22:24
2	Si 251.611†	344.1	8.1	0.6538 µg/L	0.6538 ppb	01:22:45
2	Sn 189.927†	-0.0	-0.7	-0.3250 µg/L	-0.3250 ppb	01:22:45
2	Ti 334.940†	232.9	155.2	0.3580 µg/L	0.3580 ppb	01:22:24
2	Tl 190.801†	-20.6	1.1	1.5992 µg/L	1.5992 ppb	01:22:45
2	U 409.014†	235.3	26.8	2.1867 µg/L	2.1867 ppb	01:22:24
2	V 292.402†	-76.8	-29.1	-0.2843 µg/L	-0.2843 ppb	01:22:24
2	Zn 213.857†	549.5	-0.7	-0.0161 µg/L	-0.0161 ppb	01:22:45
3	Sc RADIAL	53099.2	53099.2	101 %		01:21:16
3	Al 396.153Radial†	-6.5	20.0	14.483 µg/L	14.483 ppb	01:21:16
3	Ca 317.933Radial†	172.0	-12.3	-11.612 µg/L	-11.612 ppb	01:21:36
3	Fe 238.204 Radial†	15.1	-0.7	-6.5329 µg/L	-6.5329 ppb	01:21:36
3	K 766.490 Radial†	147.9	-100.2	-68.487 µg/L	-68.487 ppb	01:21:16
3	Mg 279.077 IEC†	13.6	0.8	7.2129 µg/L	7.2129 ppb	01:21:36
3	Na 589.592 Radial†	547.7	-48.2	-14.912 µg/L	-14.912 ppb	01:21:16
3	Sr 421.552†	35.1	9.9	0.0980 µg/L	0.0980 ppb	01:21:16
3	Sc 361.383	1910537.7	1910537.7	100.38 %		01:22:51
3	Y 371.029	1318119.4	1318119.4	100.51 %		01:22:51
3	Ag 328.068†	-447.6	52.9	0.4039 µg/L	0.4039 ppb	01:22:57
3	As 188.979†	6.1	5.2	9.8880 µg/L	9.8880 ppb	01:23:17
3	B 249.677†	347.2	-108.3	-4.6260 µg/L	-4.6260 ppb	01:23:17
3	Ba 233.527†	6.8	27.3	0.7007 µg/L	0.7007 ppb	01:23:17
3	Be 313.107†	-2726.5	822.1	0.5101 µg/L	0.5101 ppb	01:22:57
3	Cd 226.502†	-109.8	19.9	0.5391 µg/L	0.5391 ppb	01:23:17
3	Co 228.616†	5.4	12.8	0.6188 µg/L	0.6188 ppb	01:23:17
3	Cr 267.716†	3.1	49.2	1.0430 µg/L	1.0430 ppb	01:23:17
3	Cu 324.752†	3298.5	47.0	0.3131 µg/L	0.3131 ppb	01:22:57
3	Mn 257.610†	-64.4	166.6	0.5571 µg/L	0.5571 ppb	01:23:17
3	Mo 202.031†	3.3	7.4	0.7641 µg/L	0.7641 ppb	01:23:17
3	Ni 231.604†	314.4	25.2	1.3359 µg/L	1.3359 ppb	01:23:17
3	P 214.914†	23.0	0.6	1.2982 µg/L	1.2982 ppb	01:23:17
3	Pb 220.353†	93.1	10.2	2.6125 µg/L	2.6125 ppb	01:23:17
3	S 181.975 Axial†	15.6	-0.9	-3.6989 µg/L	-3.6989 ppb	01:23:17
3	Sb 206.836†	26.7	4.8	4.5084 µg/L	4.5084 ppb	01:23:17
3	Se 196.026†	18.7	2.8	4.1103 µg/L	4.1103 ppb	01:23:17
3	SiO2†	1561.5	10.0	2.0796 µg/L	2.0796 ppb	01:22:57
3	Si 251.611†	355.3	19.1	1.5344 µg/L	1.5344 ppb	01:23:17
3	Sn 189.927†	1.9	1.2	0.5485 µg/L	0.5485 ppb	01:23:17
3	Ti 334.940†	367.5	289.1	0.6620 µg/L	0.6620 ppb	01:22:57
3	Tl 190.801†	-27.6	-5.8	-8.0270 µg/L	-8.0270 ppb	01:23:17
3	U 409.014†	252.2	43.5	3.5517 µg/L	3.5517 ppb	01:22:57
3	V 292.402†	-23.7	23.9	0.2533 µg/L	0.2533 ppb	01:22:57
3	Zn 213.857†	561.3	10.7	0.2594 µg/L	0.2594 ppb	01:23:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1903270.9	99.997 %	0.6024			0.60%
Sc RADIAL	52623.8	99.7 %	0.80			0.81%
Y 371.029	1313304.4	100.14 %	0.575			0.57%
Ag 328.068†	32.6	0.2478 µg/L	0.30024	0.2478 ppb	0.30024	121.16%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.0	5.0405 µg/L	9.10332	5.0405 ppb	9.10332	180.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.3	0.5234 µg/L	8.19502	0.5234 ppb	8.19502	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-118.4	-5.0585 µg/L	0.43582	-5.0585 ppb	0.43582	8.62%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	14.3	0.3664 µg/L	0.31167	0.3664 ppb	0.31167	85.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	520.3	0.3229 µg/L	0.17967	0.3229 ppb	0.17967	55.65%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-9.6	-9.1252 µg/L	2.20216	-9.1252 ppb	2.20216	24.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.8	0.2909 µg/L	0.21551	0.2909 ppb	0.21551	74.09%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.0	0.2884 µg/L	0.33784	0.2884 ppb	0.33784	117.14%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	37.2 0.7874 µg/L	0.24855 0.7874 ppb	0.24855 31.57%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-1.7 -0.0121 µg/L	0.28279 -0.0121 ppb	0.28279 >999.9%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-0.4 -3.4972 µg/L	10.09388 -3.4972 ppb	10.09388 288.63%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-84.7 -57.929 µg/L	31.4835 -57.929 ppb	31.4835 54.35%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-2.3 -21.736 µg/L	26.1728 -21.736 ppb	26.1728 120.41%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	95.1 0.3189 µg/L	0.24577 0.3189 ppb	0.24577 77.06%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	10.1 1.0429 µg/L	0.27753 1.0429 ppb	0.27753 26.61%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-22.6 -6.9871 µg/L	6.88311 -6.9871 ppb	6.88311 98.51%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	14.1 0.7490 µg/L	0.51363 0.7490 ppb	0.51363 68.57%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-2.0 -4.2892 µg/L	8.25314 -4.2892 ppb	8.25314 192.42%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	4.1 1.0524 µg/L	1.52020 1.0524 ppb	1.52020 144.46%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-0.9 -4.1193 µg/L	12.71830 -4.1193 ppb	12.71830 308.75%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	5.0 4.7671 µg/L	3.29589 4.7671 ppb	3.29589 69.14%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	1.3 1.9618 µg/L	1.87753 1.9618 ppb	1.87753 95.70%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	-0.5 -0.1050 µg/L	1.98432 -0.1050 ppb	1.98432 >999.9%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	10.6 0.8471 µg/L	0.61386 0.8471 ppb	0.61386 72.46%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	0.5 0.2428 µg/L	0.49226 0.2428 ppb	0.49226 202.72%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	23.9 0.2379 µg/L	0.13573 0.2379 ppb	0.13573 57.05%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	187.8 0.4321 µg/L	0.20322 0.4321 ppb	0.20322 47.03%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.9 -1.1721 µg/L	5.97262 -1.1721 ppb	5.97262 509.56%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	44.4 3.6228 µg/L	1.47291 3.6228 ppb	1.47291 40.66%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-2.6 -0.0130 µg/L	0.26879 -0.0130 ppb	0.26879 >999.9%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	6.5 0.1594 µg/L	0.15252 0.1594 ppb	0.15252 95.67%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 02:11:39

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	53598.6	53598.6	102 %		02:12:17
1	Al 396.153Radial†	6769.4	6691.5	4839.5 µg/L	4839.5 ppb	02:12:17
1	Ca 317.933Radial†	5361.0	5095.2	4821.8 µg/L	4821.8 ppb	02:12:38
1	Fe 238.204 Radial†	563.7	539.3	4883.9 µg/L	4883.9 ppb	02:12:38
1	K 766.490 Radial†	7484.2	7121.7	4870.0 µg/L	4870.0 ppb	02:12:17
1	Mg 279.077 IEC†	530.6	509.7	4886.2 µg/L	4886.2 ppb	02:12:38
1	Na 589.592 Radial†	32344.8	31254.0	9666.0 µg/L	9666.0 ppb	02:12:17
1	Sr 421.552†	49720.1	48929.1	486.28 µg/L	486.28 ppb	02:12:17
1	Sc 361.383	1917131.5	1917131.5	100.73 %		02:13:41
1	Y 371.029	1315319.6	1315319.6	100.30 %		02:13:41
1	Ag 328.068†	64542.5	64576.5	495.60 µg/L	495.60 ppb	02:13:47
1	As 188.979†	267.4	264.7	503.62 µg/L	503.62 ppb	02:14:07
1	B 249.677†	11956.5	11416.2	486.45 µg/L	486.45 ppb	02:13:47
1	Ba 233.527†	19753.6	19631.8	504.41 µg/L	504.41 ppb	02:13:47
1	Be 313.107†	801460.9	799227.4	496.00 µg/L	496.00 ppb	02:13:41
1	Cd 226.502†	18828.9	18822.7	506.98 µg/L	506.98 ppb	02:13:47
1	Co 228.616†	10583.4	10514.7	507.70 µg/L	507.70 ppb	02:13:47
1	Cr 267.716†	24026.9	23900.0	506.58 µg/L	506.58 ppb	02:13:47
1	Cu 324.752†	77806.6	74007.2	495.39 µg/L	495.39 ppb	02:13:47
1	Mn 257.610†	151349.3	150490.2	504.67 µg/L	504.67 ppb	02:13:41
1	Mo 202.031†	4969.4	4937.6	510.97 µg/L	510.97 ppb	02:14:07
1	Ni 231.604†	9937.0	9577.5	507.67 µg/L	507.67 ppb	02:13:47
1	P 214.914†	1240.6	1209.4	2489.7 µg/L	2489.7 ppb	02:14:07
1	Pb 220.353†	2093.8	1996.1	512.96 µg/L	512.96 ppb	02:14:07
1	S 181.975 Axial†	252.9	234.7	1018.0 µg/L	1018.0 ppb	02:14:07
1	Sb 206.836†	554.4	528.6	503.52 µg/L	503.52 ppb	02:14:07
1	Se 196.026†	360.9	342.5	515.46 µg/L	515.46 ppb	02:14:07
1	SiO2†	27485.8	25742.3	5329.8 µg/L	5329.8 ppb	02:13:47
1	Si 251.611†	31655.0	31092.1	2495.1 µg/L	2495.1 ppb	02:13:47
1	Sn 189.927†	1169.3	1160.2	518.08 µg/L	518.08 ppb	02:14:07
1	Ti 334.940†	215635.4	214005.5	490.27 µg/L	490.27 ppb	02:13:41
1	Tl 190.801†	350.2	369.4	518.16 µg/L	518.16 ppb	02:14:07
1	U 409.014†	6213.3	5960.8	485.77 µg/L	485.77 ppb	02:13:47
1	V 292.402†	49712.7	49402.1	507.22 µg/L	507.22 ppb	02:13:47
1	Zn 213.857†	21109.5	20409.0	501.91 µg/L	501.91 ppb	02:13:47
2	Sc RADIAL	53410.2	53410.2	101 %		02:12:43
2	Al 396.153Radial†	6811.6	6756.8	4886.9 µg/L	4886.9 ppb	02:12:43
2	Ca 317.933Radial†	5341.6	5094.6	4821.2 µg/L	4821.2 ppb	02:13:04
2	Fe 238.204 Radial†	560.0	537.6	4868.8 µg/L	4868.8 ppb	02:13:04
2	K 766.490 Radial†	7404.6	7069.1	4834.1 µg/L	4834.1 ppb	02:12:43
2	Mg 279.077 IEC†	530.3	511.2	4900.2 µg/L	4900.2 ppb	02:13:04
2	Na 589.592 Radial†	32431.4	31452.0	9727.3 µg/L	9727.3 ppb	02:12:43
2	Sr 421.552†	49707.2	49089.1	487.87 µg/L	487.87 ppb	02:12:43
2	Sc 361.383	1916954.8	1916954.8	100.72 %		02:14:14
2	Y 371.029	1315261.5	1315261.5	100.29 %		02:14:14
2	Ag 328.068†	64549.6	64589.5	495.70 µg/L	495.70 ppb	02:14:20
2	As 188.979†	268.7	265.9	506.05 µg/L	506.05 ppb	02:14:41
2	B 249.677†	12029.2	11489.5	489.59 µg/L	489.59 ppb	02:14:20
2	Ba 233.527†	19791.0	19670.8	505.40 µg/L	505.40 ppb	02:14:20
2	Be 313.107†	801336.5	799177.2	495.97 µg/L	495.97 ppb	02:14:14
2	Cd 226.502†	18894.4	18889.4	508.78 µg/L	508.78 ppb	02:14:20
2	Co 228.616†	10595.6	10527.8	508.33 µg/L	508.33 ppb	02:14:20
2	Cr 267.716†	24102.4	23977.1	508.21 µg/L	508.21 ppb	02:14:20
2	Cu 324.752†	77776.9	73984.8	495.24 µg/L	495.24 ppb	02:14:20
2	Mn 257.610†	150960.5	150118.0	503.42 µg/L	503.42 ppb	02:14:14
2	Mo 202.031†	4893.1	4862.3	503.18 µg/L	503.18 ppb	02:14:41
2	Ni 231.604†	9929.4	9570.9	507.31 µg/L	507.31 ppb	02:14:20
2	P 214.914†	1227.1	1196.1	2461.7 µg/L	2461.7 ppb	02:14:41
2	Pb 220.353†	2065.2	1967.9	505.69 µg/L	505.69 ppb	02:14:41

2	S 181.975 Axial†	246.9	228.8	992.09 µg/L	992.09 ppb	02:14:41
2	Sb 206.836†	548.0	522.3	497.38 µg/L	497.38 ppb	02:14:41
2	Se 196.026†	362.6	344.2	518.00 µg/L	518.00 ppb	02:14:41
2	SiO2†	27601.0	25859.2	5354.0 µg/L	5354.0 ppb	02:14:20
2	Si 251.611†	31710.3	31149.9	2499.7 µg/L	2499.7 ppb	02:14:20
2	Sn 189.927†	1151.1	1142.2	510.09 µg/L	510.09 ppb	02:14:41
2	Ti 334.940†	215638.0	214027.8	490.32 µg/L	490.32 ppb	02:14:14
2	Tl 190.801†	339.2	358.5	503.05 µg/L	503.05 ppb	02:14:41
2	U 409.014†	6199.7	5947.9	484.72 µg/L	484.72 ppb	02:14:20
2	V 292.402†	49680.3	49374.5	506.89 µg/L	506.89 ppb	02:14:20
2	Zn 213.857†	21077.7	20379.4	501.17 µg/L	501.17 ppb	02:14:20
3	Sc RADIAL	53223.6	53223.6	101 %		02:13:09
3	Al 396.153Radial†	6701.8	6671.5	4826.8 µg/L	4826.8 ppb	02:13:09
3	Ca 317.933Radial†	5359.2	5130.6	4855.2 µg/L	4855.2 ppb	02:13:29
3	Fe 238.204 Radial†	567.6	547.0	4952.5 µg/L	4952.5 ppb	02:13:29
3	K 766.490 Radial†	7329.1	7019.9	4800.4 µg/L	4800.4 ppb	02:13:09
3	Mg 279.077 IEC†	534.8	517.5	4959.1 µg/L	4959.1 ppb	02:13:29
3	Na 589.592 Radial†	32136.7	31272.0	9671.6 µg/L	9671.6 ppb	02:13:09
3	Sr 421.552†	49238.0	48796.0	484.96 µg/L	484.96 ppb	02:13:09
3	Sc 361.383	1928192.2	1928192.2	101.31 %		02:14:48
3	Y 371.029	1322963.7	1322963.7	100.88 %		02:14:48
3	Ag 328.068†	60506.1	60224.6	462.08 µg/L	462.08 ppb	02:14:53
3	As 188.979†	228.9	225.1	428.36 µg/L	428.36 ppb	02:15:14
3	B 249.677†	11205.5	10606.8	451.70 µg/L	451.70 ppb	02:14:53
3	Ba 233.527†	17977.4	17766.0	456.45 µg/L	456.45 ppb	02:14:53
3	Be 313.107†	755888.5	749678.4	465.25 µg/L	465.25 ppb	02:14:48
3	Cd 226.502†	17100.1	17008.9	458.06 µg/L	458.06 ppb	02:14:53
3	Co 228.616†	9495.0	9380.0	452.84 µg/L	452.84 ppb	02:14:53
3	Cr 267.716†	21015.1	20790.2	440.67 µg/L	440.67 ppb	02:14:53
3	Cu 324.752†	70328.1	66182.0	443.09 µg/L	443.09 ppb	02:14:53
3	Mn 257.610†	143187.4	141571.6	474.80 µg/L	474.80 ppb	02:14:48
3	Mo 202.031†	4101.0	4052.2	419.37 µg/L	419.37 ppb	02:15:14
3	Ni 231.604†	8932.3	8529.1	452.10 µg/L	452.10 ppb	02:14:53
3	P 214.914†	1053.2	1017.3	2090.7 µg/L	2090.7 ppb	02:15:14
3	Pb 220.353†	1809.4	1703.5	437.68 µg/L	437.68 ppb	02:15:14
3	S 181.975 Axial†	220.3	201.1	872.10 µg/L	872.10 ppb	02:15:14
3	Sb 206.836†	476.2	448.3	426.56 µg/L	426.56 ppb	02:15:14
3	Se 196.026†	320.9	300.9	453.89 µg/L	453.89 ppb	02:15:14
3	SiO2†	25539.4	23664.5	4899.6 µg/L	4899.6 ppb	02:14:53
3	Si 251.611†	29268.9	28556.6	2291.6 µg/L	2291.6 ppb	02:14:53
3	Sn 189.927†	946.1	933.2	416.72 µg/L	416.72 ppb	02:15:14
3	Ti 334.940†	202116.5	199432.9	456.86 µg/L	456.86 ppb	02:14:48
3	Tl 190.801†	307.4	325.2	456.57 µg/L	456.57 ppb	02:15:14
3	U 409.014†	5545.4	5266.1	429.04 µg/L	429.04 ppb	02:14:53
3	V 292.402†	44336.0	43811.6	449.62 µg/L	449.62 ppb	02:14:53
3	Zn 213.857†	19072.7	18278.2	449.46 µg/L	449.46 ppb	02:14:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1920759.5	100.92 %	0.338			0.34%
Sc RADIAL	53410.8	101 %	0.4			0.35%
Y 371.029	1317848.3	100.49 %	0.338			0.34%
Ag 328.068†	63130.2	484.46 µg/L	19.384	484.46 ppb	19.384	4.00%
QC value within limits for Ag 328.068 Recovery = 96.89%						
Al 396.153Radial†	6706.6	4851.1 µg/L	31.69	4851.1 ppb	31.69	0.65%
QC value within limits for Al 396.153Radial Recovery = 97.02%						
As 188.979†	251.9	479.34 µg/L	44.168	479.34 ppb	44.168	9.21%
QC value within limits for As 188.979 Recovery = 95.87%						
B 249.677†	11170.8	475.91 µg/L	21.031	475.91 ppb	21.031	4.42%
QC value within limits for B 249.677 Recovery = 95.18%						
Ba 233.527†	19022.9	488.75 µg/L	27.979	488.75 ppb	27.979	5.72%
QC value within limits for Ba 233.527 Recovery = 97.75%						
Be 313.107†	782694.3	485.74 µg/L	17.744	485.74 ppb	17.744	3.65%
QC value within limits for Be 313.107 Recovery = 97.15%						
Ca 317.933Radial†	5106.8	4832.7 µg/L	19.50	4832.7 ppb	19.50	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.65%						
Cd 226.502†	18240.3	491.28 µg/L	28.778	491.28 ppb	28.778	5.86%
QC value within limits for Cd 226.502 Recovery = 98.26%						
Co 228.616†	10140.8	489.62 µg/L	31.857	489.62 ppb	31.857	6.51%

QC value within limits for Co 228.616	Recovery = 97.92%			
Cr 267.716†	22889.1	485.15 µg/L	38.533	485.15 ppb 38.533 7.94%
QC value within limits for Cr 267.716	Recovery = 97.03%			
Cu 324.752†	71391.4	477.91 µg/L	30.151	477.91 ppb 30.151 6.31%
QC value within limits for Cu 324.752	Recovery = 95.58%			
Fe 238.204 Radial†	541.3	4901.8 µg/L	44.60	4901.8 ppb 44.60 0.91%
QC value within limits for Fe 238.204 Radial	Recovery = 98.04%			
K 766.490 Radial†	7070.2	4834.8 µg/L	34.82	4834.8 ppb 34.82 0.72%
QC value within limits for K 766.490 Radial	Recovery = 96.70%			
Mg 279.077 IEC†	512.8	4915.1 µg/L	38.67	4915.1 ppb 38.67 0.79%
QC value within limits for Mg 279.077 IEC	Recovery = 98.30%			
Mn 257.610†	147393.3	494.30 µg/L	16.899	494.30 ppb 16.899 3.42%
QC value within limits for Mn 257.610	Recovery = 98.86%			
Mo 202.031†	4617.4	477.84 µg/L	50.784	477.84 ppb 50.784 10.63%
QC value within limits for Mo 202.031	Recovery = 95.57%			
Na 589.592 Radial†	31326.0	9688.3 µg/L	33.85	9688.3 ppb 33.85 0.35%
QC value within limits for Na 589.592 Radial	Recovery = 96.88%			
Ni 231.604†	9225.8	489.03 µg/L	31.978	489.03 ppb 31.978 6.54%
QC value within limits for Ni 231.604	Recovery = 97.81%			
P 214.914†	1140.9	2347.4 µg/L	222.71	2347.4 ppb 222.71 9.49%
QC value within limits for P 214.914	Recovery = 93.89%			
Pb 220.353†	1889.2	485.44 µg/L	41.525	485.44 ppb 41.525 8.55%
QC value within limits for Pb 220.353	Recovery = 97.09%			
S 181.975 Axial†	221.5	960.73 µg/L	77.840	960.73 ppb 77.840 8.10%
QC value within limits for S 181.975 Axial	Recovery = 96.07%			
Sb 206.836†	499.8	475.82 µg/L	42.767	475.82 ppb 42.767 8.99%
QC value within limits for Sb 206.836	Recovery = 95.16%			
Se 196.026†	329.2	495.78 µg/L	36.303	495.78 ppb 36.303 7.32%
QC value within limits for Se 196.026	Recovery = 99.16%			
SiO2†	25088.6	5194.5 µg/L	255.65	5194.5 ppb 255.65 4.92%
QC value within limits for SiO2	Recovery = 97.14%			
Si 251.611†	30266.2	2428.8 µg/L	118.84	2428.8 ppb 118.84 4.89%
QC value within limits for Si 251.611	Recovery = 97.15%			
Sn 189.927†	1078.5	481.63 µg/L	56.354	481.63 ppb 56.354 11.70%
QC value within limits for Sn 189.927	Recovery = 96.33%			
Sr 421.552†	48938.1	486.37 µg/L	1.458	486.37 ppb 1.458 0.30%
QC value within limits for Sr 421.552	Recovery = 97.27%			
Ti 334.940†	209155.4	479.15 µg/L	19.304	479.15 ppb 19.304 4.03%
QC value within limits for Ti 334.940	Recovery = 95.83%			
Tl 190.801†	351.0	492.59 µg/L	32.101	492.59 ppb 32.101 6.52%
QC value within limits for Tl 190.801	Recovery = 98.52%			
U 409.014†	5724.9	466.51 µg/L	32.456	466.51 ppb 32.456 6.96%
QC value within limits for U 409.014	Recovery = 93.30%			
V 292.402†	47529.4	487.91 µg/L	33.163	487.91 ppb 33.163 6.80%
QC value within limits for V 292.402	Recovery = 97.58%			
Zn 213.857†	19688.8	484.18 µg/L	30.072	484.18 ppb 30.072 6.21%
QC value within limits for Zn 213.857	Recovery = 96.84%			

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/25/2010 02:15:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52682.9	52682.9	99.8 %		02:15:58
1	Al 396.153Radial†	253.4	280.3	202.94 µg/L	202.94 ppb	02:15:58
1	Ca 317.933Radial†	382.4	199.8	189.12 µg/L	189.12 ppb	02:16:19
1	Fe 238.204 Radial†	27.7	12.0	108.65 µg/L	108.65 ppb	02:16:19
1	K 766.490 Radial†	432.7	186.2	127.36 µg/L	127.36 ppb	02:15:58
1	Mg 279.077 IEC†	43.4	30.7	294.49 µg/L	294.49 ppb	02:16:19
1	Na 589.592 Radial†	1465.5	875.5	270.77 µg/L	270.77 ppb	02:15:58
1	Sr 421.552†	543.7	519.7	5.1645 µg/L	5.1645 ppb	02:15:58
1	Sc 361.383	1940065.8	1940065.8	101.93 %		02:17:21
1	Y 371.029	1335216.2	1335216.2	101.82 %		02:17:21
1	Ag 328.068†	158.5	654.3	5.0250 µg/L	5.0250 ppb	02:17:26
1	As 188.979†	15.3	14.2	27.022 µg/L	27.022 ppb	02:17:47
1	B 249.677†	1521.6	1038.6	44.362 µg/L	44.362 ppb	02:17:26
1	Ba 233.527†	181.5	198.5	5.1005 µg/L	5.1005 ppb	02:17:47
1	Be 313.107†	4582.2	8033.7	4.9857 µg/L	4.9857 ppb	02:17:26
1	Cd 226.502†	53.0	181.3	4.8770 µg/L	4.8770 ppb	02:17:47
1	Co 228.616†	97.1	102.7	4.9622 µg/L	4.9622 ppb	02:17:47
1	Cr 267.716†	203.3	245.6	5.2049 µg/L	5.2049 ppb	02:17:47
1	Cu 324.752†	4829.3	1498.8	10.034 µg/L	10.034 ppb	02:17:26
1	Mn 257.610†	2895.6	3071.6	10.294 µg/L	10.294 ppb	02:17:26
1	Mo 202.031†	100.6	102.7	10.629 µg/L	10.629 ppb	02:17:47
1	Ni 231.604†	383.3	88.0	4.6659 µg/L	4.6659 ppb	02:17:47
1	P 214.914†	95.9	71.7	149.50 µg/L	149.50 ppb	02:17:47
1	Pb 220.353†	129.6	44.6	11.423 µg/L	11.423 ppb	02:17:47
1	S 181.975 Axial†	36.5	19.5	84.457 µg/L	84.457 ppb	02:17:47
1	Sb 206.836†	34.7	12.2	11.674 µg/L	11.674 ppb	02:17:47
1	Se 196.026†	37.7	21.1	31.335 µg/L	31.335 ppb	02:17:47
1	SiO2†	2637.5	1042.0	215.75 µg/L	215.75 ppb	02:17:26
1	Si 251.611†	1575.3	1210.6	97.150 µg/L	97.150 ppb	02:17:47
1	Sn 189.927†	20.5	19.4	8.6925 µg/L	8.6925 ppb	02:17:47
1	Ti 334.940†	2336.0	2214.8	5.0570 µg/L	5.0570 ppb	02:17:26
1	Tl 190.801†	-8.2	13.7	19.131 µg/L	19.131 ppb	02:17:47
1	U 409.014†	848.4	624.5	50.969 µg/L	50.969 ppb	02:17:26
1	V 292.402†	453.9	492.7	5.1567 µg/L	5.1567 ppb	02:17:26
1	Zn 213.857†	893.0	327.6	8.0548 µg/L	8.0548 ppb	02:17:47
2	Sc RADIAL	53165.4	53165.4	101 %		02:16:24
2	Al 396.153Radial†	246.4	271.1	196.22 µg/L	196.22 ppb	02:16:24
2	Ca 317.933Radial†	381.3	195.3	184.81 µg/L	184.81 ppb	02:16:45
2	Fe 238.204 Radial†	27.5	11.5	104.16 µg/L	104.16 ppb	02:16:45
2	K 766.490 Radial†	378.7	128.8	88.050 µg/L	88.050 ppb	02:16:24
2	Mg 279.077 IEC†	39.5	26.5	253.89 µg/L	253.89 ppb	02:16:45
2	Na 589.592 Radial†	1520.6	916.9	283.56 µg/L	283.56 ppb	02:16:24
2	Sr 421.552†	523.8	494.9	4.9184 µg/L	4.9184 ppb	02:16:24
2	Sc 361.383	1922789.1	1922789.1	101.02 %		02:17:53
2	Y 371.029	1324415.4	1324415.4	100.99 %		02:17:53
2	Ag 328.068†	151.9	649.2	4.9853 µg/L	4.9853 ppb	02:17:58
2	As 188.979†	19.0	17.9	34.099 µg/L	34.099 ppb	02:18:19
2	B 249.677†	1490.3	1021.0	43.617 µg/L	43.617 ppb	02:17:58
2	Ba 233.527†	177.0	195.7	5.0277 µg/L	5.0277 ppb	02:18:19
2	Be 313.107†	4651.4	8142.5	5.0533 µg/L	5.0533 ppb	02:17:58
2	Cd 226.502†	61.9	190.7	5.1290 µg/L	5.1290 ppb	02:18:19
2	Co 228.616†	100.7	107.1	5.1788 µg/L	5.1788 ppb	02:18:19
2	Cr 267.716†	215.2	259.2	5.4928 µg/L	5.4928 ppb	02:18:19
2	Cu 324.752†	4824.3	1536.4	10.285 µg/L	10.285 ppb	02:17:58
2	Mn 257.610†	2861.8	3063.7	10.269 µg/L	10.269 ppb	02:17:58
2	Mo 202.031†	107.4	110.4	11.424 µg/L	11.424 ppb	02:18:19
2	Ni 231.604†	389.3	97.4	5.1622 µg/L	5.1622 ppb	02:18:19
2	P 214.914†	98.5	75.2	156.82 µg/L	156.82 ppb	02:18:19
2	Pb 220.353†	135.1	51.1	13.106 µg/L	13.106 ppb	02:18:19

2	S 181.975 Axial†	32.5	15.8	68.392 µg/L	68.392 ppb	02:18:19
2	Sb 206.836†	34.5	12.4	11.824 µg/L	11.824 ppb	02:18:19
2	Se 196.026†	39.3	23.1	34.208 µg/L	34.208 ppb	02:18:19
2	SiO2†	2668.3	1095.7	226.87 µg/L	226.87 ppb	02:17:58
2	Si 251.611†	1599.1	1248.0	100.15 µg/L	100.15 ppb	02:18:19
2	Sn 189.927†	29.0	28.0	12.523 µg/L	12.523 ppb	02:18:19
2	Ti 334.940†	2321.3	2220.8	5.0738 µg/L	5.0738 ppb	02:17:58
2	Tl 190.801†	-4.9	16.9	23.535 µg/L	23.535 ppb	02:18:19
2	U 409.014†	848.0	631.7	51.554 µg/L	51.554 ppb	02:17:58
2	V 292.402†	445.8	488.8	5.1235 µg/L	5.1235 ppb	02:17:58
2	Zn 213.857†	882.6	325.2	7.9955 µg/L	7.9955 ppb	02:18:19
3	Sc RADIAL	52818.1	52818.1	100 %		02:16:50
3	Al 396.153Radial†	235.6	261.9	189.59 µg/L	189.59 ppb	02:16:50
3	Ca 317.933Radial†	382.0	198.5	187.83 µg/L	187.83 ppb	02:17:10
3	Fe 238.204 Radial†	26.0	10.2	92.216 µg/L	92.216 ppb	02:17:10
3	K 766.490 Radial†	374.4	126.9	86.753 µg/L	86.753 ppb	02:16:50
3	Mg 279.077 IEC†	39.0	26.3	251.93 µg/L	251.93 ppb	02:17:10
3	Na 589.592 Radial†	1457.5	863.7	267.13 µg/L	267.13 ppb	02:16:50
3	Sr 421.552†	543.3	517.8	5.1462 µg/L	5.1462 ppb	02:16:50
3	Sc 361.383	1922069.5	1922069.5	100.98 %		02:18:25
3	Y 371.029	1323349.5	1323349.5	100.91 %		02:18:25
3	Ag 328.068†	100.9	598.8	4.5997 µg/L	4.5997 ppb	02:18:30
3	As 188.979†	16.3	15.3	29.158 µg/L	29.158 ppb	02:18:51
3	B 249.677†	1465.4	996.9	42.591 µg/L	42.591 ppb	02:18:30
3	Ba 233.527†	162.6	181.5	4.6633 µg/L	4.6633 ppb	02:18:51
3	Be 313.107†	4424.8	7919.9	4.9150 µg/L	4.9150 ppb	02:18:30
3	Cd 226.502†	33.7	162.7	4.3767 µg/L	4.3767 ppb	02:18:51
3	Co 228.616†	93.1	99.6	4.8130 µg/L	4.8130 ppb	02:18:51
3	Cr 267.716†	182.6	227.0	4.8108 µg/L	4.8108 ppb	02:18:51
3	Cu 324.752†	4765.8	1480.2	9.9077 µg/L	9.9077 ppb	02:18:30
3	Mn 257.610†	2763.3	2967.2	9.9438 µg/L	9.9438 ppb	02:18:30
3	Mo 202.031†	93.7	96.9	10.023 µg/L	10.023 ppb	02:18:51
3	Ni 231.604†	383.8	92.1	4.8822 µg/L	4.8822 ppb	02:18:51
3	P 214.914†	94.9	71.7	149.40 µg/L	149.40 ppb	02:18:51
3	Pb 220.353†	131.5	47.7	12.215 µg/L	12.215 ppb	02:18:51
3	S 181.975 Axial†	38.0	21.3	92.410 µg/L	92.410 ppb	02:18:51
3	Sb 206.836†	35.1	12.9	12.344 µg/L	12.344 ppb	02:18:51
3	Se 196.026†	34.6	18.4	27.269 µg/L	27.269 ppb	02:18:51
3	SiO2†	2601.9	1030.9	213.45 µg/L	213.45 ppb	02:18:30
3	Si 251.611†	1483.7	1134.4	91.031 µg/L	91.031 ppb	02:18:51
3	Sn 189.927†	13.5	12.7	5.6732 µg/L	5.6732 ppb	02:18:51
3	Ti 334.940†	2335.3	2235.6	5.1079 µg/L	5.1079 ppb	02:18:30
3	Tl 190.801†	-7.9	13.9	19.368 µg/L	19.368 ppb	02:18:51
3	U 409.014†	901.4	684.8	55.896 µg/L	55.896 ppb	02:18:30
3	V 292.402†	437.1	480.2	5.0279 µg/L	5.0279 ppb	02:18:30
3	Zn 213.857†	847.7	290.9	7.1489 µg/L	7.1489 ppb	02:18:51

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1928308.1	101.31 %	0.535			0.53%
Sc RADIAL	52888.8	100 %	0.5			0.47%
Y 371.029	1327660.4	101.24 %	0.501			0.49%
Ag 328.068†	634.1	4.8700 µg/L	0.23491	4.8700 ppb	0.23491	4.82%
QC value within limits for Ag 328.068 Recovery = 97.40%						
Al 396.153Radial†	271.1	196.25 µg/L	6.676	196.25 ppb	6.676	3.40%
QC value within limits for Al 396.153Radial Recovery = 98.13%						
As 188.979†	15.8	30.093 µg/L	3.6297	30.093 ppb	3.6297	12.06%
QC value within limits for As 188.979 Recovery = 100.31%						
B 249.677†	1018.8	43.523 µg/L	0.8894	43.523 ppb	0.8894	2.04%
QC value within limits for B 249.677 Recovery = 87.05%						
Ba 233.527†	191.9	4.9305 µg/L	0.23426	4.9305 ppb	0.23426	4.75%
QC value within limits for Ba 233.527 Recovery = 98.61%						
Be 313.107†	8032.0	4.9846 µg/L	0.06912	4.9846 ppb	0.06912	1.39%
QC value within limits for Be 313.107 Recovery = 99.69%						
Ca 317.933Radial†	197.9	187.25 µg/L	2.212	187.25 ppb	2.212	1.18%
QC value within limits for Ca 317.933Radial Recovery = 93.63%						
Cd 226.502†	178.2	4.7942 µg/L	0.38292	4.7942 ppb	0.38292	7.99%
QC value within limits for Cd 226.502 Recovery = 95.88%						
Co 228.616†	103.1	4.9847 µg/L	0.18390	4.9847 ppb	0.18390	3.69%

QC value within limits for Co 228.616	Recovery = 99.69%				
Cr 267.716†	243.9	5.1695 µg/L	0.34239	5.1695 ppb	0.34239 6.62%
QC value within limits for Cr 267.716	Recovery = 103.39%				
Cu 324.752†	1505.1	10.075 µg/L	0.1920	10.075 ppb	0.1920 1.91%
QC value within limits for Cu 324.752	Recovery = 100.75%				
Fe 238.204 Radial†	11.2	101.67 µg/L	8.494	101.67 ppb	8.494 8.35%
QC value within limits for Fe 238.204 Radial	Recovery = 101.67%				
K 766.490 Radial†	147.3	100.72 µg/L	23.081	100.72 ppb	23.081 22.92%
QC value less than the lower limit for K 766.490 Radial	Recovery = 67.15%				
Mg 279.077 IEC†	27.8	266.77 µg/L	24.024	266.77 ppb	24.024 9.01%
QC value within limits for Mg 279.077 IEC	Recovery = 88.92%				
Mn 257.610†	3034.2	10.169 µg/L	0.1952	10.169 ppb	0.1952 1.92%
QC value within limits for Mn 257.610	Recovery = 101.69%				
Mo 202.031†	103.3	10.692 µg/L	0.7027	10.692 ppb	0.7027 6.57%
QC value within limits for Mo 202.031	Recovery = 106.92%				
Na 589.592 Radial†	885.4	273.82 µg/L	8.628	273.82 ppb	8.628 3.15%
QC value within limits for Na 589.592 Radial	Recovery = 91.27%				
Ni 231.604†	92.5	4.9035 µg/L	0.24885	4.9035 ppb	0.24885 5.07%
QC value within limits for Ni 231.604	Recovery = 98.07%				
P 214.914†	72.9	151.90 µg/L	4.255	151.90 ppb	4.255 2.80%
QC value within limits for P 214.914	Recovery = 101.27%				
Pb 220.353†	47.8	12.248 µg/L	0.8417	12.248 ppb	0.8417 6.87%
QC value within limits for Pb 220.353	Recovery = 122.48%				
S 181.975 Axial†	18.9	81.753 µg/L	12.2349	81.753 ppb	12.2349 14.97%
QC value within limits for S 181.975 Axial	Recovery = 81.75%				
Sb 206.836†	12.5	11.948 µg/L	0.3516	11.948 ppb	0.3516 2.94%
QC value within limits for Sb 206.836	Recovery = 119.48%				
Se 196.026†	20.9	30.937 µg/L	3.4863	30.937 ppb	3.4863 11.27%
QC value within limits for Se 196.026	Recovery = 103.12%				
SiO2†	1056.2	218.69 µg/L	7.176	218.69 ppb	7.176 3.28%
QC value within limits for SiO2	Recovery = 102.67%				
Si 251.611†	1197.7	96.112 µg/L	4.6491	96.112 ppb	4.6491 4.84%
QC value within limits for Si 251.611	Recovery = 96.11%				
Sn 189.927†	20.0	8.9628 µg/L	3.43281	8.9628 ppb	3.43281 38.30%
QC value within limits for Sn 189.927	Recovery = 89.63%				
Sr 421.552†	510.8	5.0764 µg/L	0.13710	5.0764 ppb	0.13710 2.70%
QC value within limits for Sr 421.552	Recovery = 101.53%				
Ti 334.940†	2223.8	5.0796 µg/L	0.02595	5.0796 ppb	0.02595 0.51%
QC value within limits for Ti 334.940	Recovery = 101.59%				
Tl 190.801†	14.8	20.678 µg/L	2.4771	20.678 ppb	2.4771 11.98%
QC value within limits for Tl 190.801	Recovery = 103.39%				
U 409.014†	647.0	52.806 µg/L	2.6915	52.806 ppb	2.6915 5.10%
QC value within limits for U 409.014	Recovery = 105.61%				
V 292.402†	487.2	5.1027 µg/L	0.06685	5.1027 ppb	0.06685 1.31%
QC value within limits for V 292.402	Recovery = 102.05%				
Zn 213.857†	314.6	7.7331 µg/L	0.50675	7.7331 ppb	0.50675 6.55%
QC value within limits for Zn 213.857	Recovery = 77.33%				

QC Failed. Continue with analysis.

Sequence No.: 8

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 02:19:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52637.8	52637.8	99.7 %		02:19:35
1	Al 396.153Radial†	-38.1	-11.8	-8.5223 µg/L	-8.5223 ppb	02:19:35
1	Ca 317.933Radial†	168.5	-14.3	-13.529 µg/L	-13.529 ppb	02:19:55
1	Fe 238.204 Radial†	14.9	-0.8	-7.0295 µg/L	-7.0295 ppb	02:19:55
1	K 766.490 Radial†	126.6	-120.3	-82.231 µg/L	-82.231 ppb	02:19:35
1	Mg 279.077 IEC†	13.5	0.8	7.4434 µg/L	7.4434 ppb	02:19:55
1	Na 589.592 Radial†	522.3	-68.9	-21.314 µg/L	-21.314 ppb	02:19:35
1	Sr 421.552†	47.8	22.9	0.2275 µg/L	0.2275 ppb	02:19:35
1	Sc 361.383	1928180.8	1928180.8	101.31 %		02:20:57
1	Y 371.029	1327327.9	1327327.9	101.21 %		02:20:57
1	Ag 328.068†	-440.3	64.2	0.4875 µg/L	0.4875 ppb	02:21:03
1	As 188.979†	-0.0	-0.9	-1.6746 µg/L	-1.6746 ppb	02:21:23
1	B 249.677†	345.4	-113.3	-4.8402 µg/L	-4.8402 ppb	02:21:23
1	Ba 233.527†	-13.5	7.2	0.1831 µg/L	0.1831 ppb	02:21:23
1	Be 313.107†	-3515.9	67.7	0.0420 µg/L	0.0420 ppb	02:21:03
1	Cd 226.502†	-128.6	2.4	0.0654 µg/L	0.0654 ppb	02:21:23
1	Co 228.616†	-0.3	7.2	0.3472 µg/L	0.3472 ppb	02:21:23
1	Cr 267.716†	-37.7	9.0	0.1897 µg/L	0.1897 ppb	02:21:23
1	Cu 324.752†	3268.0	-13.2	-0.0895 µg/L	-0.0895 ppb	02:21:03
1	Mn 257.610†	-254.2	-20.1	-0.0686 µg/L	-0.0686 ppb	02:21:23
1	Mo 202.031†	-2.2	1.9	0.1943 µg/L	0.1943 ppb	02:21:23
1	Ni 231.604†	295.0	3.2	0.1673 µg/L	0.1673 ppb	02:21:23
1	P 214.914†	23.7	1.1	2.2228 µg/L	2.2228 ppb	02:21:23
1	Pb 220.353†	93.8	10.1	2.5846 µg/L	2.5846 ppb	02:21:23
1	S 181.975 Axial†	14.9	-1.6	-7.0426 µg/L	-7.0426 ppb	02:21:23
1	Sb 206.836†	25.2	3.1	2.9314 µg/L	2.9314 ppb	02:21:23
1	Se 196.026†	14.4	-1.6	-2.4568 µg/L	-2.4568 ppb	02:21:23
1	SiO2†	1568.1	2.4	0.4888 µg/L	0.4888 ppb	02:21:03
1	Si 251.611†	346.8	7.4	0.5941 µg/L	0.5941 ppb	02:21:23
1	Sn 189.927†	0.5	-0.2	-0.0888 µg/L	-0.0888 ppb	02:21:23
1	Ti 334.940†	93.6	15.4	0.0346 µg/L	0.0346 ppb	02:21:03
1	Tl 190.801†	-23.3	-1.3	-1.7671 µg/L	-1.7671 ppb	02:21:23
1	U 409.014†	264.0	52.8	4.3108 µg/L	4.3108 ppb	02:21:03
1	V 292.402†	-67.2	-18.9	-0.1858 µg/L	-0.1858 ppb	02:21:03
1	Zn 213.857†	558.0	2.3	0.0557 µg/L	0.0557 ppb	02:21:23
2	Sc RADIAL	52774.7	52774.7	100 %		02:20:01
2	Al 396.153Radial†	-21.2	5.3	3.8532 µg/L	3.8532 ppb	02:20:01
2	Ca 317.933Radial†	174.0	-9.2	-8.7514 µg/L	-8.7514 ppb	02:20:21
2	Fe 238.204 Radial†	14.6	-1.2	-10.466 µg/L	-10.466 ppb	02:20:21
2	K 766.490 Radial†	173.0	-74.2	-50.727 µg/L	-50.727 ppb	02:20:01
2	Mg 279.077 IEC†	9.4	-3.3	-31.928 µg/L	-31.928 ppb	02:20:21
2	Na 589.592 Radial†	535.8	-56.7	-17.544 µg/L	-17.544 ppb	02:20:01
2	Sr 421.552†	53.7	28.6	0.2847 µg/L	0.2847 ppb	02:20:01
2	Sc 361.383	1912380.2	1912380.2	100.48 %		02:21:30
2	Y 371.029	1316020.2	1316020.2	100.35 %		02:21:30
2	Ag 328.068†	-535.4	-34.0	-0.2628 µg/L	-0.2628 ppb	02:21:35
2	As 188.979†	-4.9	-5.7	-10.895 µg/L	-10.895 ppb	02:21:56
2	B 249.677†	343.1	-112.7	-4.8154 µg/L	-4.8154 ppb	02:21:56
2	Ba 233.527†	-13.9	6.6	0.1697 µg/L	0.1697 ppb	02:21:56
2	Be 313.107†	-3604.4	-49.0	-0.0305 µg/L	-0.0305 ppb	02:21:35
2	Cd 226.502†	-136.5	-6.5	-0.1750 µg/L	-0.1750 ppb	02:21:56
2	Co 228.616†	-13.8	-6.3	-0.3042 µg/L	-0.3042 ppb	02:21:56
2	Cr 267.716†	-41.9	4.4	0.0934 µg/L	0.0934 ppb	02:21:56
2	Cu 324.752†	3260.4	5.9	0.0380 µg/L	0.0380 ppb	02:21:35
2	Mn 257.610†	-250.5	-18.4	-0.0619 µg/L	-0.0619 ppb	02:21:56
2	Mo 202.031†	-11.3	-7.2	-0.7454 µg/L	-0.7454 ppb	02:21:56
2	Ni 231.604†	291.5	2.1	0.1137 µg/L	0.1137 ppb	02:21:56
2	P 214.914†	21.5	-0.9	-1.8438 µg/L	-1.8438 ppb	02:21:56
2	Pb 220.353†	90.0	7.0	1.8034 µg/L	1.8034 ppb	02:21:56

2	S 181.975 Axial†	14.1	-2.3	-9.9719 µg/L	-9.9719 ppb	02:21:56
2	Sb 206.836†	22.7	0.8	0.7578 µg/L	0.7578 ppb	02:21:56
2	Se 196.026†	17.7	1.8	2.6672 µg/L	2.6672 ppb	02:21:56
2	SiO2†	1600.0	46.8	9.6980 µg/L	9.6980 ppb	02:21:35
2	Si 251.611†	360.0	23.5	1.8820 µg/L	1.8820 ppb	02:21:56
2	Sn 189.927†	3.7	3.0	1.3235 µg/L	1.3235 ppb	02:21:56
2	Ti 334.940†	167.4	89.6	0.2078 µg/L	0.2078 ppb	02:21:35
2	Tl 190.801†	-17.3	4.5	6.2287 µg/L	6.2287 ppb	02:21:56
2	U 409.014†	141.9	-66.5	-5.4316 µg/L	-5.4316 ppb	02:21:35
2	V 292.402†	-91.6	-43.7	-0.4555 µg/L	-0.4555 ppb	02:21:35
2	Zn 213.857†	555.8	4.7	0.1186 µg/L	0.1186 ppb	02:21:56
3	Sc RADIAL	53111.2	53111.2	101 %		02:20:27
3	Al 396.153Radial†	-18.8	7.7	5.6005 µg/L	5.6005 ppb	02:20:27
3	Ca 317.933Radial†	174.7	-9.6	-9.1271 µg/L	-9.1271 ppb	02:20:47
3	Fe 238.204 Radial†	16.5	0.7	6.1632 µg/L	6.1632 ppb	02:20:47
3	K 766.490 Radial†	253.2	4.4	2.9886 µg/L	2.9886 ppb	02:20:27
3	Mg 279.077 IEC†	6.4	-6.4	-60.881 µg/L	-60.881 ppb	02:20:47
3	Na 589.592 Radial†	554.5	-41.6	-12.854 µg/L	-12.854 ppb	02:20:27
3	Sr 421.552†	57.8	32.4	0.3223 µg/L	0.3223 ppb	02:20:27
3	Sc 361.383	1930008.6	1930008.6	101.40 %		02:22:02
3	Y 371.029	1326635.7	1326635.7	101.16 %		02:22:02
3	Ag 328.068†	-467.7	37.5	0.2851 µg/L	0.2851 ppb	02:22:07
3	As 188.979†	2.0	1.1	2.1492 µg/L	2.1492 ppb	02:22:28
3	B 249.677†	347.9	-111.1	-4.7525 µg/L	-4.7525 ppb	02:22:28
3	Ba 233.527†	-18.7	2.1	0.0523 µg/L	0.0523 ppb	02:22:28
3	Be 313.107†	-3650.9	-62.2	-0.0386 µg/L	-0.0386 ppb	02:22:07
3	Cd 226.502†	-136.6	-5.3	-0.1444 µg/L	-0.1444 ppb	02:22:28
3	Co 228.616†	-3.0	4.5	0.2157 µg/L	0.2157 ppb	02:22:28
3	Cr 267.716†	-48.9	-2.1	-0.0438 µg/L	-0.0438 ppb	02:22:28
3	Cu 324.752†	3257.9	-26.2	-0.1744 µg/L	-0.1744 ppb	02:22:07
3	Mn 257.610†	-243.9	-9.7	-0.0292 µg/L	-0.0292 ppb	02:22:28
3	Mo 202.031†	-3.0	1.1	0.1161 µg/L	0.1161 ppb	02:22:28
3	Ni 231.604†	294.5	2.4	0.1270 µg/L	0.1270 ppb	02:22:28
3	P 214.914†	22.8	0.2	0.3980 µg/L	0.3980 ppb	02:22:28
3	Pb 220.353†	88.8	5.0	1.2937 µg/L	1.2937 ppb	02:22:28
3	S 181.975 Axial†	15.4	-1.2	-5.0602 µg/L	-5.0602 ppb	02:22:28
3	Sb 206.836†	20.2	-1.9	-1.8054 µg/L	-1.8054 ppb	02:22:28
3	Se 196.026†	22.0	5.9	8.8570 µg/L	8.8570 ppb	02:22:28
3	SiO2†	1605.0	37.3	7.7186 µg/L	7.7186 ppb	02:22:07
3	Si 251.611†	366.2	26.3	2.1110 µg/L	2.1110 ppb	02:22:28
3	Sn 189.927†	1.2	0.5	0.2308 µg/L	0.2308 ppb	02:22:28
3	Ti 334.940†	106.7	28.3	0.0694 µg/L	0.0694 ppb	02:22:07
3	Tl 190.801†	-23.7	-1.7	-2.2923 µg/L	-2.2923 ppb	02:22:28
3	U 409.014†	225.0	14.1	1.1493 µg/L	1.1493 ppb	02:22:07
3	V 292.402†	-67.4	-19.0	-0.1904 µg/L	-0.1904 ppb	02:22:07
3	Zn 213.857†	545.3	-10.7	-0.2621 µg/L	-0.2621 ppb	02:22:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1923523.2	101.06 %	0.509			0.50%
Sc RADIAL	52841.2	100 %	0.5			0.46%
Y 371.029	1323327.9	100.91 %	0.483			0.48%
Ag 328.068†	22.6	0.1699 µg/L	0.38819	0.1699 ppb	0.38819	228.46%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	0.4	0.3105 µg/L	7.69909	0.3105 ppb	7.69909	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.8	-3.4734 µg/L	6.70547	-3.4734 ppb	6.70547	193.05%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-112.4	-4.8027 µg/L	0.04525	-4.8027 ppb	0.04525	0.94%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.3	0.1350 µg/L	0.07199	0.1350 ppb	0.07199	53.32%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-14.5	-0.0090 µg/L	0.04440	-0.0090 ppb	0.04440	491.32%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-11.1	-10.469 µg/L	2.6566	-10.469 ppb	2.6566	25.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.2	-0.0846 µg/L	0.13087	-0.0846 ppb	0.13087	154.64%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.8	0.0862 µg/L	0.34446	0.0862 ppb	0.34446	399.41%

Cr	267.716†	3.8	0.0798 µg/L	0.11734	0.0798 ppb	0.11734	147.09%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	-11.2	-0.0753 µg/L	0.10689	-0.0753 ppb	0.10689	141.94%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Fe	238.204 Radial†	-0.4	-3.7773 µg/L	8.77846	-3.7773 ppb	8.77846	232.40%
QC value within limits for Cu 324.752 Recovery = Not calculated							
K	766.490 Radial†	-63.4	-43.323 µg/L	43.0894	-43.323 ppb	43.0894	99.46%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-3.0	-28.455 µg/L	34.2941	-28.455 ppb	34.2941	120.52%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mn	257.610†	-16.1	-0.0532 µg/L	0.02107	-0.0532 ppb	0.02107	39.59%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mo	202.031†	-1.4	-0.1450 µg/L	0.52145	-0.1450 ppb	0.52145	359.68%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Na	589.592 Radial†	-55.7	-17.237 µg/L	4.2381	-17.237 ppb	4.2381	24.59%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni	231.604†	2.6	0.1360 µg/L	0.02791	0.1360 ppb	0.02791	20.52%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
P	214.914†	0.1	0.2590 µg/L	2.03686	0.2590 ppb	2.03686	786.47%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb	220.353†	7.4	1.8939 µg/L	0.65020	1.8939 ppb	0.65020	34.33%
QC value within limits for P 214.914 Recovery = Not calculated							
S	181.975 Axial†	-1.7	-7.3582 µg/L	2.47100	-7.3582 ppb	2.47100	33.58%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb	206.836†	0.7	0.6279 µg/L	2.37103	0.6279 ppb	2.37103	377.60%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Se	196.026†	2.0	3.0225 µg/L	5.66526	3.0225 ppb	5.66526	187.44%
QC value within limits for Sb 206.836 Recovery = Not calculated							
SiO2†		28.8	5.9685 µg/L	4.84759	5.9685 ppb	4.84759	81.22%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	19.1	1.5290 µg/L	0.81774	1.5290 ppb	0.81774	53.48%
QC value within limits for SiO2 Recovery = Not calculated							
Sn	189.927†	1.1	0.4885 µg/L	0.74059	0.4885 ppb	0.74059	151.61%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sr	421.552†	28.0	0.2782 µg/L	0.04772	0.2782 ppb	0.04772	17.15%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti	334.940†	44.4	0.1039 µg/L	0.09159	0.1039 ppb	0.09159	88.13%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Tl	190.801†	0.5	0.7231 µg/L	4.77518	0.7231 ppb	4.77518	660.38%
QC value within limits for Ti 334.940 Recovery = Not calculated							
U	409.014†	0.1	0.0095 µg/L	4.97019	0.0095 ppb	4.97019	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V	292.402†	-27.2	-0.2772 µg/L	0.15444	-0.2772 ppb	0.15444	55.71%
QC value within limits for U 409.014 Recovery = Not calculated							
Zn	213.857†	-1.2	-0.0293 µg/L	0.20407	-0.0293 ppb	0.20407	697.19%
QC value within limits for V 292.402 Recovery = Not calculated							
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/25/2010 02:26:16
 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	53068.8	53068.8	101 %		02:26:50
1	Al 396.153Radial†	6724.5	6713.5	4855.4 µg/L	4855.4 ppb	02:26:50
1	Ca 317.933Radial†	5363.3	5150.2	4873.8 µg/L	4873.8 ppb	02:27:11
1	Fe 238.204 Radial†	562.6	543.7	4923.6 µg/L	4923.6 ppb	02:27:11
1	K 766.490 Radial†	7445.9	7157.2	4894.3 µg/L	4894.3 ppb	02:26:50
1	Mg 279.077 IEC†	530.9	515.3	4939.0 µg/L	4939.0 ppb	02:27:11
1	Na 589.592 Radial†	32199.3	31427.3	9719.6 µg/L	9719.6 ppb	02:26:50
1	Sr 421.552†	49282.7	48983.0	486.81 µg/L	486.81 ppb	02:26:50
1	Sc 361.383	1916328.1	1916328.1	100.68 %		02:28:14
1	Y 371.029	1313249.3	1313249.3	100.14 %		02:28:14
1	Ag 328.068†	64822.2	64881.1	497.94 µg/L	497.94 ppb	02:28:20
1	As 188.979†	266.9	264.2	502.81 µg/L	502.81 ppb	02:28:41
1	B 249.677†	12117.7	11581.2	493.49 µg/L	493.49 ppb	02:28:20
1	Ba 233.527†	19872.1	19757.8	507.64 µg/L	507.64 ppb	02:28:20
1	Be 313.107†	798817.3	796935.4	494.58 µg/L	494.58 ppb	02:28:14
1	Cd 226.502†	18986.3	18986.8	511.40 µg/L	511.40 ppb	02:28:20
1	Co 228.616†	10631.3	10566.6	510.21 µg/L	510.21 ppb	02:28:20
1	Cr 267.716†	24074.3	23957.1	507.79 µg/L	507.79 ppb	02:28:20
1	Cu 324.752†	78206.8	74437.0	498.27 µg/L	498.27 ppb	02:28:20
1	Mn 257.610†	150797.6	150005.2	503.05 µg/L	503.05 ppb	02:28:14
1	Mo 202.031†	4939.3	4909.8	508.09 µg/L	508.09 ppb	02:28:41
1	Ni 231.604†	10008.7	9652.8	511.66 µg/L	511.66 ppb	02:28:20
1	P 214.914†	1243.8	1213.1	2497.1 µg/L	2497.1 ppb	02:28:41
1	Pb 220.353†	2068.3	1971.7	506.67 µg/L	506.67 ppb	02:28:41
1	S 181.975 Axial†	254.1	236.1	1023.8 µg/L	1023.8 ppb	02:28:41
1	Sb 206.836†	553.6	528.1	502.91 µg/L	502.91 ppb	02:28:41
1	Se 196.026†	355.1	336.9	507.13 µg/L	507.13 ppb	02:28:41
1	SiO2†	27623.5	25890.5	5360.5 µg/L	5360.5 ppb	02:28:20
1	Si 251.611†	31766.1	31215.7	2505.0 µg/L	2505.0 ppb	02:28:20
1	Sn 189.927†	1160.6	1152.0	514.46 µg/L	514.46 ppb	02:28:41
1	Ti 334.940†	215306.3	213768.4	489.72 µg/L	489.72 ppb	02:28:14
1	Tl 190.801†	338.8	358.2	502.67 µg/L	502.67 ppb	02:28:41
1	U 409.014†	6232.8	5982.7	487.55 µg/L	487.55 ppb	02:28:20
1	V 292.402†	49835.4	49544.7	508.66 µg/L	508.66 ppb	02:28:20
1	Zn 213.857†	21235.7	20543.1	505.20 µg/L	505.20 ppb	02:28:20
2	Sc RADIAL	53570.2	53570.2	102 %		02:27:16
2	Al 396.153Radial†	6741.3	6667.4	4822.1 µg/L	4822.1 ppb	02:27:16
2	Ca 317.933Radial†	5359.9	5096.9	4823.3 µg/L	4823.3 ppb	02:27:37
2	Fe 238.204 Radial†	567.4	543.2	4919.8 µg/L	4919.8 ppb	02:27:37
2	K 766.490 Radial†	7447.8	7089.8	4848.2 µg/L	4848.2 ppb	02:27:16
2	Mg 279.077 IEC†	531.7	511.1	4898.5 µg/L	4898.5 ppb	02:27:37
2	Na 589.592 Radial†	32225.9	31153.8	9635.0 µg/L	9635.0 ppb	02:27:16
2	Sr 421.552†	49456.5	48695.5	483.96 µg/L	483.96 ppb	02:27:16
2	Sc 361.383	1917415.4	1917415.4	100.74 %		02:28:48
2	Y 371.029	1313862.1	1313862.1	100.19 %		02:28:48
2	Ag 328.068†	64493.5	64518.4	495.15 µg/L	495.15 ppb	02:28:53
2	As 188.979†	273.5	270.6	515.02 µg/L	515.02 ppb	02:29:14
2	B 249.677†	11963.2	11421.1	486.63 µg/L	486.63 ppb	02:28:53
2	Ba 233.527†	19691.3	19567.1	502.74 µg/L	502.74 ppb	02:28:53
2	Be 313.107†	802519.0	800159.9	496.58 µg/L	496.58 ppb	02:28:48
2	Cd 226.502†	18784.2	18775.5	505.71 µg/L	505.71 ppb	02:28:53
2	Co 228.616†	10556.0	10485.8	506.30 µg/L	506.30 ppb	02:28:53
2	Cr 267.716†	23879.3	23750.0	503.40 µg/L	503.40 ppb	02:28:53
2	Cu 324.752†	77671.0	73861.2	494.42 µg/L	494.42 ppb	02:28:53
2	Mn 257.610†	151338.7	150457.4	504.57 µg/L	504.57 ppb	02:28:48
2	Mo 202.031†	4892.0	4860.1	502.95 µg/L	502.95 ppb	02:29:14
2	Ni 231.604†	9972.2	9610.9	509.44 µg/L	509.44 ppb	02:28:53
2	P 214.914†	1231.7	1200.3	2470.6 µg/L	2470.6 ppb	02:29:14
2	Pb 220.353†	2067.2	1969.4	506.07 µg/L	506.07 ppb	02:29:14

2	S 181.975 Axial†	244.2	226.1	980.43 µg/L	980.43 ppb	02:29:14
2	Sb 206.836†	545.3	519.4	494.70 µg/L	494.70 ppb	02:29:14
2	Se 196.026†	361.0	342.6	515.63 µg/L	515.63 ppb	02:29:14
2	SiO2†	27451.3	25704.0	5321.9 µg/L	5321.9 ppb	02:28:53
2	Si 251.611†	31652.7	31085.2	2494.5 µg/L	2494.5 ppb	02:28:53
2	Sn 189.927†	1144.6	1135.5	507.07 µg/L	507.07 ppb	02:29:14
2	Ti 334.940†	216225.3	214559.3	491.54 µg/L	491.54 ppb	02:28:48
2	Tl 190.801†	336.5	355.7	499.28 µg/L	499.28 ppb	02:29:14
2	U 409.014†	6316.7	6062.5	494.08 µg/L	494.08 ppb	02:28:53
2	V 292.402†	49501.3	49185.0	504.97 µg/L	504.97 ppb	02:28:53
2	Zn 213.857†	21090.4	20387.0	501.35 µg/L	501.35 ppb	02:28:53
3	Sc RADIAL	53627.9	53627.9	102 %		02:27:42
3	Al 396.153Radial†	6814.7	6732.5	4871.0 µg/L	4871.0 ppb	02:27:42
3	Ca 317.933Radial†	5334.8	5066.5	4794.6 µg/L	4794.6 ppb	02:28:03
3	Fe 238.204 Radial†	560.6	535.9	4852.5 µg/L	4852.5 ppb	02:28:03
3	K 766.490 Radial†	7442.9	7077.1	4839.5 µg/L	4839.5 ppb	02:27:42
3	Mg 279.077 IEC†	524.7	503.7	4826.3 µg/L	4826.3 ppb	02:28:03
3	Na 589.592 Radial†	32486.0	31375.5	9703.6 µg/L	9703.6 ppb	02:27:42
3	Sr 421.552†	49912.7	49091.9	487.90 µg/L	487.90 ppb	02:27:42
3	Sc 361.383	1917645.3	1917645.3	100.75 %		02:29:21
3	Y 371.029	1316161.4	1316161.4	100.36 %		02:29:21
3	Ag 328.068†	61250.8	61292.2	470.25 µg/L	470.25 ppb	02:29:26
3	As 188.979†	229.4	226.9	431.74 µg/L	431.74 ppb	02:29:47
3	B 249.677†	11323.4	10784.6	459.36 µg/L	459.36 ppb	02:29:26
3	Ba 233.527†	18157.2	18042.1	463.54 µg/L	463.54 ppb	02:29:26
3	Be 313.107†	749037.2	746982.0	463.58 µg/L	463.58 ppb	02:29:21
3	Cd 226.502†	17265.2	17265.6	465.00 µg/L	465.00 ppb	02:29:26
3	Co 228.616†	9586.2	9522.0	459.71 µg/L	459.71 ppb	02:29:26
3	Cr 267.716†	21185.5	21073.5	446.67 µg/L	446.67 ppb	02:29:26
3	Cu 324.752†	71088.3	67318.4	450.67 µg/L	450.67 ppb	02:29:26
3	Mn 257.610†	141555.1	140728.9	471.96 µg/L	471.96 ppb	02:29:21
3	Mo 202.031†	4088.1	4061.6	420.35 µg/L	420.35 ppb	02:29:47
3	Ni 231.604†	9040.0	8684.5	460.34 µg/L	460.34 ppb	02:29:26
3	P 214.914†	1065.3	1035.0	2127.3 µg/L	2127.3 ppb	02:29:47
3	Pb 220.353†	1794.6	1698.7	436.42 µg/L	436.42 ppb	02:29:47
3	S 181.975 Axial†	220.5	202.5	878.39 µg/L	878.39 ppb	02:29:47
3	Sb 206.836†	472.6	447.3	425.57 µg/L	425.57 ppb	02:29:47
3	Se 196.026†	315.1	297.0	447.93 µg/L	447.93 ppb	02:29:47
3	SiO2†	25749.4	24011.5	4971.5 µg/L	4971.5 ppb	02:29:26
3	Si 251.611†	29547.1	28991.6	2326.5 µg/L	2326.5 ppb	02:29:26
3	Sn 189.927†	940.8	933.1	416.70 µg/L	416.70 ppb	02:29:47
3	Ti 334.940†	200491.6	198917.5	455.69 µg/L	455.69 ppb	02:29:21
3	Tl 190.801†	304.8	324.2	455.20 µg/L	455.20 ppb	02:29:47
3	U 409.014†	5530.4	5281.3	430.30 µg/L	430.30 ppb	02:29:26
3	V 292.402†	44789.3	44502.3	456.63 µg/L	456.63 ppb	02:29:26
3	Zn 213.857†	19223.3	18531.3	455.69 µg/L	455.69 ppb	02:29:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1917129.6	100.73 %	0.037			0.04%
Sc RADIAL	53422.3	101 %	0.6			0.58%
Y 371.029	1314424.3	100.23 %	0.117			0.12%
Ag 328.068†	63563.9	487.78 µg/L	15.243	487.78 ppb	15.243	3.12%
QC value within limits for Ag 328.068 Recovery = 97.56%						
Al 396.153Radial†	6704.5	4849.5 µg/L	24.97	4849.5 ppb	24.97	0.51%
QC value within limits for Al 396.153Radial Recovery = 96.99%						
As 188.979†	253.9	483.19 µg/L	44.970	483.19 ppb	44.970	9.31%
QC value within limits for As 188.979 Recovery = 96.64%						
B 249.677†	11262.3	479.83 µg/L	18.053	479.83 ppb	18.053	3.76%
QC value within limits for B 249.677 Recovery = 95.97%						
Ba 233.527†	19122.3	491.31 µg/L	24.169	491.31 ppb	24.169	4.92%
QC value within limits for Ba 233.527 Recovery = 98.26%						
Be 313.107†	781359.1	484.91 µg/L	18.503	484.91 ppb	18.503	3.82%
QC value within limits for Be 313.107 Recovery = 96.98%						
Ca 317.933Radial†	5104.5	4830.6 µg/L	40.10	4830.6 ppb	40.10	0.83%
QC value within limits for Ca 317.933Radial Recovery = 96.61%						
Cd 226.502†	18342.6	494.04 µg/L	25.310	494.04 ppb	25.310	5.12%
QC value within limits for Cd 226.502 Recovery = 98.81%						
Co 228.616†	10191.5	492.07 µg/L	28.097	492.07 ppb	28.097	5.71%

Cr	267.716†	22926.8	485.95 µg/L	34.088	485.95 ppb	34.088	7.01%
Cu	324.752†	71872.2	481.12 µg/L	26.438	481.12 ppb	26.438	5.50%
Fe	238.204 Radial†	540.9	4898.6 µg/L	39.97	4898.6 ppb	39.97	0.82%
K	766.490 Radial†	7108.0	4860.7 µg/L	29.44	4860.7 ppb	29.44	0.61%
Mg	279.077 IEC†	510.0	4887.9 µg/L	57.08	4887.9 ppb	57.08	1.17%
Mn	257.610†	147063.8	493.19 µg/L	18.400	493.19 ppb	18.400	3.73%
Mo	202.031†	4610.5	477.13 µg/L	49.243	477.13 ppb	49.243	10.32%
Na	589.592 Radial†	31318.9	9686.1 µg/L	44.93	9686.1 ppb	44.93	0.46%
Ni	231.604†	9316.1	493.82 µg/L	29.012	493.82 ppb	29.012	5.87%
P	214.914†	1149.5	2365.0 µg/L	206.31	2365.0 ppb	206.31	8.72%
Pb	220.353†	1879.9	483.05 µg/L	40.387	483.05 ppb	40.387	8.36%
S	181.975 Axial†	221.6	960.87 µg/L	74.645	960.87 ppb	74.645	7.77%
Sb	206.836†	498.3	474.39 µg/L	42.482	474.39 ppb	42.482	8.96%
Se	196.026†	325.5	490.23 µg/L	36.878	490.23 ppb	36.878	7.52%
SiO2†		25202.0	5218.0 µg/L	214.33	5218.0 ppb	214.33	4.11%
Si	251.611†	30430.9	2442.0 µg/L	100.16	2442.0 ppb	100.16	4.10%
Sn	189.927†	1073.5	479.41 µg/L	54.435	479.41 ppb	54.435	11.35%
Sr	421.552†	48923.5	486.22 µg/L	2.035	486.22 ppb	2.035	0.42%
Ti	334.940†	209081.7	478.98 µg/L	20.195	478.98 ppb	20.195	4.22%
Tl	190.801†	346.1	485.72 µg/L	26.482	485.72 ppb	26.482	5.45%
U	409.014†	5775.5	470.64 µg/L	35.092	470.64 ppb	35.092	7.46%
V	292.402†	47744.0	490.09 µg/L	29.031	490.09 ppb	29.031	5.92%
Zn	213.857†	19820.4	487.41 µg/L	27.543	487.41 ppb	27.543	5.65%

QC value within limits for Co 228.616 Recovery = 98.41%

QC value within limits for Cr 267.716 Recovery = 97.19%

QC value within limits for Cu 324.752 Recovery = 96.22%

QC value within limits for Fe 238.204 Radial Recovery = 97.97%

QC value within limits for K 766.490 Radial Recovery = 97.21%

QC value within limits for Mg 279.077 IEC Recovery = 97.76%

QC value within limits for Mn 257.610 Recovery = 98.64%

QC value within limits for Mo 202.031 Recovery = 95.43%

QC value within limits for Na 589.592 Radial Recovery = 96.86%

QC value within limits for Ni 231.604 Recovery = 98.76%

QC value within limits for P 214.914 Recovery = 94.60%

QC value within limits for Pb 220.353 Recovery = 96.61%

QC value within limits for S 181.975 Axial Recovery = 96.09%

QC value within limits for Sb 206.836 Recovery = 94.88%

QC value within limits for Se 196.026 Recovery = 98.05%

QC value within limits for SiO2 Recovery = 97.58%

QC value within limits for Si 251.611 Recovery = 97.68%

QC value within limits for Sn 189.927 Recovery = 95.88%

QC value within limits for Sr 421.552 Recovery = 97.24%

QC value within limits for Ti 334.940 Recovery = 95.80%

QC value within limits for Tl 190.801 Recovery = 97.14%

QC value within limits for U 409.014 Recovery = 94.13%

QC value within limits for V 292.402 Recovery = 98.02%

QC value within limits for Zn 213.857 Recovery = 97.48%

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/25/2010 02:29:56
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53150.4	53150.4	101 %		02:30:29
1	Al 396.153Radial†	-35.8	-9.1	-6.5957 µg/L	-6.5957 ppb	02:30:29
1	Ca 317.933Radial†	174.7	-9.8	-9.2347 µg/L	-9.2347 ppb	02:30:49
1	Fe 238.204 Radial†	12.1	-3.8	-34.215 µg/L	-34.215 ppb	02:30:49
1	K 766.490 Radial†	154.5	-93.7	-64.105 µg/L	-64.105 ppb	02:30:29
1	Mg 279.077 IEC†	11.7	-1.1	-10.908 µg/L	-10.908 ppb	02:30:49
1	Na 589.592 Radial†	554.6	-41.8	-12.942 µg/L	-12.942 ppb	02:30:29
1	Sr 421.552†	35.8	10.6	0.1049 µg/L	0.1049 ppb	02:30:29
1	Sc 361.383	1915613.1	1915613.1	100.65 %		02:31:51
1	Y 371.029	1318815.3	1318815.3	100.56 %		02:31:51
1	Ag 328.068†	-553.2	-50.8	-0.3891 µg/L	-0.3891 ppb	02:31:57
1	As 188.979†	-0.3	-1.1	-2.1516 µg/L	-2.1516 ppb	02:32:17
1	B 249.677†	357.0	-99.5	-4.2369 µg/L	-4.2369 ppb	02:32:17
1	Ba 233.527†	-22.0	-1.4	-0.0363 µg/L	-0.0363 ppb	02:32:17
1	Be 313.107†	-3580.5	-19.3	-0.0121 µg/L	-0.0121 ppb	02:31:57
1	Cd 226.502†	-139.0	-8.8	-0.2324 µg/L	-0.2324 ppb	02:32:17
1	Co 228.616†	-10.5	-3.0	-0.1453 µg/L	-0.1453 ppb	02:32:17
1	Cr 267.716†	-32.6	13.8	0.2915 µg/L	0.2915 ppb	02:32:17
1	Cu 324.752†	3257.6	-2.4	-0.0210 µg/L	-0.0210 ppb	02:31:57
1	Mn 257.610†	-232.6	-0.3	-0.0052 µg/L	-0.0052 ppb	02:32:17
1	Mo 202.031†	-1.5	2.6	0.2681 µg/L	0.2681 ppb	02:32:17
1	Ni 231.604†	288.5	-1.3	-0.0693 µg/L	-0.0693 ppb	02:32:17
1	P 214.914†	11.3	-11.1	-23.336 µg/L	-23.336 ppb	02:32:17
1	Pb 220.353†	86.4	3.3	0.8447 µg/L	0.8447 ppb	02:32:17
1	S 181.975 Axial†	12.6	-3.8	-16.696 µg/L	-16.696 ppb	02:32:17
1	Sb 206.836†	27.1	5.1	4.8293 µg/L	4.8293 ppb	02:32:17
1	Se 196.026†	7.4	-8.5	-12.672 µg/L	-12.672 ppb	02:32:17
1	SiO2†	1551.4	-4.1	-0.8591 µg/L	-0.8591 ppb	02:31:57
1	Si 251.611†	335.3	-1.7	-0.1366 µg/L	-0.1366 ppb	02:32:17
1	Sn 189.927†	0.3	-0.4	-0.1910 µg/L	-0.1910 ppb	02:32:17
1	Ti 334.940†	185.7	107.5	0.2473 µg/L	0.2473 ppb	02:31:57
1	Tl 190.801†	-24.9	-3.0	-4.1466 µg/L	-4.1466 ppb	02:32:17
1	U 409.014†	218.8	9.7	0.7941 µg/L	0.7941 ppb	02:31:57
1	V 292.402†	-43.8	3.9	0.0391 µg/L	0.0391 ppb	02:31:57
1	Zn 213.857†	552.2	0.2	0.0072 µg/L	0.0072 ppb	02:32:17
2	Sc RADIAL	52938.9	52938.9	100 %		02:30:55
2	Al 396.153Radial†	-29.9	-3.3	-2.4272 µg/L	-2.4272 ppb	02:30:55
2	Ca 317.933Radial†	173.1	-10.6	-10.056 µg/L	-10.056 ppb	02:31:15
2	Fe 238.204 Radial†	16.0	0.2	1.6288 µg/L	1.6288 ppb	02:31:15
2	K 766.490 Radial†	152.8	-94.8	-64.835 µg/L	-64.835 ppb	02:30:55
2	Mg 279.077 IEC†	10.4	-2.3	-22.198 µg/L	-22.198 ppb	02:31:15
2	Na 589.592 Radial†	537.7	-56.5	-17.470 µg/L	-17.470 ppb	02:30:55
2	Sr 421.552†	42.6	17.5	0.1736 µg/L	0.1736 ppb	02:30:55
2	Sc 361.383	1921418.6	1921418.6	100.95 %		02:32:23
2	Y 371.029	1322129.7	1322129.7	100.82 %		02:32:23
2	Ag 328.068†	-508.4	-4.8	-0.0340 µg/L	-0.0340 ppb	02:32:29
2	As 188.979†	-1.5	-2.4	-4.5687 µg/L	-4.5687 ppb	02:32:50
2	B 249.677†	349.0	-108.5	-4.6404 µg/L	-4.6404 ppb	02:32:50
2	Ba 233.527†	-16.3	4.3	0.1119 µg/L	0.1119 ppb	02:32:50
2	Be 313.107†	-3491.3	79.9	0.0495 µg/L	0.0495 ppb	02:32:29
2	Cd 226.502†	-139.2	-8.6	-0.2305 µg/L	-0.2305 ppb	02:32:50
2	Co 228.616†	-7.1	0.4	0.0206 µg/L	0.0206 ppb	02:32:50
2	Cr 267.716†	-13.9	32.3	0.6849 µg/L	0.6849 ppb	02:32:50
2	Cu 324.752†	3246.9	-22.8	-0.1519 µg/L	-0.1519 ppb	02:32:29
2	Mn 257.610†	-220.3	12.6	0.0434 µg/L	0.0434 ppb	02:32:50
2	Mo 202.031†	4.7	8.7	0.8980 µg/L	0.8980 ppb	02:32:50
2	Ni 231.604†	298.2	7.4	0.3924 µg/L	0.3924 ppb	02:32:50
2	P 214.914†	22.7	0.1	0.3014 µg/L	0.3014 ppb	02:32:50
2	Pb 220.353†	99.5	16.0	4.1234 µg/L	4.1234 ppb	02:32:50

2	S 181.975 Axial†	18.3	1.8	7.6432 µg/L	7.6432 ppb	02:32:50
2	Sb 206.836†	25.6	3.6	3.3881 µg/L	3.3881 ppb	02:32:50
2	Se 196.026†	17.2	1.2	1.8369 µg/L	1.8369 ppb	02:32:50
2	SiO2†	1578.6	18.1	3.7517 µg/L	3.7517 ppb	02:32:29
2	Si 251.611†	365.8	27.4	2.2020 µg/L	2.2020 ppb	02:32:50
2	Sn 189.927†	5.6	4.9	2.1633 µg/L	2.1633 ppb	02:32:50
2	Ti 334.940†	147.3	69.0	0.1597 µg/L	0.1597 ppb	02:32:29
2	Tl 190.801†	-21.1	0.8	1.1194 µg/L	1.1194 ppb	02:32:50
2	U 409.014†	231.5	21.6	1.7618 µg/L	1.7618 ppb	02:32:29
2	V 292.402†	-6.6	40.9	0.4255 µg/L	0.4255 ppb	02:32:29
2	Zn 213.857†	563.6	9.8	0.2434 µg/L	0.2434 ppb	02:32:50
3	Sc RADIAL	52725.1	52725.1	99.9 %		02:31:21
3	Al 396.153Radial†	-16.6	9.8	7.0990 µg/L	7.0990 ppb	02:31:21
3	Ca 317.933Radial†	178.9	-4.2	-3.9304 µg/L	-3.9304 ppb	02:31:41
3	Fe 238.204 Radial†	16.7	1.0	8.7102 µg/L	8.7102 ppb	02:31:41
3	K 766.490 Radial†	191.9	-55.1	-37.683 µg/L	-37.683 ppb	02:31:21
3	Mg 279.077 IEC†	7.1	-5.6	-53.810 µg/L	-53.810 ppb	02:31:41
3	Na 589.592 Radial†	520.4	-71.6	-22.155 µg/L	-22.155 ppb	02:31:21
3	Sr 421.552†	51.6	26.6	0.2645 µg/L	0.2645 ppb	02:31:21
3	Sc 361.383	1912249.3	1912249.3	100.47 %		02:32:56
3	Y 371.029	1315020.6	1315020.6	100.28 %		02:32:56
3	Ag 328.068†	-475.0	26.0	0.1985 µg/L	0.1985 ppb	02:33:01
3	As 188.979†	-1.5	-2.4	-4.4974 µg/L	-4.4974 ppb	02:33:22
3	B 249.677†	335.4	-120.3	-5.1482 µg/L	-5.1482 ppb	02:33:22
3	Ba 233.527†	-17.4	3.2	0.0813 µg/L	0.0813 ppb	02:33:22
3	Be 313.107†	-3263.3	290.2	0.1801 µg/L	0.1801 ppb	02:33:01
3	Cd 226.502†	-123.5	6.4	0.1729 µg/L	0.1729 ppb	02:33:22
3	Co 228.616†	-1.6	5.9	0.2837 µg/L	0.2837 ppb	02:33:22
3	Cr 267.716†	-16.4	29.8	0.6314 µg/L	0.6314 ppb	02:33:22
3	Cu 324.752†	3224.8	-29.4	-0.1950 µg/L	-0.1950 ppb	02:33:01
3	Mn 257.610†	-181.8	49.9	0.1705 µg/L	0.1705 ppb	02:33:22
3	Mo 202.031†	-0.2	3.8	0.3943 µg/L	0.3943 ppb	02:33:22
3	Ni 231.604†	303.6	14.2	0.7528 µg/L	0.7528 ppb	02:33:22
3	P 214.914†	21.4	-1.0	-2.0378 µg/L	-2.0378 ppb	02:33:22
3	Pb 220.353†	91.5	8.5	2.1812 µg/L	2.1812 ppb	02:33:22
3	S 181.975 Axial†	15.1	-1.3	-5.7348 µg/L	-5.7348 ppb	02:33:22
3	Sb 206.836†	22.4	0.5	0.4629 µg/L	0.4629 ppb	02:33:22
3	Se 196.026†	15.3	-0.6	-0.7711 µg/L	-0.7711 ppb	02:33:22
3	SiO2†	1610.2	57.1	11.818 µg/L	11.818 ppb	02:33:01
3	Si 251.611†	366.2	29.6	2.3774 µg/L	2.3774 ppb	02:33:22
3	Sn 189.927†	2.7	1.9	0.8624 µg/L	0.8624 ppb	02:33:22
3	Ti 334.940†	210.7	132.7	0.3085 µg/L	0.3085 ppb	02:33:01
3	Tl 190.801†	-20.9	0.9	1.2884 µg/L	1.2884 ppb	02:33:22
3	U 409.014†	264.2	55.2	4.5032 µg/L	4.5032 ppb	02:33:01
3	V 292.402†	-46.4	1.2	0.0228 µg/L	0.0228 ppb	02:33:01
3	Zn 213.857†	551.7	0.6	0.0144 µg/L	0.0144 ppb	02:33:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1916427.0	100.69 %		0.244			0.24%
Sc RADIAL	52938.2	100 %		0.4			0.40%
Y 371.029	1318655.2	100.55 %		0.271			0.27%
Ag 328.068†	-9.9	-0.0749 µg/L		0.29592	-0.0749 ppb	0.29592	395.30%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-0.9	-0.6413 µg/L		7.01986	-0.6413 ppb	7.01986	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.0	-3.7393 µg/L		1.37538	-3.7393 ppb	1.37538	36.78%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-109.4	-4.6752 µg/L		0.45665	-4.6752 ppb	0.45665	9.77%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	2.0	0.0523 µg/L		0.07824	0.0523 ppb	0.07824	149.56%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	116.9	0.0725 µg/L		0.09811	0.0725 ppb	0.09811	135.31%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-8.2	-7.7404 µg/L		3.32501	-7.7404 ppb	3.32501	42.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-3.6	-0.0967 µg/L		0.23348	-0.0967 ppb	0.23348	241.52%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	1.1	0.0530 µg/L		0.21634	0.0530 ppb	0.21634	408.36%

Cr	267.716†	25.3	0.5359 µg/L	0.21341	0.5359 ppb	0.21341	39.82%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	-18.2	-0.1226 µg/L	0.09061	-0.1226 ppb	0.09061	73.90%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Fe	238.204 Radial†	-0.9	-7.9586 µg/L	23.01264	-7.9586 ppb	23.01264	289.15%
QC value within limits for Cu 324.752 Recovery = Not calculated							
K	766.490 Radial†	-81.2	-55.541 µg/L	15.4701	-55.541 ppb	15.4701	27.85%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-3.0	-28.972 µg/L	22.2385	-28.972 ppb	22.2385	76.76%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mn	257.610†	20.7	0.0696 µg/L	0.09074	0.0696 ppb	0.09074	130.41%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mo	202.031†	5.0	0.5201 µg/L	0.33324	0.5201 ppb	0.33324	64.07%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Na	589.592 Radial†	-56.7	-17.522 µg/L	4.6068	-17.522 ppb	4.6068	26.29%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni	231.604†	6.8	0.3586 µg/L	0.41207	0.3586 ppb	0.41207	114.90%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
P	214.914†	-4.0	-8.3574 µg/L	13.02431	-8.3574 ppb	13.02431	155.84%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb	220.353†	9.3	2.3831 µg/L	1.64866	2.3831 ppb	1.64866	69.18%
QC value within limits for P 214.914 Recovery = Not calculated							
S	181.975 Axial†	-1.1	-4.9293 µg/L	12.18981	-4.9293 ppb	12.18981	247.29%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb	206.836†	3.0	2.8934 µg/L	2.22483	2.8934 ppb	2.22483	76.89%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Se	196.026†	-2.6	-3.8689 µg/L	7.73486	-3.8689 ppb	7.73486	199.92%
QC value within limits for Sb 206.836 Recovery = Not calculated							
SiO2†		23.7	4.9034 µg/L	6.41640	4.9034 ppb	6.41640	130.86%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	18.5	1.4809 µg/L	1.40354	1.4809 ppb	1.40354	94.77%
QC value within limits for SiO2 Recovery = Not calculated							
Sn	189.927†	2.1	0.9449 µg/L	1.17932	0.9449 ppb	1.17932	124.81%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sr	421.552†	18.2	0.1810 µg/L	0.08005	0.1810 ppb	0.08005	44.23%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti	334.940†	103.1	0.2385 µg/L	0.07477	0.2385 ppb	0.07477	31.35%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Tl	190.801†	-0.4	-0.5796 µg/L	3.09028	-0.5796 ppb	3.09028	533.21%
QC value within limits for Ti 334.940 Recovery = Not calculated							
U	409.014†	28.8	2.3530 µg/L	1.92397	2.3530 ppb	1.92397	81.77%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V	292.402†	15.4	0.1625 µg/L	0.22792	0.1625 ppb	0.22792	140.27%
QC value within limits for U 409.014 Recovery = Not calculated							
Zn	213.857†	3.5	0.0883 µg/L	0.13434	0.0883 ppb	0.13434	152.07%
QC value within limits for V 292.402 Recovery = Not calculated							
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 2/25/2010 03:05:49

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410D.SIF

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/25/2010 03:05:51

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	53464.0	53464.0	101 %		03:06:25
1	Al 396.153Radial†	6812.0	6750.4	4882.1 µg/L	4882.1 ppb	03:06:25
1	Ca 317.933Radial†	5375.8	5123.1	4848.1 µg/L	4848.1 ppb	03:06:45
1	Fe 238.204 Radial†	567.3	544.2	4928.1 µg/L	4928.1 ppb	03:06:45
1	K 766.490 Radial†	7449.3	7105.9	4859.2 µg/L	4859.2 ppb	03:06:25
1	Mg 279.077 IEC†	529.8	510.3	4891.1 µg/L	4891.1 ppb	03:06:45
1	Na 589.592 Radial†	32434.2	31422.4	9718.1 µg/L	9718.1 ppb	03:06:25
1	Sr 421.552†	50007.7	49336.3	490.33 µg/L	490.33 ppb	03:06:25
1	Sc 361.383	1917346.5	1917346.5	100.74 %		03:07:49
1	Y 371.029	1312821.7	1312821.7	100.11 %		03:07:49
1	Ag 328.068†	64406.7	64434.5	494.51 µg/L	494.51 ppb	03:07:55
1	As 188.979†	273.8	271.0	515.69 µg/L	515.69 ppb	03:08:15
1	B 249.677†	11984.8	11443.0	487.57 µg/L	487.57 ppb	03:07:55
1	Ba 233.527†	19758.3	19634.3	504.47 µg/L	504.47 ppb	03:07:55
1	Be 313.107†	815286.3	812862.4	504.47 µg/L	504.47 ppb	03:07:49
1	Cd 226.502†	18869.6	18861.0	508.01 µg/L	508.01 ppb	03:07:55
1	Co 228.616†	10581.4	10511.4	507.53 µg/L	507.53 ppb	03:07:55
1	Cr 267.716†	24057.5	23927.7	507.16 µg/L	507.16 ppb	03:07:55
1	Cu 324.752†	77743.0	73935.4	494.92 µg/L	494.92 ppb	03:07:55
1	Mn 257.610†	153947.7	153052.7	513.26 µg/L	513.26 ppb	03:07:49
1	Mo 202.031†	4984.2	4951.8	512.43 µg/L	512.43 ppb	03:08:15
1	Ni 231.604†	9987.7	9626.6	510.28 µg/L	510.28 ppb	03:07:55
1	P 214.914†	1264.7	1233.1	2539.6 µg/L	2539.6 ppb	03:08:15
1	Pb 220.353†	2092.3	1994.5	512.54 µg/L	512.54 ppb	03:08:15
1	S 181.975 Axial†	250.9	232.7	1009.1 µg/L	1009.1 ppb	03:08:15
1	Sb 206.836†	556.3	530.4	505.22 µg/L	505.22 ppb	03:08:15
1	Se 196.026†	363.1	344.6	518.73 µg/L	518.73 ppb	03:08:15
1	SiO2†	27458.1	25711.8	5323.5 µg/L	5323.5 ppb	03:07:55
1	Si 251.611†	31578.7	31012.9	2488.7 µg/L	2488.7 ppb	03:07:55
1	Sn 189.927†	1172.3	1163.0	519.36 µg/L	519.36 ppb	03:08:15
1	Ti 334.940†	218975.0	217296.6	497.81 µg/L	497.81 ppb	03:07:49
1	Tl 190.801†	344.2	363.4	509.93 µg/L	509.93 ppb	03:08:15
1	U 409.014†	6187.6	5934.5	483.62 µg/L	483.62 ppb	03:07:55
1	V 292.402†	49580.6	49265.5	505.85 µg/L	505.85 ppb	03:07:55
1	Zn 213.857†	21134.2	20431.1	502.44 µg/L	502.44 ppb	03:07:55
2	Sc RADIAL	52954.8	52954.8	100 %		03:06:51
2	Al 396.153Radial†	6817.1	6820.2	4932.8 µg/L	4932.8 ppb	03:06:51
2	Ca 317.933Radial†	5397.1	5195.4	4916.5 µg/L	4916.5 ppb	03:07:11
2	Fe 238.204 Radial†	563.8	546.1	4945.3 µg/L	4945.3 ppb	03:07:11
2	K 766.490 Radial†	7475.8	7203.0	4925.6 µg/L	4925.6 ppb	03:06:51
2	Mg 279.077 IEC†	538.9	524.3	5025.6 µg/L	5025.6 ppb	03:07:11
2	Na 589.592 Radial†	32459.0	31755.0	9821.0 µg/L	9821.0 ppb	03:06:51
2	Sr 421.552†	50043.5	49846.6	495.40 µg/L	495.40 ppb	03:06:51
2	Sc 361.383	1913464.4	1913464.4	100.53 %		03:08:22
2	Y 371.029	1310313.4	1310313.4	99.916 %		03:08:22
2	Ag 328.068†	64640.4	64796.7	497.29 µg/L	497.29 ppb	03:08:28
2	As 188.979†	269.8	267.5	509.13 µg/L	509.13 ppb	03:08:49

2	B 249.677†	12010.7	11492.9	489.70 µg/L	489.70 ppb	03:08:28
2	Ba 233.527†	19836.8	19752.2	507.50 µg/L	507.50 ppb	03:08:28
2	Be 313.107†	802795.1	802079.4	497.77 µg/L	497.77 ppb	03:08:22
2	Cd 226.502†	19014.0	19042.6	512.91 µg/L	512.91 ppb	03:08:28
2	Co 228.616†	10620.4	10571.6	510.45 µg/L	510.45 ppb	03:08:28
2	Cr 267.716†	24116.8	24035.1	509.44 µg/L	509.44 ppb	03:08:28
2	Cu 324.752†	78089.0	74436.1	498.26 µg/L	498.26 ppb	03:08:28
2	Mn 257.610†	151605.8	151033.3	506.49 µg/L	506.49 ppb	03:08:22
2	Mo 202.031†	4913.0	4891.0	506.15 µg/L	506.15 ppb	03:08:49
2	Ni 231.604†	9998.6	9657.6	511.92 µg/L	511.92 ppb	03:08:28
2	P 214.914†	1251.0	1222.0	2515.9 µg/L	2515.9 ppb	03:08:49
2	Pb 220.353†	2073.7	1980.2	508.84 µg/L	508.84 ppb	03:08:49
2	S 181.975 Axial†	252.3	234.6	1017.6 µg/L	1017.6 ppb	03:08:49
2	Sb 206.836†	550.4	525.7	500.60 µg/L	500.60 ppb	03:08:49
2	Se 196.026†	359.1	341.4	513.85 µg/L	513.85 ppb	03:08:49
2	SiO2†	27671.6	25979.4	5378.9 µg/L	5378.9 ppb	03:08:28
2	Si 251.611†	31835.1	31331.5	2514.3 µg/L	2514.3 ppb	03:08:28
2	Sn 189.927†	1149.5	1142.7	510.31 µg/L	510.31 ppb	03:08:49
2	Ti 334.940†	215580.9	214361.6	491.07 µg/L	491.07 ppb	03:08:22
2	Tl 190.801†	338.0	357.9	502.23 µg/L	502.23 ppb	03:08:49
2	U 409.014†	6278.0	6037.0	491.98 µg/L	491.98 ppb	03:08:28
2	V 292.402†	49778.7	49562.4	508.83 µg/L	508.83 ppb	03:08:28
2	Zn 213.857†	21204.1	20543.3	505.20 µg/L	505.20 ppb	03:08:28
3	Sc RADIAL	52996.9	52996.9	100 %		03:07:17
3	Al 396.153Radial†	6768.4	6766.3	4895.4 µg/L	4895.4 ppb	03:07:17
3	Ca 317.933Radial†	5387.4	5181.4	4903.3 µg/L	4903.3 ppb	03:07:37
3	Fe 238.204 Radial†	567.9	549.8	4977.7 µg/L	4977.7 ppb	03:07:37
3	K 766.490 Radial†	7470.3	7191.6	4917.8 µg/L	4917.8 ppb	03:07:17
3	Mg 279.077 IEC†	527.0	512.0	4906.5 µg/L	4906.5 ppb	03:07:37
3	Na 589.592 Radial†	32129.2	31400.9	9711.5 µg/L	9711.5 ppb	03:07:17
3	Sr 421.552†	49691.5	49456.5	491.52 µg/L	491.52 ppb	03:07:17
3	Sc 361.383	1910789.8	1910789.8	100.39 %		03:08:56
3	Y 371.029	1307524.9	1307524.9	99.704 %		03:08:56
3	Ag 328.068†	60745.8	61007.3	468.08 µg/L	468.08 ppb	03:09:01
3	As 188.979†	237.5	235.7	448.55 µg/L	448.55 ppb	03:09:22
3	B 249.677†	11212.4	10714.4	456.29 µg/L	456.29 ppb	03:09:01
3	Ba 233.527†	18055.8	18005.7	462.61 µg/L	462.61 ppb	03:09:01
3	Be 313.107†	753759.7	754353.3	468.16 µg/L	468.16 ppb	03:08:56
3	Cd 226.502†	17214.9	17277.0	465.29 µg/L	465.29 ppb	03:09:01
3	Co 228.616†	9558.8	9528.9	460.04 µg/L	460.04 ppb	03:09:01
3	Cr 267.716†	21066.0	21029.8	445.75 µg/L	445.75 ppb	03:09:01
3	Cu 324.752†	70698.9	67183.6	449.79 µg/L	449.79 ppb	03:09:01
3	Mn 257.610†	142656.3	142329.8	477.34 µg/L	477.34 ppb	03:08:56
3	Mo 202.031†	4129.4	4117.3	426.11 µg/L	426.11 ppb	03:09:22
3	Ni 231.604†	9033.8	8710.5	461.72 µg/L	461.72 ppb	03:09:01
3	P 214.914†	1072.4	1045.9	2150.2 µg/L	2150.2 ppb	03:09:22
3	Pb 220.353†	1816.9	1727.2	443.77 µg/L	443.77 ppb	03:09:22
3	S 181.975 Axial†	222.6	205.4	890.74 µg/L	890.74 ppb	03:09:22
3	Sb 206.836†	469.4	445.7	424.17 µg/L	424.17 ppb	03:09:22
3	Se 196.026†	312.3	295.2	445.58 µg/L	445.58 ppb	03:09:22
3	SiO2†	25711.7	24065.7	4982.7 µg/L	4982.7 ppb	03:09:01
3	Si 251.611†	29411.1	28961.3	2324.1 µg/L	2324.1 ppb	03:09:01
3	Sn 189.927†	957.6	953.1	425.64 µg/L	425.64 ppb	03:09:22
3	Ti 334.940†	201671.1	200806.3	460.01 µg/L	460.01 ppb	03:08:56
3	Tl 190.801†	305.0	325.5	457.00 µg/L	457.00 ppb	03:09:22
3	U 409.014†	5557.8	5328.3	434.11 µg/L	434.11 ppb	03:09:01
3	V 292.402†	44476.3	44350.0	455.15 µg/L	455.15 ppb	03:09:01
3	Zn 213.857†	19181.9	18558.5	456.35 µg/L	456.35 ppb	03:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1913866.9	100.55 %	0.173			0.17%
Sc RADIAL	53138.5	101 %	0.5			0.53%
Y 371.029	1310220.0	99.909 %	0.2020			0.20%
Ag 328.068†	63412.8	486.63 µg/L	16.126	486.63 ppb	16.126	3.31%
QC value within limits for Ag 328.068 Recovery = 97.33%						
Al 396.153Radial†	6779.0	4903.4 µg/L	26.29	4903.4 ppb	26.29	0.54%
QC value within limits for Al 396.153Radial Recovery = 98.07%						
As 188.979†	258.1	491.12 µg/L	37.015	491.12 ppb	37.015	7.54%

QC value within limits for As 188.979 Recovery = 98.22%					
B 249.677†	11216.7	477.85 µg/L	18.705	477.85 ppb	3.91%
QC value within limits for B 249.677 Recovery = 95.57%					
Ba 233.527†	19130.7	491.52 µg/L	25.087	491.52 ppb	5.10%
QC value within limits for Ba 233.527 Recovery = 98.30%					
Be 313.107†	789765.1	490.13 µg/L	19.324	490.13 ppb	3.94%
QC value within limits for Be 313.107 Recovery = 98.03%					
Ca 317.933Radial†	5166.6	4889.3 µg/L	36.31	4889.3 ppb	0.74%
QC value within limits for Ca 317.933Radial Recovery = 97.79%					
Cd 226.502†	18393.6	495.40 µg/L	26.192	495.40 ppb	5.29%
QC value within limits for Cd 226.502 Recovery = 99.08%					
Co 228.616†	10204.0	492.67 µg/L	28.300	492.67 ppb	5.74%
QC value within limits for Co 228.616 Recovery = 98.53%					
Cr 267.716†	22997.5	487.45 µg/L	36.134	487.45 ppb	7.41%
QC value within limits for Cr 267.716 Recovery = 97.49%					
Cu 324.752†	71851.7	480.99 µg/L	27.072	480.99 ppb	5.63%
QC value within limits for Cu 324.752 Recovery = 96.20%					
Fe 238.204 Radial†	546.7	4950.4 µg/L	25.15	4950.4 ppb	0.51%
QC value within limits for Fe 238.204 Radial Recovery = 99.01%					
K 766.490 Radial†	7166.8	4900.9 µg/L	36.30	4900.9 ppb	0.74%
QC value within limits for K 766.490 Radial Recovery = 98.02%					
Mg 279.077 IEC†	515.5	4941.0 µg/L	73.60	4941.0 ppb	1.49%
QC value within limits for Mg 279.077 IEC Recovery = 98.82%					
Mn 257.610†	148805.3	499.03 µg/L	19.087	499.03 ppb	3.82%
QC value within limits for Mn 257.610 Recovery = 99.81%					
Mo 202.031†	4653.4	481.56 µg/L	48.127	481.56 ppb	9.99%
QC value within limits for Mo 202.031 Recovery = 96.31%					
Na 589.592 Radial†	31526.1	9750.2 µg/L	61.40	9750.2 ppb	0.63%
QC value within limits for Na 589.592 Radial Recovery = 97.50%					
Ni 231.604†	9331.6	494.64 µg/L	28.517	494.64 ppb	5.77%
QC value within limits for Ni 231.604 Recovery = 98.93%					
P 214.914†	1167.0	2401.9 µg/L	218.30	2401.9 ppb	9.09%
QC value within limits for P 214.914 Recovery = 96.08%					
Pb 220.353†	1900.6	488.38 µg/L	38.684	488.38 ppb	7.92%
QC value within limits for Pb 220.353 Recovery = 97.68%					
S 181.975 Axial†	224.2	972.48 µg/L	70.915	972.48 ppb	7.29%
QC value within limits for S 181.975 Axial Recovery = 97.25%					
Sb 206.836†	500.6	476.66 µg/L	45.519	476.66 ppb	9.55%
QC value within limits for Sb 206.836 Recovery = 95.33%					
Se 196.026†	327.1	492.72 µg/L	40.893	492.72 ppb	8.30%
QC value within limits for Se 196.026 Recovery = 98.54%					
SiO2†	25252.3	5228.4 µg/L	214.56	5228.4 ppb	4.10%
QC value within limits for SiO2 Recovery = 97.77%					
Si 251.611†	30435.2	2442.4 µg/L	103.23	2442.4 ppb	4.23%
QC value within limits for Si 251.611 Recovery = 97.70%					
Sn 189.927†	1086.3	485.10 µg/L	51.696	485.10 ppb	10.66%
QC value within limits for Sn 189.927 Recovery = 97.02%					
Sr 421.552†	49546.5	492.41 µg/L	2.652	492.41 ppb	0.54%
QC value within limits for Sr 421.552 Recovery = 98.48%					
Ti 334.940†	210821.5	482.97 µg/L	20.163	482.97 ppb	4.17%
QC value within limits for Ti 334.940 Recovery = 96.59%					
Tl 190.801†	348.9	489.72 µg/L	28.596	489.72 ppb	5.84%
QC value within limits for Tl 190.801 Recovery = 97.94%					
U 409.014†	5766.6	469.90 µg/L	31.279	469.90 ppb	6.66%
QC value within limits for U 409.014 Recovery = 93.98%					
V 292.402†	47726.0	489.95 µg/L	30.172	489.95 ppb	6.16%
QC value within limits for V 292.402 Recovery = 97.99%					
Zn 213.857†	19844.3	488.00 µg/L	27.442	488.00 ppb	5.62%
QC value within limits for Zn 213.857 Recovery = 97.60%					
All analyte(s) passed QC.					

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 03:09:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52222.4	52222.4	99.0 %		03:10:04
1	Al 396.153Radial†	-20.6	5.6	4.0650 µg/L	4.0650 ppb	03:10:04
1	Ca 317.933Radial†	175.1	-6.3	-5.9673 µg/L	-5.9673 ppb	03:10:25
1	Fe 238.204 Radial†	15.4	-0.2	-1.6344 µg/L	-1.6344 ppb	03:10:25
1	K 766.490 Radial†	237.0	-7.7	-5.2791 µg/L	-5.2791 ppb	03:10:04
1	Mg 279.077 IEC†	11.3	-1.4	-12.929 µg/L	-12.929 ppb	03:10:25
1	Na 589.592 Radial†	512.8	-74.3	-22.981 µg/L	-22.981 ppb	03:10:04
1	Sr 421.552†	23.5	-1.3	-0.0128 µg/L	-0.0128 ppb	03:10:04
1	Sc 361.383	1905967.8	1905967.8	100.14 %		03:11:27
1	Y 371.029	1309239.6	1309239.6	99.834 %		03:11:27
1	Ag 328.068†	-493.5	6.0	0.0469 µg/L	0.0469 ppb	03:11:32
1	As 188.979†	-3.9	-4.8	-9.0618 µg/L	-9.0618 ppb	03:11:53
1	B 249.677†	351.5	-103.2	-4.4125 µg/L	-4.4125 ppb	03:11:53
1	Ba 233.527†	-18.2	2.4	0.0607 µg/L	0.0607 ppb	03:11:53
1	Be 313.107†	-3501.2	41.9	0.0260 µg/L	0.0260 ppb	03:11:32
1	Cd 226.502†	-131.0	-1.5	-0.0396 µg/L	-0.0396 ppb	03:11:53
1	Co 228.616†	-10.0	-2.6	-0.1230 µg/L	-0.1230 ppb	03:11:53
1	Cr 267.716†	-35.1	11.0	0.2342 µg/L	0.2342 ppb	03:11:53
1	Cu 324.752†	3272.2	28.5	0.1906 µg/L	0.1906 ppb	03:11:32
1	Mn 257.610†	-231.2	-0.1	0.0000 µg/L	0.0000 ppb	03:11:53
1	Mo 202.031†	1.6	5.7	0.5874 µg/L	0.5874 ppb	03:11:53
1	Ni 231.604†	301.1	12.7	0.6715 µg/L	0.6715 ppb	03:11:53
1	P 214.914†	26.6	4.2	8.8604 µg/L	8.8604 ppb	03:11:53
1	Pb 220.353†	84.4	1.7	0.4439 µg/L	0.4439 ppb	03:11:53
1	S 181.975 Axial†	17.7	1.3	5.8000 µg/L	5.8000 ppb	03:11:53
1	Sb 206.836†	23.5	1.6	1.5717 µg/L	1.5717 ppb	03:11:53
1	Se 196.026†	12.9	-3.0	-4.3709 µg/L	-4.3709 ppb	03:11:53
1	SiO2†	1570.3	22.5	4.6642 µg/L	4.6642 ppb	03:11:32
1	Si 251.611†	335.1	-0.2	-0.0169 µg/L	-0.0169 ppb	03:11:53
1	Sn 189.927†	0.0	-0.7	-0.2968 µg/L	-0.2968 ppb	03:11:53
1	Ti 334.940†	95.4	18.3	0.0428 µg/L	0.0428 ppb	03:11:32
1	Tl 190.801†	-27.0	-5.2	-7.2584 µg/L	-7.2584 ppb	03:11:53
1	U 409.014†	234.1	26.0	2.1203 µg/L	2.1203 ppb	03:11:32
1	V 292.402†	-24.4	23.1	0.2411 µg/L	0.2411 ppb	03:11:32
1	Zn 213.857†	568.1	18.9	0.4644 µg/L	0.4644 ppb	03:11:53
2	Sc RADIAL	52792.3	52792.3	100 %		03:10:30
2	Al 396.153Radial†	-32.4	-5.9	-4.2783 µg/L	-4.2783 ppb	03:10:30
2	Ca 317.933Radial†	169.8	-13.4	-12.723 µg/L	-12.723 ppb	03:10:51
2	Fe 238.204 Radial†	18.2	2.4	21.575 µg/L	21.575 ppb	03:10:51
2	K 766.490 Radial†	158.8	-88.4	-60.459 µg/L	-60.459 ppb	03:10:30
2	Mg 279.077 IEC†	11.7	-1.1	-10.278 µg/L	-10.278 ppb	03:10:51
2	Na 589.592 Radial†	504.7	-88.1	-27.234 µg/L	-27.234 ppb	03:10:30
2	Sr 421.552†	34.8	9.8	0.0972 µg/L	0.0972 ppb	03:10:30
2	Sc 361.383	1916319.5	1916319.5	100.68 %		03:11:59
2	Y 371.029	1316686.6	1316686.6	100.40 %		03:11:59
2	Ag 328.068†	-479.6	22.5	0.1745 µg/L	0.1745 ppb	03:12:05
2	As 188.979†	-0.2	-1.1	-2.0253 µg/L	-2.0253 ppb	03:12:25
2	B 249.677†	339.2	-117.3	-5.0273 µg/L	-5.0273 ppb	03:12:25
2	Ba 233.527†	-17.9	2.7	0.0686 µg/L	0.0686 ppb	03:12:25
2	Be 313.107†	-3517.3	44.8	0.0277 µg/L	0.0277 ppb	03:12:05
2	Cd 226.502†	-136.8	-6.5	-0.1774 µg/L	-0.1774 ppb	03:12:25
2	Co 228.616†	-0.4	7.0	0.3376 µg/L	0.3376 ppb	03:12:25
2	Cr 267.716†	-28.6	17.7	0.3755 µg/L	0.3755 ppb	03:12:25
2	Cu 324.752†	3230.1	-30.9	-0.2034 µg/L	-0.2034 ppb	03:12:05
2	Mn 257.610†	-205.6	26.6	0.0924 µg/L	0.0924 ppb	03:12:25
2	Mo 202.031†	-2.3	1.8	0.1841 µg/L	0.1841 ppb	03:12:25
2	Ni 231.604†	297.1	7.1	0.3772 µg/L	0.3772 ppb	03:12:25
2	P 214.914†	15.4	-7.1	-14.834 µg/L	-14.834 ppb	03:12:25
2	Pb 220.353†	81.6	-1.5	-0.3906 µg/L	-0.3906 ppb	03:12:25

2	S 181.975 Axial†	14.8	-1.6	-7.0386 µg/L	-7.0386 ppb	03:12:25
2	Sb 206.836†	23.7	1.7	1.6516 µg/L	1.6516 ppb	03:12:25
2	Se 196.026†	9.9	-5.9	-8.7448 µg/L	-8.7448 ppb	03:12:25
2	SiO2†	1599.7	43.3	8.9648 µg/L	8.9648 ppb	03:12:05
2	Si 251.611†	341.6	4.4	0.3524 µg/L	0.3524 ppb	03:12:25
2	Sn 189.927†	-1.1	-1.8	-0.8172 µg/L	-0.8172 ppb	03:12:25
2	Ti 334.940†	245.4	166.7	0.3828 µg/L	0.3828 ppb	03:12:05
2	Tl 190.801†	-23.1	-1.2	-1.6343 µg/L	-1.6343 ppb	03:12:25
2	U 409.014†	273.5	63.9	5.2147 µg/L	5.2147 ppb	03:12:05
2	V 292.402†	-19.7	27.8	0.2927 µg/L	0.2927 ppb	03:12:05
2	Zn 213.857†	557.5	5.2	0.1267 µg/L	0.1267 ppb	03:12:25
3	Sc RADIAL	52118.4	52118.4	98.8 %		03:10:56
3	Al 396.153Radial†	-42.5	-16.6	-12.073 µg/L	-12.073 ppb	03:10:56
3	Ca 317.933Radial†	175.3	-5.7	-5.4319 µg/L	-5.4319 ppb	03:11:17
3	Fe 238.204 Radial†	15.0	-0.5	-4.7880 µg/L	-4.7880 ppb	03:11:17
3	K 766.490 Radial†	155.0	-90.3	-61.719 µg/L	-61.719 ppb	03:10:56
3	Mg 279.077 IEC†	8.7	-3.9	-37.076 µg/L	-37.076 ppb	03:11:17
3	Na 589.592 Radial†	530.1	-55.8	-17.255 µg/L	-17.255 ppb	03:10:56
3	Sr 421.552†	5.0	-20.0	-0.1987 µg/L	-0.1987 ppb	03:10:56
3	Sc 361.383	1909063.3	1909063.3	100.30 %		03:12:31
3	Y 371.029	1310690.7	1310690.7	99.945 %		03:12:31
3	Ag 328.068†	-515.8	-15.4	-0.1168 µg/L	-0.1168 ppb	03:12:37
3	As 188.979†	1.6	0.7	1.3434 µg/L	1.3434 ppb	03:12:57
3	B 249.677†	339.6	-115.6	-4.9419 µg/L	-4.9419 ppb	03:12:57
3	Ba 233.527†	-18.5	2.0	0.0513 µg/L	0.0513 ppb	03:12:57
3	Be 313.107†	-3284.2	263.9	0.1636 µg/L	0.1636 ppb	03:12:37
3	Cd 226.502†	-131.6	-1.9	-0.0494 µg/L	-0.0494 ppb	03:12:57
3	Co 228.616†	-5.5	1.9	0.0935 µg/L	0.0935 ppb	03:12:57
3	Cr 267.716†	-20.3	25.9	0.5485 µg/L	0.5485 ppb	03:12:57
3	Cu 324.752†	3269.0	20.0	0.1333 µg/L	0.1333 ppb	03:12:37
3	Mn 257.610†	-174.7	56.6	0.1906 µg/L	0.1906 ppb	03:12:57
3	Mo 202.031†	10.6	14.6	1.5094 µg/L	1.5094 ppb	03:12:57
3	Ni 231.604†	306.1	17.2	0.9143 µg/L	0.9143 ppb	03:12:57
3	P 214.914†	19.3	-3.1	-6.5583 µg/L	-6.5583 ppb	03:12:57
3	Pb 220.353†	95.2	12.3	3.1720 µg/L	3.1720 ppb	03:12:57
3	S 181.975 Axial†	14.7	-1.7	-7.4899 µg/L	-7.4899 ppb	03:12:57
3	Sb 206.836†	24.8	2.9	2.8150 µg/L	2.8150 ppb	03:12:57
3	Se 196.026†	17.7	1.8	2.6988 µg/L	2.6988 ppb	03:12:57
3	SiO2†	1590.6	40.2	8.3248 µg/L	8.3248 ppb	03:12:37
3	Si 251.611†	353.9	17.9	1.4372 µg/L	1.4372 ppb	03:12:57
3	Sn 189.927†	-2.2	-2.9	-1.2938 µg/L	-1.2938 ppb	03:12:57
3	Ti 334.940†	312.3	234.4	0.5401 µg/L	0.5401 ppb	03:12:37
3	Tl 190.801†	-17.8	4.0	5.5084 µg/L	5.5084 ppb	03:12:57
3	U 409.014†	174.5	-33.8	-2.7575 µg/L	-2.7575 ppb	03:12:37
3	V 292.402†	-30.9	16.7	0.1785 µg/L	0.1785 ppb	03:12:37
3	Zn 213.857†	551.0	0.9	0.0196 µg/L	0.0196 ppb	03:12:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1910450.2	100.37 %		0.279			0.28%
Sc RADIAL	52377.7	99.3 %		0.69			0.69%
Y 371.029	1312205.6	100.06 %		0.301			0.30%
Ag 328.068†	4.3	0.0349 µg/L		0.14601	0.0349 ppb	0.14601	418.45%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-5.6	-4.0955 µg/L		8.07056	-4.0955 ppb	8.07056	197.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-1.7	-3.2479 µg/L		5.30925	-3.2479 ppb	5.30925	163.47%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-112.1	-4.7939 µg/L		0.33305	-4.7939 ppb	0.33305	6.95%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	2.3	0.0602 µg/L		0.00870	0.0602 ppb	0.00870	14.46%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	116.9	0.0724 µg/L		0.07898	0.0724 ppb	0.07898	109.05%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-8.5	-8.0408 µg/L		4.06396	-8.0408 ppb	4.06396	50.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-3.3	-0.0888 µg/L		0.07686	-0.0888 ppb	0.07686	86.55%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	2.1	0.1027 µg/L		0.23043	0.1027 ppb	0.23043	224.32%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	18.2	0.3861 µg/L	0.15744	0.3861 ppb	0.15744 40.78%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	5.9	0.0402 µg/L	0.21286	0.0402 ppb	0.21286 529.52%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	0.6	5.0508 µg/L	14.39670	5.0508 ppb	14.39670 285.04%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	-62.1	-42.486 µg/L	32.2280	-42.486 ppb	32.2280 75.86%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	-2.1	-20.094 µg/L	14.7662	-20.094 ppb	14.7662 73.48%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	27.7	0.0943 µg/L	0.09535	0.0943 ppb	0.09535 101.07%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	7.3	0.7603 µg/L	0.67934	0.7603 ppb	0.67934 89.36%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	-72.7	-22.490 µg/L	5.0075	-22.490 ppb	5.0075 22.27%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	12.3	0.6543 µg/L	0.26897	0.6543 ppb	0.26897 41.11%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	-2.0	-4.1773 µg/L	12.02523	-4.1773 ppb	12.02523 287.87%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	4.2	1.0751 µg/L	1.86327	1.0751 ppb	1.86327 173.31%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-0.7	-2.9095 µg/L	7.54603	-2.9095 ppb	7.54603 259.36%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	2.1	2.0128 µg/L	0.69589	2.0128 ppb	0.69589 34.57%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-2.4	-3.4723 µg/L	5.77449	-3.4723 ppb	5.77449 166.30%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	35.3	7.3179 µg/L	2.32037	7.3179 ppb	2.32037 31.71%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	7.4	0.5909 µg/L	0.75583	0.5909 ppb	0.75583 127.92%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	-1.8	-0.8026 µg/L	0.49870	-0.8026 ppb	0.49870 62.14%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	-3.8	-0.0381 µg/L	0.14954	-0.0381 ppb	0.14954 392.46%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	139.8	0.3219 µg/L	0.25422	0.3219 ppb	0.25422 78.97%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	-0.8	-1.1281 µg/L	6.39842	-1.1281 ppb	6.39842 567.20%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	18.7	1.5258 µg/L	4.01925	1.5258 ppb	4.01925 263.41%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	22.5	0.2374 µg/L	0.05717	0.2374 ppb	0.05717 24.08%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	8.3	0.2036 µg/L	0.23216	0.2036 ppb	0.23216 114.06%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

=====

Analysis Begun

Start Time: 2/25/2010 03:36:15

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410A.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/25/2010 03:36:18

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	53214.8	53214.8	101 %		03:36:52
1	Al 396.153Radial†	6805.8	6775.8	4900.4 µg/L	4900.4 ppb	03:36:52
1	Ca 317.933Radial†	5379.1	5151.2	4874.7 µg/L	4874.7 ppb	03:37:12
1	Fe 238.204 Radial†	563.6	543.2	4919.3 µg/L	4919.3 ppb	03:37:12
1	K 766.490 Radial†	7476.2	7167.0	4901.0 µg/L	4901.0 ppb	03:36:52
1	Mg 279.077 IEC†	525.6	508.5	4874.2 µg/L	4874.2 ppb	03:37:12
1	Na 589.592 Radial†	32327.9	31467.0	9731.9 µg/L	9731.9 ppb	03:36:52
1	Sr 421.552†	49691.1	49253.5	489.50 µg/L	489.50 ppb	03:36:52
1	Sc 361.383	1899758.6	1899758.6	99.813 %		03:38:15
1	Y 371.029	1299310.2	1299310.2	99.077 %		03:38:15
1	Ag 328.068†	64473.1	65093.0	499.56 µg/L	499.56 ppb	03:38:21
1	As 188.979†	272.2	271.8	517.31 µg/L	517.31 ppb	03:38:41
1	B 249.677†	11989.8	11558.1	492.51 µg/L	492.51 ppb	03:38:21
1	Ba 233.527†	19819.8	19877.5	510.71 µg/L	510.71 ppb	03:38:21
1	Be 313.107†	799700.4	804740.0	499.42 µg/L	499.42 ppb	03:38:15
1	Cd 226.502†	18889.2	19054.0	513.22 µg/L	513.22 ppb	03:38:21
1	Co 228.616†	10594.7	10622.1	512.89 µg/L	512.89 ppb	03:38:21
1	Cr 267.716†	24013.9	24105.1	510.93 µg/L	510.93 ppb	03:38:21
1	Cu 324.752†	77810.6	74717.6	500.14 µg/L	500.14 ppb	03:38:21
1	Mn 257.610†	151282.7	151797.5	509.06 µg/L	509.06 ppb	03:38:15
1	Mo 202.031†	4975.1	4988.5	516.23 µg/L	516.23 ppb	03:38:41
1	Ni 231.604†	9978.3	9709.0	514.64 µg/L	514.64 ppb	03:38:21
1	P 214.914†	1271.0	1251.0	2576.7 µg/L	2576.7 ppb	03:38:41
1	Pb 220.353†	2077.2	1998.5	513.58 µg/L	513.58 ppb	03:38:41
1	S 181.975 Axial†	248.1	232.2	1006.9 µg/L	1006.9 ppb	03:38:41
1	Sb 206.836†	553.3	532.5	507.20 µg/L	507.20 ppb	03:38:41
1	Se 196.026†	360.8	345.7	520.30 µg/L	520.30 ppb	03:38:41
1	SiO2†	27526.5	26032.7	5390.0 µg/L	5390.0 ppb	03:38:21
1	Si 251.611†	31689.5	31414.1	2520.9 µg/L	2520.9 ppb	03:38:21
1	Sn 189.927†	1172.2	1173.7	524.12 µg/L	524.12 ppb	03:38:41
1	Ti 334.940†	215288.6	215615.8	493.96 µg/L	493.96 ppb	03:38:15
1	Tl 190.801†	347.8	370.2	519.30 µg/L	519.30 ppb	03:38:41
1	U 409.014†	6154.2	5958.0	485.54 µg/L	485.54 ppb	03:38:21
1	V 292.402†	49627.2	49767.8	510.99 µg/L	510.99 ppb	03:38:21
1	Zn 213.857†	21134.8	20626.0	507.24 µg/L	507.24 ppb	03:38:21
2	Sc RADIAL	53340.5	53340.5	101 %		03:37:17
2	Al 396.153Radial†	6799.2	6753.3	4884.4 µg/L	4884.4 ppb	03:37:17
2	Ca 317.933Radial†	5407.9	5167.2	4889.8 µg/L	4889.8 ppb	03:37:38
2	Fe 238.204 Radial†	567.9	546.1	4945.6 µg/L	4945.6 ppb	03:37:38
2	K 766.490 Radial†	7493.7	7166.8	4900.9 µg/L	4900.9 ppb	03:37:17
2	Mg 279.077 IEC†	535.0	516.6	4951.9 µg/L	4951.9 ppb	03:37:38
2	Na 589.592 Radial†	32345.2	31408.5	9713.8 µg/L	9713.8 ppb	03:37:17
2	Sr 421.552†	49702.4	49148.6	488.46 µg/L	488.46 ppb	03:37:17
2	Sc 361.383	1915240.2	1915240.2	100.63 %		03:38:48
2	Y 371.029	1310781.9	1310781.9	99.952 %		03:38:48
2	Ag 328.068†	64088.9	64189.0	492.63 µg/L	492.63 ppb	03:38:54
2	As 188.979†	271.9	269.3	512.55 µg/L	512.55 ppb	03:39:15

2	B 249.677†	11863.2	11335.2	482.95 µg/L	482.95 ppb	03:38:54
2	Ba 233.527†	19576.6	19475.3	500.38 µg/L	500.38 ppb	03:38:54
2	Be 313.107†	806473.6	804994.7	499.58 µg/L	499.58 ppb	03:38:48
2	Cd 226.502†	18705.6	18718.6	504.17 µg/L	504.17 ppb	03:38:54
2	Co 228.616†	10489.1	10431.2	503.66 µg/L	503.66 ppb	03:38:54
2	Cr 267.716†	23839.1	23736.9	503.12 µg/L	503.12 ppb	03:38:54
2	Cu 324.752†	77382.2	73661.7	493.09 µg/L	493.09 ppb	03:38:54
2	Mn 257.610†	152247.9	151531.6	508.17 µg/L	508.17 ppb	03:38:48
2	Mo 202.031†	4896.3	4869.9	503.96 µg/L	503.96 ppb	03:39:15
2	Ni 231.604†	9906.9	9557.3	506.60 µg/L	506.60 ppb	03:38:54
2	P 214.914†	1240.1	1210.0	2491.2 µg/L	2491.2 ppb	03:39:15
2	Pb 220.353†	2053.7	1958.4	503.24 µg/L	503.24 ppb	03:39:15
2	S 181.975 Axial†	250.7	232.8	1009.7 µg/L	1009.7 ppb	03:39:15
2	Sb 206.836†	541.7	516.5	491.89 µg/L	491.89 ppb	03:39:15
2	Se 196.026†	358.1	340.1	511.92 µg/L	511.92 ppb	03:39:15
2	SiO2†	27349.2	25633.5	5307.3 µg/L	5307.3 ppb	03:38:54
2	Si 251.611†	31513.2	30982.3	2486.3 µg/L	2486.3 ppb	03:38:54
2	Sn 189.927†	1151.0	1143.1	510.49 µg/L	510.49 ppb	03:39:15
2	Ti 334.940†	216934.9	215508.4	493.71 µg/L	493.71 ppb	03:38:48
2	Tl 190.801†	335.5	355.1	498.41 µg/L	498.41 ppb	03:39:15
2	U 409.014†	6222.0	5975.5	486.97 µg/L	486.97 ppb	03:38:54
2	V 292.402†	49266.5	49007.5	503.17 µg/L	503.17 ppb	03:38:54
2	Zn 213.857†	21020.1	20340.9	500.22 µg/L	500.22 ppb	03:38:54
3	Sc RADIAL	53377.3	53377.3	101 %		03:37:43
3	Al 396.153Radial†	6806.2	6755.6	4887.7 µg/L	4887.7 ppb	03:37:43
3	Ca 317.933Radial†	5414.8	5170.3	4892.8 µg/L	4892.8 ppb	03:38:04
3	Fe 238.204 Radial†	564.9	542.7	4913.9 µg/L	4913.9 ppb	03:38:04
3	K 766.490 Radial†	7461.4	7129.7	4875.5 µg/L	4875.5 ppb	03:37:43
3	Mg 279.077 IEC†	531.0	512.3	4908.9 µg/L	4908.9 ppb	03:38:04
3	Na 589.592 Radial†	32385.2	31426.0	9719.2 µg/L	9719.2 ppb	03:37:43
3	Sr 421.552†	49817.8	49228.8	489.26 µg/L	489.26 ppb	03:37:43
3	Sc 361.383	1917865.2	1917865.2	100.76 %		03:39:22
3	Y 371.029	1312294.3	1312294.3	100.07 %		03:39:22
3	Ag 328.068†	60716.9	60755.3	466.15 µg/L	466.15 ppb	03:39:27
3	As 188.979†	228.3	225.7	429.56 µg/L	429.56 ppb	03:39:48
3	B 249.677†	11220.0	10680.7	454.88 µg/L	454.88 ppb	03:39:27
3	Ba 233.527†	18023.9	17907.7	460.09 µg/L	460.09 ppb	03:39:27
3	Be 313.107†	758929.9	756714.5	469.62 µg/L	469.62 ppb	03:39:22
3	Cd 226.502†	17148.2	17147.6	461.81 µg/L	461.81 ppb	03:39:27
3	Co 228.616†	9524.5	9459.7	456.69 µg/L	456.69 ppb	03:39:27
3	Cr 267.716†	21128.8	21014.8	445.43 µg/L	445.43 ppb	03:39:27
3	Cu 324.752†	70826.9	67050.9	448.89 µg/L	448.89 ppb	03:39:27
3	Mn 257.610†	143796.9	142937.5	479.37 µg/L	479.37 ppb	03:39:22
3	Mo 202.031†	4135.0	4107.7	425.12 µg/L	425.12 ppb	03:39:48
3	Ni 231.604†	9024.0	8667.6	459.45 µg/L	459.45 ppb	03:39:27
3	P 214.914†	1083.7	1053.2	2165.5 µg/L	2165.5 ppb	03:39:48
3	Pb 220.353†	1804.7	1708.5	438.95 µg/L	438.95 ppb	03:39:48
3	S 181.975 Axial†	224.3	206.2	894.40 µg/L	894.40 ppb	03:39:48
3	Sb 206.836†	471.6	446.2	424.60 µg/L	424.60 ppb	03:39:48
3	Se 196.026†	316.8	298.6	450.41 µg/L	450.41 ppb	03:39:48
3	SiO2†	25624.0	23884.2	4945.1 µg/L	4945.1 ppb	03:39:27
3	Si 251.611†	29369.1	28811.5	2312.1 µg/L	2312.1 ppb	03:39:27
3	Sn 189.927†	951.6	943.7	421.45 µg/L	421.45 ppb	03:39:48
3	Ti 334.940†	203156.9	201539.7	461.69 µg/L	461.69 ppb	03:39:22
3	Tl 190.801†	310.4	329.8	462.99 µg/L	462.99 ppb	03:39:48
3	U 409.014†	5687.1	5436.2	442.93 µg/L	442.93 ppb	03:39:27
3	V 292.402†	44562.9	44272.5	454.36 µg/L	454.36 ppb	03:39:27
3	Zn 213.857†	19150.6	18456.9	453.84 µg/L	453.84 ppb	03:39:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1910954.6	100.40 %		0.514			0.51%
Sc RADIAL	53310.9	101 %		0.2			0.16%
Y 371.029	1307462.1	99.699 %		0.5414			0.54%
Ag 328.068†	63345.8	486.11 µg/L		17.634	486.11 ppb	17.634	3.63%
QC value within limits for Ag 328.068 Recovery = 97.22%							
Al 396.153Radial†	6761.5	4890.8 µg/L		8.48	4890.8 ppb	8.48	0.17%
QC value within limits for Al 396.153Radial Recovery = 97.82%							
As 188.979†	255.6	486.47 µg/L		49.343	486.47 ppb	49.343	10.14%

QC value within limits for As 188.979 Recovery = 97.29%						
B 249.677†	11191.4	476.78 µg/L	19.555	476.78 ppb	19.555	4.10%
QC value within limits for B 249.677 Recovery = 95.36%						
Ba 233.527†	19086.8	490.40 µg/L	26.748	490.40 ppb	26.748	5.45%
QC value within limits for Ba 233.527 Recovery = 98.08%						
Be 313.107†	788816.4	489.54 µg/L	17.253	489.54 ppb	17.253	3.52%
QC value within limits for Be 313.107 Recovery = 97.91%						
Ca 317.933Radial†	5162.9	4885.8 µg/L	9.70	4885.8 ppb	9.70	0.20%
QC value within limits for Ca 317.933Radial Recovery = 97.72%						
Cd 226.502†	18306.7	493.07 µg/L	27.445	493.07 ppb	27.445	5.57%
QC value within limits for Cd 226.502 Recovery = 98.61%						
Co 228.616†	10171.0	491.08 µg/L	30.138	491.08 ppb	30.138	6.14%
QC value within limits for Co 228.616 Recovery = 98.22%						
Cr 267.716†	22952.3	486.49 µg/L	35.775	486.49 ppb	35.775	7.35%
QC value within limits for Cr 267.716 Recovery = 97.30%						
Cu 324.752†	71810.1	480.71 µg/L	27.777	480.71 ppb	27.777	5.78%
QC value within limits for Cu 324.752 Recovery = 96.14%						
Fe 238.204 Radial†	544.0	4926.3 µg/L	16.95	4926.3 ppb	16.95	0.34%
QC value within limits for Fe 238.204 Radial Recovery = 98.53%						
K 766.490 Radial†	7154.5	4892.5 µg/L	14.69	4892.5 ppb	14.69	0.30%
QC value within limits for K 766.490 Radial Recovery = 97.85%						
Mg 279.077 IEC†	512.5	4911.7 µg/L	38.93	4911.7 ppb	38.93	0.79%
QC value within limits for Mg 279.077 IEC Recovery = 98.23%						
Mn 257.610†	148755.6	498.86 µg/L	16.889	498.86 ppb	16.889	3.39%
QC value within limits for Mn 257.610 Recovery = 99.77%						
Mo 202.031†	4655.4	481.77 µg/L	49.445	481.77 ppb	49.445	10.26%
QC value within limits for Mo 202.031 Recovery = 96.35%						
Na 589.592 Radial†	31433.8	9721.7 µg/L	9.28	9721.7 ppb	9.28	0.10%
QC value within limits for Na 589.592 Radial Recovery = 97.22%						
Ni 231.604†	9311.3	493.56 µg/L	29.817	493.56 ppb	29.817	6.04%
QC value within limits for Ni 231.604 Recovery = 98.71%						
P 214.914†	1171.4	2411.1 µg/L	216.97	2411.1 ppb	216.97	9.00%
QC value within limits for P 214.914 Recovery = 96.45%						
Pb 220.353†	1888.5	485.26 µg/L	40.438	485.26 ppb	40.438	8.33%
QC value within limits for Pb 220.353 Recovery = 97.05%						
S 181.975 Axial†	223.7	970.33 µg/L	65.775	970.33 ppb	65.775	6.78%
QC value within limits for S 181.975 Axial Recovery = 97.03%						
Sb 206.836†	498.4	474.57 µg/L	43.940	474.57 ppb	43.940	9.26%
QC value within limits for Sb 206.836 Recovery = 94.91%						
Se 196.026†	328.1	494.21 µg/L	38.164	494.21 ppb	38.164	7.72%
QC value within limits for Se 196.026 Recovery = 98.84%						
SiO2†	25183.4	5214.1 µg/L	236.60	5214.1 ppb	236.60	4.54%
QC value within limits for SiO2 Recovery = 97.51%						
Si 251.611†	30402.6	2439.8 µg/L	111.93	2439.8 ppb	111.93	4.59%
QC value within limits for Si 251.611 Recovery = 97.59%						
Sn 189.927†	1086.8	485.35 µg/L	55.760	485.35 ppb	55.760	11.49%
QC value within limits for Sn 189.927 Recovery = 97.07%						
Sr 421.552†	49210.3	489.07 µg/L	0.545	489.07 ppb	0.545	0.11%
QC value within limits for Sr 421.552 Recovery = 97.81%						
Ti 334.940†	210888.0	483.12 µg/L	18.559	483.12 ppb	18.559	3.84%
QC value within limits for Ti 334.940 Recovery = 96.62%						
Tl 190.801†	351.7	493.57 µg/L	28.461	493.57 ppb	28.461	5.77%
QC value within limits for Tl 190.801 Recovery = 98.71%						
U 409.014†	5789.9	471.81 µg/L	25.023	471.81 ppb	25.023	5.30%
QC value within limits for U 409.014 Recovery = 94.36%						
V 292.402†	47682.6	489.50 µg/L	30.690	489.50 ppb	30.690	6.27%
QC value within limits for V 292.402 Recovery = 97.90%						
Zn 213.857†	19807.9	487.10 µg/L	29.014	487.10 ppb	29.014	5.96%
QC value within limits for Zn 213.857 Recovery = 97.42%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 03:39:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52805.8	52805.8	100 %		03:40:30
1	Al 396.153Radial†	-36.4	-9.9	-7.1922 µg/L	-7.1922 ppb	03:40:30
1	Ca 317.933Radial†	181.3	-2.0	-1.9273 µg/L	-1.9273 ppb	03:40:51
1	Fe 238.204 Radial†	15.6	-0.2	-1.6669 µg/L	-1.6669 ppb	03:40:51
1	K 766.490 Radial†	205.2	-42.1	-28.801 µg/L	-28.801 ppb	03:40:30
1	Mg 279.077 IEC†	11.3	-1.4	-13.377 µg/L	-13.377 ppb	03:40:51
1	Na 589.592 Radial†	546.6	-46.3	-14.310 µg/L	-14.310 ppb	03:40:30
1	Sr 421.552†	47.4	22.4	0.2226 µg/L	0.2226 ppb	03:40:30
1	Sc 361.383	1901901.5	1901901.5	99.925 %		03:41:52
1	Y 371.029	1306920.7	1306920.7	99.658 %		03:41:52
1	Ag 328.068†	-517.7	-19.2	-0.1467 µg/L	-0.1467 ppb	03:41:58
1	As 188.979†	3.0	2.2	4.1588 µg/L	4.1588 ppb	03:42:18
1	B 249.677†	341.0	-113.0	-4.8289 µg/L	-4.8289 ppb	03:42:18
1	Ba 233.527†	-13.1	7.3	0.1883 µg/L	0.1883 ppb	03:42:18
1	Be 313.107†	-3591.1	-55.5	-0.0345 µg/L	-0.0345 ppb	03:41:58
1	Cd 226.502†	-127.2	2.1	0.0570 µg/L	0.0570 ppb	03:42:18
1	Co 228.616†	6.5	13.9	0.6731 µg/L	0.6731 ppb	03:42:18
1	Cr 267.716†	-29.5	16.6	0.3519 µg/L	0.3519 ppb	03:42:18
1	Cu 324.752†	3322.9	86.3	0.5766 µg/L	0.5766 ppb	03:41:58
1	Mn 257.610†	-231.2	-0.5	-0.0014 µg/L	-0.0014 ppb	03:42:18
1	Mo 202.031†	2.1	6.2	0.6381 µg/L	0.6381 ppb	03:42:18
1	Ni 231.604†	308.1	20.3	1.0779 µg/L	1.0779 ppb	03:42:18
1	P 214.914†	16.8	-5.5	-11.520 µg/L	-11.520 ppb	03:42:18
1	Pb 220.353†	84.4	1.9	0.4855 µg/L	0.4855 ppb	03:42:18
1	S 181.975 Axial†	14.9	-1.5	-6.4916 µg/L	-6.4916 ppb	03:42:18
1	Sb 206.836†	31.9	10.1	9.5905 µg/L	9.5905 ppb	03:42:18
1	Se 196.026†	11.2	-4.6	-6.7858 µg/L	-6.7858 ppb	03:42:18
1	SiO2†	1591.1	46.8	9.6817 µg/L	9.6817 ppb	03:41:58
1	Si 251.611†	314.4	-20.2	-1.6220 µg/L	-1.6220 ppb	03:42:18
1	Sn 189.927†	6.4	5.7	2.5615 µg/L	2.5615 ppb	03:42:18
1	Ti 334.940†	81.4	4.5	0.0112 µg/L	0.0112 ppb	03:41:58
1	Tl 190.801†	-25.6	-4.0	-5.4849 µg/L	-5.4849 ppb	03:42:18
1	U 409.014†	200.0	-7.6	-0.6226 µg/L	-0.6226 ppb	03:41:58
1	V 292.402†	-47.0	0.4	0.0089 µg/L	0.0089 ppb	03:41:58
1	Zn 213.857†	516.3	-31.8	-0.7924 µg/L	-0.7924 ppb	03:42:18
2	Sc RADIAL	52186.7	52186.7	98.9 %		03:40:56
2	Al 396.153Radial†	-9.9	16.4	11.876 µg/L	11.876 ppb	03:40:56
2	Ca 317.933Radial†	174.4	-6.9	-6.5312 µg/L	-6.5312 ppb	03:41:16
2	Fe 238.204 Radial†	15.1	-0.5	-4.0846 µg/L	-4.0846 ppb	03:41:16
2	K 766.490 Radial†	155.6	-89.8	-61.435 µg/L	-61.435 ppb	03:40:56
2	Mg 279.077 IEC†	8.8	-3.9	-37.039 µg/L	-37.039 ppb	03:41:16
2	Na 589.592 Radial†	490.4	-96.6	-29.889 µg/L	-29.889 ppb	03:40:56
2	Sr 421.552†	39.6	15.1	0.1496 µg/L	0.1496 ppb	03:40:56
2	Sc 361.383	1896418.1	1896418.1	99.637 %		03:42:24
2	Y 371.029	1303198.0	1303198.0	99.374 %		03:42:24
2	Ag 328.068†	-448.9	48.2	0.3642 µg/L	0.3642 ppb	03:42:30
2	As 188.979†	2.6	1.7	3.3221 µg/L	3.3221 ppb	03:42:50
2	B 249.677†	358.0	-94.9	-4.0562 µg/L	-4.0562 ppb	03:42:50
2	Ba 233.527†	-17.7	2.8	0.0698 µg/L	0.0698 ppb	03:42:50
2	Be 313.107†	-3451.3	74.4	0.0461 µg/L	0.0461 ppb	03:42:30
2	Cd 226.502†	-134.7	-5.9	-0.1575 µg/L	-0.1575 ppb	03:42:50
2	Co 228.616†	1.4	8.8	0.4250 µg/L	0.4250 ppb	03:42:50
2	Cr 267.716†	-52.0	-6.0	-0.1275 µg/L	-0.1275 ppb	03:42:50
2	Cu 324.752†	3269.9	42.7	0.2848 µg/L	0.2848 ppb	03:42:30
2	Mn 257.610†	-213.8	16.2	0.0553 µg/L	0.0553 ppb	03:42:50
2	Mo 202.031†	-2.1	2.0	0.2035 µg/L	0.2035 ppb	03:42:50
2	Ni 231.604†	294.5	7.6	0.4009 µg/L	0.4009 ppb	03:42:50
2	P 214.914†	15.7	-6.6	-13.843 µg/L	-13.843 ppb	03:42:50
2	Pb 220.353†	94.0	11.8	3.0359 µg/L	3.0359 ppb	03:42:50

2	S 181.975 Axial†	14.8	-1.5	-6.5597 µg/L	-6.5597 ppb	03:42:50
2	Sb 206.836†	20.1	-1.6	-1.5463 µg/L	-1.5463 ppb	03:42:50
2	Se 196.026†	15.0	-0.8	-1.0975 µg/L	-1.0975 ppb	03:42:50
2	SiO2†	1590.8	51.0	10.562 µg/L	10.562 ppb	03:42:30
2	Si 251.611†	339.8	6.1	0.4911 µg/L	0.4911 ppb	03:42:50
2	Sn 189.927†	1.7	1.0	0.4490 µg/L	0.4490 ppb	03:42:50
2	Ti 334.940†	231.2	155.1	0.3583 µg/L	0.3583 ppb	03:42:30
2	Tl 190.801†	-25.8	-4.2	-5.7657 µg/L	-5.7657 ppb	03:42:50
2	U 409.014†	216.4	9.5	0.7732 µg/L	0.7732 ppb	03:42:30
2	V 292.402†	-91.4	-44.3	-0.4475 µg/L	-0.4475 ppb	03:42:30
2	Zn 213.857†	515.1	-31.5	-0.7810 µg/L	-0.7810 ppb	03:42:50
3	Sc RADIAL	53067.7	53067.7	101 %		03:41:22
3	Al 396.153Radial†	-22.0	4.6	3.3257 µg/L	3.3257 ppb	03:41:22
3	Ca 317.933Radial†	170.0	-14.2	-13.442 µg/L	-13.442 ppb	03:41:42
3	Fe 238.204 Radial†	15.3	-0.5	-4.6224 µg/L	-4.6224 ppb	03:41:42
3	K 766.490 Radial†	169.9	-78.3	-53.520 µg/L	-53.520 ppb	03:41:22
3	Mg 279.077 IEC†	10.8	-1.9	-18.649 µg/L	-18.649 ppb	03:41:42
3	Na 589.592 Radial†	444.8	-150.3	-46.469 µg/L	-46.469 ppb	03:41:22
3	Sr 421.552†	46.7	21.4	0.2130 µg/L	0.2130 ppb	03:41:22
3	Sc 361.383	1893294.6	1893294.6	99.473 %		03:42:57
3	Y 371.029	1301572.0	1301572.0	99.250 %		03:42:57
3	Ag 328.068†	-492.2	4.0	0.0317 µg/L	0.0317 ppb	03:43:02
3	As 188.979†	1.0	0.2	0.3246 µg/L	0.3246 ppb	03:43:23
3	B 249.677†	329.9	-122.5	-5.2363 µg/L	-5.2363 ppb	03:43:23
3	Ba 233.527†	-2.8	17.7	0.4541 µg/L	0.4541 ppb	03:43:23
3	Be 313.107†	-3286.4	234.4	0.1454 µg/L	0.1454 ppb	03:43:02
3	Cd 226.502†	-130.1	-1.4	-0.0368 µg/L	-0.0368 ppb	03:43:23
3	Co 228.616†	0.9	8.4	0.4036 µg/L	0.4036 ppb	03:43:23
3	Cr 267.716†	-30.0	16.0	0.3382 µg/L	0.3382 ppb	03:43:23
3	Cu 324.752†	3273.3	51.5	0.3439 µg/L	0.3439 ppb	03:43:02
3	Mn 257.610†	-202.2	27.6	0.0925 µg/L	0.0925 ppb	03:43:23
3	Mo 202.031†	-0.1	3.9	0.4066 µg/L	0.4066 ppb	03:43:23
3	Ni 231.604†	306.1	19.7	1.0474 µg/L	1.0474 ppb	03:43:23
3	P 214.914†	10.7	-11.6	-24.327 µg/L	-24.327 ppb	03:43:23
3	Pb 220.353†	89.8	7.7	1.9693 µg/L	1.9693 ppb	03:43:23
3	S 181.975 Axial†	15.6	-0.7	-3.0967 µg/L	-3.0967 ppb	03:43:23
3	Sb 206.836†	20.3	-1.4	-1.3649 µg/L	-1.3649 ppb	03:43:23
3	Se 196.026†	9.0	-6.7	-9.9983 µg/L	-9.9983 ppb	03:43:23
3	SiO2†	1583.5	46.4	9.5987 µg/L	9.5987 ppb	03:43:02
3	Si 251.611†	354.7	21.7	1.7401 µg/L	1.7401 ppb	03:43:23
3	Sn 189.927†	1.0	0.3	0.1407 µg/L	0.1407 ppb	03:43:23
3	Ti 334.940†	215.5	139.6	0.3214 µg/L	0.3214 ppb	03:43:02
3	Tl 190.801†	-24.8	-3.2	-4.4341 µg/L	-4.4341 ppb	03:43:23
3	U 409.014†	245.0	38.6	3.1496 µg/L	3.1496 ppb	03:43:02
3	V 292.402†	-27.0	20.3	0.2130 µg/L	0.2130 ppb	03:43:02
3	Zn 213.857†	512.1	-33.6	-0.8367 µg/L	-0.8367 ppb	03:43:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1897204.7	99.678 %	0.2289			0.23%
Sc RADIAL	52686.7	99.8 %	0.86			0.86%
Y 371.029	1303896.9	99.427 %	0.2091			0.21%
Ag 328.068†	11.0	0.0831 µg/L	0.25933	0.0831 ppb	0.25933	312.17%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.7	2.6697 µg/L	9.55089	2.6697 ppb	9.55089	357.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	2.6018 µg/L	2.01603	2.6018 ppb	2.01603	77.49%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-110.1	-4.7071 µg/L	0.59942	-4.7071 ppb	0.59942	12.73%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.3	0.2374 µg/L	0.19681	0.2374 ppb	0.19681	82.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	84.4	0.0523 µg/L	0.09012	0.0523 ppb	0.09012	172.21%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.7	-7.3001 µg/L	5.79569	-7.3001 ppb	5.79569	79.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-1.7	-0.0458 µg/L	0.10752	-0.0458 ppb	0.10752	234.98%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.4	0.5006 µg/L	0.14981	0.5006 ppb	0.14981	29.93%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	8.9	0.1875 µg/L	0.27290	0.1875 ppb	0.27290	145.52%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	60.2	0.4018 µg/L	0.15425	0.4018 ppb	0.15425	38.39%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.4	-3.4580 µg/L	1.57423	-3.4580 ppb	1.57423	45.52%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-70.1	-47.919 µg/L	17.0229	-47.919 ppb	17.0229	35.52%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.4	-23.021 µg/L	12.4224	-23.021 ppb	12.4224	53.96%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	14.4	0.0488 µg/L	0.04725	0.0488 ppb	0.04725	96.87%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	4.0	0.4161 µg/L	0.21747	0.4161 ppb	0.21747	52.27%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-97.7	-30.223 µg/L	16.0821	-30.223 ppb	16.0821	53.21%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	15.9	0.8421 µg/L	0.38241	0.8421 ppb	0.38241	45.41%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-7.9	-16.563 µg/L	6.8231	-16.563 ppb	6.8231	41.19%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	7.1	1.8302 µg/L	1.28088	1.8302 ppb	1.28088	69.98%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.2	-5.3826 µg/L	1.98001	-5.3826 ppb	1.98001	36.79%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.3	2.2264 µg/L	6.37814	2.2264 ppb	6.37814	286.47%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-4.0	-5.9605 µg/L	4.50740	-5.9605 ppb	4.50740	75.62%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	48.0	9.9473 µg/L	0.53361	9.9473 ppb	0.53361	5.36%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	2.5	0.2031 µg/L	1.69946	0.2031 ppb	1.69946	836.91%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.4	1.0504 µg/L	1.31767	1.0504 ppb	1.31767	125.45%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	19.6	0.1951 µg/L	0.03967	0.1951 ppb	0.03967	20.34%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	99.7	0.2303 µg/L	0.19063	0.2303 ppb	0.19063	82.77%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-3.8	-5.2282 µg/L	0.70190	-5.2282 ppb	0.70190	13.43%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	13.5	1.1001 µg/L	1.90718	1.1001 ppb	1.90718	173.37%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-7.8	-0.0752 µg/L	0.33822	-0.0752 ppb	0.33822	449.80%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-32.3	-0.8034 µg/L	0.02940	-0.8034 ppb	0.02940	3.66%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 11
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/25/2010 04:12:06
 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	53843.1	53843.1	102 %		04:12:44
1	Al 396.153Radial†	6947.3	6835.6	4943.8 µg/L	4943.8 ppb	04:12:44
1	Ca 317.933Radial†	5521.7	5228.8	4948.1 µg/L	4948.1 ppb	04:13:04
1	Fe 238.204 Radial†	580.7	553.4	5012.0 µg/L	5012.0 ppb	04:13:04
1	K 766.490 Radial†	7582.6	7184.7	4913.1 µg/L	4913.1 ppb	04:12:44
1	Mg 279.077 IEC†	544.6	521.1	4994.8 µg/L	4994.8 ppb	04:13:04
1	Na 589.592 Radial†	33133.9	31882.8	9860.5 µg/L	9860.5 ppb	04:12:44
1	Sr 421.552†	50837.2	49801.8	494.95 µg/L	494.95 ppb	04:12:44
1	Sc 361.383	1918269.2	1918269.2	100.79 %		04:14:07
1	Y 371.029	1314274.4	1314274.4	100.22 %		04:14:07
1	Ag 328.068†	65261.8	65252.2	500.79 µg/L	500.79 ppb	04:14:13
1	As 188.979†	278.2	275.1	523.61 µg/L	523.61 ppb	04:14:33
1	B 249.677†	12143.8	11595.0	494.04 µg/L	494.04 ppb	04:14:13
1	Ba 233.527†	20051.2	19915.5	511.69 µg/L	511.69 ppb	04:14:13
1	Be 313.107†	823037.7	820164.2	509.00 µg/L	509.00 ppb	04:14:07
1	Cd 226.502†	19131.5	19111.8	514.76 µg/L	514.76 ppb	04:14:13
1	Co 228.616†	10702.5	10626.6	513.09 µg/L	513.09 ppb	04:14:13
1	Cr 267.716†	24276.8	24133.9	511.54 µg/L	511.54 ppb	04:14:13
1	Cu 324.752†	78516.6	74665.9	499.81 µg/L	499.81 ppb	04:14:13
1	Mn 257.610†	155839.6	154856.4	519.31 µg/L	519.31 ppb	04:14:07
1	Mo 202.031†	5044.8	5009.5	518.41 µg/L	518.41 ppb	04:14:33
1	Ni 231.604†	10059.4	9693.1	513.79 µg/L	513.79 ppb	04:14:13
1	P 214.914†	1275.0	1242.7	2559.3 µg/L	2559.3 ppb	04:14:33
1	Pb 220.353†	2104.1	2005.1	515.28 µg/L	515.28 ppb	04:14:33
1	S 181.975 Axial†	262.8	244.4	1059.8 µg/L	1059.8 ppb	04:14:33
1	Sb 206.836†	562.7	536.5	510.98 µg/L	510.98 ppb	04:14:33
1	Se 196.026†	366.1	347.4	522.99 µg/L	522.99 ppb	04:14:33
1	SiO2†	27862.4	26099.7	5403.9 µg/L	5403.9 ppb	04:14:13
1	Si 251.611†	32063.6	31478.9	2526.1 µg/L	2526.1 ppb	04:14:13
1	Sn 189.927†	1185.8	1175.8	525.09 µg/L	525.09 ppb	04:14:33
1	Ti 334.940†	221326.0	219524.8	502.91 µg/L	502.91 ppb	04:14:07
1	Tl 190.801†	340.1	359.2	504.21 µg/L	504.21 ppb	04:14:33
1	U 409.014†	6366.6	6109.2	497.87 µg/L	497.87 ppb	04:14:13
1	V 292.402†	50201.5	49857.8	511.94 µg/L	511.94 ppb	04:14:13
1	Zn 213.857†	21387.2	20672.1	508.37 µg/L	508.37 ppb	04:14:13
2	Sc RADIAL	54030.9	54030.9	102 %		04:13:10
2	Al 396.153Radial†	6953.4	6818.0	4931.0 µg/L	4931.0 ppb	04:13:10
2	Ca 317.933Radial†	5512.1	5200.6	4921.5 µg/L	4921.5 ppb	04:13:30
2	Fe 238.204 Radial†	582.7	553.3	5011.2 µg/L	5011.2 ppb	04:13:30
2	K 766.490 Radial†	7708.6	7282.0	4979.6 µg/L	4979.6 ppb	04:13:10
2	Mg 279.077 IEC†	544.4	519.0	4974.4 µg/L	4974.4 ppb	04:13:30
2	Na 589.592 Radial†	33055.6	31693.4	9801.9 µg/L	9801.9 ppb	04:13:10
2	Sr 421.552†	51103.0	49888.2	495.81 µg/L	495.81 ppb	04:13:10
2	Sc 361.383	1920187.6	1920187.6	100.89 %		04:14:41
2	Y 371.029	1316121.4	1316121.4	100.36 %		04:14:41
2	Ag 328.068†	65502.0	65425.5	502.12 µg/L	502.12 ppb	04:14:46
2	As 188.979†	275.3	272.0	517.57 µg/L	517.57 ppb	04:15:07
2	B 249.677†	12191.1	11629.8	495.53 µg/L	495.53 ppb	04:14:46
2	Ba 233.527†	20043.0	19887.5	510.97 µg/L	510.97 ppb	04:14:46
2	Be 313.107†	816750.0	813115.8	504.62 µg/L	504.62 ppb	04:14:41
2	Cd 226.502†	19239.4	19199.8	517.14 µg/L	517.14 ppb	04:14:46
2	Co 228.616†	10743.2	10656.3	514.54 µg/L	514.54 ppb	04:14:46
2	Cr 267.716†	24455.2	24286.6	514.77 µg/L	514.77 ppb	04:14:46
2	Cu 324.752†	78937.4	75005.1	502.08 µg/L	502.08 ppb	04:14:46
2	Mn 257.610†	154434.7	153309.3	514.13 µg/L	514.13 ppb	04:14:41
2	Mo 202.031†	5031.3	4991.2	516.51 µg/L	516.51 ppb	04:15:07
2	Ni 231.604†	10124.6	9747.7	516.69 µg/L	516.69 ppb	04:14:46
2	P 214.914†	1279.6	1246.1	2566.0 µg/L	2566.0 ppb	04:15:07
2	Pb 220.353†	2121.9	2020.7	519.26 µg/L	519.26 ppb	04:15:07

2	S 181.975 Axial†	254.8	236.2	1024.2 µg/L	1024.2 ppb	04:15:07
2	Sb 206.836†	561.8	535.0	509.57 µg/L	509.57 ppb	04:15:07
2	Se 196.026†	373.8	354.7	533.84 µg/L	533.84 ppb	04:15:07
2	SiO2†	28049.4	26257.5	5436.5 µg/L	5436.5 ppb	04:14:46
2	Si 251.611†	32301.2	31682.6	2542.5 µg/L	2542.5 ppb	04:14:46
2	Sn 189.927†	1185.7	1174.6	524.52 µg/L	524.52 ppb	04:15:07
2	Ti 334.940†	219701.0	217694.7	498.72 µg/L	498.72 ppb	04:14:41
2	Tl 190.801†	349.6	368.3	516.74 µg/L	516.74 ppb	04:15:07
2	U 409.014†	6318.6	6055.3	493.47 µg/L	493.47 ppb	04:14:46
2	V 292.402†	50435.7	50040.2	513.78 µg/L	513.78 ppb	04:14:46
2	Zn 213.857†	21521.7	20784.2	511.14 µg/L	511.14 ppb	04:14:46
3	Sc RADIAL	53966.7	53966.7	102 %		04:13:35
3	Al 396.153Radial†	6919.4	6792.7	4914.3 µg/L	4914.3 ppb	04:13:35
3	Ca 317.933Radial†	5509.5	5204.4	4925.1 µg/L	4925.1 ppb	04:13:56
3	Fe 238.204 Radial†	584.5	555.8	5032.7 µg/L	5032.7 ppb	04:13:56
3	K 766.490 Radial†	7672.2	7255.3	4961.4 µg/L	4961.4 ppb	04:13:35
3	Mg 279.077 IEC†	539.6	514.9	4934.2 µg/L	4934.2 ppb	04:13:56
3	Na 589.592 Radial†	33029.9	31706.8	9806.1 µg/L	9806.1 ppb	04:13:35
3	Sr 421.552†	50980.1	49827.4	495.21 µg/L	495.21 ppb	04:13:35
3	Sc 361.383	1910444.2	1910444.2	100.37 %		04:15:14
3	Y 371.029	1308900.4	1308900.4	99.808 %		04:15:14
3	Ag 328.068†	62357.3	62623.7	480.49 µg/L	480.49 ppb	04:15:20
3	As 188.979†	237.1	235.3	447.84 µg/L	447.84 ppb	04:15:40
3	B 249.677†	11533.0	11035.8	470.03 µg/L	470.03 ppb	04:15:20
3	Ba 233.527†	18646.8	18597.8	477.82 µg/L	477.82 ppb	04:15:20
3	Be 313.107†	773820.3	774475.0	480.64 µg/L	480.64 ppb	04:15:14
3	Cd 226.502†	17772.4	17835.5	480.34 µg/L	480.34 ppb	04:15:20
3	Co 228.616†	9835.5	9806.3	473.43 µg/L	473.43 ppb	04:15:20
3	Cr 267.716†	21744.0	21709.1	460.15 µg/L	460.15 ppb	04:15:20
3	Cu 324.752†	72765.8	69255.6	463.65 µg/L	463.65 ppb	04:15:20
3	Mn 257.610†	146946.6	146629.8	491.75 µg/L	491.75 ppb	04:15:14
3	Mo 202.031†	4238.5	4226.8	437.44 µg/L	437.44 ppb	04:15:40
3	Ni 231.604†	9293.4	8970.8	475.52 µg/L	475.52 ppb	04:15:20
3	P 214.914†	1100.4	1073.9	2207.7 µg/L	2207.7 ppb	04:15:40
3	Pb 220.353†	1856.7	1767.2	454.05 µg/L	454.05 ppb	04:15:40
3	S 181.975 Axial†	227.1	209.9	910.15 µg/L	910.15 ppb	04:15:40
3	Sb 206.836†	487.6	463.9	441.47 µg/L	441.47 ppb	04:15:40
3	Se 196.026†	330.1	313.0	472.09 µg/L	472.09 ppb	04:15:40
3	SiO2†	26428.8	24784.7	5131.6 µg/L	5131.6 ppb	04:15:20
3	Si 251.611†	30324.9	29877.1	2397.6 µg/L	2397.6 ppb	04:15:20
3	Sn 189.927†	979.6	975.2	435.51 µg/L	435.51 ppb	04:15:40
3	Ti 334.940†	207398.9	206549.1	473.17 µg/L	473.17 ppb	04:15:14
3	Tl 190.801†	309.4	329.9	463.33 µg/L	463.33 ppb	04:15:40
3	U 409.014†	5688.0	5459.0	444.77 µg/L	444.77 ppb	04:15:20
3	V 292.402†	45925.5	45801.8	470.01 µg/L	470.01 ppb	04:15:20
3	Zn 213.857†	19750.3	19128.2	470.37 µg/L	470.37 ppb	04:15:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1916300.4	100.68 %	0.271			0.27%
Sc RADIAL	53946.9	102 %	0.2			0.18%
Y 371.029	1313098.7	100.13 %	0.286			0.29%
Ag 328.068†	64433.8	494.47 µg/L	12.121	494.47 ppb	12.121	2.45%
QC value within limits for Ag 328.068 Recovery = 98.89%						
Al 396.153Radial†	6815.5	4929.7 µg/L	14.76	4929.7 ppb	14.76	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.59%						
As 188.979†	260.8	496.34 µg/L	42.111	496.34 ppb	42.111	8.48%
QC value within limits for As 188.979 Recovery = 99.27%						
B 249.677†	11420.2	486.53 µg/L	14.311	486.53 ppb	14.311	2.94%
QC value within limits for B 249.677 Recovery = 97.31%						
Ba 233.527†	19466.9	500.16 µg/L	19.352	500.16 ppb	19.352	3.87%
QC value within limits for Ba 233.527 Recovery = 100.03%						
Be 313.107†	802585.0	498.09 µg/L	15.265	498.09 ppb	15.265	3.06%
QC value within limits for Be 313.107 Recovery = 99.62%						
Ca 317.933Radial†	5211.3	4931.5 µg/L	14.47	4931.5 ppb	14.47	0.29%
QC value within limits for Ca 317.933Radial Recovery = 98.63%						
Cd 226.502†	18715.7	504.08 µg/L	20.592	504.08 ppb	20.592	4.09%
QC value within limits for Cd 226.502 Recovery = 100.82%						
Co 228.616†	10363.1	500.35 µg/L	23.327	500.35 ppb	23.327	4.66%

QC value within limits for Co 228.616 Recovery = 100.07%						
Cr 267.716†	23376.5	495.49 µg/L	30.646	495.49 ppb	30.646	6.19%
QC value within limits for Cr 267.716 Recovery = 99.10%						
Cu 324.752†	72975.5	488.51 µg/L	21.563	488.51 ppb	21.563	4.41%
QC value within limits for Cu 324.752 Recovery = 97.70%						
Fe 238.204 Radial†	554.2	5018.6 µg/L	12.21	5018.6 ppb	12.21	0.24%
QC value within limits for Fe 238.204 Radial Recovery = 100.37%						
K 766.490 Radial†	7240.7	4951.4 µg/L	34.39	4951.4 ppb	34.39	0.69%
QC value within limits for K 766.490 Radial Recovery = 99.03%						
Mg 279.077 IEC†	518.3	4967.8 µg/L	30.83	4967.8 ppb	30.83	0.62%
QC value within limits for Mg 279.077 IEC Recovery = 99.36%						
Mn 257.610†	151598.5	508.40 µg/L	14.645	508.40 ppb	14.645	2.88%
QC value within limits for Mn 257.610 Recovery = 101.68%						
Mo 202.031†	4742.5	490.79 µg/L	46.211	490.79 ppb	46.211	9.42%
QC value within limits for Mo 202.031 Recovery = 98.16%						
Na 589.592 Radial†	31761.0	9822.8 µg/L	32.68	9822.8 ppb	32.68	0.33%
QC value within limits for Na 589.592 Radial Recovery = 98.23%						
Ni 231.604†	9470.5	502.00 µg/L	22.982	502.00 ppb	22.982	4.58%
QC value within limits for Ni 231.604 Recovery = 100.40%						
P 214.914†	1187.6	2444.3 µg/L	204.97	2444.3 ppb	204.97	8.39%
QC value within limits for P 214.914 Recovery = 97.77%						
Pb 220.353†	1931.0	496.19 µg/L	36.556	496.19 ppb	36.556	7.37%
QC value within limits for Pb 220.353 Recovery = 99.24%						
S 181.975 Axial†	230.1	998.05 µg/L	78.169	998.05 ppb	78.169	7.83%
QC value within limits for S 181.975 Axial Recovery = 99.80%						
Sb 206.836†	511.8	487.34 µg/L	39.730	487.34 ppb	39.730	8.15%
QC value within limits for Sb 206.836 Recovery = 97.47%						
Se 196.026†	338.4	509.64 µg/L	32.966	509.64 ppb	32.966	6.47%
QC value within limits for Se 196.026 Recovery = 101.93%						
SiO2†	25714.0	5324.0 µg/L	167.42	5324.0 ppb	167.42	3.14%
QC value within limits for SiO2 Recovery = 99.56%						
Si 251.611†	31012.9	2488.7 µg/L	79.36	2488.7 ppb	79.36	3.19%
QC value within limits for Si 251.611 Recovery = 99.55%						
Sn 189.927†	1108.6	495.04 µg/L	51.556	495.04 ppb	51.556	10.41%
QC value within limits for Sn 189.927 Recovery = 99.01%						
Sr 421.552†	49839.1	495.32 µg/L	0.441	495.32 ppb	0.441	0.09%
QC value within limits for Sr 421.552 Recovery = 99.06%						
Ti 334.940†	214589.5	491.60 µg/L	16.097	491.60 ppb	16.097	3.27%
QC value within limits for Ti 334.940 Recovery = 98.32%						
Tl 190.801†	352.5	494.76 µg/L	27.932	494.76 ppb	27.932	5.65%
QC value within limits for Tl 190.801 Recovery = 98.95%						
U 409.014†	5874.5	478.70 µg/L	29.465	478.70 ppb	29.465	6.16%
QC value within limits for U 409.014 Recovery = 95.74%						
V 292.402†	48566.6	498.58 µg/L	24.757	498.58 ppb	24.757	4.97%
QC value within limits for V 292.402 Recovery = 99.72%						
Zn 213.857†	20194.8	496.63 µg/L	22.782	496.63 ppb	22.782	4.59%
QC value within limits for Zn 213.857 Recovery = 99.33%						

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 04:15:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53080.1	53080.1	101 %		04:16:22
1	Al 396.153Radial†	-21.7	4.9	3.5376 µg/L	3.5376 ppb	04:16:22
1	Ca 317.933Radial†	175.1	-9.2	-8.6592 µg/L	-8.6592 ppb	04:16:42
1	Fe 238.204 Radial†	13.7	-2.2	-19.599 µg/L	-19.599 ppb	04:16:42
1	K 766.490 Radial†	217.0	-31.5	-21.519 µg/L	-21.519 ppb	04:16:22
1	Mg 279.077 IEC†	10.8	-2.0	-19.122 µg/L	-19.122 ppb	04:16:42
1	Na 589.592 Radial†	461.4	-133.8	-41.380 µg/L	-41.380 ppb	04:16:22
1	Sr 421.552†	46.2	20.9	0.2079 µg/L	0.2079 ppb	04:16:22
1	Sc 361.383	1910894.2	1910894.2	100.40 %		04:17:44
1	Y 371.029	1314464.8	1314464.8	100.23 %		04:17:44
1	Ag 328.068†	-446.7	53.9	0.4085 µg/L	0.4085 ppb	04:17:50
1	As 188.979†	1.5	0.7	1.2440 µg/L	1.2440 ppb	04:18:10
1	B 249.677†	374.6	-81.1	-3.4564 µg/L	-3.4564 ppb	04:18:10
1	Ba 233.527†	-16.9	3.7	0.0937 µg/L	0.0937 ppb	04:18:10
1	Be 313.107†	-3431.4	120.4	0.0747 µg/L	0.0747 ppb	04:17:50
1	Cd 226.502†	-135.4	-5.5	-0.1463 µg/L	-0.1463 ppb	04:18:10
1	Co 228.616†	-5.3	2.1	0.1025 µg/L	0.1025 ppb	04:18:10
1	Cr 267.716†	-43.7	2.6	0.0553 µg/L	0.0553 ppb	04:18:10
1	Cu 324.752†	3273.1	21.1	0.1380 µg/L	0.1380 ppb	04:17:50
1	Mn 257.610†	-215.5	16.2	0.0524 µg/L	0.0524 ppb	04:18:10
1	Mo 202.031†	4.3	8.3	0.8621 µg/L	0.8621 ppb	04:18:10
1	Ni 231.604†	298.3	9.1	0.4829 µg/L	0.4829 ppb	04:18:10
1	P 214.914†	22.6	0.2	0.4751 µg/L	0.4751 ppb	04:18:10
1	Pb 220.353†	99.5	16.6	4.2485 µg/L	4.2485 ppb	04:18:10
1	S 181.975 Axial†	14.2	-2.2	-9.6608 µg/L	-9.6608 ppb	04:18:10
1	Sb 206.836†	24.2	2.2	2.1477 µg/L	2.1477 ppb	04:18:10
1	Se 196.026†	22.5	6.6	9.7489 µg/L	9.7489 ppb	04:18:10
1	SiO2†	1541.3	-10.3	-2.1400 µg/L	-2.1400 ppb	04:17:50
1	Si 251.611†	336.8	0.6	0.0451 µg/L	0.0451 ppb	04:18:10
1	Sn 189.927†	3.3	2.6	1.1450 µg/L	1.1450 ppb	04:18:10
1	Ti 334.940†	187.3	109.6	0.2525 µg/L	0.2525 ppb	04:17:50
1	Tl 190.801†	-23.9	-2.1	-2.8790 µg/L	-2.8790 ppb	04:18:10
1	U 409.014†	345.4	136.2	11.127 µg/L	11.127 ppb	04:17:50
1	V 292.402†	-60.9	-13.2	-0.1176 µg/L	-0.1176 ppb	04:17:50
1	Zn 213.857†	518.2	-32.4	-0.8016 µg/L	-0.8016 ppb	04:18:10
2	Sc RADIAL	53182.3	53182.3	101 %		04:16:48
2	Al 396.153Radial†	-20.9	5.7	4.1189 µg/L	4.1189 ppb	04:16:48
2	Ca 317.933Radial†	181.0	-3.6	-3.3839 µg/L	-3.3839 ppb	04:17:08
2	Fe 238.204 Radial†	18.2	2.3	21.120 µg/L	21.120 ppb	04:17:08
2	K 766.490 Radial†	249.0	-0.1	-0.0720 µg/L	-0.0720 ppb	04:16:48
2	Mg 279.077 IEC†	7.2	-5.5	-53.173 µg/L	-53.173 ppb	04:17:08
2	Na 589.592 Radial†	488.1	-108.2	-33.450 µg/L	-33.450 ppb	04:16:48
2	Sr 421.552†	33.9	8.6	0.0860 µg/L	0.0860 ppb	04:16:48
2	Sc 361.383	1888400.4	1888400.4	99.216 %		04:18:16
2	Y 371.029	1298468.5	1298468.5	99.013 %		04:18:16
2	Ag 328.068†	-410.1	85.5	0.6531 µg/L	0.6531 ppb	04:18:22
2	As 188.979†	1.1	0.2	0.4524 µg/L	0.4524 ppb	04:18:42
2	B 249.677†	353.4	-98.0	-4.2001 µg/L	-4.2001 ppb	04:18:42
2	Ba 233.527†	-10.8	9.6	0.2471 µg/L	0.2471 ppb	04:18:42
2	Be 313.107†	-3407.3	104.1	0.0645 µg/L	0.0645 ppb	04:18:22
2	Cd 226.502†	-141.7	-13.5	-0.3648 µg/L	-0.3648 ppb	04:18:42
2	Co 228.616†	0.5	7.9	0.3816 µg/L	0.3816 ppb	04:18:42
2	Cr 267.716†	-29.2	16.7	0.3532 µg/L	0.3532 ppb	04:18:42
2	Cu 324.752†	3293.3	80.3	0.5396 µg/L	0.5396 ppb	04:18:22
2	Mn 257.610†	-217.2	11.9	0.0448 µg/L	0.0448 ppb	04:18:42
2	Mo 202.031†	-3.7	0.3	0.0308 µg/L	0.0308 ppb	04:18:42
2	Ni 231.604†	299.3	13.7	0.7252 µg/L	0.7252 ppb	04:18:42
2	P 214.914†	24.7	2.5	5.2767 µg/L	5.2767 ppb	04:18:42
2	Pb 220.353†	83.7	1.8	0.4674 µg/L	0.4674 ppb	04:18:42

2	S 181.975 Axial†	15.8	-0.5	-2.0930 µg/L	-2.0930 ppb	04:18:42
2	Sb 206.836†	23.5	1.8	1.7397 µg/L	1.7397 ppb	04:18:42
2	Se 196.026†	17.9	2.2	3.3344 µg/L	3.3344 ppb	04:18:42
2	SiO2†	1606.6	73.7	15.265 µg/L	15.265 ppb	04:18:22
2	Si 251.611†	353.3	21.2	1.6992 µg/L	1.6992 ppb	04:18:42
2	Sn 189.927†	1.7	1.0	0.4427 µg/L	0.4427 ppb	04:18:42
2	Ti 334.940†	231.8	156.7	0.3633 µg/L	0.3633 ppb	04:18:22
2	Tl 190.801†	-21.4	0.2	0.2642 µg/L	0.2642 ppb	04:18:42
2	U 409.014†	201.1	-5.1	-0.4212 µg/L	-0.4212 ppb	04:18:22
2	V 292.402†	-42.3	4.8	0.0522 µg/L	0.0522 ppb	04:18:22
2	Zn 213.857†	512.8	-31.7	-0.7859 µg/L	-0.7859 ppb	04:18:42
3	Sc RADIAL	52938.9	52938.9	100 %		04:17:14
3	Al 396.153Radial†	-14.7	11.8	8.4977 µg/L	8.4977 ppb	04:17:14
3	Ca 317.933Radial†	176.5	-7.3	-6.8931 µg/L	-6.8931 ppb	04:17:34
3	Fe 238.204 Radial†	13.8	-2.0	-17.828 µg/L	-17.828 ppb	04:17:34
3	K 766.490 Radial†	173.1	-74.6	-51.040 µg/L	-51.040 ppb	04:17:14
3	Mg 279.077 IEC†	11.1	-1.7	-16.079 µg/L	-16.079 ppb	04:17:34
3	Na 589.592 Radial†	485.6	-108.5	-33.553 µg/L	-33.553 ppb	04:17:14
3	Sr 421.552†	38.4	13.3	0.1322 µg/L	0.1322 ppb	04:17:14
3	Sc 361.383	1911589.2	1911589.2	100.43 %		04:18:49
3	Y 371.029	1313458.6	1313458.6	100.16 %		04:18:49
3	Ag 328.068†	-473.0	27.8	0.2101 µg/L	0.2101 ppb	04:18:54
3	As 188.979†	-4.3	-5.1	-9.7530 µg/L	-9.7530 ppb	04:19:15
3	B 249.677†	362.8	-93.0	-3.9659 µg/L	-3.9659 ppb	04:19:15
3	Ba 233.527†	-19.0	1.6	0.0409 µg/L	0.0409 ppb	04:19:15
3	Be 313.107†	-3365.2	187.6	0.1163 µg/L	0.1163 ppb	04:18:54
3	Cd 226.502†	-126.8	3.1	0.0866 µg/L	0.0866 ppb	04:19:15
3	Co 228.616†	3.3	10.8	0.5198 µg/L	0.5198 ppb	04:19:15
3	Cr 267.716†	-16.8	29.5	0.6238 µg/L	0.6238 ppb	04:19:15
3	Cu 324.752†	3339.0	85.4	0.5686 µg/L	0.5686 ppb	04:18:54
3	Mn 257.610†	-198.1	33.5	0.1107 µg/L	0.1107 ppb	04:19:15
3	Mo 202.031†	7.8	11.9	1.2260 µg/L	1.2260 ppb	04:19:15
3	Ni 231.604†	311.1	21.8	1.1547 µg/L	1.1547 ppb	04:19:15
3	P 214.914†	20.4	-2.0	-4.2734 µg/L	-4.2734 ppb	04:19:15
3	Pb 220.353†	81.9	-1.0	-0.2648 µg/L	-0.2648 ppb	04:19:15
3	S 181.975 Axial†	16.2	-0.2	-0.8556 µg/L	-0.8556 ppb	04:19:15
3	Sb 206.836†	18.0	-3.9	-3.6827 µg/L	-3.6827 ppb	04:19:15
3	Se 196.026†	18.2	2.3	3.3181 µg/L	3.3181 ppb	04:19:15
3	SiO2†	1614.0	61.5	12.730 µg/L	12.730 ppb	04:18:54
3	Si 251.611†	361.1	24.7	1.9788 µg/L	1.9788 ppb	04:19:15
3	Sn 189.927†	0.8	0.1	0.0643 µg/L	0.0643 ppb	04:19:15
3	Ti 334.940†	291.7	213.5	0.4906 µg/L	0.4906 ppb	04:18:54
3	Tl 190.801†	-20.8	1.0	1.3540 µg/L	1.3540 ppb	04:19:15
3	U 409.014†	228.7	19.9	1.6275 µg/L	1.6275 ppb	04:18:54
3	V 292.402†	-57.6	-9.9	-0.0903 µg/L	-0.0903 ppb	04:18:54
3	Zn 213.857†	520.4	-30.3	-0.7556 µg/L	-0.7556 ppb	04:19:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1903627.9	100.02 %	0.693			0.69%
Sc RADIAL	53067.1	101 %	0.2			0.23%
Y 371.029	1308797.3	99.801 %	0.6832			0.68%
Ag 328.068†	55.7	0.4239 µg/L	0.22188	0.4239 ppb	0.22188	52.35%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.4	5.3847 µg/L	2.71151	5.3847 ppb	2.71151	50.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.4	-2.6855 µg/L	6.13340	-2.6855 ppb	6.13340	228.39%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-90.7	-3.8742 µg/L	0.38026	-3.8742 ppb	0.38026	9.82%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.0	0.1272 µg/L	0.10713	0.1272 ppb	0.10713	84.21%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	137.4	0.0851 µg/L	0.02745	0.0851 ppb	0.02745	32.24%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-6.7	-6.3121 µg/L	2.68520	-6.3121 ppb	2.68520	42.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-5.3	-0.1415 µg/L	0.22574	-0.1415 ppb	0.22574	159.52%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.9	0.3346 µg/L	0.21255	0.3346 ppb	0.21255	63.52%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated		
	16.2	0.3441 µg/L	0.28437	0.3441 ppb
			0.28437	82.65%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated		
	62.3	0.4154 µg/L	0.24065	0.4154 ppb
			0.24065	57.93%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated		
	-0.6	-5.4353 µg/L	23.01501	-5.4353 ppb
			23.01501	423.43%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
	-35.4	-24.210 µg/L	25.5903	-24.210 ppb
			25.5903	105.70%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated		
	-3.1	-29.458 µg/L	20.5942	-29.458 ppb
			20.5942	69.91%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
	20.5	0.0693 µg/L	0.03604	0.0693 ppb
			0.03604	52.02%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated		
	6.8	0.7063 µg/L	0.61262	0.7063 ppb
			0.61262	86.74%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated		
	-116.8	-36.128 µg/L	4.5491	-36.128 ppb
			4.5491	12.59%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
	14.9	0.7876 µg/L	0.34022	0.7876 ppb
			0.34022	43.19%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated		
	0.2	0.4928 µg/L	4.77508	0.4928 ppb
			4.77508	968.99%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated		
	5.8	1.4837 µg/L	2.42224	1.4837 ppb
			2.42224	163.26%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated		
	-1.0	-4.2031 µg/L	4.76677	-4.2031 ppb
			4.76677	113.41%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated		
	0.1	0.0683 µg/L	3.25480	0.0683 ppb
			3.25480	>999.9%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated		
	3.7	5.4671 µg/L	3.70813	5.4671 ppb
			3.70813	67.83%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated		
	41.6	8.6184 µg/L	9.40291	8.6184 ppb
			9.40291	109.10%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated		
	15.5	1.2410 µg/L	1.04513	1.2410 ppb
			1.04513	84.21%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated		
	1.2	0.5506 µg/L	0.54839	0.5506 ppb
			0.54839	99.59%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated		
	14.3	0.1420 µg/L	0.06155	0.1420 ppb
			0.06155	43.34%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated		
	159.9	0.3688 µg/L	0.11911	0.3688 ppb
			0.11911	32.30%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated		
	-0.3	-0.4203 µg/L	2.19793	-0.4203 ppb
			2.19793	522.99%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated		
	50.3	4.1110 µg/L	6.16142	4.1110 ppb
			6.16142	149.88%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated		
	-6.1	-0.0519 µg/L	0.09120	-0.0519 ppb
			0.09120	175.77%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated		
	-31.4	-0.7810 µg/L	0.02340	-0.7810 ppb
			0.02340	3.00%

All analyte(s) passed QC.

Sequence No.: 22

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 04:52:30

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	53968.5	53968.5	102 %		04:53:08
1	Al 396.153Radial†	6961.8	6834.0	4942.6 µg/L	4942.6 ppb	04:53:08
1	Ca 317.933Radial†	5600.1	5292.9	5008.8 µg/L	5008.8 ppb	04:53:28
1	Fe 238.204 Radial†	585.4	556.7	5041.1 µg/L	5041.1 ppb	04:53:28
1	K 766.490 Radial†	7684.1	7266.7	4969.2 µg/L	4969.2 ppb	04:53:08
1	Mg 279.077 IEC†	550.9	526.0	5041.9 µg/L	5041.9 ppb	04:53:28
1	Na 589.592 Radial†	33009.6	31685.8	9799.6 µg/L	9799.6 ppb	04:53:08
1	Sr 421.552†	50776.0	49626.1	493.21 µg/L	493.21 ppb	04:53:08
1	Sc 361.383	1930741.3	1930741.3	101.44 %		04:54:32
1	Y 371.029	1324239.7	1324239.7	100.98 %		04:54:32
1	Ag 328.068†	65937.7	65500.2	502.71 µg/L	502.71 ppb	04:54:38
1	As 188.979†	275.3	270.6	514.87 µg/L	514.87 ppb	04:54:58
1	B 249.677†	12239.8	11611.8	494.75 µg/L	494.75 ppb	04:54:38
1	Ba 233.527†	20320.2	20052.2	515.20 µg/L	515.20 ppb	04:54:38
1	Be 313.107†	828103.7	819883.1	508.82 µg/L	508.82 ppb	04:54:32
1	Cd 226.502†	19402.1	19255.9	518.65 µg/L	518.65 ppb	04:54:38
1	Co 228.616†	10818.9	10672.7	515.32 µg/L	515.32 ppb	04:54:38
1	Cr 267.716†	24707.2	24402.5	517.23 µg/L	517.23 ppb	04:54:38
1	Cu 324.752†	79282.2	74917.4	501.50 µg/L	501.50 ppb	04:54:38
1	Mn 257.610†	156713.8	154719.4	518.86 µg/L	518.86 ppb	04:54:32
1	Mo 202.031†	5073.9	5005.9	518.03 µg/L	518.03 ppb	04:54:58
1	Ni 231.604†	10200.2	9767.3	517.73 µg/L	517.73 ppb	04:54:38
1	P 214.914†	1276.7	1236.3	2545.5 µg/L	2545.5 ppb	04:54:58
1	Pb 220.353†	2140.5	2027.6	521.05 µg/L	521.05 ppb	04:54:58
1	S 181.975 Axial†	254.5	234.5	1017.2 µg/L	1017.2 ppb	04:54:58
1	Sb 206.836†	553.9	524.2	499.26 µg/L	499.26 ppb	04:54:58
1	Se 196.026†	374.8	353.7	532.27 µg/L	532.27 ppb	04:54:58
1	SiO2†	32025.1	30024.8	6216.5 µg/L	6216.5 ppb	04:54:38
1	Si 251.611†	37149.2	36286.8	2912.0 µg/L	2912.0 ppb	04:54:38
1	Sn 189.927†	1188.7	1171.1	522.97 µg/L	522.97 ppb	04:54:58
1	Ti 334.940†	223492.5	220242.0	504.56 µg/L	504.56 ppb	04:54:32
1	Tl 190.801†	348.2	365.0	512.27 µg/L	512.27 ppb	04:54:58
1	U 409.014†	6291.3	5994.2	488.47 µg/L	488.47 ppb	04:54:38
1	V 292.402†	50963.3	50287.1	516.30 µg/L	516.30 ppb	04:54:38
1	Zn 213.857†	21632.4	20776.7	510.94 µg/L	510.94 ppb	04:54:38
2	Sc RADIAL	54017.7	54017.7	102 %		04:53:34
2	Al 396.153Radial†	7041.0	6905.1	4994.2 µg/L	4994.2 ppb	04:53:34
2	Ca 317.933Radial†	5625.1	5312.3	5027.1 µg/L	5027.1 ppb	04:53:54
2	Fe 238.204 Radial†	588.0	558.7	5059.3 µg/L	5059.3 ppb	04:53:54
2	K 766.490 Radial†	7734.0	7308.6	4997.8 µg/L	4997.8 ppb	04:53:34
2	Mg 279.077 IEC†	544.2	518.9	4973.8 µg/L	4973.8 ppb	04:53:54
2	Na 589.592 Radial†	33235.8	31877.4	9858.8 µg/L	9858.8 ppb	04:53:34
2	Sr 421.552†	51272.7	50066.1	497.58 µg/L	497.58 ppb	04:53:34
2	Sc 361.383	1918457.7	1918457.7	100.80 %		04:55:05
2	Y 371.029	1317383.2	1317383.2	100.46 %		04:55:05
2	Ag 328.068†	66189.5	66166.2	507.81 µg/L	507.81 ppb	04:55:11
2	As 188.979†	278.1	275.1	523.50 µg/L	523.50 ppb	04:55:31
2	B 249.677†	12287.2	11736.1	500.06 µg/L	500.06 ppb	04:55:11
2	Ba 233.527†	20337.8	20197.8	518.95 µg/L	518.95 ppb	04:55:11
2	Be 313.107†	820491.1	817557.5	507.38 µg/L	507.38 ppb	04:55:05
2	Cd 226.502†	19476.4	19452.1	523.93 µg/L	523.93 ppb	04:55:11
2	Co 228.616†	10850.3	10772.2	520.13 µg/L	520.13 ppb	04:55:11
2	Cr 267.716†	24709.8	24561.0	520.59 µg/L	520.59 ppb	04:55:11
2	Cu 324.752†	79470.3	75604.4	506.09 µg/L	506.09 ppb	04:55:11
2	Mn 257.610†	155706.5	154709.1	518.83 µg/L	518.83 ppb	04:55:05
2	Mo 202.031†	5019.7	4984.1	515.78 µg/L	515.78 ppb	04:55:31
2	Ni 231.604†	10210.8	9842.2	521.70 µg/L	521.70 ppb	04:55:11
2	P 214.914†	1267.1	1234.8	2541.8 µg/L	2541.8 ppb	04:55:31
2	Pb 220.353†	2118.8	2019.5	518.95 µg/L	518.95 ppb	04:55:31

2	S 181.975 Axial†	258.9	240.5	1042.8 µg/L	1042.8 ppb	04:55:31
2	Sb 206.836†	566.1	539.8	514.00 µg/L	514.00 ppb	04:55:31
2	Se 196.026†	366.0	347.3	522.93 µg/L	522.93 ppb	04:55:31
2	SiO2†	32824.0	31019.5	6422.5 µg/L	6422.5 ppb	04:55:11
2	Si 251.611†	38065.4	37430.3	3003.7 µg/L	3003.7 ppb	04:55:11
2	Sn 189.927†	1167.3	1157.4	516.83 µg/L	516.83 ppb	04:55:31
2	Ti 334.940†	221442.7	219619.0	503.13 µg/L	503.13 ppb	04:55:05
2	Tl 190.801†	353.8	372.8	523.02 µg/L	523.02 ppb	04:55:31
2	U 409.014†	6407.2	6148.9	501.10 µg/L	501.10 ppb	04:55:11
2	V 292.402†	51063.7	50708.3	520.58 µg/L	520.58 ppb	04:55:11
2	Zn 213.857†	21674.5	20955.0	515.34 µg/L	515.34 ppb	04:55:11
3	Sc RADIAL	53790.1	53790.1	102 %		04:54:00
3	Al 396.153Radial†	6944.7	6839.9	4948.6 µg/L	4948.6 ppb	04:54:00
3	Ca 317.933Radial†	5499.7	5212.5	4932.7 µg/L	4932.7 ppb	04:54:20
3	Fe 238.204 Radial†	574.6	547.9	4961.3 µg/L	4961.3 ppb	04:54:20
3	K 766.490 Radial†	7602.1	7211.2	4931.2 µg/L	4931.2 ppb	04:54:00
3	Mg 279.077 IEC†	533.6	510.8	4894.6 µg/L	4894.6 ppb	04:54:20
3	Na 589.592 Radial†	32893.5	31678.9	9797.5 µg/L	9797.5 ppb	04:54:00
3	Sr 421.552†	50787.6	49802.1	494.96 µg/L	494.96 ppb	04:54:00
3	Sc 361.383	1934662.6	1934662.6	101.65 %		04:55:38
3	Y 371.029	1327439.0	1327439.0	101.22 %		04:55:38
3	Ag 328.068†	62066.5	61560.0	472.33 µg/L	472.33 ppb	04:55:44
3	As 188.979†	240.7	235.9	448.99 µg/L	448.99 ppb	04:56:05
3	B 249.677†	11410.4	10771.4	458.75 µg/L	458.75 ppb	04:55:44
3	Ba 233.527†	18491.0	18211.9	467.91 µg/L	467.91 ppb	04:55:44
3	Be 313.107†	780824.6	771715.1	478.93 µg/L	478.93 ppb	04:55:38
3	Cd 226.502†	17656.0	17499.4	471.29 µg/L	471.29 ppb	04:55:44
3	Co 228.616†	9772.9	9622.1	464.52 µg/L	464.52 ppb	04:55:44
3	Cr 267.716†	21677.9	21372.9	453.02 µg/L	453.02 ppb	04:55:44
3	Cu 324.752†	71970.0	67565.2	452.34 µg/L	452.34 ppb	04:55:44
3	Mn 257.610†	148964.1	146782.0	492.26 µg/L	492.26 ppb	04:55:38
3	Mo 202.031†	4246.8	4182.0	432.81 µg/L	432.81 ppb	04:56:05
3	Ni 231.604†	9285.8	8847.4	468.98 µg/L	468.98 ppb	04:55:44
3	P 214.914†	1087.8	1047.9	2154.2 µg/L	2154.2 ppb	04:56:05
3	Pb 220.353†	1856.3	1743.7	448.02 µg/L	448.02 ppb	04:56:05
3	S 181.975 Axial†	232.4	212.3	920.63 µg/L	920.63 ppb	04:56:05
3	Sb 206.836†	492.8	463.0	440.62 µg/L	440.62 ppb	04:56:05
3	Se 196.026†	323.4	302.4	456.14 µg/L	456.14 ppb	04:56:05
3	SiO2†	31012.1	28964.2	5996.9 µg/L	5996.9 ppb	04:55:44
3	Si 251.611†	35852.1	34936.5	2803.6 µg/L	2803.6 ppb	04:55:44
3	Sn 189.927†	982.1	965.5	431.16 µg/L	431.16 ppb	04:56:05
3	Ti 334.940†	210050.8	206571.5	473.23 µg/L	473.23 ppb	04:55:38
3	Tl 190.801†	319.4	336.0	471.71 µg/L	471.71 ppb	04:56:05
3	U 409.014†	5655.9	5356.5	436.41 µg/L	436.41 ppb	04:55:44
3	V 292.402†	45616.4	44924.9	461.05 µg/L	461.05 ppb	04:55:44
3	Zn 213.857†	19596.6	18730.7	460.58 µg/L	460.58 ppb	04:55:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1927953.9	101.29 %	0.444			0.44%
Sc RADIAL	53925.4	102 %	0.2			0.22%
Y 371.029	1323020.6	100.89 %	0.392			0.39%
Ag 328.068†	64408.8	494.28 µg/L	19.185	494.28 ppb	19.185	3.88%
QC value within limits for Ag 328.068 Recovery = 98.86%						
Al 396.153Radial†	6859.7	4961.8 µg/L	28.23	4961.8 ppb	28.23	0.57%
QC value within limits for Al 396.153Radial Recovery = 99.24%						
As 188.979†	260.5	495.79 µg/L	40.757	495.79 ppb	40.757	8.22%
QC value within limits for As 188.979 Recovery = 99.16%						
B 249.677†	11373.1	484.52 µg/L	22.474	484.52 ppb	22.474	4.64%
QC value within limits for B 249.677 Recovery = 96.90%						
Ba 233.527†	19487.3	500.68 µg/L	28.448	500.68 ppb	28.448	5.68%
QC value within limits for Ba 233.527 Recovery = 100.14%						
Be 313.107†	803051.9	498.38 µg/L	16.857	498.38 ppb	16.857	3.38%
QC value within limits for Be 313.107 Recovery = 99.68%						
Ca 317.933Radial†	5272.5	4989.5 µg/L	50.08	4989.5 ppb	50.08	1.00%
QC value within limits for Ca 317.933Radial Recovery = 99.79%						
Cd 226.502†	18735.8	504.62 µg/L	28.988	504.62 ppb	28.988	5.74%
QC value within limits for Cd 226.502 Recovery = 100.92%						
Co 228.616†	10355.6	499.99 µg/L	30.810	499.99 ppb	30.810	6.16%

Cr	267.716†	23445.5	496.95 µg/L	38.078	496.95 ppb	38.078	7.66%
Cu	324.752†	72695.6	486.64 µg/L	29.796	486.64 ppb	29.796	6.12%
Fe	238.204 Radial†	554.4	5020.6 µg/L	52.11	5020.6 ppb	52.11	1.04%
K	766.490 Radial†	7262.1	4966.1 µg/L	33.42	4966.1 ppb	33.42	0.67%
Mg	279.077 IEC†	518.6	4970.1 µg/L	73.71	4970.1 ppb	73.71	1.48%
Mn	257.610†	152070.2	509.98 µg/L	15.348	509.98 ppb	15.348	3.01%
Mo	202.031†	4724.0	488.87 µg/L	48.570	488.87 ppb	48.570	9.94%
Na	589.592 Radial†	31747.4	9818.6 µg/L	34.84	9818.6 ppb	34.84	0.35%
Ni	231.604†	9485.7	502.81 µg/L	29.361	502.81 ppb	29.361	5.84%
P	214.914†	1173.0	2413.8 µg/L	224.85	2413.8 ppb	224.85	9.32%
Pb	220.353†	1930.3	496.00 µg/L	41.571	496.00 ppb	41.571	8.38%
S	181.975 Axial†	229.1	993.53 µg/L	64.430	993.53 ppb	64.430	6.48%
Sb	206.836†	509.0	484.62 µg/L	38.817	484.62 ppb	38.817	8.01%
Se	196.026†	334.5	503.78 µg/L	41.520	503.78 ppb	41.520	8.24%
SiO2†		30002.8	6212.0 µg/L	212.81	6212.0 ppb	212.81	3.43%
Si	251.611†	36217.8	2906.4 µg/L	100.17	2906.4 ppb	100.17	3.45%
Sn	189.927†	1098.0	490.32 µg/L	51.328	490.32 ppb	51.328	10.47%
Sr	421.552†	49831.5	495.25 µg/L	2.201	495.25 ppb	2.201	0.44%
Ti	334.940†	215477.5	493.64 µg/L	17.691	493.64 ppb	17.691	3.58%
Tl	190.801†	357.9	502.33 µg/L	27.060	502.33 ppb	27.060	5.39%
U	409.014†	5833.2	475.33 µg/L	34.286	475.33 ppb	34.286	7.21%
V	292.402†	48640.1	499.31 µg/L	33.204	499.31 ppb	33.204	6.65%
Zn	213.857†	20154.2	495.62 µg/L	30.426	495.62 ppb	30.426	6.14%

QC value within limits for Co 228.616 Recovery = 100.00%

QC value within limits for Cr 267.716 Recovery = 99.39%

QC value within limits for Cu 324.752 Recovery = 97.33%

QC value within limits for Fe 238.204 Radial Recovery = 100.41%

QC value within limits for K 766.490 Radial Recovery = 99.32%

QC value within limits for Mg 279.077 IEC Recovery = 99.40%

QC value within limits for Mn 257.610 Recovery = 102.00%

QC value within limits for Mo 202.031 Recovery = 97.77%

QC value within limits for Na 589.592 Radial Recovery = 98.19%

QC value within limits for Ni 231.604 Recovery = 100.56%

QC value within limits for P 214.914 Recovery = 96.55%

QC value within limits for Pb 220.353 Recovery = 99.20%

QC value within limits for S 181.975 Axial Recovery = 99.35%

QC value within limits for Sb 206.836 Recovery = 96.92%

QC value within limits for Se 196.026 Recovery = 100.76%

QC value greater than the upper limit for SiO2 Recovery = 116.17%

QC value greater than the upper limit for Si 251.611 Recovery = 116.26%

QC value within limits for Sn 189.927 Recovery = 98.06%

QC value within limits for Sr 421.552 Recovery = 99.05%

QC value within limits for Ti 334.940 Recovery = 98.73%

QC value within limits for Tl 190.801 Recovery = 100.47%

QC value within limits for U 409.014 Recovery = 95.07%

QC value within limits for V 292.402 Recovery = 99.86%

QC value within limits for Zn 213.857 Recovery = 99.12%

QC Failed. Continue with analysis.

Sequence No.: 23

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 04:56:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53511.1	53511.1	101 %		04:56:47
1	Al 396.153Radial†	-14.6	12.0	8.6890 µg/L	8.6890 ppb	04:56:47
1	Ca 317.933Radial†	180.6	-5.2	-4.8782 µg/L	-4.8782 ppb	04:57:08
1	Fe 238.204 Radial†	16.6	0.6	5.1385 µg/L	5.1385 ppb	04:57:08
1	K 766.490 Radial†	189.8	-60.0	-41.028 µg/L	-41.028 ppb	04:56:47
1	Mg 279.077 IEC†	10.6	-2.3	-21.608 µg/L	-21.608 ppb	04:57:08
1	Na 589.592 Radial†	525.5	-74.3	-22.973 µg/L	-22.973 ppb	04:56:47
1	Sr 421.552†	43.1	17.5	0.1742 µg/L	0.1742 ppb	04:56:47
1	Sc 361.383	1931257.9	1931257.9	101.47 %		04:58:09
1	Y 371.029	1329573.7	1329573.7	101.38 %		04:58:09
1	Ag 328.068†	-432.3	72.7	0.5534 µg/L	0.5534 ppb	04:58:15
1	As 188.979†	1.5	0.6	1.2081 µg/L	1.2081 ppb	04:58:35
1	B 249.677†	350.5	-108.7	-4.6507 µg/L	-4.6507 ppb	04:58:35
1	Ba 233.527†	-17.2	3.5	0.0903 µg/L	0.0903 ppb	04:58:35
1	Be 313.107†	-3506.5	82.5	0.0510 µg/L	0.0510 ppb	04:58:15
1	Cd 226.502†	-134.2	-2.9	-0.0787 µg/L	-0.0787 ppb	04:58:35
1	Co 228.616†	0.5	7.9	0.3833 µg/L	0.3833 ppb	04:58:35
1	Cr 267.716†	-23.6	22.9	0.4846 µg/L	0.4846 ppb	04:58:35
1	Cu 324.752†	3359.4	71.7	0.4802 µg/L	0.4802 ppb	04:58:15
1	Mn 257.610†	-205.7	28.1	0.0958 µg/L	0.0958 ppb	04:58:35
1	Mo 202.031†	0.3	4.3	0.4456 µg/L	0.4456 ppb	04:58:35
1	Ni 231.604†	292.2	-0.0	-0.0016 µg/L	-0.0016 ppb	04:58:35
1	P 214.914†	22.3	-0.4	-0.7891 µg/L	-0.7891 ppb	04:58:35
1	Pb 220.353†	90.6	6.7	1.7326 µg/L	1.7326 ppb	04:58:35
1	S 181.975 Axial†	16.0	-0.6	-2.6698 µg/L	-2.6698 ppb	04:58:35
1	Sb 206.836†	19.3	-2.8	-2.6819 µg/L	-2.6819 ppb	04:58:35
1	Se 196.026†	12.6	-3.4	-4.9502 µg/L	-4.9502 ppb	04:58:35
1	SiO2†	2644.7	1060.8	219.64 µg/L	219.64 ppb	04:58:15
1	Si 251.611†	1695.5	1336.1	107.22 µg/L	107.22 ppb	04:58:35
1	Sn 189.927†	2.9	2.2	0.9591 µg/L	0.9591 ppb	04:58:35
1	Ti 334.940†	294.1	212.9	0.4896 µg/L	0.4896 ppb	04:58:15
1	Tl 190.801†	-20.8	1.2	1.6185 µg/L	1.6185 ppb	04:58:35
1	U 409.014†	169.6	-40.6	-3.3174 µg/L	-3.3174 ppb	04:58:15
1	V 292.402†	-66.1	-17.7	-0.1783 µg/L	-0.1783 ppb	04:58:15
1	Zn 213.857†	527.0	-29.1	-0.7203 µg/L	-0.7203 ppb	04:58:35
2	Sc RADIAL	52632.0	52632.0	99.7 %		04:57:13
2	Al 396.153Radial†	-12.3	14.1	10.207 µg/L	10.207 ppb	04:57:13
2	Ca 317.933Radial†	189.7	7.0	6.6213 µg/L	6.6213 ppb	04:57:33
2	Fe 238.204 Radial†	17.5	1.8	16.177 µg/L	16.177 ppb	04:57:33
2	K 766.490 Radial†	204.0	-42.7	-29.170 µg/L	-29.170 ppb	04:57:13
2	Mg 279.077 IEC†	9.3	-3.4	-32.421 µg/L	-32.421 ppb	04:57:33
2	Na 589.592 Radial†	499.0	-92.2	-28.508 µg/L	-28.508 ppb	04:57:13
2	Sr 421.552†	58.5	33.6	0.3343 µg/L	0.3343 ppb	04:57:13
2	Sc 361.383	1910584.5	1910584.5	100.38 %		04:58:41
2	Y 371.029	1315948.3	1315948.3	100.35 %		04:58:41
2	Ag 328.068†	-453.1	47.4	0.3629 µg/L	0.3629 ppb	04:58:47
2	As 188.979†	0.1	-0.7	-1.3631 µg/L	-1.3631 ppb	04:59:07
2	B 249.677†	329.0	-126.4	-5.4149 µg/L	-5.4149 ppb	04:59:07
2	Ba 233.527†	-14.0	6.5	0.1672 µg/L	0.1672 ppb	04:59:07
2	Be 313.107†	-3393.3	157.8	0.0978 µg/L	0.0978 ppb	04:58:47
2	Cd 226.502†	-137.3	-7.4	-0.2003 µg/L	-0.2003 ppb	04:59:07
2	Co 228.616†	3.1	10.5	0.5063 µg/L	0.5063 ppb	04:59:07
2	Cr 267.716†	-37.8	8.5	0.1799 µg/L	0.1799 ppb	04:59:07
2	Cu 324.752†	3258.3	6.8	0.0480 µg/L	0.0480 ppb	04:58:47
2	Mn 257.610†	-176.9	54.6	0.1864 µg/L	0.1864 ppb	04:59:07
2	Mo 202.031†	0.1	4.2	0.4346 µg/L	0.4346 ppb	04:59:07
2	Ni 231.604†	313.9	24.7	1.3096 µg/L	1.3096 ppb	04:59:07
2	P 214.914†	17.2	-5.2	-10.821 µg/L	-10.821 ppb	04:59:07
2	Pb 220.353†	86.7	3.8	0.9686 µg/L	0.9686 ppb	04:59:07

2	S 181.975 Axial†	19.4	2.9	12.788 µg/L	12.788 ppb	04:59:07
2	Sb 206.836†	25.2	3.3	3.1255 µg/L	3.1255 ppb	04:59:07
2	Se 196.026†	9.6	-6.3	-9.2434 µg/L	-9.2434 ppb	04:59:07
2	SiO2†	2850.9	1294.5	268.02 µg/L	268.02 ppb	04:58:47
2	Si 251.611†	1902.2	1560.1	125.20 µg/L	125.20 ppb	04:59:07
2	Sn 189.927†	4.9	4.2	1.8827 µg/L	1.8827 ppb	04:59:07
2	Ti 334.940†	254.6	176.6	0.4076 µg/L	0.4076 ppb	04:58:47
2	Tl 190.801†	-18.8	3.0	4.1588 µg/L	4.1588 ppb	04:59:07
2	U 409.014†	257.4	48.6	3.9683 µg/L	3.9683 ppb	04:58:47
2	V 292.402†	-41.7	5.9	0.0700 µg/L	0.0700 ppb	04:58:47
2	Zn 213.857†	522.0	-28.5	-0.7109 µg/L	-0.7109 ppb	04:59:07
3	Sc RADIAL	53107.7	53107.7	101 %		04:57:39
3	Al 396.153Radial†	-19.1	7.4	5.3978 µg/L	5.3978 ppb	04:57:39
3	Ca 317.933Radial†	180.2	-4.1	-3.9055 µg/L	-3.9055 ppb	04:57:59
3	Fe 238.204 Radial†	19.2	3.3	29.719 µg/L	29.719 ppb	04:57:59
3	K 766.490 Radial†	192.9	-55.5	-37.950 µg/L	-37.950 ppb	04:57:39
3	Mg 279.077 IEC†	13.8	1.0	9.8520 µg/L	9.8520 ppb	04:57:59
3	Na 589.592 Radial†	489.0	-106.6	-32.960 µg/L	-32.960 ppb	04:57:39
3	Sr 421.552†	56.9	31.5	0.3130 µg/L	0.3130 ppb	04:57:39
3	Sc 361.383	1905196.0	1905196.0	100.10 %		04:59:14
3	Y 371.029	1310662.1	1310662.1	99.943 %		04:59:14
3	Ag 328.068†	-437.2	62.0	0.4731 µg/L	0.4731 ppb	04:59:19
3	As 188.979†	-1.2	-2.1	-3.9280 µg/L	-3.9280 ppb	04:59:40
3	B 249.677†	338.9	-115.7	-4.9612 µg/L	-4.9612 ppb	04:59:40
3	Ba 233.527†	-12.9	7.6	0.1954 µg/L	0.1954 ppb	04:59:40
3	Be 313.107†	-3242.5	298.9	0.1854 µg/L	0.1854 ppb	04:59:19
3	Cd 226.502†	-128.8	0.7	0.0151 µg/L	0.0151 ppb	04:59:40
3	Co 228.616†	7.4	14.8	0.7149 µg/L	0.7149 ppb	04:59:40
3	Cr 267.716†	-26.9	19.3	0.4083 µg/L	0.4083 ppb	04:59:40
3	Cu 324.752†	3256.8	14.5	0.1014 µg/L	0.1014 ppb	04:59:19
3	Mn 257.610†	-157.4	73.6	0.2501 µg/L	0.2501 ppb	04:59:40
3	Mo 202.031†	-4.2	-0.1	-0.0135 µg/L	-0.0135 ppb	04:59:40
3	Ni 231.604†	301.7	13.4	0.7122 µg/L	0.7122 ppb	04:59:40
3	P 214.914†	22.4	0.1	0.1556 µg/L	0.1556 ppb	04:59:40
3	Pb 220.353†	96.3	13.7	3.5129 µg/L	3.5129 ppb	04:59:40
3	S 181.975 Axial†	16.4	0.0	0.0188 µg/L	0.0188 ppb	04:59:40
3	Sb 206.836†	20.6	-1.3	-1.2048 µg/L	-1.2048 ppb	04:59:40
3	Se 196.026†	15.9	0.1	0.1795 µg/L	0.1795 ppb	04:59:40
3	SiO2†	3012.1	1463.6	303.03 µg/L	303.03 ppb	04:59:19
3	Si 251.611†	2055.9	1719.0	137.95 µg/L	137.95 ppb	04:59:40
3	Sn 189.927†	-0.7	-1.4	-0.6238 µg/L	-0.6238 ppb	04:59:40
3	Ti 334.940†	286.6	209.3	0.4790 µg/L	0.4790 ppb	04:59:19
3	Tl 190.801†	-14.4	7.3	10.151 µg/L	10.151 ppb	04:59:40
3	U 409.014†	222.3	14.3	1.1622 µg/L	1.1622 ppb	04:59:19
3	V 292.402†	-62.5	-15.0	-0.1465 µg/L	-0.1465 ppb	04:59:19
3	Zn 213.857†	526.1	-22.9	-0.5734 µg/L	-0.5734 ppb	04:59:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1915679.5	100.65 %	0.723			0.72%
Sc RADIAL	53083.6	101 %	0.8			0.83%
Y 371.029	1318728.0	100.56 %	0.744			0.74%
Ag 328.068†	60.7	0.4631 µg/L	0.09563	0.4631 ppb	0.09563	20.65%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	11.2	8.0978 µg/L	2.45832	8.0978 ppb	2.45832	30.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.7	-1.3610 µg/L	2.56807	-1.3610 ppb	2.56807	188.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-116.9	-5.0089 µg/L	0.38430	-5.0089 ppb	0.38430	7.67%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.9	0.1509 µg/L	0.05437	0.1509 ppb	0.05437	36.02%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	179.8	0.1114 µg/L	0.06821	0.1114 ppb	0.06821	61.22%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-0.8	-0.7208 µg/L	6.37705	-0.7208 ppb	6.37705	884.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.2	-0.0880 µg/L	0.10802	-0.0880 ppb	0.10802	122.77%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.1	0.5348 µg/L	0.16763	0.5348 ppb	0.16763	31.34%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	16.9	0.3576 µg/L	0.15856	0.3576 ppb	0.15856	44.34%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	31.0	0.2099 µg/L	0.23566	0.2099 ppb	0.23566	112.30%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	1.9	17.011 µg/L	12.3113	17.011 ppb	12.3113	72.37%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-52.7	-36.049 µg/L	6.1534	-36.049 ppb	6.1534	17.07%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-1.5	-14.725 µg/L	21.9606	-14.725 ppb	21.9606	149.13%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	52.1	0.1774 µg/L	0.07758	0.1774 ppb	0.07758	43.73%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	2.8	0.2889 µg/L	0.26192	0.2889 ppb	0.26192	90.66%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-91.0	-28.147 µg/L	5.0029	-28.147 ppb	5.0029	17.77%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	12.7	0.6734 µg/L	0.65644	0.6734 ppb	0.65644	97.48%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-1.8	-3.8181 µg/L	6.08294	-3.8181 ppb	6.08294	159.32%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	8.1	2.0714 µg/L	1.30553	2.0714 ppb	1.30553	63.03%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	0.8	3.3791 µg/L	8.25865	3.3791 ppb	8.25865	244.41%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	-0.3	-0.2537 µg/L	3.01824	-0.2537 ppb	3.01824	>999.9%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-3.2	-4.6713 µg/L	4.71763	-4.6713 ppb	4.71763	100.99%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	1273.0	263.56 µg/L	41.875	263.56 ppb	41.875	15.89%
Si 251.611†	QC value greater than the upper limit for SiO2	Recovery = Not calculated				
	1538.4	123.46 µg/L	15.438	123.46 ppb	15.438	12.50%
Sn 189.927†	QC value greater than the upper limit for Si 251.611	Recovery = Not calculated				
	1.7	0.7393 µg/L	1.26763	0.7393 ppb	1.26763	171.45%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	27.6	0.2738 µg/L	0.08696	0.2738 ppb	0.08696	31.76%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	199.6	0.4587 µg/L	0.04461	0.4587 ppb	0.04461	9.73%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	3.8	5.3094 µg/L	4.38104	5.3094 ppb	4.38104	82.51%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	7.4	0.6043 µg/L	3.67475	0.6043 ppb	3.67475	608.06%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	-8.9	-0.0849 µg/L	0.13509	-0.0849 ppb	0.13509	159.03%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	-26.8	-0.6682 µg/L	0.08227	-0.6682 ppb	0.08227	12.31%
	QC value within limits for Zn 213.857	Recovery = Not calculated				
	QC Failed.	Continue with analysis.				

Sequence No.: 31
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 2/25/2010 05:25:14
 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	53937.8	53937.8	102 %		05:25:50
1	Al 396.153Radial†	6717.4	6598.8	4772.4 µg/L	4772.4 ppb	05:25:50
1	Ca 317.933Radial†	5408.2	5108.2	4834.0 µg/L	4834.0 ppb	05:26:10
1	Fe 238.204 Radial†	570.4	542.4	4911.6 µg/L	4911.6 ppb	05:26:10
1	K 766.490 Radial†	7493.0	7084.0	4844.3 µg/L	4844.3 ppb	05:25:50
1	Mg 279.077 IEC†	531.1	506.9	4858.8 µg/L	4858.8 ppb	05:26:10
1	Na 589.592 Radial†	32104.2	30818.3	9531.3 µg/L	9531.3 ppb	05:25:50
1	Sr 421.552†	49175.0	48088.0	477.92 µg/L	477.92 ppb	05:25:50
1	Sc 361.383	1937011.9	1937011.9	101.77 %		05:27:13
1	Y 371.029	1328756.5	1328756.5	101.32 %		05:27:13
1	Ag 328.068†	64822.7	64194.2	492.65 µg/L	492.65 ppb	05:27:19
1	As 188.979†	279.2	273.5	520.48 µg/L	520.48 ppb	05:27:40
1	B 249.677†	12023.0	11359.7	484.01 µg/L	484.01 ppb	05:27:19
1	Ba 233.527†	19831.9	19507.5	501.21 µg/L	501.21 ppb	05:27:19
1	Be 313.107†	801575.8	791173.7	491.01 µg/L	491.01 ppb	05:27:13
1	Cd 226.502†	18981.0	18780.3	505.84 µg/L	505.84 ppb	05:27:19
1	Co 228.616†	10551.6	10375.6	500.99 µg/L	500.99 ppb	05:27:19
1	Cr 267.716†	24063.3	23690.9	502.15 µg/L	502.15 ppb	05:27:19
1	Cu 324.752†	77781.5	73189.7	489.93 µg/L	489.93 ppb	05:27:19
1	Mn 257.610†	152019.7	149606.8	501.72 µg/L	501.72 ppb	05:27:13
1	Mo 202.031†	4950.7	4868.7	503.84 µg/L	503.84 ppb	05:27:40
1	Ni 231.604†	9993.9	9532.1	505.27 µg/L	505.27 ppb	05:27:19
1	P 214.914†	1250.1	1206.0	2483.1 µg/L	2483.1 ppb	05:27:40
1	Pb 220.353†	2086.6	1967.8	505.66 µg/L	505.66 ppb	05:27:40
1	S 181.975 Axial†	251.9	231.2	1002.5 µg/L	1002.5 ppb	05:27:40
1	Sb 206.836†	553.0	521.6	496.74 µg/L	496.74 ppb	05:27:40
1	Se 196.026†	359.6	337.5	508.11 µg/L	508.11 ppb	05:27:40
1	SiO2†	27789.7	25760.8	5333.7 µg/L	5333.7 ppb	05:27:19
1	Si 251.611†	32001.0	31109.6	2496.5 µg/L	2496.5 ppb	05:27:19
1	Sn 189.927†	1152.4	1131.7	505.36 µg/L	505.36 ppb	05:27:40
1	Ti 334.940†	215245.5	211425.1	484.36 µg/L	484.36 ppb	05:27:13
1	Tl 190.801†	349.2	364.8	511.82 µg/L	511.82 ppb	05:27:40
1	U 409.014†	6163.0	5848.1	476.56 µg/L	476.56 ppb	05:27:19
1	V 292.402†	49669.1	48852.7	501.58 µg/L	501.58 ppb	05:27:19
1	Zn 213.857†	21209.8	20292.5	499.04 µg/L	499.04 ppb	05:27:19
2	Sc RADIAL	54473.8	54473.8	103 %		05:26:15
2	Al 396.153Radial†	6790.0	6604.4	4776.6 µg/L	4776.6 ppb	05:26:15
2	Ca 317.933Radial†	5381.1	5029.9	4759.9 µg/L	4759.9 ppb	05:26:36
2	Fe 238.204 Radial†	572.0	538.4	4875.5 µg/L	4875.5 ppb	05:26:36
2	K 766.490 Radial†	7524.1	7042.0	4815.5 µg/L	4815.5 ppb	05:26:15
2	Mg 279.077 IEC†	527.1	497.9	4772.6 µg/L	4772.6 ppb	05:26:36
2	Na 589.592 Radial†	32333.5	30731.5	9504.4 µg/L	9504.4 ppb	05:26:15
2	Sr 421.552†	49640.3	48065.3	477.69 µg/L	477.69 ppb	05:26:15
2	Sc 361.383	1946387.6	1946387.6	102.26 %		05:27:47
2	Y 371.029	1335535.9	1335535.9	101.84 %		05:27:47
2	Ag 328.068†	64510.7	63582.3	487.96 µg/L	487.96 ppb	05:27:53
2	As 188.979†	270.2	263.3	501.11 µg/L	501.11 ppb	05:28:13
2	B 249.677†	12036.7	11316.2	482.16 µg/L	482.16 ppb	05:27:53
2	Ba 233.527†	19748.2	19331.7	496.69 µg/L	496.69 ppb	05:27:53
2	Be 313.107†	805861.5	791570.6	491.25 µg/L	491.25 ppb	05:27:47
2	Cd 226.502†	18933.5	18643.9	502.16 µg/L	502.16 ppb	05:27:53
2	Co 228.616†	10563.9	10337.6	499.15 µg/L	499.15 ppb	05:27:53
2	Cr 267.716†	23969.1	23484.9	497.78 µg/L	497.78 ppb	05:27:53
2	Cu 324.752†	77448.5	72495.9	485.29 µg/L	485.29 ppb	05:27:53
2	Mn 257.610†	152392.7	149252.0	500.53 µg/L	500.53 ppb	05:27:47
2	Mo 202.031†	4923.8	4818.9	498.69 µg/L	498.69 ppb	05:28:13
2	Ni 231.604†	9969.0	9460.5	501.47 µg/L	501.47 ppb	05:27:53
2	P 214.914†	1240.9	1191.1	2452.3 µg/L	2452.3 ppb	05:28:13
2	Pb 220.353†	2090.4	1961.6	504.09 µg/L	504.09 ppb	05:28:13

2	S 181.975 Axial†	257.6	235.5	1021.3 µg/L	1021.3 ppb	05:28:13
2	Sb 206.836†	546.7	512.8	488.37 µg/L	488.37 ppb	05:28:13
2	Se 196.026†	362.2	338.4	509.46 µg/L	509.46 ppb	05:28:13
2	SiO2†	27735.5	25576.3	5295.5 µg/L	5295.5 ppb	05:27:53
2	Si 251.611†	31877.9	30837.8	2474.7 µg/L	2474.7 ppb	05:27:53
2	Sn 189.927†	1150.8	1124.6	502.21 µg/L	502.21 ppb	05:28:13
2	Ti 334.940†	216211.7	211351.2	484.19 µg/L	484.19 ppb	05:27:47
2	Tl 190.801†	339.9	354.1	496.91 µg/L	496.91 ppb	05:28:13
2	U 409.014†	6210.1	5864.9	477.95 µg/L	477.95 ppb	05:27:53
2	V 292.402†	49439.7	48393.3	496.87 µg/L	496.87 ppb	05:27:53
2	Zn 213.857†	21176.7	20159.7	495.78 µg/L	495.78 ppb	05:27:53
3	Sc RADIAL	54833.9	54833.9	104 %		05:26:41
3	Al 396.153Radial†	6822.9	6592.9	4769.9 µg/L	4769.9 ppb	05:26:41
3	Ca 317.933Radial†	5401.6	5015.3	4746.1 µg/L	4746.1 ppb	05:27:02
3	Fe 238.204 Radial†	570.1	532.9	4825.4 µg/L	4825.4 ppb	05:27:02
3	K 766.490 Radial†	7567.5	7035.9	4811.3 µg/L	4811.3 ppb	05:26:41
3	Mg 279.077 IEC†	529.2	496.6	4758.8 µg/L	4758.8 ppb	05:27:02
3	Na 589.592 Radial†	32574.9	30758.0	9512.6 µg/L	9512.6 ppb	05:26:41
3	Sr 421.552†	50136.3	48226.9	479.30 µg/L	479.30 ppb	05:26:41
3	Sc 361.383	1952129.8	1952129.8	102.56 %		05:28:20
3	Y 371.029	1340747.8	1340747.8	102.24 %		05:28:20
3	Ag 328.068†	61052.4	60024.8	460.53 µg/L	460.53 ppb	05:28:26
3	As 188.979†	236.4	229.7	437.08 µg/L	437.08 ppb	05:28:46
3	B 249.677†	11293.6	10557.0	449.63 µg/L	449.63 ppb	05:28:26
3	Ba 233.527†	18106.4	17674.2	454.09 µg/L	454.09 ppb	05:28:26
3	Be 313.107†	758740.6	743309.8	461.30 µg/L	461.30 ppb	05:28:20
3	Cd 226.502†	17305.4	17002.1	457.90 µg/L	457.90 ppb	05:28:26
3	Co 228.616†	9585.2	9353.0	451.54 µg/L	451.54 ppb	05:28:26
3	Cr 267.716†	21156.2	20673.4	438.19 µg/L	438.19 ppb	05:28:26
3	Cu 324.752†	70725.0	65717.8	439.97 µg/L	439.97 ppb	05:28:26
3	Mn 257.610†	144282.6	140906.3	472.56 µg/L	472.56 ppb	05:28:20
3	Mo 202.031†	4127.1	4027.9	416.86 µg/L	416.86 ppb	05:28:46
3	Ni 231.604†	9049.6	8535.4	452.44 µg/L	452.44 ppb	05:28:26
3	P 214.914†	1080.2	1030.8	2119.5 µg/L	2119.5 ppb	05:28:46
3	Pb 220.353†	1806.0	1678.3	431.20 µg/L	431.20 ppb	05:28:46
3	S 181.975 Axial†	227.1	205.1	889.40 µg/L	889.40 ppb	05:28:46
3	Sb 206.836†	473.9	440.3	418.93 µg/L	418.93 ppb	05:28:46
3	Se 196.026†	322.7	298.8	450.67 µg/L	450.67 ppb	05:28:46
3	SiO2†	26047.8	23851.0	4938.3 µg/L	4938.3 ppb	05:28:26
3	Si 251.611†	29816.3	28736.0	2306.0 µg/L	2306.0 ppb	05:28:26
3	Sn 189.927†	951.3	926.8	413.88 µg/L	413.88 ppb	05:28:46
3	Ti 334.940†	202518.4	197378.4	452.16 µg/L	452.16 ppb	05:28:20
3	Tl 190.801†	306.4	320.4	449.94 µg/L	449.94 ppb	05:28:46
3	U 409.014†	5534.1	5188.0	422.68 µg/L	422.68 ppb	05:28:26
3	V 292.402†	44615.4	43547.5	446.89 µg/L	446.89 ppb	05:28:26
3	Zn 213.857†	19283.7	18253.1	448.86 µg/L	448.86 ppb	05:28:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1945176.4	102.20 %	0.401			0.39%
Sc RADIAL	54415.1	103 %	0.9			0.83%
Y 371.029	1335013.4	101.80 %	0.458			0.45%
Ag 328.068†	62600.4	480.38 µg/L	17.352	480.38 ppb	17.352	3.61%
QC value within limits for Ag 328.068 Recovery = 96.08%						
Al 396.153Radial†	6598.7	4773.0 µg/L	3.36	4773.0 ppb	3.36	0.07%
QC value within limits for Al 396.153Radial Recovery = 95.46%						
As 188.979†	255.5	486.22 µg/L	43.645	486.22 ppb	43.645	8.98%
QC value within limits for As 188.979 Recovery = 97.24%						
B 249.677†	11077.7	471.94 µg/L	19.339	471.94 ppb	19.339	4.10%
QC value within limits for B 249.677 Recovery = 94.39%						
Ba 233.527†	18837.8	484.00 µg/L	25.996	484.00 ppb	25.996	5.37%
QC value within limits for Ba 233.527 Recovery = 96.80%						
Be 313.107†	775351.4	481.19 µg/L	17.221	481.19 ppb	17.221	3.58%
QC value within limits for Be 313.107 Recovery = 96.24%						
Ca 317.933Radial†	5051.2	4780.0 µg/L	47.27	4780.0 ppb	47.27	0.99%
QC value within limits for Ca 317.933Radial Recovery = 95.60%						
Cd 226.502†	18142.1	488.63 µg/L	26.682	488.63 ppb	26.682	5.46%
QC value within limits for Cd 226.502 Recovery = 97.73%						
Co 228.616†	10022.0	483.89 µg/L	28.030	483.89 ppb	28.030	5.79%

QC value within limits for Co 228.616 Recovery = 96.78%					
Cr 267.716†	22616.4	479.37 µg/L	35.729	479.37 ppb	35.729 7.45%
QC value within limits for Cr 267.716 Recovery = 95.87%					
Cu 324.752†	70467.8	471.73 µg/L	27.601	471.73 ppb	27.601 5.85%
QC value within limits for Cu 324.752 Recovery = 94.35%					
Fe 238.204 Radial†	537.9	4870.9 µg/L	43.29	4870.9 ppb	43.29 0.89%
QC value within limits for Fe 238.204 Radial Recovery = 97.42%					
K 766.490 Radial†	7054.0	4823.7 µg/L	17.93	4823.7 ppb	17.93 0.37%
QC value within limits for K 766.490 Radial Recovery = 96.47%					
Mg 279.077 IEC†	500.5	4796.8 µg/L	54.21	4796.8 ppb	54.21 1.13%
QC value within limits for Mg 279.077 IEC Recovery = 95.94%					
Mn 257.610†	146588.3	491.60 µg/L	16.502	491.60 ppb	16.502 3.36%
QC value within limits for Mn 257.610 Recovery = 98.32%					
Mo 202.031†	4571.9	473.13 µg/L	48.798	473.13 ppb	48.798 10.31%
QC value within limits for Mo 202.031 Recovery = 94.63%					
Na 589.592 Radial†	30769.3	9516.1 µg/L	13.77	9516.1 ppb	13.77 0.14%
QC value within limits for Na 589.592 Radial Recovery = 95.16%					
Ni 231.604†	9176.0	486.39 µg/L	29.467	486.39 ppb	29.467 6.06%
QC value within limits for Ni 231.604 Recovery = 97.28%					
P 214.914†	1142.7	2351.6 µg/L	201.59	2351.6 ppb	201.59 8.57%
QC value within limits for P 214.914 Recovery = 94.07%					
Pb 220.353†	1869.2	480.31 µg/L	42.545	480.31 ppb	42.545 8.86%
QC value within limits for Pb 220.353 Recovery = 96.06%					
S 181.975 Axial†	223.9	971.07 µg/L	71.353	971.07 ppb	71.353 7.35%
QC value within limits for S 181.975 Axial Recovery = 97.11%					
Sb 206.836†	491.5	468.01 µg/L	42.711	468.01 ppb	42.711 9.13%
QC value within limits for Sb 206.836 Recovery = 93.60%					
Se 196.026†	324.9	489.42 µg/L	33.559	489.42 ppb	33.559 6.86%
QC value within limits for Se 196.026 Recovery = 97.88%					
SiO2†	25062.7	5189.1 µg/L	218.11	5189.1 ppb	218.11 4.20%
QC value within limits for SiO2 Recovery = 97.04%					
Si 251.611†	30227.8	2425.7 µg/L	104.25	2425.7 ppb	104.25 4.30%
QC value within limits for Si 251.611 Recovery = 97.03%					
Sn 189.927†	1061.0	473.82 µg/L	51.934	473.82 ppb	51.934 10.96%
QC value within limits for Sn 189.927 Recovery = 94.76%					
Sr 421.552†	48126.8	478.30 µg/L	0.869	478.30 ppb	0.869 0.18%
QC value within limits for Sr 421.552 Recovery = 95.66%					
Ti 334.940†	206718.2	473.57 µg/L	18.540	473.57 ppb	18.540 3.91%
QC value within limits for Ti 334.940 Recovery = 94.71%					
Tl 190.801†	346.5	486.22 µg/L	32.297	486.22 ppb	32.297 6.64%
QC value within limits for Tl 190.801 Recovery = 97.24%					
U 409.014†	5633.7	459.07 µg/L	31.516	459.07 ppb	31.516 6.87%
QC value within limits for U 409.014 Recovery = 91.81%					
V 292.402†	46931.2	481.78 µg/L	30.307	481.78 ppb	30.307 6.29%
QC value within limits for V 292.402 Recovery = 96.36%					
Zn 213.857†	19568.4	481.23 µg/L	28.081	481.23 ppb	28.081 5.84%
QC value within limits for Zn 213.857 Recovery = 96.25%					

All analyte(s) passed QC.

Sequence No.: 32

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 2/25/2010 05:28:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54056.3	54056.3	102 %		05:29:30
1	Al 396.153Radial†	265.0	285.2	206.49 µg/L	206.49 ppb	05:29:30
1	Ca 317.933Radial†	386.7	194.3	183.91 µg/L	183.91 ppb	05:29:50
1	Fe 238.204 Radial†	28.1	11.6	105.29 µg/L	105.29 ppb	05:29:50
1	K 766.490 Radial†	388.3	131.9	90.177 µg/L	90.177 ppb	05:29:30
1	Mg 279.077 IEC†	45.9	32.0	307.03 µg/L	307.03 ppb	05:29:50
1	Na 589.592 Radial†	1461.7	834.5	258.08 µg/L	258.08 ppb	05:29:30
1	Sr 421.552†	533.5	495.8	4.9275 µg/L	4.9275 ppb	05:29:30
1	Sc 361.383	1943976.1	1943976.1	102.14 %		05:30:53
1	Y 371.029	1341000.4	1341000.4	102.26 %		05:30:53
1	Ag 328.068†	214.1	708.4	5.4376 µg/L	5.4376 ppb	05:30:58
1	As 188.979†	20.6	19.3	36.838 µg/L	36.838 ppb	05:31:19
1	B 249.677†	1541.9	1055.5	45.090 µg/L	45.090 ppb	05:30:58
1	Ba 233.527†	169.3	186.3	4.7869 µg/L	4.7869 ppb	05:31:19
1	Be 313.107†	4721.0	8160.5	5.0644 µg/L	5.0644 ppb	05:30:58
1	Cd 226.502†	55.3	183.4	4.9349 µg/L	4.9349 ppb	05:31:19
1	Co 228.616†	99.5	104.8	5.0658 µg/L	5.0658 ppb	05:31:19
1	Cr 267.716†	205.5	247.3	5.2427 µg/L	5.2427 ppb	05:30:58
1	Cu 324.752†	4745.8	1407.5	9.4233 µg/L	9.4233 ppb	05:30:58
1	Mn 257.610†	2854.1	3025.2	10.138 µg/L	10.138 ppb	05:30:58
1	Mo 202.031†	99.2	101.2	10.471 µg/L	10.471 ppb	05:31:19
1	Ni 231.604†	393.7	97.5	5.1684 µg/L	5.1684 ppb	05:31:19
1	P 214.914†	95.0	70.7	147.43 µg/L	147.43 ppb	05:31:19
1	Pb 220.353†	124.8	39.6	10.136 µg/L	10.136 ppb	05:31:19
1	S 181.975 Axial†	41.7	24.5	106.28 µg/L	106.28 ppb	05:31:19
1	Sb 206.836†	35.5	12.9	12.342 µg/L	12.342 ppb	05:31:19
1	Se 196.026†	31.2	14.8	21.859 µg/L	21.859 ppb	05:31:19
1	SiO2†	2706.2	1104.1	228.60 µg/L	228.60 ppb	05:30:58
1	Si 251.611†	1680.0	1310.0	105.13 µg/L	105.13 ppb	05:30:58
1	Sn 189.927†	25.8	24.5	10.983 µg/L	10.983 ppb	05:31:19
1	Ti 334.940†	2392.4	2265.4	5.1718 µg/L	5.1718 ppb	05:30:58
1	Tl 190.801†	-6.2	15.7	21.901 µg/L	21.901 ppb	05:31:19
1	U 409.014†	891.9	665.5	54.316 µg/L	54.316 ppb	05:30:58
1	V 292.402†	468.7	506.3	5.2969 µg/L	5.2969 ppb	05:30:58
1	Zn 213.857†	904.6	337.2	8.2897 µg/L	8.2897 ppb	05:31:19
2	Sc RADIAL	54157.7	54157.7	103 %		05:29:56
2	Al 396.153Radial†	241.0	261.3	189.14 µg/L	189.14 ppb	05:29:56
2	Ca 317.933Radial†	389.1	195.9	185.42 µg/L	185.42 ppb	05:30:17
2	Fe 238.204 Radial†	28.0	11.6	104.64 µg/L	104.64 ppb	05:30:17
2	K 766.490 Radial†	464.9	205.8	140.74 µg/L	140.74 ppb	05:29:56
2	Mg 279.077 IEC†	44.5	30.6	293.64 µg/L	293.64 ppb	05:30:17
2	Na 589.592 Radial†	1448.0	818.5	253.13 µg/L	253.13 ppb	05:29:56
2	Sr 421.552†	567.2	527.7	5.2442 µg/L	5.2442 ppb	05:29:56
2	Sc 361.383	1950933.2	1950933.2	102.50 %		05:31:25
2	Y 371.029	1346457.0	1346457.0	102.67 %		05:31:25
2	Ag 328.068†	219.6	713.0	5.4706 µg/L	5.4706 ppb	05:31:30
2	As 188.979†	18.4	17.1	32.578 µg/L	32.578 ppb	05:31:51
2	B 249.677†	1543.5	1051.6	44.923 µg/L	44.923 ppb	05:31:30
2	Ba 233.527†	198.2	213.9	5.4934 µg/L	5.4934 ppb	05:31:51
2	Be 313.107†	4872.6	8292.0	5.1460 µg/L	5.1460 ppb	05:31:30
2	Cd 226.502†	49.7	177.9	4.7856 µg/L	4.7856 ppb	05:31:51
2	Co 228.616†	99.3	104.3	5.0422 µg/L	5.0422 ppb	05:31:51
2	Cr 267.716†	208.0	249.1	5.2790 µg/L	5.2790 ppb	05:31:30
2	Cu 324.752†	4760.0	1404.7	9.4047 µg/L	9.4047 ppb	05:31:30
2	Mn 257.610†	2877.0	3037.6	10.180 µg/L	10.180 ppb	05:31:30
2	Mo 202.031†	101.2	102.8	10.634 µg/L	10.634 ppb	05:31:51
2	Ni 231.604†	403.9	106.1	5.6255 µg/L	5.6255 ppb	05:31:51
2	P 214.914†	93.5	68.9	143.59 µg/L	143.59 ppb	05:31:51
2	Pb 220.353†	131.9	46.1	11.824 µg/L	11.824 ppb	05:31:51

2	S 181.975 Axial†	42.0	24.6	106.75 µg/L	106.75 ppb	05:31:51
2	Sb 206.836†	32.5	9.9	9.5159 µg/L	9.5159 ppb	05:31:51
2	Se 196.026†	36.2	19.5	28.946 µg/L	28.946 ppb	05:31:51
2	SiO2†	2714.4	1102.6	228.29 µg/L	228.29 ppb	05:31:30
2	Si 251.611†	1744.4	1366.9	109.69 µg/L	109.69 ppb	05:31:30
2	Sn 189.927†	22.9	21.7	9.6903 µg/L	9.6903 ppb	05:31:51
2	Ti 334.940†	2358.8	2224.3	5.0786 µg/L	5.0786 ppb	05:31:30
2	Tl 190.801†	-5.8	16.1	22.465 µg/L	22.465 ppb	05:31:51
2	U 409.014†	814.8	587.1	47.917 µg/L	47.917 ppb	05:31:30
2	V 292.402†	439.5	476.2	4.9862 µg/L	4.9862 ppb	05:31:30
2	Zn 213.857†	911.5	340.8	8.3790 µg/L	8.3790 ppb	05:31:51
3	Sc RADIAL	53805.2	53805.2	102 %		05:30:22
3	Al 396.153Radial†	256.5	278.1	201.35 µg/L	201.35 ppb	05:30:22
3	Ca 317.933Radial†	391.9	201.2	190.36 µg/L	190.36 ppb	05:30:42
3	Fe 238.204 Radial†	27.3	11.0	99.531 µg/L	99.531 ppb	05:30:42
3	K 766.490 Radial†	432.9	177.4	121.32 µg/L	121.32 ppb	05:30:22
3	Mg 279.077 IEC†	38.6	25.2	241.08 µg/L	241.08 ppb	05:30:42
3	Na 589.592 Radial†	1450.3	829.9	256.68 µg/L	256.68 ppb	05:30:22
3	Sr 421.552†	576.5	540.5	5.3714 µg/L	5.3714 ppb	05:30:22
3	Sc 361.383	1955822.7	1955822.7	102.76 %		05:31:57
3	Y 371.029	1349352.1	1349352.1	102.89 %		05:31:57
3	Ag 328.068†	193.0	686.6	5.2703 µg/L	5.2703 ppb	05:32:03
3	As 188.979†	15.0	13.7	26.167 µg/L	26.167 ppb	05:32:23
3	B 249.677†	1465.5	972.0	41.520 µg/L	41.520 ppb	05:32:03
3	Ba 233.527†	169.6	185.6	4.7684 µg/L	4.7684 ppb	05:32:23
3	Be 313.107†	4922.3	8328.4	5.1686 µg/L	5.1686 ppb	05:32:03
3	Cd 226.502†	38.5	166.8	4.4876 µg/L	4.4876 ppb	05:32:23
3	Co 228.616†	95.2	100.1	4.8360 µg/L	4.8360 ppb	05:32:23
3	Cr 267.716†	209.0	249.5	5.2885 µg/L	5.2885 ppb	05:32:03
3	Cu 324.752†	4779.7	1412.3	9.4546 µg/L	9.4546 ppb	05:32:03
3	Mn 257.610†	2817.7	2972.9	9.9644 µg/L	9.9644 ppb	05:32:03
3	Mo 202.031†	88.9	90.6	9.3762 µg/L	9.3762 ppb	05:32:23
3	Ni 231.604†	389.8	91.3	4.8407 µg/L	4.8407 ppb	05:32:23
3	P 214.914†	84.7	60.1	125.17 µg/L	125.17 ppb	05:32:23
3	Pb 220.353†	122.5	36.6	9.3816 µg/L	9.3816 ppb	05:32:23
3	S 181.975 Axial†	39.3	21.9	94.980 µg/L	94.980 ppb	05:32:23
3	Sb 206.836†	40.6	17.7	16.883 µg/L	16.883 ppb	05:32:23
3	Se 196.026†	37.1	20.3	30.135 µg/L	30.135 ppb	05:32:23
3	SiO2†	2720.4	1101.8	228.13 µg/L	228.13 ppb	05:32:03
3	Si 251.611†	1751.1	1369.2	109.88 µg/L	109.88 ppb	05:32:03
3	Sn 189.927†	23.3	22.0	9.8339 µg/L	9.8339 ppb	05:32:23
3	Ti 334.940†	2475.6	2332.2	5.3302 µg/L	5.3302 ppb	05:32:03
3	Tl 190.801†	-7.1	14.8	20.693 µg/L	20.693 ppb	05:32:23
3	U 409.014†	762.4	534.1	43.591 µg/L	43.591 ppb	05:32:03
3	V 292.402†	459.7	494.8	5.1594 µg/L	5.1594 ppb	05:32:03
3	Zn 213.857†	860.3	288.7	7.0962 µg/L	7.0962 ppb	05:32:23

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1950244.0	102.47 %	0.313			0.31%
Sc RADIAL	54006.4	102 %	0.3			0.34%
Y 371.029	1345603.1	102.61 %	0.323			0.32%
Ag 328.068†	702.7	5.3928 µg/L	0.10737	5.3928 ppb	0.10737	1.99%
QC value within limits for Ag 328.068 Recovery = 107.86%						
Al 396.153Radial†	274.8	198.99 µg/L	8.911	198.99 ppb	8.911	4.48%
QC value within limits for Al 396.153Radial Recovery = 99.50%						
As 188.979†	16.7	31.861 µg/L	5.3718	31.861 ppb	5.3718	16.86%
QC value within limits for As 188.979 Recovery = 106.20%						
B 249.677†	1026.4	43.844 µg/L	2.0145	43.844 ppb	2.0145	4.59%
QC value within limits for B 249.677 Recovery = 87.69%						
Ba 233.527†	195.2	5.0162 µg/L	0.41335	5.0162 ppb	0.41335	8.24%
QC value within limits for Ba 233.527 Recovery = 100.32%						
Be 313.107†	8260.3	5.1263 µg/L	0.05481	5.1263 ppb	0.05481	1.07%
QC value within limits for Be 313.107 Recovery = 102.53%						
Ca 317.933Radial†	197.1	186.57 µg/L	3.370	186.57 ppb	3.370	1.81%
QC value within limits for Ca 317.933Radial Recovery = 93.28%						
Cd 226.502†	176.1	4.7360 µg/L	0.22769	4.7360 ppb	0.22769	4.81%
QC value within limits for Cd 226.502 Recovery = 94.72%						
Co 228.616†	103.1	4.9814 µg/L	0.12641	4.9814 ppb	0.12641	2.54%

Cr	267.716†	248.6	5.2701 µg/L	0.02417	5.2701 ppb	0.02417	0.46%
Cu	324.752†	1408.2	9.4276 µg/L	0.02521	9.4276 ppb	0.02521	0.27%
Fe	238.204 Radial†	11.4	103.15 µg/L	3.154	103.15 ppb	3.154	3.06%
K	766.490 Radial†	171.7	117.41 µg/L	25.505	117.41 ppb	25.505	21.72%
Mg	279.077 IEC†	29.3	280.58 µg/L	34.863	280.58 ppb	34.863	12.43%
Mn	257.610†	3011.9	10.094 µg/L	0.1142	10.094 ppb	0.1142	1.13%
Mo	202.031†	98.2	10.160 µg/L	0.6838	10.160 ppb	0.6838	6.73%
Na	589.592 Radial†	827.6	255.96 µg/L	2.550	255.96 ppb	2.550	1.00%
Ni	231.604†	98.3	5.2115 µg/L	0.39416	5.2115 ppb	0.39416	7.56%
P	214.914†	66.6	138.73 µg/L	11.900	138.73 ppb	11.900	8.58%
Pb	220.353†	40.8	10.447 µg/L	1.2505	10.447 ppb	1.2505	11.97%
S	181.975 Axial†	23.7	102.67 µg/L	6.665	102.67 ppb	6.665	6.49%
Sb	206.836†	13.5	12.914 µg/L	3.7166	12.914 ppb	3.7166	28.78%
Se	196.026†	18.2	26.980 µg/L	4.4746	26.980 ppb	4.4746	16.59%
SiO2†		1102.8	228.34 µg/L	0.238	228.34 ppb	0.238	0.10%
Si	251.611†	1348.7	108.23 µg/L	2.692	108.23 ppb	2.692	2.49%
Sn	189.927†	22.7	10.169 µg/L	0.7087	10.169 ppb	0.7087	6.97%
Sr	421.552†	521.3	5.1810 µg/L	0.22860	5.1810 ppb	0.22860	4.41%
Ti	334.940†	2274.0	5.1935 µg/L	0.12720	5.1935 ppb	0.12720	2.45%
Tl	190.801†	15.5	21.686 µg/L	0.9053	21.686 ppb	0.9053	4.17%
U	409.014†	595.6	48.608 µg/L	5.3957	48.608 ppb	5.3957	11.10%
V	292.402†	492.4	5.1475 µg/L	0.15569	5.1475 ppb	0.15569	3.02%
Zn	213.857†	322.2	7.9216 µg/L	0.71627	7.9216 ppb	0.71627	9.04%

QC value within limits for Co 228.616 Recovery = 99.63%

QC value within limits for Cr 267.716 Recovery = 105.40%

QC value within limits for Cu 324.752 Recovery = 94.28%

QC value within limits for Fe 238.204 Radial Recovery = 103.15%

QC value within limits for K 766.490 Radial Recovery = 78.27%

QC value within limits for Mg 279.077 IEC Recovery = 93.53%

QC value within limits for Mn 257.610 Recovery = 100.94%

QC value within limits for Mo 202.031 Recovery = 101.60%

QC value within limits for Na 589.592 Radial Recovery = 85.32%

QC value within limits for Ni 231.604 Recovery = 104.23%

QC value within limits for P 214.914 Recovery = 92.49%

QC value within limits for Pb 220.353 Recovery = 104.47%

QC value within limits for S 181.975 Axial Recovery = 102.67%

QC value within limits for Sb 206.836 Recovery = 129.14%

QC value within limits for Se 196.026 Recovery = 89.93%

QC value within limits for SiO2 Recovery = 107.20%

QC value within limits for Si 251.611 Recovery = 108.23%

QC value within limits for Sn 189.927 Recovery = 101.69%

QC value within limits for Sr 421.552 Recovery = 103.62%

QC value within limits for Ti 334.940 Recovery = 103.87%

QC value within limits for Tl 190.801 Recovery = 108.43%

QC value within limits for U 409.014 Recovery = 97.22%

QC value within limits for V 292.402 Recovery = 102.95%

QC value within limits for Zn 213.857 Recovery = 79.22%

All analyte(s) passed QC.

Sequence No.: 33
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/25/2010 05:32:32
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53513.3	53513.3	101 %		05:33:06
1	Al 396.153Radial†	-22.0	4.7	3.4081 µg/L	3.4081 ppb	05:33:06
1	Ca 317.933Radial†	178.1	-7.6	-7.1503 µg/L	-7.1503 ppb	05:33:26
1	Fe 238.204 Radial†	15.0	-1.0	-8.6831 µg/L	-8.6831 ppb	05:33:26
1	K 766.490 Radial†	167.9	-81.6	-55.795 µg/L	-55.795 ppb	05:33:06
1	Mg 279.077 IEC†	10.9	-2.0	-18.916 µg/L	-18.916 ppb	05:33:26
1	Na 589.592 Radial†	507.0	-92.6	-28.629 µg/L	-28.629 ppb	05:33:06
1	Sr 421.552†	75.2	49.1	0.4879 µg/L	0.4879 ppb	05:33:06
1	Sc 361.383	1969950.0	1969950.0	103.50 %		05:34:28
1	Y 371.029	1359041.7	1359041.7	103.63 %		05:34:28
1	Ag 328.068†	-452.0	62.1	0.4719 µg/L	0.4719 ppb	05:34:34
1	As 188.979†	0.5	-0.4	-0.7909 µg/L	-0.7909 ppb	05:34:54
1	B 249.677†	357.1	-109.2	-4.6643 µg/L	-4.6643 ppb	05:34:54
1	Ba 233.527†	-10.4	10.4	0.2676 µg/L	0.2676 ppb	05:34:54
1	Be 313.107†	-3279.3	369.8	0.2295 µg/L	0.2295 ppb	05:34:34
1	Cd 226.502†	-130.6	3.1	0.0857 µg/L	0.0857 ppb	05:34:54
1	Co 228.616†	-4.2	3.3	0.1608 µg/L	0.1608 ppb	05:34:54
1	Cr 267.716†	-45.1	2.6	0.0545 µg/L	0.0545 ppb	05:34:54
1	Cu 324.752†	3197.7	-149.6	-1.0009 µg/L	-1.0009 ppb	05:34:34
1	Mn 257.610†	-234.9	3.9	0.0125 µg/L	0.0125 ppb	05:34:54
1	Mo 202.031†	-4.2	0.0	0.0038 µg/L	0.0038 ppb	05:34:54
1	Ni 231.604†	296.2	-1.8	-0.0943 µg/L	-0.0943 ppb	05:34:54
1	P 214.914†	18.7	-4.2	-8.7951 µg/L	-8.7951 ppb	05:34:54
1	Pb 220.353†	82.5	-2.9	-0.7295 µg/L	-0.7295 ppb	05:34:54
1	S 181.975 Axial†	19.7	2.7	11.600 µg/L	11.600 ppb	05:34:54
1	Sb 206.836†	24.6	1.9	1.8406 µg/L	1.8406 ppb	05:34:54
1	Se 196.026†	11.7	-4.5	-6.7045 µg/L	-6.7045 ppb	05:34:54
1	SiO2†	1632.8	32.0	6.6204 µg/L	6.6204 ppb	05:34:34
1	Si 251.611†	444.8	94.9	7.6148 µg/L	7.6148 ppb	05:34:54
1	Sn 189.927†	0.8	0.1	0.0293 µg/L	0.0293 ppb	05:34:54
1	Ti 334.940†	188.2	104.9	0.2418 µg/L	0.2418 ppb	05:34:34
1	Tl 190.801†	-22.3	0.2	0.2647 µg/L	0.2647 ppb	05:34:54
1	U 409.014†	209.0	-5.9	-0.4790 µg/L	-0.4790 ppb	05:34:34
1	V 292.402†	-60.4	-10.9	-0.1123 µg/L	-0.1123 ppb	05:34:34
1	Zn 213.857†	524.0	-42.2	-1.0411 µg/L	-1.0411 ppb	05:34:54
2	Sc RADIAL	54300.5	54300.5	103 %		05:33:32
2	Al 396.153Radial†	-27.5	-0.3	-0.2284 µg/L	-0.2284 ppb	05:33:32
2	Ca 317.933Radial†	194.7	6.0	5.6786 µg/L	5.6786 ppb	05:33:52
2	Fe 238.204 Radial†	16.0	-0.2	-1.9192 µg/L	-1.9192 ppb	05:33:52
2	K 766.490 Radial†	200.6	-52.3	-35.736 µg/L	-35.736 ppb	05:33:32
2	Mg 279.077 IEC†	6.0	-6.9	-66.156 µg/L	-66.156 ppb	05:33:52
2	Na 589.592 Radial†	479.0	-127.0	-39.272 µg/L	-39.272 ppb	05:33:32
2	Sr 421.552†	28.0	2.2	0.0218 µg/L	0.0218 ppb	05:33:32
2	Sc 361.383	1953524.1	1953524.1	102.64 %		05:35:00
2	Y 371.029	1348094.8	1348094.8	102.80 %		05:35:00
2	Ag 328.068†	-405.7	103.5	0.7879 µg/L	0.7879 ppb	05:35:06
2	As 188.979†	-1.4	-2.3	-4.3135 µg/L	-4.3135 ppb	05:35:26
2	B 249.677†	352.5	-110.8	-4.7370 µg/L	-4.7370 ppb	05:35:26
2	Ba 233.527†	-18.9	2.1	0.0531 µg/L	0.0531 ppb	05:35:26
2	Be 313.107†	-3321.8	301.8	0.1873 µg/L	0.1873 ppb	05:35:06
2	Cd 226.502†	-138.1	-5.2	-0.1394 µg/L	-0.1394 ppb	05:35:26
2	Co 228.616†	-3.5	4.0	0.1927 µg/L	0.1927 ppb	05:35:26
2	Cr 267.716†	-60.7	-13.0	-0.2751 µg/L	-0.2751 ppb	05:35:26
2	Cu 324.752†	3238.8	-83.6	-0.5588 µg/L	-0.5588 ppb	05:35:06
2	Mn 257.610†	-249.4	-12.2	-0.0384 µg/L	-0.0384 ppb	05:35:26
2	Mo 202.031†	-3.9	0.2	0.0239 µg/L	0.0239 ppb	05:35:26
2	Ni 231.604†	301.6	5.9	0.3104 µg/L	0.3104 ppb	05:35:26
2	P 214.914†	9.4	-13.2	-27.621 µg/L	-27.621 ppb	05:35:26
2	Pb 220.353†	87.9	3.1	0.8011 µg/L	0.8011 ppb	05:35:26

2	S 181.975 Axial†	16.4	-0.4	-1.7556 µg/L	-1.7556 ppb	05:35:26
2	Sb 206.836†	24.6	2.2	2.0657 µg/L	2.0657 ppb	05:35:26
2	Se 196.026†	20.0	3.7	5.4995 µg/L	5.4995 ppb	05:35:26
2	SiO2†	1703.3	113.9	23.590 µg/L	23.590 ppb	05:35:06
2	Si 251.611†	461.5	114.7	9.2055 µg/L	9.2055 ppb	05:35:26
2	Sn 189.927†	-0.4	-1.1	-0.4919 µg/L	-0.4919 ppb	05:35:26
2	Ti 334.940†	150.9	70.1	0.1660 µg/L	0.1660 ppb	05:35:06
2	Tl 190.801†	-16.7	5.5	7.5671 µg/L	7.5671 ppb	05:35:26
2	U 409.014†	234.1	20.3	1.6615 µg/L	1.6615 ppb	05:35:06
2	V 292.402†	-60.6	-11.6	-0.1163 µg/L	-0.1163 ppb	05:35:06
2	Zn 213.857†	524.0	-38.0	-0.9372 µg/L	-0.9372 ppb	05:35:26
3	Sc RADIAL	54591.4	54591.4	103 %		05:33:58
3	Al 396.153Radial†	-39.9	-12.1	-8.8060 µg/L	-8.8060 ppb	05:33:58
3	Ca 317.933Radial†	178.8	-10.4	-9.8223 µg/L	-9.8223 ppb	05:34:18
3	Fe 238.204 Radial†	16.3	0.0	0.0487 µg/L	0.0487 ppb	05:34:18
3	K 766.490 Radial†	258.3	2.6	1.7441 µg/L	1.7441 ppb	05:33:58
3	Mg 279.077 IEC†	12.3	-0.9	-8.2831 µg/L	-8.2831 ppb	05:34:18
3	Na 589.592 Radial†	452.4	-155.2	-48.005 µg/L	-48.005 ppb	05:33:58
3	Sr 421.552†	14.8	-10.7	-0.1068 µg/L	-0.1068 ppb	05:33:58
3	Sc 361.383	1972198.1	1972198.1	103.62 %		05:35:33
3	Y 371.029	1361028.8	1361028.8	103.78 %		05:35:33
3	Ag 328.068†	-454.4	60.2	0.4587 µg/L	0.4587 ppb	05:35:38
3	As 188.979†	4.2	3.2	6.0866 µg/L	6.0866 ppb	05:35:59
3	B 249.677†	349.1	-117.3	-5.0157 µg/L	-5.0157 ppb	05:35:59
3	Ba 233.527†	-20.9	0.3	0.0088 µg/L	0.0088 ppb	05:35:59
3	Be 313.107†	-3235.1	416.1	0.2583 µg/L	0.2583 ppb	05:35:38
3	Cd 226.502†	-122.3	11.3	0.3058 µg/L	0.3058 ppb	05:35:59
3	Co 228.616†	-8.6	-0.9	-0.0430 µg/L	-0.0430 ppb	05:35:59
3	Cr 267.716†	-42.4	5.2	0.1103 µg/L	0.1103 ppb	05:35:59
3	Cu 324.752†	3218.7	-132.8	-0.8879 µg/L	-0.8879 ppb	05:35:38
3	Mn 257.610†	-247.3	-7.8	-0.0259 µg/L	-0.0259 ppb	05:35:59
3	Mo 202.031†	-4.2	-0.0	-0.0002 µg/L	-0.0002 ppb	05:35:59
3	Ni 231.604†	301.8	3.2	0.1713 µg/L	0.1713 ppb	05:35:59
3	P 214.914†	22.0	-1.1	-2.2556 µg/L	-2.2556 ppb	05:35:59
3	Pb 220.353†	92.6	6.8	1.7610 µg/L	1.7610 ppb	05:35:59
3	S 181.975 Axial†	20.9	3.9	16.723 µg/L	16.723 ppb	05:35:59
3	Sb 206.836†	17.5	-4.9	-4.6841 µg/L	-4.6841 ppb	05:35:59
3	Se 196.026†	11.0	-5.2	-7.7546 µg/L	-7.7546 ppb	05:35:59
3	SiO2†	1684.8	80.4	16.639 µg/L	16.639 ppb	05:35:38
3	Si 251.611†	482.4	130.7	10.486 µg/L	10.486 ppb	05:35:59
3	Sn 189.927†	0.1	-0.6	-0.2567 µg/L	-0.2567 ppb	05:35:59
3	Ti 334.940†	128.5	47.0	0.1083 µg/L	0.1083 ppb	05:35:38
3	Tl 190.801†	-21.7	0.8	1.0804 µg/L	1.0804 ppb	05:35:59
3	U 409.014†	180.7	-33.4	-2.7262 µg/L	-2.7262 ppb	05:35:38
3	V 292.402†	-51.9	-2.6	-0.0290 µg/L	-0.0290 ppb	05:35:38
3	Zn 213.857†	516.5	-50.0	-1.2376 µg/L	-1.2376 ppb	05:35:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1965224.1	103.25 %	0.536			0.52%
Sc RADIAL	54135.1	103 %	1.1			1.03%
Y 371.029	1356055.1	103.40 %	0.531			0.51%
Ag 328.068†	75.3	0.5728 µg/L	0.18636	0.5728 ppb	0.18636	32.53%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.6	-1.8754 µg/L	6.27138	-1.8754 ppb	6.27138	334.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.2	0.3274 µg/L	5.28945	0.3274 ppb	5.28945	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-112.4	-4.8057 µg/L	0.18551	-4.8057 ppb	0.18551	3.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.3	0.1098 µg/L	0.13837	0.1098 ppb	0.13837	125.97%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	362.6	0.2250 µg/L	0.03569	0.2250 ppb	0.03569	15.86%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.0	-3.7647 µg/L	8.28650	-3.7647 ppb	8.28650	220.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	3.1	0.0840 µg/L	0.22262	0.0840 ppb	0.22262	264.93%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.1	0.1035 µg/L	0.12787	0.1035 ppb	0.12787	123.56%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	-1.7	-0.0368 µg/L	0.20827	-0.0368 ppb	0.20827 566.55%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	-122.0	-0.8159 µg/L	0.22968	-0.8159 ppb	0.22968 28.15%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	-0.4	-3.5179 µg/L	4.58016	-3.5179 ppb	4.58016 130.20%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	-43.8	-29.929 µg/L	29.2056	-29.929 ppb	29.2056 97.58%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	-3.2	-31.118 µg/L	30.8057	-31.118 ppb	30.8057 99.00%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	-5.4	-0.0172 µg/L	0.02653	-0.0172 ppb	0.02653 153.86%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	0.1	0.0091 µg/L	0.01291	0.0091 ppb	0.01291 141.19%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	-124.9	-38.635 µg/L	9.7037	-38.635 ppb	9.7037 25.12%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	2.4	0.1291 µg/L	0.20564	0.1291 ppb	0.20564 159.23%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	-6.2	-12.891 µg/L	13.1695	-12.891 ppb	13.1695 102.16%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	2.4	0.6108 µg/L	1.25611	0.6108 ppb	1.25611 205.64%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	2.0	8.8559 µg/L	9.54015	8.8559 ppb	9.54015 107.73%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	-0.3	-0.2593 µg/L	3.83369	-0.2593 ppb	3.83369 >999.9%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-2.0	-2.9865 µg/L	7.36786	-2.9865 ppb	7.36786 246.71%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	75.4	15.616 µg/L	8.5307	15.616 ppb	8.5307 54.63%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	113.4	9.1020 µg/L	1.43820	9.1020 ppb	1.43820 15.80%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	-0.5	-0.2398 µg/L	0.26099	-0.2398 ppb	0.26099 108.84%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	13.5	0.1343 µg/L	0.31293	0.1343 ppb	0.31293 233.03%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	74.0	0.1720 µg/L	0.06698	0.1720 ppb	0.06698 38.93%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	2.1	2.9707 µg/L	4.00144	2.9707 ppb	4.00144 134.70%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	-6.3	-0.5146 µg/L	2.19408	-0.5146 ppb	2.19408 426.40%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	-8.4	-0.0859 µg/L	0.04931	-0.0859 ppb	0.04931 57.44%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	-43.4	-1.0720 µg/L	0.15259	-1.0720 ppb	0.15259 14.23%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 35

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 05:39:46

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	55152.3	55152.3	105 %		05:40:21
1	Al 396.153Radial†	6834.9	6566.5	4749.0 µg/L	4749.0 ppb	05:40:21
1	Ca 317.933Radial†	5464.5	5045.6	4774.8 µg/L	4774.8 ppb	05:40:42
1	Fe 238.204 Radial†	576.7	536.1	4855.1 µg/L	4855.1 ppb	05:40:42
1	K 766.490 Radial†	7548.8	6976.0	4770.4 µg/L	4770.4 ppb	05:40:21
1	Mg 279.077 IEC†	538.3	502.3	4815.0 µg/L	4815.0 ppb	05:40:42
1	Na 589.592 Radial†	32469.9	30476.5	9425.6 µg/L	9425.6 ppb	05:40:21
1	Sr 421.552†	50183.8	47993.7	476.98 µg/L	476.98 ppb	05:40:21
1	Sc 361.383	1961400.1	1961400.1	103.05 %		05:41:45
1	Y 371.029	1345195.6	1345195.6	102.58 %		05:41:45
1	Ag 328.068†	65215.0	63782.8	489.50 µg/L	489.50 ppb	05:41:51
1	As 188.979†	275.3	266.3	506.83 µg/L	506.83 ppb	05:42:11
1	B 249.677†	12165.6	11351.2	483.67 µg/L	483.67 ppb	05:41:51
1	Ba 233.527†	20045.5	19472.4	500.30 µg/L	500.30 ppb	05:41:51
1	Be 313.107†	809665.9	789230.8	489.80 µg/L	489.80 ppb	05:41:45
1	Cd 226.502†	19168.1	18730.0	504.49 µg/L	504.49 ppb	05:41:51
1	Co 228.616†	10724.9	10414.8	502.88 µg/L	502.88 ppb	05:41:51
1	Cr 267.716†	24307.4	23633.8	500.94 µg/L	500.94 ppb	05:41:51
1	Cu 324.752†	78393.8	72833.5	487.54 µg/L	487.54 ppb	05:41:51
1	Mn 257.610†	153262.9	148955.7	499.53 µg/L	499.53 ppb	05:41:45
1	Mo 202.031†	5021.3	4876.7	504.66 µg/L	504.66 ppb	05:42:11
1	Ni 231.604†	10091.4	9504.6	503.80 µg/L	503.80 ppb	05:41:51
1	P 214.914†	1278.0	1217.8	2508.1 µg/L	2508.1 ppb	05:42:11
1	Pb 220.353†	2117.6	1972.4	506.85 µg/L	506.85 ppb	05:42:11
1	S 181.975 Axial†	256.9	232.9	1010.0 µg/L	1010.0 ppb	05:42:11
1	Sb 206.836†	559.6	521.2	496.42 µg/L	496.42 ppb	05:42:11
1	Se 196.026†	368.9	342.1	514.89 µg/L	514.89 ppb	05:42:11
1	SiO2†	27949.5	25576.4	5295.5 µg/L	5295.5 ppb	05:41:51
1	Si 251.611†	32177.6	30890.0	2478.9 µg/L	2478.9 ppb	05:41:51
1	Sn 189.927†	1177.3	1141.8	509.87 µg/L	509.87 ppb	05:42:11
1	Ti 334.940†	217499.3	210982.4	483.34 µg/L	483.34 ppb	05:41:45
1	Tl 190.801†	348.4	359.7	504.73 µg/L	504.73 ppb	05:42:11
1	U 409.014†	6325.7	5930.6	483.31 µg/L	483.31 ppb	05:41:51
1	V 292.402†	50102.5	48666.5	499.70 µg/L	499.70 ppb	05:41:51
1	Zn 213.857†	21461.4	20277.4	498.68 µg/L	498.68 ppb	05:41:51
2	Sc RADIAL	55046.2	55046.2	104 %		05:40:47
2	Al 396.153Radial†	6879.9	6622.2	4789.4 µg/L	4789.4 ppb	05:40:47
2	Ca 317.933Radial†	5479.3	5069.8	4797.7 µg/L	4797.7 ppb	05:41:08
2	Fe 238.204 Radial†	573.1	533.7	4833.2 µg/L	4833.2 ppb	05:41:08
2	K 766.490 Radial†	7539.4	6980.8	4773.7 µg/L	4773.7 ppb	05:40:47
2	Mg 279.077 IEC†	538.0	503.1	4822.2 µg/L	4822.2 ppb	05:41:08
2	Na 589.592 Radial†	32582.3	30644.2	9477.4 µg/L	9477.4 ppb	05:40:47
2	Sr 421.552†	50336.4	48232.6	479.36 µg/L	479.36 ppb	05:40:47
2	Sc 361.383	1949944.5	1949944.5	102.45 %		05:42:19
2	Y 371.029	1340468.7	1340468.7	102.22 %		05:42:19
2	Ag 328.068†	65414.4	64349.3	493.84 µg/L	493.84 ppb	05:42:24
2	As 188.979†	271.8	264.5	503.32 µg/L	503.32 ppb	05:42:45
2	B 249.677†	12189.7	11444.1	487.66 µg/L	487.66 ppb	05:42:24
2	Ba 233.527†	19999.5	19541.8	502.09 µg/L	502.09 ppb	05:42:24
2	Be 313.107†	807427.3	791661.6	491.31 µg/L	491.31 ppb	05:42:19
2	Cd 226.502†	19218.1	18887.9	508.75 µg/L	508.75 ppb	05:42:24
2	Co 228.616†	10728.7	10479.6	506.01 µg/L	506.01 ppb	05:42:24
2	Cr 267.716†	24319.8	23784.5	504.13 µg/L	504.13 ppb	05:42:24
2	Cu 324.752†	78466.6	73351.5	491.00 µg/L	491.00 ppb	05:42:24
2	Mn 257.610†	152610.1	149192.3	500.32 µg/L	500.32 ppb	05:42:19
2	Mo 202.031†	4966.2	4851.5	502.06 µg/L	502.06 ppb	05:42:45
2	Ni 231.604†	10121.5	9591.6	508.42 µg/L	508.42 ppb	05:42:24
2	P 214.914†	1246.5	1194.4	2458.6 µg/L	2458.6 ppb	05:42:45
2	Pb 220.353†	2107.9	1974.9	507.49 µg/L	507.49 ppb	05:42:45

2	S 181.975 Axial†	252.2	229.8	996.69 µg/L	996.69 ppb	05:42:45
2	Sb 206.836†	549.5	514.5	490.01 µg/L	490.01 ppb	05:42:45
2	Se 196.026†	372.8	348.1	523.70 µg/L	523.70 ppb	05:42:45
2	SiO2†	28111.4	25893.8	5361.2 µg/L	5361.2 ppb	05:42:24
2	Si 251.611†	32309.8	31202.5	2504.0 µg/L	2504.0 ppb	05:42:24
2	Sn 189.927†	1154.2	1125.9	502.80 µg/L	502.80 ppb	05:42:45
2	Ti 334.940†	216671.0	211413.8	484.33 µg/L	484.33 ppb	05:42:19
2	Tl 190.801†	344.6	358.1	502.41 µg/L	502.41 ppb	05:42:45
2	U 409.014†	6233.4	5876.5	478.90 µg/L	478.90 ppb	05:42:24
2	V 292.402†	50182.5	49030.2	503.36 µg/L	503.36 ppb	05:42:24
2	Zn 213.857†	21408.4	20348.1	500.41 µg/L	500.41 ppb	05:42:24
3	Sc RADIAL	55308.5	55308.5	105 %		05:41:13
3	Al 396.153Radial†	6851.1	6563.5	4748.5 µg/L	4748.5 ppb	05:41:13
3	Ca 317.933Radial†	5471.3	5037.3	4766.9 µg/L	4766.9 ppb	05:41:34
3	Fe 238.204 Radial†	577.8	535.5	4848.8 µg/L	4848.8 ppb	05:41:34
3	K 766.490 Radial†	7511.4	6919.8	4732.0 µg/L	4732.0 ppb	05:41:13
3	Mg 279.077 IEC†	534.3	497.1	4763.4 µg/L	4763.4 ppb	05:41:34
3	Na 589.592 Radial†	32581.2	30495.0	9431.3 µg/L	9431.3 ppb	05:41:13
3	Sr 421.552†	50375.5	48041.1	477.45 µg/L	477.45 ppb	05:41:13
3	Sc 361.383	1958717.9	1958717.9	102.91 %		05:42:52
3	Y 371.029	1344617.9	1344617.9	102.53 %		05:42:52
3	Ag 328.068†	61987.8	60733.6	465.97 µg/L	465.97 ppb	05:42:57
3	As 188.979†	228.9	221.6	421.66 µg/L	421.66 ppb	05:43:18
3	B 249.677†	11521.6	10741.6	457.52 µg/L	457.52 ppb	05:42:57
3	Ba 233.527†	18413.1	17912.8	460.22 µg/L	460.22 ppb	05:42:57
3	Be 313.107†	758039.3	740140.1	459.34 µg/L	459.34 ppb	05:42:52
3	Cd 226.502†	17619.5	17250.6	464.59 µg/L	464.59 ppb	05:42:57
3	Co 228.616†	9712.6	9445.3	456.01 µg/L	456.01 ppb	05:42:57
3	Cr 267.716†	21492.6	20930.9	443.65 µg/L	443.65 ppb	05:42:57
3	Cu 324.752†	71928.9	66655.7	446.24 µg/L	446.24 ppb	05:42:57
3	Mn 257.610†	143808.5	139972.4	469.43 µg/L	469.43 ppb	05:42:52
3	Mo 202.031†	4188.8	4074.4	421.67 µg/L	421.67 ppb	05:43:18
3	Ni 231.604†	9206.8	8658.4	458.96 µg/L	458.96 ppb	05:42:57
3	P 214.914†	1086.7	1033.6	2124.8 µg/L	2124.8 ppb	05:43:18
3	Pb 220.353†	1843.1	1708.4	438.94 µg/L	438.94 ppb	05:43:18
3	S 181.975 Axial†	227.3	204.5	886.89 µg/L	886.89 ppb	05:43:18
3	Sb 206.836†	480.2	444.8	423.29 µg/L	423.29 ppb	05:43:18
3	Se 196.026†	325.1	300.1	452.60 µg/L	452.60 ppb	05:43:18
3	SiO2†	26397.1	24105.0	4990.9 µg/L	4990.9 ppb	05:42:57
3	Si 251.611†	30208.8	29019.6	2328.8 µg/L	2328.8 ppb	05:42:57
3	Sn 189.927†	971.3	943.1	421.17 µg/L	421.17 ppb	05:43:18
3	Ti 334.940†	202642.4	196834.6	450.92 µg/L	450.92 ppb	05:42:52
3	Tl 190.801†	310.7	323.6	454.31 µg/L	454.31 ppb	05:43:18
3	U 409.014†	5589.7	5223.9	425.61 µg/L	425.61 ppb	05:42:57
3	V 292.402†	45310.1	44076.2	452.31 µg/L	452.31 ppb	05:42:57
3	Zn 213.857†	19530.1	18429.3	453.18 µg/L	453.18 ppb	05:42:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1956687.5	102.80 %	0.315			0.31%
Sc RADIAL	55169.0	105 %	0.2			0.24%
Y 371.029	1343427.4	102.44 %	0.197			0.19%
Ag 328.068†	62955.2	483.10 µg/L	15.000	483.10 ppb	15.000	3.10%
QC value within limits for Ag 328.068 Recovery = 96.62%						
Al 396.153Radial†	6584.1	4762.3 µg/L	23.50	4762.3 ppb	23.50	0.49%
QC value within limits for Al 396.153Radial Recovery = 95.25%						
As 188.979†	250.8	477.27 µg/L	48.187	477.27 ppb	48.187	10.10%
QC value within limits for As 188.979 Recovery = 95.45%						
B 249.677†	11178.9	476.28 µg/L	16.375	476.28 ppb	16.375	3.44%
QC value within limits for B 249.677 Recovery = 95.26%						
Ba 233.527†	18975.7	487.54 µg/L	23.675	487.54 ppb	23.675	4.86%
QC value within limits for Ba 233.527 Recovery = 97.51%						
Be 313.107†	773677.5	480.15 µg/L	18.040	480.15 ppb	18.040	3.76%
QC value within limits for Be 313.107 Recovery = 96.03%						
Ca 317.933Radial†	5050.9	4779.8 µg/L	15.98	4779.8 ppb	15.98	0.33%
QC value within limits for Ca 317.933Radial Recovery = 95.60%						
Cd 226.502†	18289.5	492.61 µg/L	24.357	492.61 ppb	24.357	4.94%
QC value within limits for Cd 226.502 Recovery = 98.52%						
Co 228.616†	10113.2	488.30 µg/L	28.007	488.30 ppb	28.007	5.74%

QC value within limits for Co 228.616 Recovery = 97.66%						
Cr 267.716†	22783.1	482.91 µg/L	34.032	482.91 ppb	34.032	7.05%
QC value within limits for Cr 267.716 Recovery = 96.58%						
Cu 324.752†	70946.9	474.93 µg/L	24.902	474.93 ppb	24.902	5.24%
QC value within limits for Cu 324.752 Recovery = 94.99%						
Fe 238.204 Radial†	535.1	4845.7 µg/L	11.24	4845.7 ppb	11.24	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 96.91%						
K 766.490 Radial†	6958.9	4758.7 µg/L	23.18	4758.7 ppb	23.18	0.49%
QC value within limits for K 766.490 Radial Recovery = 95.17%						
Mg 279.077 IEC†	500.8	4800.2 µg/L	32.11	4800.2 ppb	32.11	0.67%
QC value within limits for Mg 279.077 IEC Recovery = 96.00%						
Mn 257.610†	146040.1	489.76 µg/L	17.609	489.76 ppb	17.609	3.60%
QC value within limits for Mn 257.610 Recovery = 97.95%						
Mo 202.031†	4600.9	476.13 µg/L	47.183	476.13 ppb	47.183	9.91%
QC value within limits for Mo 202.031 Recovery = 95.23%						
Na 589.592 Radial†	30538.6	9444.8 µg/L	28.42	9444.8 ppb	28.42	0.30%
QC value within limits for Na 589.592 Radial Recovery = 94.45%						
Ni 231.604†	9251.5	490.39 µg/L	27.320	490.39 ppb	27.320	5.57%
QC value within limits for Ni 231.604 Recovery = 98.08%						
P 214.914†	1148.6	2363.8 µg/L	208.45	2363.8 ppb	208.45	8.82%
QC value within limits for P 214.914 Recovery = 94.55%						
Pb 220.353†	1885.2	484.43 µg/L	39.392	484.43 ppb	39.392	8.13%
QC value within limits for Pb 220.353 Recovery = 96.89%						
S 181.975 Axial†	222.4	964.53 µg/L	67.568	964.53 ppb	67.568	7.01%
QC value within limits for S 181.975 Axial Recovery = 96.45%						
Sb 206.836†	493.5	469.91 µg/L	40.500	469.91 ppb	40.500	8.62%
QC value within limits for Sb 206.836 Recovery = 93.98%						
Se 196.026†	330.1	497.06 µg/L	38.758	497.06 ppb	38.758	7.80%
QC value within limits for Se 196.026 Recovery = 99.41%						
SiO2†	25191.7	5215.9 µg/L	197.60	5215.9 ppb	197.60	3.79%
QC value within limits for SiO2 Recovery = 97.54%						
Si 251.611†	30370.7	2437.2 µg/L	94.73	2437.2 ppb	94.73	3.89%
QC value within limits for Si 251.611 Recovery = 97.49%						
Sn 189.927†	1070.3	477.95 µg/L	49.299	477.95 ppb	49.299	10.31%
QC value within limits for Sn 189.927 Recovery = 95.59%						
Sr 421.552†	48089.1	477.93 µg/L	1.257	477.93 ppb	1.257	0.26%
QC value within limits for Sr 421.552 Recovery = 95.59%						
Ti 334.940†	206410.3	472.86 µg/L	19.014	472.86 ppb	19.014	4.02%
QC value within limits for Ti 334.940 Recovery = 94.57%						
Tl 190.801†	347.1	487.15 µg/L	28.464	487.15 ppb	28.464	5.84%
QC value within limits for Tl 190.801 Recovery = 97.43%						
U 409.014†	5677.0	462.61 µg/L	32.120	462.61 ppb	32.120	6.94%
QC value within limits for U 409.014 Recovery = 92.52%						
V 292.402†	47257.6	485.12 µg/L	28.477	485.12 ppb	28.477	5.87%
QC value within limits for V 292.402 Recovery = 97.02%						
Zn 213.857†	19685.0	484.09 µg/L	26.783	484.09 ppb	26.783	5.53%
QC value within limits for Zn 213.857 Recovery = 96.82%						

All analyte(s) passed QC.

Sequence No.: 36
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/25/2010 05:43:27
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54134.4	54134.4	103 %		05:44:00
1	Al 396.153Radial†	-11.5	15.2	11.042 µg/L	11.042 ppb	05:44:00
1	Ca 317.933Radial†	184.8	-3.1	-2.9418 µg/L	-2.9418 ppb	05:44:20
1	Fe 238.204 Radial†	14.7	-1.4	-12.484 µg/L	-12.484 ppb	05:44:20
1	K 766.490 Radial†	198.7	-53.5	-36.580 µg/L	-36.580 ppb	05:44:00
1	Mg 279.077 IEC†	7.5	-5.4	-51.974 µg/L	-51.974 ppb	05:44:20
1	Na 589.592 Radial†	488.9	-115.9	-35.851 µg/L	-35.851 ppb	05:44:00
1	Sr 421.552†	52.5	26.1	0.2598 µg/L	0.2598 ppb	05:44:00
1	Sc 361.383	1952043.0	1952043.0	102.56 %		05:45:22
1	Y 371.029	1345331.9	1345331.9	102.59 %		05:45:22
1	Ag 328.068†	-446.0	64.0	0.4849 µg/L	0.4849 ppb	05:45:28
1	As 188.979†	-1.4	-2.2	-4.2070 µg/L	-4.2070 ppb	05:45:48
1	B 249.677†	373.6	-89.9	-3.8385 µg/L	-3.8385 ppb	05:45:48
1	Ba 233.527†	-13.3	7.6	0.1934 µg/L	0.1934 ppb	05:45:48
1	Be 313.107†	-3433.4	190.5	0.1182 µg/L	0.1182 ppb	05:45:28
1	Cd 226.502†	-130.9	1.7	0.0475 µg/L	0.0475 ppb	05:45:48
1	Co 228.616†	-3.5	4.0	0.1954 µg/L	0.1954 ppb	05:45:48
1	Cr 267.716†	-38.6	8.5	0.1797 µg/L	0.1797 ppb	05:45:48
1	Cu 324.752†	3258.7	-61.7	-0.4142 µg/L	-0.4142 ppb	05:45:28
1	Mn 257.610†	-251.3	-14.2	-0.0472 µg/L	-0.0472 ppb	05:45:48
1	Mo 202.031†	1.0	5.1	0.5230 µg/L	0.5230 ppb	05:45:48
1	Ni 231.604†	301.4	5.9	0.3124 µg/L	0.3124 ppb	05:45:48
1	P 214.914†	11.3	-11.3	-23.714 µg/L	-23.714 ppb	05:45:48
1	Pb 220.353†	84.3	-0.3	-0.0756 µg/L	-0.0756 ppb	05:45:48
1	S 181.975 Axial†	16.6	-0.1	-0.6363 µg/L	-0.6363 ppb	05:45:48
1	Sb 206.836†	18.2	-4.1	-3.8625 µg/L	-3.8625 ppb	05:45:48
1	Se 196.026†	20.9	4.5	6.7305 µg/L	6.7305 ppb	05:45:48
1	SiO2†	1661.8	74.7	15.468 µg/L	15.468 ppb	05:45:28
1	Si 251.611†	442.6	96.7	7.7603 µg/L	7.7603 ppb	05:45:48
1	Sn 189.927†	2.8	2.1	0.9238 µg/L	0.9238 ppb	05:45:48
1	Ti 334.940†	166.6	85.5	0.2000 µg/L	0.2000 ppb	05:45:28
1	Tl 190.801†	-19.3	2.9	4.0529 µg/L	4.0529 ppb	05:45:48
1	U 409.014†	123.5	-87.4	-7.1321 µg/L	-7.1321 ppb	05:45:28
1	V 292.402†	-72.1	-22.9	-0.2365 µg/L	-0.2365 ppb	05:45:28
1	Zn 213.857†	531.3	-30.5	-0.7524 µg/L	-0.7524 ppb	05:45:48
2	Sc RADIAL	54172.3	54172.3	103 %		05:44:26
2	Al 396.153Radial†	-34.5	-7.1	-5.1797 µg/L	-5.1797 ppb	05:44:26
2	Ca 317.933Radial†	180.8	-7.1	-6.7488 µg/L	-6.7488 ppb	05:44:46
2	Fe 238.204 Radial†	14.2	-1.9	-17.088 µg/L	-17.088 ppb	05:44:46
2	K 766.490 Radial†	153.4	-97.7	-66.806 µg/L	-66.806 ppb	05:44:26
2	Mg 279.077 IEC†	8.5	-4.4	-42.592 µg/L	-42.592 ppb	05:44:46
2	Na 589.592 Radial†	445.5	-158.5	-49.028 µg/L	-49.028 ppb	05:44:26
2	Sr 421.552†	0.9	-24.1	-0.2400 µg/L	-0.2400 ppb	05:44:26
2	Sc 361.383	1953750.9	1953750.9	102.65 %		05:45:54
2	Y 371.029	1348040.1	1348040.1	102.79 %		05:45:54
2	Ag 328.068†	-465.8	45.0	0.3396 µg/L	0.3396 ppb	05:46:00
2	As 188.979†	0.5	-0.4	-0.7693 µg/L	-0.7693 ppb	05:46:20
2	B 249.677†	366.1	-97.5	-4.1619 µg/L	-4.1619 ppb	05:46:20
2	Ba 233.527†	-16.3	4.6	0.1181 µg/L	0.1181 ppb	05:46:20
2	Be 313.107†	-3312.9	310.9	0.1929 µg/L	0.1929 ppb	05:46:00
2	Cd 226.502†	-128.1	4.5	0.1239 µg/L	0.1239 ppb	05:46:20
2	Co 228.616†	4.9	12.2	0.5897 µg/L	0.5897 ppb	05:46:20
2	Cr 267.716†	-41.4	5.8	0.1221 µg/L	0.1221 ppb	05:46:20
2	Cu 324.752†	3269.0	-54.4	-0.3662 µg/L	-0.3662 ppb	05:46:00
2	Mn 257.610†	-208.4	27.8	0.0924 µg/L	0.0924 ppb	05:46:20
2	Mo 202.031†	4.4	8.4	0.8650 µg/L	0.8650 ppb	05:46:20
2	Ni 231.604†	297.2	1.5	0.0806 µg/L	0.0806 ppb	05:46:20
2	P 214.914†	26.6	3.6	7.6409 µg/L	7.6409 ppb	05:46:20
2	Pb 220.353†	85.7	0.9	0.2461 µg/L	0.2461 ppb	05:46:20

2	S 181.975 Axial†	16.5	-0.3	-1.2484 µg/L	-1.2484 ppb	05:46:20
2	Sb 206.836†	23.8	1.4	1.2955 µg/L	1.2955 ppb	05:46:20
2	Se 196.026†	19.3	3.0	4.4212 µg/L	4.4212 ppb	05:46:20
2	SiO2†	1690.0	100.8	20.865 µg/L	20.865 ppb	05:46:00
2	Si 251.611†	443.4	97.1	7.7899 µg/L	7.7899 ppb	05:46:20
2	Sn 189.927†	7.3	6.4	2.8526 µg/L	2.8526 ppb	05:46:20
2	Ti 334.940†	231.2	148.2	0.3430 µg/L	0.3430 ppb	05:46:00
2	Tl 190.801†	-20.3	1.9	2.6383 µg/L	2.6383 ppb	05:46:20
2	U 409.014†	214.1	0.8	0.0670 µg/L	0.0670 ppb	05:46:00
2	V 292.402†	-84.5	-34.9	-0.3490 µg/L	-0.3490 ppb	05:46:00
2	Zn 213.857†	531.1	-31.1	-0.7676 µg/L	-0.7676 ppb	05:46:20
3	Sc RADIAL	54312.2	54312.2	103 %		05:44:52
3	Al 396.153Radial†	-31.1	-3.7	-2.7076 µg/L	-2.7076 ppb	05:44:52
3	Ca 317.933Radial†	182.2	-6.2	-5.8597 µg/L	-5.8597 ppb	05:45:12
3	Fe 238.204 Radial†	17.1	0.8	7.4296 µg/L	7.4296 ppb	05:45:12
3	K 766.490 Radial†	161.1	-90.6	-61.973 µg/L	-61.973 ppb	05:44:52
3	Mg 279.077 IEC†	11.6	-1.4	-13.626 µg/L	-13.626 ppb	05:45:12
3	Na 589.592 Radial†	457.7	-147.8	-45.712 µg/L	-45.712 ppb	05:44:52
3	Sr 421.552†	54.0	27.4	0.2724 µg/L	0.2724 ppb	05:44:52
3	Sc 361.383	1949725.8	1949725.8	102.44 %		05:46:26
3	Y 371.029	1343146.9	1343146.9	102.42 %		05:46:26
3	Ag 328.068†	-421.6	87.3	0.6640 µg/L	0.6640 ppb	05:46:32
3	As 188.979†	1.8	0.9	1.7725 µg/L	1.7725 ppb	05:46:52
3	B 249.677†	363.8	-99.0	-4.2375 µg/L	-4.2375 ppb	05:46:52
3	Ba 233.527†	-12.4	8.4	0.2156 µg/L	0.2156 ppb	05:46:52
3	Be 313.107†	-3241.4	374.0	0.2320 µg/L	0.2320 ppb	05:46:32
3	Cd 226.502†	-134.8	-2.3	-0.0618 µg/L	-0.0618 ppb	05:46:52
3	Co 228.616†	-4.0	3.6	0.1717 µg/L	0.1717 ppb	05:46:52
3	Cr 267.716†	-43.6	3.6	0.0759 µg/L	0.0759 ppb	05:46:52
3	Cu 324.752†	3326.3	8.0	0.0547 µg/L	0.0547 ppb	05:46:32
3	Mn 257.610†	-192.4	43.0	0.1458 µg/L	0.1458 ppb	05:46:52
3	Mo 202.031†	-2.6	1.5	0.1543 µg/L	0.1543 ppb	05:46:52
3	Ni 231.604†	305.6	10.4	0.5500 µg/L	0.5500 ppb	05:46:52
3	P 214.914†	15.5	-7.2	-15.118 µg/L	-15.118 ppb	05:46:52
3	Pb 220.353†	78.5	-6.0	-1.5396 µg/L	-1.5396 ppb	05:46:52
3	S 181.975 Axial†	15.0	-1.7	-7.2836 µg/L	-7.2836 ppb	05:46:52
3	Sb 206.836†	23.2	0.8	0.7624 µg/L	0.7624 ppb	05:46:52
3	Se 196.026†	16.5	0.3	0.5094 µg/L	0.5094 ppb	05:46:52
3	SiO2†	1721.9	135.3	28.021 µg/L	28.021 ppb	05:46:32
3	Si 251.611†	451.2	105.6	8.4763 µg/L	8.4763 ppb	05:46:52
3	Sn 189.927†	1.0	0.3	0.1436 µg/L	0.1436 ppb	05:46:52
3	Ti 334.940†	299.6	215.5	0.4951 µg/L	0.4951 ppb	05:46:32
3	Tl 190.801†	-23.0	-0.7	-1.0164 µg/L	-1.0164 ppb	05:46:52
3	U 409.014†	282.2	67.7	5.5248 µg/L	5.5248 ppb	05:46:32
3	V 292.402†	-68.4	-19.3	-0.1880 µg/L	-0.1880 ppb	05:46:32
3	Zn 213.857†	523.2	-37.7	-0.9359 µg/L	-0.9359 ppb	05:46:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1951839.9	102.55 %	0.106			0.10%
Sc RADIAL	54206.3	103 %	0.2			0.17%
Y 371.029	1345506.3	102.60 %	0.187			0.18%
Ag 328.068†	65.4	0.4962 µg/L	0.16247	0.4962 ppb	0.16247	32.74%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.5	1.0516 µg/L	8.73995	1.0516 ppb	8.73995	831.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.6	-1.0679 µg/L	3.00089	-1.0679 ppb	3.00089	281.00%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-95.5	-4.0793 µg/L	0.21195	-4.0793 ppb	0.21195	5.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	6.9	0.1757 µg/L	0.05111	0.1757 ppb	0.05111	29.09%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	291.8	0.1810 µg/L	0.05781	0.1810 ppb	0.05781	31.93%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-5.5	-5.1834 µg/L	1.99155	-5.1834 ppb	1.99155	38.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	1.3	0.0365 µg/L	0.09334	0.0365 ppb	0.09334	255.49%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.6	0.3189 µg/L	0.23482	0.3189 ppb	0.23482	73.62%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	6.0	0.1259 µg/L	0.05197 0.1259 ppb 0.05197 41.28%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-36.0	-0.2419 µg/L	0.25799 -0.2419 ppb 0.25799 106.63%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-0.8	-7.3807 µg/L	13.03101 -7.3807 ppb 13.03101 176.56%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-80.6	-55.120 µg/L	16.2369 -55.120 ppb 16.2369 29.46%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-3.8	-36.064 µg/L	19.9896 -36.064 ppb 19.9896 55.43%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	18.9	0.0637 µg/L	0.09962 0.0637 ppb 0.09962 156.46%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.0	0.5141 µg/L	0.35539 0.5141 ppb 0.35539 69.13%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-140.8	-43.530 µg/L	6.8540 -43.530 ppb 6.8540 15.75%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	5.9	0.3143 µg/L	0.23473 0.3143 ppb 0.23473 74.68%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-5.0	-10.397 µg/L	16.2017 -10.397 ppb 16.2017 155.83%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-1.8	-0.4564 µg/L	0.95181 -0.4564 ppb 0.95181 208.57%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-0.7	-3.0561 µg/L	3.67388 -3.0561 ppb 3.67388 120.22%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-0.6	-0.6015 µg/L	2.83659 -0.6015 ppb 2.83659 471.56%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	2.6	3.8870 µg/L	3.14478 3.8870 ppb 3.14478 80.90%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	103.6	21.452 µg/L	6.2971 21.452 ppb 6.2971 29.35%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	99.8	8.0088 µg/L	0.40511 8.0088 ppb 0.40511 5.06%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	2.9	1.3067 µg/L	1.39449 1.3067 ppb 1.39449 106.72%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	9.8	0.0974 µg/L	0.29224 0.0974 ppb 0.29224 300.00%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	149.7	0.3460 µg/L	0.14756 0.3460 ppb 0.14756 42.64%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	1.4	1.8916 µg/L	2.61583 1.8916 ppb 2.61583 138.29%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-6.3	-0.5134 µg/L	6.34841 -0.5134 ppb 6.34841 >999.9%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-25.7	-0.2578 µg/L	0.08255 -0.2578 ppb 0.08255 32.02%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	-33.1	-0.8186 µg/L	0.10184 -0.8186 ppb 0.10184 12.44%
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: 2/25/2010 06:26:14

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	53867.3	53867.3	102 %		06:26:53
1	Al 396.153Radial†	6853.9	6741.1	4875.4 µg/L	4875.4 ppb	06:26:53
1	Ca 317.933Radial†	5430.3	5136.8	4861.0 µg/L	4861.0 ppb	06:27:13
1	Fe 238.204 Radial†	575.6	548.1	4964.1 µg/L	4964.1 ppb	06:27:13
1	K 766.490 Radial†	7575.6	7174.5	4906.1 µg/L	4906.1 ppb	06:26:53
1	Mg 279.077 IEC†	539.0	515.3	4939.8 µg/L	4939.8 ppb	06:27:13
1	Na 589.592 Radial†	32565.4	31311.3	9683.8 µg/L	9683.8 ppb	06:26:53
1	Sr 421.552†	50172.3	49128.0	488.26 µg/L	488.26 ppb	06:26:53
1	Sc 361.383	1931681.7	1931681.7	101.49 %		06:28:16
1	Y 371.029	1326376.0	1326376.0	101.14 %		06:28:16
1	Ag 328.068†	65151.2	64693.6	496.50 µg/L	496.50 ppb	06:28:22
1	As 188.979†	279.7	274.8	522.91 µg/L	522.91 ppb	06:28:43
1	B 249.677†	12123.9	11491.7	489.64 µg/L	489.64 ppb	06:28:22
1	Ba 233.527†	19984.1	19711.2	506.44 µg/L	506.44 ppb	06:28:22
1	Be 313.107†	816425.5	807978.9	501.44 µg/L	501.44 ppb	06:28:16
1	Cd 226.502†	19200.5	19048.0	513.05 µg/L	513.05 ppb	06:28:22
1	Co 228.616†	10687.7	10538.3	508.84 µg/L	508.84 ppb	06:28:22
1	Cr 267.716†	24263.5	23953.4	507.71 µg/L	507.71 ppb	06:28:22
1	Cu 324.752†	78035.2	73650.5	493.02 µg/L	493.02 ppb	06:28:22
1	Mn 257.610†	155157.9	153111.0	513.46 µg/L	513.46 ppb	06:28:16
1	Mo 202.031†	5033.8	4964.0	513.70 µg/L	513.70 ppb	06:28:43
1	Ni 231.604†	10083.1	9647.1	511.36 µg/L	511.36 ppb	06:28:22
1	P 214.914†	1269.0	1228.0	2529.1 µg/L	2529.1 ppb	06:28:43
1	Pb 220.353†	2119.3	2005.7	515.42 µg/L	515.42 ppb	06:28:43
1	S 181.975 Axial†	257.8	237.7	1030.9 µg/L	1030.9 ppb	06:28:43
1	Sb 206.836†	567.0	536.8	511.32 µg/L	511.32 ppb	06:28:43
1	Se 196.026†	370.4	349.1	525.47 µg/L	525.47 ppb	06:28:43
1	SiO2†	28439.8	26476.7	5481.9 µg/L	5481.9 ppb	06:28:22
1	Si 251.611†	32729.6	31914.2	2561.1 µg/L	2561.1 ppb	06:28:22
1	Sn 189.927†	1174.7	1156.8	516.57 µg/L	516.57 ppb	06:28:43
1	Ti 334.940†	218536.9	215251.9	493.12 µg/L	493.12 ppb	06:28:16
1	Tl 190.801†	349.0	365.6	512.99 µg/L	512.99 ppb	06:28:43
1	U 409.014†	6244.1	5944.6	484.44 µg/L	484.44 ppb	06:28:22
1	V 292.402†	50132.5	49444.0	507.68 µg/L	507.68 ppb	06:28:22
1	Zn 213.857†	21400.9	20538.2	505.09 µg/L	505.09 ppb	06:28:22
2	Sc RADIAL	53806.3	53806.3	102 %		06:27:18
2	Al 396.153Radial†	6846.5	6741.4	4875.7 µg/L	4875.7 ppb	06:27:18
2	Ca 317.933Radial†	5434.9	5147.3	4871.1 µg/L	4871.1 ppb	06:27:39
2	Fe 238.204 Radial†	576.0	549.2	4973.2 µg/L	4973.2 ppb	06:27:39
2	K 766.490 Radial†	7546.1	7154.0	4892.1 µg/L	4892.1 ppb	06:27:18
2	Mg 279.077 IEC†	530.0	507.1	4860.6 µg/L	4860.6 ppb	06:27:39
2	Na 589.592 Radial†	32481.5	31265.2	9669.5 µg/L	9669.5 ppb	06:27:18
2	Sr 421.552†	50077.4	49090.6	487.88 µg/L	487.88 ppb	06:27:18
2	Sc 361.383	1926609.7	1926609.7	101.22 %		06:28:50
2	Y 371.029	1323819.0	1323819.0	100.95 %		06:28:50
2	Ag 328.068†	64689.7	64406.7	494.30 µg/L	494.30 ppb	06:28:55
2	As 188.979†	265.8	261.7	498.03 µg/L	498.03 ppb	06:29:16
2	B 249.677†	12008.1	11408.8	486.08 µg/L	486.08 ppb	06:28:55
2	Ba 233.527†	19786.6	19568.0	502.76 µg/L	502.76 ppb	06:28:55
2	Be 313.107†	816053.9	809729.5	502.52 µg/L	502.52 ppb	06:28:50
2	Cd 226.502†	18997.6	18897.3	508.98 µg/L	508.98 ppb	06:28:55
2	Co 228.616†	10609.0	10488.2	506.41 µg/L	506.41 ppb	06:28:55
2	Cr 267.716†	24011.2	23767.2	503.76 µg/L	503.76 ppb	06:28:55
2	Cu 324.752†	77584.5	73407.7	491.39 µg/L	491.39 ppb	06:28:55
2	Mn 257.610†	154959.9	153317.9	514.16 µg/L	514.16 ppb	06:28:50
2	Mo 202.031†	4960.3	4904.4	507.53 µg/L	507.53 ppb	06:29:16
2	Ni 231.604†	9987.1	9578.4	507.72 µg/L	507.72 ppb	06:28:55
2	P 214.914†	1247.8	1210.4	2492.2 µg/L	2492.2 ppb	06:29:16
2	Pb 220.353†	2086.1	1978.4	508.38 µg/L	508.38 ppb	06:29:16

2	S 181.975 Axial†	258.3	238.8	1035.7 µg/L	1035.7 ppb	06:29:16
2	Sb 206.836†	549.3	520.9	496.10 µg/L	496.10 ppb	06:29:16
2	Se 196.026†	361.5	341.3	513.99 µg/L	513.99 ppb	06:29:16
2	SiO2†	28433.4	26544.2	5495.9 µg/L	5495.9 ppb	06:28:55
2	Si 251.611†	32651.5	31922.0	2561.7 µg/L	2561.7 ppb	06:28:55
2	Sn 189.927†	1161.8	1147.0	512.22 µg/L	512.22 ppb	06:29:16
2	Ti 334.940†	218370.1	215654.0	494.05 µg/L	494.05 ppb	06:28:50
2	Tl 190.801†	346.6	364.1	510.97 µg/L	510.97 ppb	06:29:16
2	U 409.014†	6284.9	6001.2	489.06 µg/L	489.06 ppb	06:28:55
2	V 292.402†	49665.9	49113.0	504.27 µg/L	504.27 ppb	06:28:55
2	Zn 213.857†	21239.7	20434.5	502.54 µg/L	502.54 ppb	06:28:55
3	Sc RADIAL	53517.3	53517.3	101 %		06:27:44
3	Al 396.153Radial†	6814.3	6745.9	4880.6 µg/L	4880.6 ppb	06:27:44
3	Ca 317.933Radial†	5426.6	5168.0	4890.6 µg/L	4890.6 ppb	06:28:05
3	Fe 238.204 Radial†	574.6	550.8	4987.1 µg/L	4987.1 ppb	06:28:05
3	K 766.490 Radial†	7497.3	7145.8	4886.5 µg/L	4886.5 ppb	06:27:44
3	Mg 279.077 IEC†	533.8	513.7	4922.4 µg/L	4922.4 ppb	06:28:05
3	Na 589.592 Radial†	32318.1	31276.0	9672.9 µg/L	9672.9 ppb	06:27:44
3	Sr 421.552†	49752.8	49035.7	487.34 µg/L	487.34 ppb	06:27:44
3	Sc 361.383	1928401.3	1928401.3	101.32 %		06:29:23
3	Y 371.029	1323809.5	1323809.5	100.95 %		06:29:23
3	Ag 328.068†	61987.8	61680.5	473.24 µg/L	473.24 ppb	06:29:29
3	As 188.979†	233.9	230.0	437.70 µg/L	437.70 ppb	06:29:49
3	B 249.677†	11462.6	10859.4	462.50 µg/L	462.50 ppb	06:29:29
3	Ba 233.527†	18476.9	18257.1	469.06 µg/L	469.06 ppb	06:29:29
3	Be 313.107†	765283.6	758870.4	470.96 µg/L	470.96 ppb	06:29:23
3	Cd 226.502†	17628.1	17528.2	472.06 µg/L	472.06 ppb	06:29:29
3	Co 228.616†	9751.5	9632.1	465.03 µg/L	465.03 ppb	06:29:29
3	Cr 267.716†	21568.5	21334.2	452.20 µg/L	452.20 ppb	06:29:29
3	Cu 324.752†	71857.1	67683.6	453.13 µg/L	453.13 ppb	06:29:29
3	Mn 257.610†	145480.8	143819.9	482.33 µg/L	482.33 ppb	06:29:23
3	Mo 202.031†	4205.3	4154.7	429.98 µg/L	429.98 ppb	06:29:49
3	Ni 231.604†	9255.3	8847.0	468.96 µg/L	468.96 ppb	06:29:29
3	P 214.914†	1077.3	1040.9	2139.4 µg/L	2139.4 ppb	06:29:49
3	Pb 220.353†	1841.8	1735.3	445.86 µg/L	445.86 ppb	06:29:49
3	S 181.975 Axial†	226.8	207.5	899.77 µg/L	899.77 ppb	06:29:49
3	Sb 206.836†	484.8	456.6	434.52 µg/L	434.52 ppb	06:29:49
3	Se 196.026†	324.2	304.2	458.83 µg/L	458.83 ppb	06:29:49
3	SiO2†	27057.8	25160.4	5209.4 µg/L	5209.4 ppb	06:29:29
3	Si 251.611†	30971.1	30233.5	2426.2 µg/L	2426.2 ppb	06:29:29
3	Sn 189.927†	968.4	955.1	426.50 µg/L	426.50 ppb	06:29:49
3	Ti 334.940†	203909.6	201181.1	460.87 µg/L	460.87 ppb	06:29:23
3	Tl 190.801†	308.5	326.2	458.07 µg/L	458.07 ppb	06:29:49
3	U 409.014†	5584.6	5304.2	432.14 µg/L	432.14 ppb	06:29:29
3	V 292.402†	45340.3	44798.2	459.74 µg/L	459.74 ppb	06:29:29
3	Zn 213.857†	19619.2	18815.6	462.68 µg/L	462.68 ppb	06:29:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1928897.6	101.34 %	0.135			0.13%
Sc RADIAL	53730.3	102 %	0.4			0.35%
Y 371.029	1324668.2	101.01 %	0.113			0.11%
Ag 328.068†	63593.6	488.01 µg/L	12.842	488.01 ppb	12.842	2.63%
QC value within limits for Ag 328.068 Recovery = 97.60%						
Al 396.153Radial†	6742.8	4877.2 µg/L	2.91	4877.2 ppb	2.91	0.06%
QC value within limits for Al 396.153Radial Recovery = 97.54%						
As 188.979†	255.5	486.21 µg/L	43.817	486.21 ppb	43.817	9.01%
QC value within limits for As 188.979 Recovery = 97.24%						
B 249.677†	11253.3	479.41 µg/L	14.752	479.41 ppb	14.752	3.08%
QC value within limits for B 249.677 Recovery = 95.88%						
Ba 233.527†	19178.8	492.76 µg/L	20.600	492.76 ppb	20.600	4.18%
QC value within limits for Ba 233.527 Recovery = 98.55%						
Be 313.107†	792192.9	491.64 µg/L	17.917	491.64 ppb	17.917	3.64%
QC value within limits for Be 313.107 Recovery = 98.33%						
Ca 317.933Radial†	5150.7	4874.2 µg/L	15.01	4874.2 ppb	15.01	0.31%
QC value within limits for Ca 317.933Radial Recovery = 97.48%						
Cd 226.502†	18491.2	498.03 µg/L	22.580	498.03 ppb	22.580	4.53%
QC value within limits for Cd 226.502 Recovery = 99.61%						
Co 228.616†	10219.5	493.43 µg/L	24.623	493.43 ppb	24.623	4.99%

QC value within limits for Co 228.616	Recovery = 98.69%			
Cr 267.716†	23018.3	487.89 µg/L	30.973	487.89 ppb 30.973 6.35%
QC value within limits for Cr 267.716	Recovery = 97.58%			
Cu 324.752†	71580.6	479.18 µg/L	22.573	479.18 ppb 22.573 4.71%
QC value within limits for Cu 324.752	Recovery = 95.84%			
Fe 238.204 Radial†	549.4	4974.8 µg/L	11.61	4974.8 ppb 11.61 0.23%
QC value within limits for Fe 238.204 Radial	Recovery = 99.50%			
K 766.490 Radial†	7158.1	4894.9 µg/L	10.10	4894.9 ppb 10.10 0.21%
QC value within limits for K 766.490 Radial	Recovery = 97.90%			
Mg 279.077 IEC†	512.0	4907.6 µg/L	41.61	4907.6 ppb 41.61 0.85%
QC value within limits for Mg 279.077 IEC	Recovery = 98.15%			
Mn 257.610†	150082.9	503.32 µg/L	18.175	503.32 ppb 18.175 3.61%
QC value within limits for Mn 257.610	Recovery = 100.66%			
Mo 202.031†	4674.4	483.74 µg/L	46.656	483.74 ppb 46.656 9.64%
QC value within limits for Mo 202.031	Recovery = 96.75%			
Na 589.592 Radial†	31284.2	9675.4 µg/L	7.45	9675.4 ppb 7.45 0.08%
QC value within limits for Na 589.592 Radial	Recovery = 96.75%			
Ni 231.604†	9357.5	496.01 µg/L	23.501	496.01 ppb 23.501 4.74%
QC value within limits for Ni 231.604	Recovery = 99.20%			
P 214.914†	1159.8	2386.9 µg/L	215.11	2386.9 ppb 215.11 9.01%
QC value within limits for P 214.914	Recovery = 95.48%			
Pb 220.353†	1906.5	489.89 µg/L	38.291	489.89 ppb 38.291 7.82%
QC value within limits for Pb 220.353	Recovery = 97.98%			
S 181.975 Axial†	228.0	988.79 µg/L	77.138	988.79 ppb 77.138 7.80%
QC value within limits for S 181.975 Axial	Recovery = 98.88%			
Sb 206.836†	504.8	480.64 µg/L	40.665	480.64 ppb 40.665 8.46%
QC value within limits for Sb 206.836	Recovery = 96.13%			
Se 196.026†	331.5	499.43 µg/L	35.627	499.43 ppb 35.627 7.13%
QC value within limits for Se 196.026	Recovery = 99.89%			
SiO2†	26060.4	5395.7 µg/L	161.53	5395.7 ppb 161.53 2.99%
QC value within limits for SiO2	Recovery = 100.90%			
Si 251.611†	31356.6	2516.3 µg/L	78.05	2516.3 ppb 78.05 3.10%
QC value within limits for Si 251.611	Recovery = 100.65%			
Sn 189.927†	1086.3	485.10 µg/L	50.791	485.10 ppb 50.791 10.47%
QC value within limits for Sn 189.927	Recovery = 97.02%			
Sr 421.552†	49084.8	487.83 µg/L	0.461	487.83 ppb 0.461 0.09%
QC value within limits for Sr 421.552	Recovery = 97.57%			
Ti 334.940†	210695.7	482.68 µg/L	18.895	482.68 ppb 18.895 3.91%
QC value within limits for Ti 334.940	Recovery = 96.54%			
Tl 190.801†	352.0	494.01 µg/L	31.139	494.01 ppb 31.139 6.30%
QC value within limits for Tl 190.801	Recovery = 98.80%			
U 409.014†	5750.0	468.55 µg/L	31.613	468.55 ppb 31.613 6.75%
QC value within limits for U 409.014	Recovery = 93.71%			
V 292.402†	47785.1	490.56 µg/L	26.751	490.56 ppb 26.751 5.45%
QC value within limits for V 292.402	Recovery = 98.11%			
Zn 213.857†	19929.4	490.10 µg/L	23.786	490.10 ppb 23.786 4.85%
QC value within limits for Zn 213.857	Recovery = 98.02%			

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 06:29:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53596.2	53596.2	102 %		06:30:31
1	Al 396.153Radial†	-46.3	-19.2	-13.894 µg/L	-13.894 ppb	06:30:31
1	Ca 317.933Radial†	180.3	-5.7	-5.3748 µg/L	-5.3748 ppb	06:30:52
1	Fe 238.204 Radial†	16.8	0.8	7.0643 µg/L	7.0643 ppb	06:30:52
1	K 766.490 Radial†	200.4	-49.9	-34.103 µg/L	-34.103 ppb	06:30:31
1	Mg 279.077 IEC†	7.6	-5.3	-50.541 µg/L	-50.541 ppb	06:30:52
1	Na 589.592 Radial†	443.6	-155.8	-48.181 µg/L	-48.181 ppb	06:30:31
1	Sr 421.552†	21.3	-4.1	-0.0406 µg/L	-0.0406 ppb	06:30:31
1	Sc 361.383	1922632.9	1922632.9	101.01 %		06:31:53
1	Y 371.029	1326006.1	1326006.1	101.11 %		06:31:53
1	Ag 328.068†	-441.6	61.6	0.4721 µg/L	0.4721 ppb	06:31:59
1	As 188.979†	-1.9	-2.8	-5.3164 µg/L	-5.3164 ppb	06:32:20
1	B 249.677†	359.2	-98.6	-4.2177 µg/L	-4.2177 ppb	06:32:20
1	Ba 233.527†	-9.4	11.1	0.2861 µg/L	0.2861 ppb	06:32:20
1	Be 313.107†	-3373.0	199.1	0.1235 µg/L	0.1235 ppb	06:31:59
1	Cd 226.502†	-128.5	2.2	0.0593 µg/L	0.0593 ppb	06:32:20
1	Co 228.616†	-5.7	1.8	0.0881 µg/L	0.0881 ppb	06:32:20
1	Cr 267.716†	-37.4	9.1	0.1922 µg/L	0.1922 ppb	06:31:59
1	Cu 324.752†	3265.2	-6.7	-0.0437 µg/L	-0.0437 ppb	06:31:59
1	Mn 257.610†	-225.1	7.9	0.0295 µg/L	0.0295 ppb	06:32:20
1	Mo 202.031†	0.9	4.9	0.5077 µg/L	0.5077 ppb	06:32:20
1	Ni 231.604†	312.3	21.2	1.1236 µg/L	1.1236 ppb	06:32:20
1	P 214.914†	25.8	3.2	6.7604 µg/L	6.7604 ppb	06:32:20
1	Pb 220.353†	92.8	9.3	2.3818 µg/L	2.3818 ppb	06:32:20
1	S 181.975 Axial†	15.7	-0.8	-3.3775 µg/L	-3.3775 ppb	06:32:20
1	Sb 206.836†	23.5	1.5	1.4302 µg/L	1.4302 ppb	06:32:20
1	Se 196.026†	17.1	1.1	1.6713 µg/L	1.6713 ppb	06:32:20
1	SiO2†	1906.2	341.5	70.698 µg/L	70.698 ppb	06:31:59
1	Si 251.611†	711.5	369.5	29.648 µg/L	29.648 ppb	06:32:20
1	Sn 189.927†	3.5	2.8	1.2214 µg/L	1.2214 ppb	06:32:20
1	Ti 334.940†	198.0	119.1	0.2769 µg/L	0.2769 ppb	06:31:59
1	Tl 190.801†	-24.2	-2.2	-3.0423 µg/L	-3.0423 ppb	06:32:20
1	U 409.014†	301.1	90.3	7.3711 µg/L	7.3711 ppb	06:31:59
1	V 292.402†	-13.1	34.4	0.3620 µg/L	0.3620 ppb	06:31:59
1	Zn 213.857†	510.2	-43.4	-1.0764 µg/L	-1.0764 ppb	06:32:20
2	Sc RADIAL	53012.5	53012.5	100 %		06:30:57
2	Al 396.153Radial†	-11.1	15.3	11.112 µg/L	11.112 ppb	06:30:57
2	Ca 317.933Radial†	177.7	-6.4	-6.0119 µg/L	-6.0119 ppb	06:31:17
2	Fe 238.204 Radial†	16.3	0.5	4.3642 µg/L	4.3642 ppb	06:31:17
2	K 766.490 Radial†	195.6	-52.5	-35.878 µg/L	-35.878 ppb	06:30:57
2	Mg 279.077 IEC†	9.6	-3.2	-30.639 µg/L	-30.639 ppb	06:31:17
2	Na 589.592 Radial†	450.0	-144.5	-44.702 µg/L	-44.702 ppb	06:30:57
2	Sr 421.552†	59.5	34.2	0.3399 µg/L	0.3399 ppb	06:30:57
2	Sc 361.383	1935274.9	1935274.9	101.68 %		06:32:26
2	Y 371.029	1334610.6	1334610.6	101.77 %		06:32:26
2	Ag 328.068†	-462.8	43.7	0.3299 µg/L	0.3299 ppb	06:32:31
2	As 188.979†	0.9	0.1	0.1340 µg/L	0.1340 ppb	06:32:52
2	B 249.677†	364.0	-96.2	-4.1165 µg/L	-4.1165 ppb	06:32:52
2	Ba 233.527†	-15.9	4.9	0.1238 µg/L	0.1238 ppb	06:32:52
2	Be 313.107†	-3329.1	264.1	0.1638 µg/L	0.1638 ppb	06:32:31
2	Cd 226.502†	-126.8	4.7	0.1259 µg/L	0.1259 ppb	06:32:52
2	Co 228.616†	-8.8	-1.2	-0.0581 µg/L	-0.0581 ppb	06:32:52
2	Cr 267.716†	-53.9	-6.9	-0.1468 µg/L	-0.1468 ppb	06:32:31
2	Cu 324.752†	3315.8	21.9	0.1472 µg/L	0.1472 ppb	06:32:31
2	Mn 257.610†	-217.8	16.6	0.0574 µg/L	0.0574 ppb	06:32:52
2	Mo 202.031†	1.1	5.2	0.5349 µg/L	0.5349 ppb	06:32:52
2	Ni 231.604†	309.1	16.0	0.8473 µg/L	0.8473 ppb	06:32:52
2	P 214.914†	13.3	-9.2	-19.378 µg/L	-19.378 ppb	06:32:52
2	Pb 220.353†	88.4	4.4	1.1353 µg/L	1.1353 ppb	06:32:52

2	S 181.975 Axial†	14.6	-2.0	-8.7479 µg/L	-8.7479 ppb	06:32:52
2	Sb 206.836†	23.5	1.3	1.2053 µg/L	1.2053 ppb	06:32:52
2	Se 196.026†	10.7	-5.3	-7.7523 µg/L	-7.7523 ppb	06:32:52
2	SiO2†	1941.6	364.0	75.356 µg/L	75.356 ppb	06:32:31
2	Si 251.611†	786.7	438.8	35.217 µg/L	35.217 ppb	06:32:52
2	Sn 189.927†	4.7	3.9	1.7291 µg/L	1.7291 ppb	06:32:52
2	Ti 334.940†	211.1	130.7	0.3019 µg/L	0.3019 ppb	06:32:31
2	Tl 190.801†	-20.2	1.9	2.5916 µg/L	2.5916 ppb	06:32:52
2	U 409.014†	245.8	33.9	2.7713 µg/L	2.7713 ppb	06:32:31
2	V 292.402†	-92.8	-43.8	-0.4373 µg/L	-0.4373 ppb	06:32:31
2	Zn 213.857†	517.4	-39.6	-0.9829 µg/L	-0.9829 ppb	06:32:52
3	Sc RADIAL	53061.3	53061.3	101 %		06:31:23
3	Al 396.153Radial†	-23.1	3.4	2.4694 µg/L	2.4694 ppb	06:31:23
3	Ca 317.933Radial†	182.3	-1.9	-1.8404 µg/L	-1.8404 ppb	06:31:43
3	Fe 238.204 Radial†	17.4	1.6	14.192 µg/L	14.192 ppb	06:31:43
3	K 766.490 Radial†	243.1	-5.4	-3.6751 µg/L	-3.6751 ppb	06:31:23
3	Mg 279.077 IEC†	12.5	-0.3	-3.1010 µg/L	-3.1010 ppb	06:31:43
3	Na 589.592 Radial†	457.2	-137.9	-42.634 µg/L	-42.634 ppb	06:31:23
3	Sr 421.552†	32.8	7.6	0.0757 µg/L	0.0757 ppb	06:31:23
3	Sc 361.383	1923122.9	1923122.9	101.04 %		06:32:58
3	Y 371.029	1326500.6	1326500.6	101.15 %		06:32:58
3	Ag 328.068†	-486.4	17.4	0.1309 µg/L	0.1309 ppb	06:33:03
3	As 188.979†	-2.9	-3.7	-7.0771 µg/L	-7.0771 ppb	06:33:24
3	B 249.677†	361.9	-96.0	-4.1140 µg/L	-4.1140 ppb	06:33:24
3	Ba 233.527†	-9.7	10.9	0.2782 µg/L	0.2782 ppb	06:33:24
3	Be 313.107†	-3176.0	395.0	0.2450 µg/L	0.2450 ppb	06:33:03
3	Cd 226.502†	-119.2	11.4	0.3064 µg/L	0.3064 ppb	06:33:24
3	Co 228.616†	1.1	8.5	0.4115 µg/L	0.4115 ppb	06:33:24
3	Cr 267.716†	-34.6	11.9	0.2519 µg/L	0.2519 ppb	06:33:03
3	Cu 324.752†	3279.3	6.4	0.0449 µg/L	0.0449 ppb	06:33:03
3	Mn 257.610†	-188.1	44.6	0.1516 µg/L	0.1516 ppb	06:33:24
3	Mo 202.031†	5.9	9.9	1.0260 µg/L	1.0260 ppb	06:33:24
3	Ni 231.604†	301.0	9.9	0.5248 µg/L	0.5248 ppb	06:33:24
3	P 214.914†	10.2	-12.2	-25.599 µg/L	-25.599 ppb	06:33:24
3	Pb 220.353†	92.3	8.7	2.2474 µg/L	2.2474 ppb	06:33:24
3	S 181.975 Axial†	17.5	1.0	4.2078 µg/L	4.2078 ppb	06:33:24
3	Sb 206.836†	22.4	0.4	0.3974 µg/L	0.3974 ppb	06:33:24
3	Se 196.026†	20.6	4.6	6.8541 µg/L	6.8541 ppb	06:33:24
3	SiO2†	2000.4	434.3	89.916 µg/L	89.916 ppb	06:33:03
3	Si 251.611†	824.5	481.1	38.610 µg/L	38.610 ppb	06:33:24
3	Sn 189.927†	-2.4	-3.0	-1.3518 µg/L	-1.3518 ppb	06:33:24
3	Ti 334.940†	286.6	206.7	0.4740 µg/L	0.4740 ppb	06:33:03
3	Tl 190.801†	-27.6	-5.6	-7.7701 µg/L	-7.7701 ppb	06:33:24
3	U 409.014†	227.0	16.9	1.3766 µg/L	1.3766 ppb	06:33:03
3	V 292.402†	-81.5	-33.2	-0.3250 µg/L	-0.3250 ppb	06:33:03
3	Zn 213.857†	514.7	-39.1	-0.9705 µg/L	-0.9705 ppb	06:33:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1927010.2	101.24 %	0.376			0.37%
Sc RADIAL	53223.3	101 %	0.6			0.61%
Y 371.029	1329039.1	101.34 %	0.368			0.36%
Ag 328.068†	40.9	0.3110 µg/L	0.17135	0.3110 ppb	0.17135	55.10%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.1	-0.1040 µg/L	12.70014	-0.1040 ppb	12.70014	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.1	-4.0865 µg/L	3.75958	-4.0865 ppb	3.75958	92.00%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-96.9	-4.1494 µg/L	0.05917	-4.1494 ppb	0.05917	1.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.0	0.2294 µg/L	0.09153	0.2294 ppb	0.09153	39.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	286.0	0.1775 µg/L	0.06189	0.1775 ppb	0.06189	34.88%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.7	-4.4090 µg/L	2.24723	-4.4090 ppb	2.24723	50.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	6.1	0.1638 µg/L	0.12787	0.1638 ppb	0.12787	78.05%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	3.0	0.1472 µg/L	0.24031	0.1472 ppb	0.24031	163.30%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.7	0.0991 µg/L	0.21503 0.0991 ppb 0.21503 217.00%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	7.2	0.0495 µg/L	0.09554 0.0495 ppb 0.09554 193.16%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	0.9	8.5403 µg/L	5.07761 8.5403 ppb 5.07761 59.45%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-35.9	-24.552 µg/L	18.1017 -24.552 ppb 18.1017 73.73%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-2.9	-28.094 µg/L	23.8223 -28.094 ppb 23.8223 84.80%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	23.1	0.0795 µg/L	0.06395 0.0795 ppb 0.06395 80.45%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	6.7	0.6895 µg/L	0.29169 0.6895 ppb 0.29169 42.30%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-146.1	-45.172 µg/L	2.8037 -45.172 ppb 2.8037 6.21%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	15.7	0.8319 µg/L	0.29974 0.8319 ppb 0.29974 36.03%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-6.1	-12.739 µg/L	17.1710 -12.739 ppb 17.1710 134.79%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	7.5	1.9215 µg/L	0.68416 1.9215 ppb 0.68416 35.61%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-0.6	-2.6392 µg/L	6.50936 -2.6392 ppb 6.50936 246.64%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	1.1	1.0110 µg/L	0.54316 1.0110 ppb 0.54316 53.73%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	0.1	0.2577 µg/L	7.40513 0.2577 ppb 7.40513 >999.9%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	379.9	78.657 µg/L	10.0250 78.657 ppb 10.0250 12.75%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	429.8	34.492 µg/L	4.5248 34.492 ppb 4.5248 13.12%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	1.2	0.5329 µg/L	1.65180 0.5329 ppb 1.65180 309.96%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	12.6	0.1250 µg/L	0.19499 0.1250 ppb 0.19499 155.96%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	152.1	0.3509 µg/L	0.10736 0.3509 ppb 0.10736 30.59%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-2.0	-2.7403 µg/L	5.18743 -2.7403 ppb 5.18743 189.30%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	47.0	3.8397 µg/L	3.13679 3.8397 ppb 3.13679 81.69%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-14.2	-0.1334 µg/L	0.43271 -0.1334 ppb 0.43271 324.31%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	-40.7	-1.0099 µg/L	0.05794 -1.0099 ppb 0.05794 5.74%
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: 2/25/2010 07:02:38

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54779.4	54779.4	104 %			07:03:16
1	Al 396.153Radial†	7096.5	6863.0	4963.7 µg/L		4963.7 ppb	07:03:16
1	Ca 317.933Radial†	5575.7	5188.3	4909.8 µg/L		4909.8 ppb	07:03:36
1	Fe 238.204 Radial†	588.8	551.5	4994.5 µg/L		4994.5 ppb	07:03:36
1	K 766.490 Radial†	7740.4	7209.7	4930.2 µg/L		4930.2 ppb	07:03:16
1	Mg 279.077 IEC†	545.8	513.1	4917.9 µg/L		4917.9 ppb	07:03:36
1	Na 589.592 Radial†	33395.1	31579.3	9766.7 µg/L		9766.7 ppb	07:03:16
1	Sr 421.552†	51309.7	49405.3	491.01 µg/L		491.01 ppb	07:03:16
1	Sc 361.383	1949220.8	1949220.8	102.41 %			07:04:39
1	Y 371.029	1339034.6	1339034.6	102.11 %			07:04:39
1	Ag 328.068†	65835.7	64784.4	497.19 µg/L		497.19 ppb	07:04:45
1	As 188.979†	285.8	278.2	529.42 µg/L		529.42 ppb	07:05:05
1	B 249.677†	12203.2	11461.7	488.33 µg/L		488.33 ppb	07:04:45
1	Ba 233.527†	20114.0	19660.8	505.15 µg/L		505.15 ppb	07:04:45
1	Be 313.107†	825449.0	809551.6	502.41 µg/L		502.41 ppb	07:04:39
1	Cd 226.502†	19196.0	18873.4	508.34 µg/L		508.34 ppb	07:04:45
1	Co 228.616†	10725.3	10480.2	506.03 µg/L		506.03 ppb	07:04:45
1	Cr 267.716†	24403.7	23875.2	506.05 µg/L		506.05 ppb	07:04:45
1	Cu 324.752†	79081.1	73980.0	495.22 µg/L		495.22 ppb	07:04:45
1	Mn 257.610†	156724.3	153264.9	513.98 µg/L		513.98 ppb	07:04:39
1	Mo 202.031†	5093.7	4977.9	515.13 µg/L		515.13 ppb	07:05:05
1	Ni 231.604†	10118.4	9592.2	508.45 µg/L		508.45 ppb	07:04:45
1	P 214.914†	1275.7	1223.3	2519.0 µg/L		2519.0 ppb	07:05:05
1	Pb 220.353†	2136.8	2003.9	514.98 µg/L		514.98 ppb	07:05:05
1	S 181.975 Axial†	260.5	238.0	1032.3 µg/L		1032.3 ppb	07:05:05
1	Sb 206.836†	568.6	533.4	508.10 µg/L		508.10 ppb	07:05:05
1	Se 196.026†	370.6	346.0	520.97 µg/L		520.97 ppb	07:05:05
1	SiO2†	28849.3	26624.4	5512.5 µg/L		5512.5 ppb	07:04:45
1	Si 251.611†	33255.3	32137.4	2579.0 µg/L		2579.0 ppb	07:04:45
1	Sn 189.927†	1197.8	1168.9	521.98 µg/L		521.98 ppb	07:05:05
1	Ti 334.940†	221700.4	216403.3	495.76 µg/L		495.76 ppb	07:04:39
1	Tl 190.801†	357.0	370.3	519.50 µg/L		519.50 ppb	07:05:05
1	U 409.014†	6277.0	5921.4	482.54 µg/L		482.54 ppb	07:04:45
1	V 292.402†	50450.5	49310.0	506.33 µg/L		506.33 ppb	07:04:45
1	Zn 213.857†	21522.7	20467.4	503.34 µg/L		503.34 ppb	07:04:45
2	Sc RADIAL	54132.3	54132.3	103 %			07:03:41
2	Al 396.153Radial†	6971.1	6822.5	4934.5 µg/L		4934.5 ppb	07:03:41
2	Ca 317.933Radial†	5607.7	5283.7	5000.1 µg/L		5000.1 ppb	07:04:02
2	Fe 238.204 Radial†	590.9	560.3	5073.8 µg/L		5073.8 ppb	07:04:02
2	K 766.490 Radial†	7703.7	7263.1	4966.7 µg/L		4966.7 ppb	07:03:41
2	Mg 279.077 IEC†	549.3	522.8	5010.8 µg/L		5010.8 ppb	07:04:02
2	Na 589.592 Radial†	32998.4	31577.3	9766.0 µg/L		9766.0 ppb	07:03:41
2	Sr 421.552†	50592.8	49297.3	489.94 µg/L		489.94 ppb	07:03:41
2	Sc 361.383	1963152.3	1963152.3	103.14 %			07:05:13
2	Y 371.029	1348656.3	1348656.3	102.84 %			07:05:13
2	Ag 328.068†	65913.7	64403.8	494.28 µg/L		494.28 ppb	07:05:18
2	As 188.979†	273.6	264.4	503.21 µg/L		503.21 ppb	07:05:39
2	B 249.677†	12205.4	11379.2	484.76 µg/L		484.76 ppb	07:05:18
2	Ba 233.527†	20132.1	19539.1	502.02 µg/L		502.02 ppb	07:05:18
2	Be 313.107†	834449.4	812557.8	504.28 µg/L		504.28 ppb	07:05:13
2	Cd 226.502†	19237.9	18781.0	505.84 µg/L		505.84 ppb	07:05:18
2	Co 228.616†	10749.6	10429.4	503.56 µg/L		503.56 ppb	07:05:18
2	Cr 267.716†	24460.6	23761.3	503.64 µg/L		503.64 ppb	07:05:18
2	Cu 324.752†	79184.7	73532.5	492.24 µg/L		492.24 ppb	07:05:18
2	Mn 257.610†	158612.9	154009.9	516.48 µg/L		516.48 ppb	07:05:13
2	Mo 202.031†	5039.2	4889.6	506.01 µg/L		506.01 ppb	07:05:39
2	Ni 231.604†	10114.8	9518.5	504.55 µg/L		504.55 ppb	07:05:18
2	P 214.914†	1263.8	1203.0	2476.4 µg/L		2476.4 ppb	07:05:39
2	Pb 220.353†	2129.6	1982.1	509.35 µg/L		509.35 ppb	07:05:39

2	S 181.975 Axial†	259.0	234.7	1018.0 µg/L	1018.0 ppb	07:05:39
2	Sb 206.836†	553.2	514.6	490.11 µg/L	490.11 ppb	07:05:39
2	Se 196.026†	374.2	347.0	522.43 µg/L	522.43 ppb	07:05:39
2	SiO2†	29027.1	26596.9	5506.8 µg/L	5506.8 ppb	07:05:18
2	Si 251.611†	33525.5	32168.9	2581.5 µg/L	2581.5 ppb	07:05:18
2	Sn 189.927†	1185.2	1148.3	512.81 µg/L	512.81 ppb	07:05:39
2	Ti 334.940†	224241.2	217330.5	497.88 µg/L	497.88 ppb	07:05:13
2	Tl 190.801†	353.7	364.7	511.75 µg/L	511.75 ppb	07:05:39
2	U 409.014†	6312.3	5912.2	481.77 µg/L	481.77 ppb	07:05:18
2	V 292.402†	50567.0	49073.4	503.86 µg/L	503.86 ppb	07:05:18
2	Zn 213.857†	21626.5	20418.9	502.15 µg/L	502.15 ppb	07:05:18
3	Sc RADIAL	54324.3	54324.3	103 %		07:04:07
3	Al 396.153Radial†	7033.6	6859.2	4962.7 µg/L	4962.7 ppb	07:04:07
3	Ca 317.933Radial†	5577.2	5234.7	4953.7 µg/L	4953.7 ppb	07:04:28
3	Fe 238.204 Radial†	586.9	554.4	5019.8 µg/L	5019.8 ppb	07:04:28
3	K 766.490 Radial†	7681.1	7214.6	4933.6 µg/L	4933.6 ppb	07:04:07
3	Mg 279.077 IEC†	553.8	525.3	5033.6 µg/L	5033.6 ppb	07:04:28
3	Na 589.592 Radial†	33221.3	31680.1	9797.8 µg/L	9797.8 ppb	07:04:07
3	Sr 421.552†	50880.8	49402.8	490.99 µg/L	490.99 ppb	07:04:07
3	Sc 361.383	1954832.4	1954832.4	102.71 %		07:05:46
3	Y 371.029	1342740.6	1342740.6	102.39 %		07:05:46
3	Ag 328.068†	62795.1	61639.3	472.92 µg/L	472.92 ppb	07:05:52
3	As 188.979†	238.7	231.5	440.59 µg/L	440.59 ppb	07:06:12
3	B 249.677†	11532.3	10774.2	458.84 µg/L	458.84 ppb	07:05:52
3	Ba 233.527†	18603.0	18133.3	465.89 µg/L	465.89 ppb	07:05:52
3	Be 313.107†	783287.4	766187.1	475.50 µg/L	475.50 ppb	07:05:46
3	Cd 226.502†	17815.1	17475.1	470.62 µg/L	470.62 ppb	07:05:52
3	Co 228.616†	9811.6	9560.5	461.55 µg/L	461.55 ppb	07:05:52
3	Cr 267.716†	21773.1	21245.6	450.32 µg/L	450.32 ppb	07:05:52
3	Cu 324.752†	72880.7	67721.3	453.39 µg/L	453.39 ppb	07:05:52
3	Mn 257.610†	149139.8	145441.0	487.77 µg/L	487.77 ppb	07:05:46
3	Mo 202.031†	4234.5	4127.0	427.12 µg/L	427.12 ppb	07:06:12
3	Ni 231.604†	9298.3	8765.3	464.63 µg/L	464.63 ppb	07:05:52
3	P 214.914†	1089.3	1038.3	2133.7 µg/L	2133.7 ppb	07:06:12
3	Pb 220.353†	1859.2	1727.6	443.86 µg/L	443.86 ppb	07:06:12
3	S 181.975 Axial†	233.0	210.5	912.76 µg/L	912.76 ppb	07:06:12
3	Sb 206.836†	490.9	456.1	433.99 µg/L	433.99 ppb	07:06:12
3	Se 196.026†	331.1	306.6	462.37 µg/L	462.37 ppb	07:06:12
3	SiO2†	27546.5	25275.1	5233.1 µg/L	5233.1 ppb	07:05:52
3	Si 251.611†	31613.0	30445.2	2443.2 µg/L	2443.2 ppb	07:05:52
3	Sn 189.927†	976.5	950.1	424.29 µg/L	424.29 ppb	07:06:12
3	Ti 334.940†	209497.9	203901.0	467.10 µg/L	467.10 ppb	07:05:46
3	Tl 190.801†	313.9	327.3	459.68 µg/L	459.68 ppb	07:06:12
3	U 409.014†	5795.5	5435.0	442.81 µg/L	442.81 ppb	07:05:52
3	V 292.402†	45863.2	44702.2	458.75 µg/L	458.75 ppb	07:05:52
3	Zn 213.857†	19769.7	18700.4	459.83 µg/L	459.83 ppb	07:05:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1955735.2	102.75 %	0.368			0.36%
Sc RADIAL	54412.0	103 %	0.6			0.61%
Y 371.029	1343477.2	102.45 %	0.370			0.36%
Ag 328.068†	63609.2	488.13 µg/L	13.251	488.13 ppb	13.251	2.71%
QC value within limits for Ag 328.068 Recovery = 97.63%						
Al 396.153Radial†	6848.2	4953.6 µg/L	16.57	4953.6 ppb	16.57	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.07%						
As 188.979†	258.0	491.07 µg/L	45.643	491.07 ppb	45.643	9.29%
QC value within limits for As 188.979 Recovery = 98.21%						
B 249.677†	11205.1	477.31 µg/L	16.100	477.31 ppb	16.100	3.37%
QC value within limits for B 249.677 Recovery = 95.46%						
Ba 233.527†	19111.1	491.02 µg/L	21.821	491.02 ppb	21.821	4.44%
QC value within limits for Ba 233.527 Recovery = 98.20%						
Be 313.107†	796098.8	494.06 µg/L	16.103	494.06 ppb	16.103	3.26%
QC value within limits for Be 313.107 Recovery = 98.81%						
Ca 317.933Radial†	5235.6	4954.5 µg/L	45.15	4954.5 ppb	45.15	0.91%
QC value within limits for Ca 317.933Radial Recovery = 99.09%						
Cd 226.502†	18376.5	494.93 µg/L	21.088	494.93 ppb	21.088	4.26%
QC value within limits for Cd 226.502 Recovery = 98.99%						
Co 228.616†	10156.7	490.38 µg/L	24.996	490.38 ppb	24.996	5.10%

QC value within limits for Co 228.616 Recovery = 98.08%						
Cr 267.716†	22960.7	486.67 µg/L	31.503	486.67 ppb	31.503	6.47%
QC value within limits for Cr 267.716 Recovery = 97.33%						
Cu 324.752†	71744.6	480.28 µg/L	23.340	480.28 ppb	23.340	4.86%
QC value within limits for Cu 324.752 Recovery = 96.06%						
Fe 238.204 Radial†	555.4	5029.4 µg/L	40.49	5029.4 ppb	40.49	0.81%
QC value within limits for Fe 238.204 Radial Recovery = 100.59%						
K 766.490 Radial†	7229.1	4943.5 µg/L	20.17	4943.5 ppb	20.17	0.41%
QC value within limits for K 766.490 Radial Recovery = 98.87%						
Mg 279.077 IEC†	520.4	4987.5 µg/L	61.29	4987.5 ppb	61.29	1.23%
QC value within limits for Mg 279.077 IEC Recovery = 99.75%						
Mn 257.610†	150905.3	506.08 µg/L	15.907	506.08 ppb	15.907	3.14%
QC value within limits for Mn 257.610 Recovery = 101.22%						
Mo 202.031†	4664.8	482.75 µg/L	48.398	482.75 ppb	48.398	10.03%
QC value within limits for Mo 202.031 Recovery = 96.55%						
Na 589.592 Radial†	31612.2	9776.8 µg/L	18.18	9776.8 ppb	18.18	0.19%
QC value within limits for Na 589.592 Radial Recovery = 97.77%						
Ni 231.604†	9292.0	492.54 µg/L	24.253	492.54 ppb	24.253	4.92%
QC value within limits for Ni 231.604 Recovery = 98.51%						
P 214.914†	1154.8	2376.4 µg/L	211.20	2376.4 ppb	211.20	8.89%
QC value within limits for P 214.914 Recovery = 95.05%						
Pb 220.353†	1904.6	489.40 µg/L	39.536	489.40 ppb	39.536	8.08%
QC value within limits for Pb 220.353 Recovery = 97.88%						
S 181.975 Axial†	227.7	987.69 µg/L	65.290	987.69 ppb	65.290	6.61%
QC value within limits for S 181.975 Axial Recovery = 98.77%						
Sb 206.836†	501.4	477.40 µg/L	38.657	477.40 ppb	38.657	8.10%
QC value within limits for Sb 206.836 Recovery = 95.48%						
Se 196.026†	333.2	501.92 µg/L	34.263	501.92 ppb	34.263	6.83%
QC value within limits for Se 196.026 Recovery = 100.38%						
SiO2†	26165.5	5417.5 µg/L	159.67	5417.5 ppb	159.67	2.95%
QC value within limits for SiO2 Recovery = 101.31%						
Si 251.611†	31583.8	2534.6 µg/L	79.14	2534.6 ppb	79.14	3.12%
QC value within limits for Si 251.611 Recovery = 101.38%						
Sn 189.927†	1089.1	486.36 µg/L	53.947	486.36 ppb	53.947	11.09%
QC value within limits for Sn 189.927 Recovery = 97.27%						
Sr 421.552†	49368.5	490.65 µg/L	0.612	490.65 ppb	0.612	0.12%
QC value within limits for Sr 421.552 Recovery = 98.13%						
Ti 334.940†	212544.9	486.91 µg/L	17.196	486.91 ppb	17.196	3.53%
QC value within limits for Ti 334.940 Recovery = 97.38%						
Tl 190.801†	354.1	496.98 µg/L	32.533	496.98 ppb	32.533	6.55%
QC value within limits for Tl 190.801 Recovery = 99.40%						
U 409.014†	5756.2	469.04 µg/L	22.716	469.04 ppb	22.716	4.84%
QC value within limits for U 409.014 Recovery = 93.81%						
V 292.402†	47695.2	489.65 µg/L	26.785	489.65 ppb	26.785	5.47%
QC value within limits for V 292.402 Recovery = 97.93%						
Zn 213.857†	19862.2	488.44 µg/L	24.785	488.44 ppb	24.785	5.07%
QC value within limits for Zn 213.857 Recovery = 97.69%						

All analyte(s) passed QC.

Sequence No.: 19
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 2/25/2010 07:06:21
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54224.7	54224.7	103 %		07:06:54
1	Al 396.153Radial†	-10.3	16.4	11.873 µg/L	11.873 ppb	07:06:54
1	Ca 317.933Radial†	183.1	-5.1	-4.7828 µg/L	-4.7828 ppb	07:07:14
1	Fe 238.204 Radial†	17.6	1.4	12.635 µg/L	12.635 ppb	07:07:14
1	K 766.490 Radial†	125.8	-124.8	-85.324 µg/L	-85.324 ppb	07:06:54
1	Mg 279.077 IEC†	10.8	-2.3	-21.616 µg/L	-21.616 ppb	07:07:14
1	Na 589.592 Radial†	455.6	-149.1	-46.119 µg/L	-46.119 ppb	07:06:54
1	Sr 421.552†	29.2	3.4	0.0333 µg/L	0.0333 ppb	07:06:54
1	Sc 361.383	1930523.9	1930523.9	101.43 %		07:08:17
1	Y 371.029	1331847.3	1331847.3	101.56 %		07:08:17
1	Ag 328.068†	-442.4	62.7	0.4797 µg/L	0.4797 ppb	07:08:22
1	As 188.979†	-0.0	-0.9	-1.6978 µg/L	-1.6978 ppb	07:08:43
1	B 249.677†	351.6	-107.5	-4.6036 µg/L	-4.6036 ppb	07:08:43
1	Ba 233.527†	-11.5	9.1	0.2347 µg/L	0.2347 ppb	07:08:43
1	Be 313.107†	-3307.3	277.5	0.1722 µg/L	0.1722 ppb	07:08:22
1	Cd 226.502†	-137.2	-5.9	-0.1612 µg/L	-0.1612 ppb	07:08:43
1	Co 228.616†	0.9	8.3	0.4017 µg/L	0.4017 ppb	07:08:43
1	Cr 267.716†	-29.5	17.0	0.3611 µg/L	0.3611 ppb	07:08:43
1	Cu 324.752†	3238.3	-46.4	-0.3084 µg/L	-0.3084 ppb	07:08:22
1	Mn 257.610†	-200.8	32.9	0.1127 µg/L	0.1127 ppb	07:08:43
1	Mo 202.031†	2.8	6.8	0.7091 µg/L	0.7091 ppb	07:08:43
1	Ni 231.604†	299.7	7.5	0.3953 µg/L	0.3953 ppb	07:08:43
1	P 214.914†	24.9	2.3	4.8084 µg/L	4.8084 ppb	07:08:43
1	Pb 220.353†	92.1	8.3	2.1303 µg/L	2.1303 ppb	07:08:43
1	S 181.975 Axial†	17.0	0.4	1.6968 µg/L	1.6968 ppb	07:08:43
1	Sb 206.836†	24.8	2.7	2.5528 µg/L	2.5528 ppb	07:08:43
1	Se 196.026†	7.3	-8.6	-12.661 µg/L	-12.661 ppb	07:08:43
1	SiO2†	1897.8	325.4	67.383 µg/L	67.383 ppb	07:08:22
1	Si 251.611†	680.0	335.6	26.930 µg/L	26.930 ppb	07:08:43
1	Sn 189.927†	9.3	8.5	3.7967 µg/L	3.7967 ppb	07:08:43
1	Ti 334.940†	196.5	116.8	0.2694 µg/L	0.2694 ppb	07:08:22
1	Tl 190.801†	-21.8	0.2	0.2644 µg/L	0.2644 ppb	07:08:43
1	U 409.014†	246.3	35.0	2.8570 µg/L	2.8570 ppb	07:08:22
1	V 292.402†	-25.4	22.4	0.2378 µg/L	0.2378 ppb	07:08:22
1	Zn 213.857†	523.3	-32.5	-0.8065 µg/L	-0.8065 ppb	07:08:43
2	Sc RADIAL	53343.9	53343.9	101 %		07:07:20
2	Al 396.153Radial†	-7.4	19.1	13.847 µg/L	13.847 ppb	07:07:20
2	Ca 317.933Radial†	180.6	-4.5	-4.2752 µg/L	-4.2752 ppb	07:07:40
2	Fe 238.204 Radial†	18.7	2.8	24.932 µg/L	24.932 ppb	07:07:40
2	K 766.490 Radial†	237.4	-12.3	-8.4300 µg/L	-8.4300 ppb	07:07:20
2	Mg 279.077 IEC†	12.1	-0.7	-6.9908 µg/L	-6.9908 ppb	07:07:40
2	Na 589.592 Radial†	443.4	-153.8	-47.577 µg/L	-47.577 ppb	07:07:20
2	Sr 421.552†	31.9	6.5	0.0650 µg/L	0.0650 ppb	07:07:20
2	Sc 361.383	1938511.6	1938511.6	101.85 %		07:08:49
2	Y 371.029	1336812.4	1336812.4	101.94 %		07:08:49
2	Ag 328.068†	-404.8	101.4	0.7718 µg/L	0.7718 ppb	07:08:54
2	As 188.979†	-0.5	-1.4	-2.6651 µg/L	-2.6651 ppb	07:09:15
2	B 249.677†	342.7	-117.7	-5.0459 µg/L	-5.0459 ppb	07:09:15
2	Ba 233.527†	-11.6	9.1	0.2329 µg/L	0.2329 ppb	07:09:15
2	Be 313.107†	-3151.4	444.0	0.2756 µg/L	0.2756 ppb	07:08:54
2	Cd 226.502†	-126.6	5.1	0.1350 µg/L	0.1350 ppb	07:09:15
2	Co 228.616†	-2.2	5.3	0.2573 µg/L	0.2573 ppb	07:09:15
2	Cr 267.716†	-37.0	9.8	0.2079 µg/L	0.2079 ppb	07:09:15
2	Cu 324.752†	3256.0	-42.2	-0.2784 µg/L	-0.2784 ppb	07:08:54
2	Mn 257.610†	-189.8	44.5	0.1526 µg/L	0.1526 ppb	07:09:15
2	Mo 202.031†	3.2	7.2	0.7462 µg/L	0.7462 ppb	07:09:15
2	Ni 231.604†	303.4	9.9	0.5256 µg/L	0.5256 ppb	07:09:15
2	P 214.914†	16.5	-6.2	-12.907 µg/L	-12.907 ppb	07:09:15
2	Pb 220.353†	84.9	0.8	0.2085 µg/L	0.2085 ppb	07:09:15

2	S 181.975 Axial†	8.2	-8.3	-36.031 µg/L	-36.031 ppb	07:09:15
2	Sb 206.836†	19.4	-2.7	-2.5782 µg/L	-2.5782 ppb	07:09:15
2	Se 196.026†	18.8	2.7	4.0510 µg/L	4.0510 ppb	07:09:15
2	SiO2†	1912.4	332.1	68.767 µg/L	68.767 ppb	07:08:54
2	Si 251.611†	770.9	422.1	33.870 µg/L	33.870 ppb	07:09:15
2	Sn 189.927†	6.1	5.3	2.3824 µg/L	2.3824 ppb	07:09:15
2	Ti 334.940†	212.3	131.5	0.3019 µg/L	0.3019 ppb	07:08:54
2	Tl 190.801†	-23.7	-1.6	-2.1646 µg/L	-2.1646 ppb	07:09:15
2	U 409.014†	198.2	-13.2	-1.0788 µg/L	-1.0788 ppb	07:08:54
2	V 292.402†	-79.3	-30.4	-0.3005 µg/L	-0.3005 ppb	07:08:54
2	Zn 213.857†	516.6	-41.3	-1.0254 µg/L	-1.0254 ppb	07:09:15
3	Sc RADIAL	53684.3	53684.3	102 %		07:07:46
3	Al 396.153Radial†	-37.2	-10.1	-7.3250 µg/L	-7.3250 ppb	07:07:46
3	Ca 317.933Radial†	182.7	-3.6	-3.3871 µg/L	-3.3871 ppb	07:08:06
3	Fe 238.204 Radial†	15.0	-1.0	-9.4277 µg/L	-9.4277 ppb	07:08:06
3	K 766.490 Radial†	176.4	-73.8	-50.434 µg/L	-50.434 ppb	07:07:46
3	Mg 279.077 IEC†	4.4	-8.4	-80.782 µg/L	-80.782 ppb	07:08:06
3	Na 589.592 Radial†	461.1	-139.3	-43.083 µg/L	-43.083 ppb	07:07:46
3	Sr 421.552†	46.5	20.6	0.2052 µg/L	0.2052 ppb	07:07:46
3	Sc 361.383	1932764.4	1932764.4	101.55 %		07:09:21
3	Y 371.029	1334301.1	1334301.1	101.75 %		07:09:21
3	Ag 328.068†	-411.0	94.1	0.7162 µg/L	0.7162 ppb	07:09:27
3	As 188.979†	-4.0	-4.8	-9.0694 µg/L	-9.0694 ppb	07:09:47
3	B 249.677†	342.9	-116.6	-4.9792 µg/L	-4.9792 ppb	07:09:47
3	Ba 233.527†	-8.9	11.7	0.3005 µg/L	0.3005 ppb	07:09:47
3	Be 313.107†	-3140.4	445.7	0.2765 µg/L	0.2765 ppb	07:09:27
3	Cd 226.502†	-132.9	-1.5	-0.0388 µg/L	-0.0388 ppb	07:09:47
3	Co 228.616†	0.7	8.1	0.3916 µg/L	0.3916 ppb	07:09:47
3	Cr 267.716†	-46.9	-0.1	-0.0011 µg/L	-0.0011 ppb	07:09:47
3	Cu 324.752†	3236.4	-52.0	-0.3488 µg/L	-0.3488 ppb	07:09:27
3	Mn 257.610†	-161.9	71.4	0.2412 µg/L	0.2412 ppb	07:09:47
3	Mo 202.031†	0.8	4.9	0.5022 µg/L	0.5022 ppb	07:09:47
3	Ni 231.604†	299.9	7.3	0.3871 µg/L	0.3871 ppb	07:09:47
3	P 214.914†	15.1	-7.4	-15.515 µg/L	-15.515 ppb	07:09:47
3	Pb 220.353†	89.2	5.3	1.3514 µg/L	1.3514 ppb	07:09:47
3	S 181.975 Axial†	14.7	-1.9	-8.1218 µg/L	-8.1218 ppb	07:09:47
3	Sb 206.836†	20.6	-1.5	-1.4213 µg/L	-1.4213 ppb	07:09:47
3	Se 196.026†	10.5	-5.5	-8.0376 µg/L	-8.0376 ppb	07:09:47
3	SiO2†	1944.9	369.7	76.550 µg/L	76.550 ppb	07:09:27
3	Si 251.611†	778.4	431.7	34.641 µg/L	34.641 ppb	07:09:47
3	Sn 189.927†	-0.0	-0.7	-0.3372 µg/L	-0.3372 ppb	07:09:47
3	Ti 334.940†	341.9	259.7	0.6016 µg/L	0.6016 ppb	07:09:27
3	Tl 190.801†	-19.7	2.3	3.2157 µg/L	3.2157 ppb	07:09:47
3	U 409.014†	201.3	-9.6	-0.7813 µg/L	-0.7813 ppb	07:09:27
3	V 292.402†	-49.1	-0.9	-0.0072 µg/L	-0.0072 ppb	07:09:27
3	Zn 213.857†	524.6	-31.9	-0.7856 µg/L	-0.7856 ppb	07:09:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1933933.3	101.61 %	0.216			0.21%
Sc RADIAL	53751.0	102 %	0.8			0.83%
Y 371.029	1334320.2	101.75 %	0.189			0.19%
Ag 328.068†	86.0	0.6559 µg/L	0.15513	0.6559 ppb	0.15513	23.65%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.5	6.1317 µg/L	11.69559	6.1317 ppb	11.69559	190.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.3	-4.4774 µg/L	4.00604	-4.4774 ppb	4.00604	89.47%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-113.9	-4.8762 µg/L	0.23848	-4.8762 ppb	0.23848	4.89%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.0	0.2561 µg/L	0.03853	0.2561 ppb	0.03853	15.05%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	389.1	0.2414 µg/L	0.05993	0.2414 ppb	0.05993	24.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.4	-4.1484 µg/L	0.70643	-4.1484 ppb	0.70643	17.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.8	-0.0216 µg/L	0.14880	-0.0216 ppb	0.14880	687.36%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	7.2	0.3502 µg/L	0.08063	0.3502 ppb	0.08063	23.02%

Cr 267.716†	8.9	0.1893 µg/L	0.18184	0.1893 ppb	0.18184	96.07%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-46.9	-0.3119 µg/L	0.03533	-0.3119 ppb	0.03533	11.33%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.0	9.3797 µg/L	17.40946	9.3797 ppb	17.40946	185.61%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-70.3	-48.063 µg/L	38.5018	-48.063 ppb	38.5018	80.11%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-3.8	-36.463 µg/L	39.0716	-36.463 ppb	39.0716	107.15%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	49.6	0.1688 µg/L	0.06579	0.1688 ppb	0.06579	38.97%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	6.3	0.6525 µg/L	0.13148	0.6525 ppb	0.13148	20.15%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-147.4	-45.593 µg/L	2.2927	-45.593 ppb	2.2927	5.03%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	8.2	0.4360 µg/L	0.07769	0.4360 ppb	0.07769	17.82%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-3.8	-7.8710 µg/L	11.05788	-7.8710 ppb	11.05788	140.49%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	4.8	1.2301 µg/L	0.96660	1.2301 ppb	0.96660	78.58%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-3.3	-14.152 µg/L	19.5737	-14.152 ppb	19.5737	138.31%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-0.5	-0.4822 µg/L	2.69130	-0.4822 ppb	2.69130	558.12%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.8	-5.5493 µg/L	8.62944	-5.5493 ppb	8.62944	155.51%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	342.4	70.900 µg/L	4.9418	70.900 ppb	4.9418	6.97%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	396.4	31.813 µg/L	4.2466	31.813 ppb	4.2466	13.35%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	4.4	1.9473 µg/L	2.10099	1.9473 ppb	2.10099	107.89%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	10.2	0.1011 µg/L	0.09146	0.1011 ppb	0.09146	90.42%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	169.3	0.3910 µg/L	0.18314	0.3910 ppb	0.18314	46.84%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.3	0.4385 µg/L	2.69434	0.4385 ppb	2.69434	614.43%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	4.1	0.3323 µg/L	2.19152	0.3323 ppb	2.19152	659.49%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-3.0	-0.0233 µg/L	0.26952	-0.0233 ppb	0.26952	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-35.2	-0.8725 µg/L	0.13283	-0.8725 ppb	0.13283	15.23%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 07:38:49

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	52891.3	52891.3	100 %		07:39:28
1	Al 396.153Radial†	7004.1	7014.9	5073.6 µg/L	5073.6 ppb	07:39:28
1	Ca 317.933Radial†	5504.3	5308.7	5023.8 µg/L	5023.8 ppb	07:39:49
1	Fe 238.204 Radial†	586.4	569.3	5155.7 µg/L	5155.7 ppb	07:39:49
1	K 766.490 Radial†	7611.3	7347.1	5024.2 µg/L	5024.2 ppb	07:39:28
1	Mg 279.077 IEC†	550.9	537.0	5147.1 µg/L	5147.1 ppb	07:39:49
1	Na 589.592 Radial†	33150.7	32483.9	10046 µg/L	10046 ppb	07:39:28
1	Sr 421.552†	50288.4	50150.8	498.42 µg/L	498.42 ppb	07:39:28
1	Sc 361.383	1897381.6	1897381.6	99.688 %		07:40:52
1	Y 371.029	1310166.2	1310166.2	99.905 %		07:40:52
1	Ag 328.068†	66227.4	66933.7	513.67 µg/L	513.67 ppb	07:40:58
1	As 188.979†	269.1	269.1	512.05 µg/L	512.05 ppb	07:41:18
1	B 249.677†	12121.1	11704.9	498.67 µg/L	498.67 ppb	07:40:58
1	Ba 233.527†	20005.6	20088.8	516.15 µg/L	516.15 ppb	07:40:58
1	Be 313.107†	807757.0	813825.5	505.06 µg/L	505.06 ppb	07:40:52
1	Cd 226.502†	19083.4	19272.5	519.08 µg/L	519.08 ppb	07:40:58
1	Co 228.616†	10633.9	10674.7	515.42 µg/L	515.42 ppb	07:40:58
1	Cr 267.716†	24417.3	24539.9	520.14 µg/L	520.14 ppb	07:40:58
1	Cu 324.752†	79381.6	76391.2	511.36 µg/L	511.36 ppb	07:40:58
1	Mn 257.610†	153584.9	154296.9	517.45 µg/L	517.45 ppb	07:40:52
1	Mo 202.031†	5035.3	5055.2	523.14 µg/L	523.14 ppb	07:41:18
1	Ni 231.604†	10013.9	9757.3	517.20 µg/L	517.20 ppb	07:40:58
1	P 214.914†	1250.2	1231.8	2535.0 µg/L	2535.0 ppb	07:41:18
1	Pb 220.353†	2096.9	2020.9	519.31 µg/L	519.31 ppb	07:41:18
1	S 181.975 Axial†	255.6	240.1	1041.1 µg/L	1041.1 ppb	07:41:18
1	Sb 206.836†	555.6	535.5	510.04 µg/L	510.04 ppb	07:41:18
1	Se 196.026†	376.2	361.5	544.15 µg/L	544.15 ppb	07:41:18
1	SiO2†	28259.7	26802.6	5549.4 µg/L	5549.4 ppb	07:40:58
1	Si 251.611†	32509.7	32276.7	2590.2 µg/L	2590.2 ppb	07:40:58
1	Sn 189.927†	1161.0	1163.9	519.77 µg/L	519.77 ppb	07:41:18
1	Ti 334.940†	218499.1	219106.6	501.94 µg/L	501.94 ppb	07:40:52
1	Tl 190.801†	351.8	374.6	525.67 µg/L	525.67 ppb	07:41:18
1	U 409.014†	6433.9	6246.3	509.03 µg/L	509.03 ppb	07:40:58
1	V 292.402†	50505.1	50710.7	520.68 µg/L	520.68 ppb	07:40:58
1	Zn 213.857†	21379.9	20898.4	513.93 µg/L	513.93 ppb	07:40:58
2	Sc RADIAL	53438.9	53438.9	101 %		07:39:54
2	Al 396.153Radial†	7017.3	6956.3	5031.3 µg/L	5031.3 ppb	07:39:54
2	Ca 317.933Radial†	5491.9	5240.2	4959.0 µg/L	4959.0 ppb	07:40:15
2	Fe 238.204 Radial†	578.5	555.6	5031.2 µg/L	5031.2 ppb	07:40:15
2	K 766.490 Radial†	7732.0	7388.4	5052.4 µg/L	5052.4 ppb	07:39:54
2	Mg 279.077 IEC†	551.1	531.5	5094.6 µg/L	5094.6 ppb	07:40:15
2	Na 589.592 Radial†	33356.9	32348.6	10005 µg/L	10005 ppb	07:39:54
2	Sr 421.552†	50681.6	50025.0	497.17 µg/L	497.17 ppb	07:39:54
2	Sc 361.383	1904852.1	1904852.1	100.08 %		07:41:26
2	Y 371.029	1314959.7	1314959.7	100.27 %		07:41:26
2	Ag 328.068†	65571.2	66017.5	506.62 µg/L	506.62 ppb	07:41:31
2	As 188.979†	271.6	270.5	514.71 µg/L	514.71 ppb	07:41:52
2	B 249.677†	11989.8	11526.0	491.08 µg/L	491.08 ppb	07:41:31
2	Ba 233.527†	19728.6	19733.2	507.01 µg/L	507.01 ppb	07:41:31
2	Be 313.107†	812093.8	814981.1	505.78 µg/L	505.78 ppb	07:41:26
2	Cd 226.502†	18813.3	18927.5	509.79 µg/L	509.79 ppb	07:41:31
2	Co 228.616†	10536.5	10535.5	508.69 µg/L	508.69 ppb	07:41:31
2	Cr 267.716†	24086.2	24113.0	511.09 µg/L	511.09 ppb	07:41:31
2	Cu 324.752†	78432.8	75130.8	502.92 µg/L	502.92 ppb	07:41:31
2	Mn 257.610†	154626.2	154733.1	518.90 µg/L	518.90 ppb	07:41:26
2	Mo 202.031†	4981.9	4982.0	515.56 µg/L	515.56 ppb	07:41:52
2	Ni 231.604†	9914.9	9618.9	509.87 µg/L	509.87 ppb	07:41:31
2	P 214.914†	1241.1	1217.7	2506.4 µg/L	2506.4 ppb	07:41:52
2	Pb 220.353†	2078.4	1994.2	512.45 µg/L	512.45 ppb	07:41:52

2	S 181.975 Axial†	256.1	239.5	1038.9 µg/L	1038.9 ppb	07:41:52
2	Sb 206.836†	553.4	531.2	505.92 µg/L	505.92 ppb	07:41:52
2	Se 196.026†	371.1	355.0	534.15 µg/L	534.15 ppb	07:41:52
2	SiO2†	28077.2	26509.1	5488.6 µg/L	5488.6 ppb	07:41:31
2	Si 251.611†	32268.9	31908.2	2560.6 µg/L	2560.6 ppb	07:41:31
2	Sn 189.927†	1155.3	1153.7	515.21 µg/L	515.21 ppb	07:41:52
2	Ti 334.940†	219503.3	219250.3	502.28 µg/L	502.28 ppb	07:41:26
2	Tl 190.801†	346.0	367.4	515.67 µg/L	515.67 ppb	07:41:52
2	U 409.014†	6288.3	6075.5	495.11 µg/L	495.11 ppb	07:41:31
2	V 292.402†	49830.7	49838.2	511.72 µg/L	511.72 ppb	07:41:31
2	Zn 213.857†	21163.8	20598.4	506.56 µg/L	506.56 ppb	07:41:31
3	Sc RADIAL	53048.8	53048.8	101 %		07:40:20
3	Al 396.153Radial†	7011.5	7001.5	5065.9 µg/L	5065.9 ppb	07:40:20
3	Ca 317.933Radial†	5516.4	5304.5	5019.8 µg/L	5019.8 ppb	07:40:41
3	Fe 238.204 Radial†	587.2	568.4	5146.2 µg/L	5146.2 ppb	07:40:41
3	K 766.490 Radial†	7644.8	7357.9	5031.5 µg/L	5031.5 ppb	07:40:20
3	Mg 279.077 IEC†	547.2	531.6	5094.2 µg/L	5094.2 ppb	07:40:41
3	Na 589.592 Radial†	33153.8	32388.8	10017 µg/L	10017 ppb	07:40:20
3	Sr 421.552†	50434.2	50146.9	498.38 µg/L	498.38 ppb	07:40:20
3	Sc 361.383	1919887.5	1919887.5	100.87 %		07:41:59
3	Y 371.029	1325313.8	1325313.8	101.06 %		07:41:59
3	Ag 328.068†	62145.4	62108.0	476.50 µg/L	476.50 ppb	07:42:04
3	As 188.979†	234.5	231.6	440.71 µg/L	440.71 ppb	07:42:25
3	B 249.677†	11305.1	10753.4	457.88 µg/L	457.88 ppb	07:42:04
3	Ba 233.527†	18146.0	18009.9	462.72 µg/L	462.72 ppb	07:42:04
3	Be 313.107†	763033.4	759989.1	471.65 µg/L	471.65 ppb	07:41:59
3	Cd 226.502†	17289.8	17270.0	465.08 µg/L	465.08 ppb	07:42:04
3	Co 228.616†	9533.6	9458.8	456.64 µg/L	456.64 ppb	07:42:04
3	Cr 267.716†	21320.2	21182.4	448.98 µg/L	448.98 ppb	07:42:04
3	Cu 324.752†	71732.7	67874.8	454.43 µg/L	454.43 ppb	07:42:04
3	Mn 257.610†	145612.8	144587.4	484.92 µg/L	484.92 ppb	07:41:59
3	Mo 202.031†	4149.2	4117.5	426.14 µg/L	426.14 ppb	07:42:25
3	Ni 231.604†	9009.7	8644.0	458.20 µg/L	458.20 ppb	07:42:04
3	P 214.914†	1055.5	1024.1	2103.8 µg/L	2103.8 ppb	07:42:25
3	Pb 220.353†	1815.1	1716.8	441.10 µg/L	441.10 ppb	07:42:25
3	S 181.975 Axial†	229.0	210.6	913.47 µg/L	913.47 ppb	07:42:25
3	Sb 206.836†	477.9	452.0	430.04 µg/L	430.04 ppb	07:42:25
3	Se 196.026†	322.9	304.3	459.26 µg/L	459.26 ppb	07:42:25
3	SiO2†	26359.6	24586.6	5090.6 µg/L	5090.6 ppb	07:42:04
3	Si 251.611†	30253.1	29657.2	2380.0 µg/L	2380.0 ppb	07:42:04
3	Sn 189.927†	944.1	935.3	417.65 µg/L	417.65 ppb	07:42:25
3	Ti 334.940†	204871.5	203027.1	465.09 µg/L	465.09 ppb	07:41:59
3	Tl 190.801†	308.8	327.8	460.35 µg/L	460.35 ppb	07:42:25
3	U 409.014†	5606.3	5350.2	435.86 µg/L	435.86 ppb	07:42:04
3	V 292.402†	45077.3	44735.9	459.09 µg/L	459.09 ppb	07:42:04
3	Zn 213.857†	19350.7	18635.3	458.24 µg/L	458.24 ppb	07:42:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1907373.8	100.21 %	0.602			0.60%
Sc RADIAL	53126.4	101 %	0.5			0.53%
Y 371.029	1316813.2	100.41 %	0.590			0.59%
Ag 328.068†	65019.7	498.93 µg/L	19.740	498.93 ppb	19.740	3.96%
QC value within limits for Ag 328.068 Recovery = 99.79%						
Al 396.153Radial†	6990.9	5056.9 µg/L	22.52	5056.9 ppb	22.52	0.45%
QC value within limits for Al 396.153Radial Recovery = 101.14%						
As 188.979†	257.0	489.16 µg/L	41.978	489.16 ppb	41.978	8.58%
QC value within limits for As 188.979 Recovery = 97.83%						
B 249.677†	11328.1	482.54 µg/L	21.697	482.54 ppb	21.697	4.50%
QC value within limits for B 249.677 Recovery = 96.51%						
Ba 233.527†	19277.3	495.30 µg/L	28.576	495.30 ppb	28.576	5.77%
QC value within limits for Ba 233.527 Recovery = 99.06%						
Be 313.107†	796265.3	494.16 µg/L	19.499	494.16 ppb	19.499	3.95%
QC value within limits for Be 313.107 Recovery = 98.83%						
Ca 317.933Radial†	5284.5	5000.9 µg/L	36.33	5000.9 ppb	36.33	0.73%
QC value within limits for Ca 317.933Radial Recovery = 100.02%						
Cd 226.502†	18490.0	497.98 µg/L	28.872	497.98 ppb	28.872	5.80%
QC value within limits for Cd 226.502 Recovery = 99.60%						
Co 228.616†	10223.0	493.58 µg/L	32.173	493.58 ppb	32.173	6.52%

QC value within limits for Co 228.616 Recovery = 98.72%

Cr 267.716† 23278.5 493.41 µg/L 38.737 493.41 ppb 38.737 7.85%

QC value within limits for Cr 267.716 Recovery = 98.68%

Cu 324.752† 73132.3 489.57 µg/L 30.723 489.57 ppb 30.723 6.28%

QC value within limits for Cu 324.752 Recovery = 97.91%

Fe 238.204 Radial† 564.4 5111.0 µg/L 69.29 5111.0 ppb 69.29 1.36%

QC value within limits for Fe 238.204 Radial Recovery = 102.22%

K 766.490 Radial† 7364.5 5036.0 µg/L 14.66 5036.0 ppb 14.66 0.29%

QC value within limits for K 766.490 Radial Recovery = 100.72%

Mg 279.077 IEC† 533.4 5112.0 µg/L 30.42 5112.0 ppb 30.42 0.60%

QC value within limits for Mg 279.077 IEC Recovery = 102.24%

Mn 257.610† 151205.8 507.09 µg/L 19.213 507.09 ppb 19.213 3.79%

QC value within limits for Mn 257.610 Recovery = 101.42%

Mo 202.031† 4718.2 488.28 µg/L 53.950 488.28 ppb 53.950 11.05%

QC value within limits for Mo 202.031 Recovery = 97.66%

Na 589.592 Radial† 32407.1 10023 µg/L 21.5 10023 ppb 21.5 0.21%

QC value within limits for Na 589.592 Radial Recovery = 100.23%

Ni 231.604† 9340.1 495.09 µg/L 32.161 495.09 ppb 32.161 6.50%

QC value within limits for Ni 231.604 Recovery = 99.02%

P 214.914† 1157.9 2381.7 µg/L 241.11 2381.7 ppb 241.11 10.12%

QC value within limits for P 214.914 Recovery = 95.27%

Pb 220.353† 1910.6 490.95 µg/L 43.313 490.95 ppb 43.313 8.82%

QC value within limits for Pb 220.353 Recovery = 98.19%

S 181.975 Axial† 230.1 997.81 µg/L 73.048 997.81 ppb 73.048 7.32%

QC value within limits for S 181.975 Axial Recovery = 99.78%

Sb 206.836† 506.2 482.00 µg/L 45.047 482.00 ppb 45.047 9.35%

QC value within limits for Sb 206.836 Recovery = 96.40%

Se 196.026† 340.3 512.52 µg/L 46.396 512.52 ppb 46.396 9.05%

QC value within limits for Se 196.026 Recovery = 102.50%

SiO2† 25966.1 5376.2 µg/L 249.22 5376.2 ppb 249.22 4.64%

QC value within limits for SiO2 Recovery = 100.54%

Si 251.611† 31280.7 2510.2 µg/L 113.79 2510.2 ppb 113.79 4.53%

QC value within limits for Si 251.611 Recovery = 100.41%

Sn 189.927† 1084.3 484.21 µg/L 57.685 484.21 ppb 57.685 11.91%

QC value within limits for Sn 189.927 Recovery = 96.84%

Sr 421.552† 50107.6 497.99 µg/L 0.711 497.99 ppb 0.711 0.14%

QC value within limits for Sr 421.552 Recovery = 99.60%

Ti 334.940† 213794.7 489.77 µg/L 21.375 489.77 ppb 21.375 4.36%

QC value within limits for Ti 334.940 Recovery = 97.95%

Tl 190.801† 356.6 500.56 µg/L 35.184 500.56 ppb 35.184 7.03%

QC value within limits for Tl 190.801 Recovery = 100.11%

U 409.014† 5890.7 480.00 µg/L 38.854 480.00 ppb 38.854 8.09%

QC value within limits for U 409.014 Recovery = 96.00%

V 292.402† 48428.2 497.16 µg/L 33.274 497.16 ppb 33.274 6.69%

QC value within limits for V 292.402 Recovery = 99.43%

Zn 213.857† 20044.0 492.91 µg/L 30.251 492.91 ppb 30.251 6.14%

QC value within limits for Zn 213.857 Recovery = 98.58%

All analyte(s) passed QC.

Sequence No.: 29

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 07:42:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53034.9	53034.9	100 %		07:43:07
1	Al 396.153Radial†	-5.7	20.8	15.066 µg/L	15.066 ppb	07:43:07
1	Ca 317.933Radial†	180.5	-3.6	-3.4470 µg/L	-3.4470 ppb	07:43:28
1	Fe 238.204 Radial†	14.7	-1.1	-9.8305 µg/L	-9.8305 ppb	07:43:28
1	K 766.490 Radial†	163.6	-84.4	-57.737 µg/L	-57.737 ppb	07:43:07
1	Mg 279.077 IEC†	12.0	-0.8	-7.5990 µg/L	-7.5990 ppb	07:43:28
1	Na 589.592 Radial†	439.4	-155.3	-48.035 µg/L	-48.035 ppb	07:43:07
1	Sr 421.552†	65.8	40.5	0.4025 µg/L	0.4025 ppb	07:43:07
1	Sc 361.383	1914395.1	1914395.1	100.58 %		07:44:29
1	Y 371.029	1326601.5	1326601.5	101.16 %		07:44:29
1	Ag 328.068†	-442.3	59.1	0.4498 µg/L	0.4498 ppb	07:44:35
1	As 188.979†	-2.8	-3.7	-6.9777 µg/L	-6.9777 ppb	07:44:56
1	B 249.677†	339.1	-117.0	-4.9995 µg/L	-4.9995 ppb	07:44:56
1	Ba 233.527†	-3.2	17.3	0.4441 µg/L	0.4441 ppb	07:44:56
1	Be 313.107†	-3050.3	505.6	0.3138 µg/L	0.3138 ppb	07:44:35
1	Cd 226.502†	-131.5	-1.4	-0.0363 µg/L	-0.0363 ppb	07:44:56
1	Co 228.616†	7.0	14.4	0.6950 µg/L	0.6950 ppb	07:44:56
1	Cr 267.716†	-46.1	0.3	0.0072 µg/L	0.0072 ppb	07:44:56
1	Cu 324.752†	3169.0	-88.4	-0.5926 µg/L	-0.5926 ppb	07:44:35
1	Mn 257.610†	-194.4	37.6	0.1249 µg/L	0.1249 ppb	07:44:56
1	Mo 202.031†	1.2	5.3	0.5455 µg/L	0.5455 ppb	07:44:56
1	Ni 231.604†	312.1	22.3	1.1843 µg/L	1.1843 ppb	07:44:56
1	P 214.914†	14.8	-7.6	-15.927 µg/L	-15.927 ppb	07:44:56
1	Pb 220.353†	87.8	4.7	1.2032 µg/L	1.2032 ppb	07:44:56
1	S 181.975 Axial†	14.3	-2.2	-9.4369 µg/L	-9.4369 ppb	07:44:56
1	Sb 206.836†	27.2	5.2	4.9743 µg/L	4.9743 ppb	07:44:56
1	Se 196.026†	15.8	-0.1	-0.1433 µg/L	-0.1433 ppb	07:44:56
1	SiO2†	1664.1	108.9	22.548 µg/L	22.548 ppb	07:44:35
1	Si 251.611†	488.4	150.7	12.094 µg/L	12.094 ppb	07:44:56
1	Sn 189.927†	5.4	4.7	2.0834 µg/L	2.0834 ppb	07:44:56
1	Ti 334.940†	211.3	133.1	0.3056 µg/L	0.3056 ppb	07:44:35
1	Tl 190.801†	-23.6	-1.8	-2.4655 µg/L	-2.4655 ppb	07:44:56
1	U 409.014†	345.0	135.2	11.040 µg/L	11.040 ppb	07:44:35
1	V 292.402†	-45.0	2.7	0.0420 µg/L	0.0420 ppb	07:44:35
1	Zn 213.857†	528.9	-22.6	-0.5636 µg/L	-0.5636 ppb	07:44:56
2	Sc RADIAL	52703.9	52703.9	99.9 %		07:43:33
2	Al 396.153Radial†	-18.9	7.5	5.4491 µg/L	5.4491 ppb	07:43:33
2	Ca 317.933Radial†	174.3	-8.7	-8.2012 µg/L	-8.2012 ppb	07:43:53
2	Fe 238.204 Radial†	17.9	2.1	19.215 µg/L	19.215 ppb	07:43:53
2	K 766.490 Radial†	202.4	-44.5	-30.419 µg/L	-30.419 ppb	07:43:33
2	Mg 279.077 IEC†	10.1	-2.6	-24.872 µg/L	-24.872 ppb	07:43:53
2	Na 589.592 Radial†	476.4	-115.6	-35.737 µg/L	-35.737 ppb	07:43:33
2	Sr 421.552†	48.3	23.3	0.2320 µg/L	0.2320 ppb	07:43:33
2	Sc 361.383	1902169.2	1902169.2	99.939 %		07:45:02
2	Y 371.029	1318600.3	1318600.3	100.55 %		07:45:02
2	Ag 328.068†	-401.8	96.8	0.7398 µg/L	0.7398 ppb	07:45:07
2	As 188.979†	1.9	1.0	1.9900 µg/L	1.9900 ppb	07:45:28
2	B 249.677†	328.7	-125.3	-5.3698 µg/L	-5.3698 ppb	07:45:28
2	Ba 233.527†	-18.8	1.7	0.0439 µg/L	0.0439 ppb	07:45:28
2	Be 313.107†	-3012.9	523.5	0.3249 µg/L	0.3249 ppb	07:45:07
2	Cd 226.502†	-136.2	-7.0	-0.1893 µg/L	-0.1893 ppb	07:45:28
2	Co 228.616†	5.7	13.1	0.6329 µg/L	0.6329 ppb	07:45:28
2	Cr 267.716†	-48.4	-2.3	-0.0485 µg/L	-0.0485 ppb	07:45:28
2	Cu 324.752†	3139.8	-97.4	-0.6485 µg/L	-0.6485 ppb	07:45:07
2	Mn 257.610†	-176.8	53.9	0.1843 µg/L	0.1843 ppb	07:45:28
2	Mo 202.031†	2.9	6.9	0.7161 µg/L	0.7161 ppb	07:45:28
2	Ni 231.604†	297.4	9.6	0.5073 µg/L	0.5073 ppb	07:45:28
2	P 214.914†	13.6	-8.7	-18.219 µg/L	-18.219 ppb	07:45:28
2	Pb 220.353†	87.5	5.0	1.2919 µg/L	1.2919 ppb	07:45:28

2	S 181.975 Axial†	20.3	3.9	17.068 µg/L	17.068 ppb	07:45:28
2	Sb 206.836†	27.1	5.3	5.0741 µg/L	5.0741 ppb	07:45:28
2	Se 196.026†	15.5	-0.3	-0.3384 µg/L	-0.3384 ppb	07:45:28
2	SiO2†	1675.1	130.5	27.029 µg/L	27.029 ppb	07:45:07
2	Si 251.611†	488.4	153.8	12.344 µg/L	12.344 ppb	07:45:28
2	Sn 189.927†	6.7	6.0	2.6956 µg/L	2.6956 ppb	07:45:28
2	Ti 334.940†	242.4	165.6	0.3814 µg/L	0.3814 ppb	07:45:07
2	Tl 190.801†	-21.0	0.7	1.0103 µg/L	1.0103 ppb	07:45:28
2	U 409.014†	255.7	48.1	3.9243 µg/L	3.9243 ppb	07:45:07
2	V 292.402†	-30.4	17.0	0.1841 µg/L	0.1841 ppb	07:45:07
2	Zn 213.857†	523.2	-25.0	-0.6202 µg/L	-0.6202 ppb	07:45:28
3	Sc RADIAL	52358.7	52358.7	99.2 %		07:43:59
3	Al 396.153Radial†	-14.2	12.2	8.8073 µg/L	8.8073 ppb	07:43:59
3	Ca 317.933Radial†	179.9	-1.9	-1.7544 µg/L	-1.7544 ppb	07:44:19
3	Fe 238.204 Radial†	16.9	1.2	11.256 µg/L	11.256 ppb	07:44:19
3	K 766.490 Radial†	223.1	-22.3	-15.251 µg/L	-15.251 ppb	07:43:59
3	Mg 279.077 IEC†	10.9	-1.7	-16.663 µg/L	-16.663 ppb	07:44:19
3	Na 589.592 Radial†	485.0	-103.7	-32.075 µg/L	-32.075 ppb	07:43:59
3	Sr 421.552†	63.1	38.6	0.3836 µg/L	0.3836 ppb	07:43:59
3	Sc 361.383	1892185.8	1892185.8	99.415 %		07:45:34
3	Y 371.029	1312051.2	1312051.2	100.05 %		07:45:34
3	Ag 328.068†	-422.7	73.6	0.5623 µg/L	0.5623 ppb	07:45:39
3	As 188.979†	0.4	-0.5	-0.9427 µg/L	-0.9427 ppb	07:46:00
3	B 249.677†	314.1	-138.3	-5.9177 µg/L	-5.9177 ppb	07:46:00
3	Ba 233.527†	-7.2	13.3	0.3405 µg/L	0.3405 ppb	07:46:00
3	Be 313.107†	-2927.6	593.4	0.3683 µg/L	0.3683 ppb	07:45:39
3	Cd 226.502†	-128.0	0.6	0.0156 µg/L	0.0156 ppb	07:46:00
3	Co 228.616†	4.1	11.5	0.5565 µg/L	0.5565 ppb	07:46:00
3	Cr 267.716†	-28.6	17.4	0.3683 µg/L	0.3683 ppb	07:46:00
3	Cu 324.752†	3152.4	-68.2	-0.4540 µg/L	-0.4540 ppb	07:45:39
3	Mn 257.610†	-151.4	78.5	0.2652 µg/L	0.2652 ppb	07:46:00
3	Mo 202.031†	2.6	6.7	0.6942 µg/L	0.6942 ppb	07:46:00
3	Ni 231.604†	306.2	20.0	1.0626 µg/L	1.0626 ppb	07:46:00
3	P 214.914†	22.0	-0.2	-0.3436 µg/L	-0.3436 ppb	07:46:00
3	Pb 220.353†	79.8	-2.3	-0.5760 µg/L	-0.5760 ppb	07:46:00
3	S 181.975 Axial†	12.7	-3.6	-15.410 µg/L	-15.410 ppb	07:46:00
3	Sb 206.836†	25.8	4.2	3.9539 µg/L	3.9539 ppb	07:46:00
3	Se 196.026†	16.3	0.5	0.8319 µg/L	0.8319 ppb	07:46:00
3	SiO2†	1694.2	158.6	32.831 µg/L	32.831 ppb	07:45:39
3	Si 251.611†	518.9	187.1	15.015 µg/L	15.015 ppb	07:46:00
3	Sn 189.927†	4.9	4.2	1.8855 µg/L	1.8855 ppb	07:46:00
3	Ti 334.940†	233.4	157.8	0.3629 µg/L	0.3629 ppb	07:45:39
3	Tl 190.801†	-26.4	-4.9	-6.7786 µg/L	-6.7786 ppb	07:46:00
3	U 409.014†	193.8	-12.8	-1.0481 µg/L	-1.0481 ppb	07:45:39
3	V 292.402†	-38.5	8.7	0.0949 µg/L	0.0949 ppb	07:45:39
3	Zn 213.857†	515.4	-30.0	-0.7474 µg/L	-0.7474 ppb	07:46:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1902916.7	99.979 %	0.5844			0.58%
Sc RADIAL	52699.2	99.9 %	0.64			0.64%
Y 371.029	1319084.3	100.59 %	0.556			0.55%
Ag 328.068†	76.5	0.5840 µg/L	0.14621	0.5840 ppb	0.14621	25.04%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	13.5	9.7741 µg/L	4.88081	9.7741 ppb	4.88081	49.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.0	-1.9768 µg/L	4.57239	-1.9768 ppb	4.57239	231.30%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-126.9	-5.4290 µg/L	0.46193	-5.4290 ppb	0.46193	8.51%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.8	0.2762 µg/L	0.20775	0.2762 ppb	0.20775	75.23%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	540.8	0.3356 µg/L	0.02881	0.3356 ppb	0.02881	8.58%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.7	-4.4675 µg/L	3.34236	-4.4675 ppb	3.34236	74.81%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-2.6	-0.0700 µg/L	0.10650	-0.0700 ppb	0.10650	152.16%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	13.0	0.6282 µg/L	0.06936	0.6282 ppb	0.06936	11.04%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	5.1	0.1090 µg/L	0.22630	0.1090 ppb	0.22630	207.61%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-84.7	-0.5650 µg/L	0.10012	-0.5650 ppb	0.10012	17.72%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.8	6.8800 µg/L	15.00898	6.8800 ppb	15.00898	218.15%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-50.4	-34.469 µg/L	21.5310	-34.469 ppb	21.5310	62.46%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.7	-16.378 µg/L	8.6399	-16.378 ppb	8.6399	52.75%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	56.7	0.1915 µg/L	0.07045	0.1915 ppb	0.07045	36.79%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	6.3	0.6520 µg/L	0.09283	0.6520 ppb	0.09283	14.24%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-124.9	-38.616 µg/L	8.3605	-38.616 ppb	8.3605	21.65%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	17.3	0.9181 µg/L	0.36091	0.9181 ppb	0.36091	39.31%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-5.5	-11.496 µg/L	9.7263	-11.496 ppb	9.7263	84.60%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	2.5	0.6397 µg/L	1.05380	0.6397 ppb	1.05380	164.73%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.6	-2.5931 µg/L	17.28685	-2.5931 ppb	17.28685	666.64%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.9	4.6674 µg/L	0.61997	4.6674 ppb	0.61997	13.28%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.1	0.1167 µg/L	0.62696	0.1167 ppb	0.62696	537.05%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	132.7	27.469 µg/L	5.1556	27.469 ppb	5.1556	18.77%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	163.9	13.151 µg/L	1.6191	13.151 ppb	1.6191	12.31%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.0	2.2215 µg/L	0.42232	2.2215 ppb	0.42232	19.01%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	34.1	0.3394 µg/L	0.09346	0.3394 ppb	0.09346	27.54%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	152.1	0.3500 µg/L	0.03954	0.3500 ppb	0.03954	11.30%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.0	-2.7446 µg/L	3.90192	-2.7446 ppb	3.90192	142.17%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	56.8	4.6387 µg/L	6.07560	4.6387 ppb	6.07560	130.98%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	9.5	0.1070 µg/L	0.07185	0.1070 ppb	0.07185	67.15%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-25.9	-0.6437 µg/L	0.09412	-0.6437 ppb	0.09412	14.62%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 2/25/2010 07:51:45

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410F.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 301

Sample ID: 1202038311|951151|1

Date Collected: 2/25/2010 07:51:47

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 1202038311|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	51255.4	51255.4	97.1 %		07:52:23
1	Al 396.153Radial†	5.1	31.7	22.970 µg/L	22.970 ppb	07:52:23
1	Ca 317.933Radial†	206.6	29.5	27.872 µg/L	27.872 ppb	07:52:43
1	Fe 238.204 Radial†	19.3	4.1	37.192 µg/L	37.192 ppb	07:52:43
1	K 766.490 Radial†	237.4	-2.7	-1.8585 µg/L	-1.8585 ppb	07:52:23
1	Mg 279.077 IEC†	4.4	-8.2	-78.442 µg/L	-78.442 ppb	07:52:43
1	Na 589.592 Radial†	513.8	-63.5	-19.650 µg/L	-19.650 ppb	07:52:23
1	Sr 421.552†	28.1	3.9	0.0388 µg/L	0.0388 ppb	07:52:23
1	Sc 361.383	1883368.5	1883368.5	98.951 %		07:53:45
1	Y 371.029	1303255.5	1303255.5	99.378 %		07:53:45
1	Ag 328.068†	-458.1	35.8	0.2745 µg/L	0.2745 ppb	07:53:51
1	As 188.979†	0.9	0.0	0.0599 µg/L	0.0599 ppb	07:54:11
1	B 249.677†	329.1	-121.6	-5.2184 µg/L	-5.2184 ppb	07:54:11
1	Ba 233.527†	1.1	21.6	0.5535 µg/L	0.5535 ppb	07:54:11
1	Be 313.107†	-3255.8	248.0	0.1537 µg/L	0.1537 ppb	07:53:51
1	Cd 226.502†	-128.0	-0.0	-0.0036 µg/L	-0.0036 ppb	07:54:11
1	Co 228.616†	3.5	11.0	0.5303 µg/L	0.5303 ppb	07:54:11
1	Cr 267.716†	-17.7	28.2	0.5974 µg/L	0.5974 ppb	07:54:11
1	Cu 324.752†	3277.9	73.5	0.4968 µg/L	0.4968 ppb	07:53:51
1	Mn 257.610†	55.4	286.8	0.9691 µg/L	0.9691 ppb	07:54:11
1	Mo 202.031†	-6.4	-2.4	-0.2481 µg/L	-0.2481 ppb	07:54:11
1	Ni 231.604†	298.5	13.6	0.7230 µg/L	0.7230 ppb	07:54:11
1	P 214.914†	6.9	-15.4	-32.328 µg/L	-32.328 ppb	07:54:11
1	Pb 220.353†	81.4	-0.3	-0.0784 µg/L	-0.0784 ppb	07:54:11
1	S 181.975 Axial†	16.6	0.4	1.8133 µg/L	1.8133 ppb	07:54:11
1	Sb 206.836†	22.1	0.5	0.4554 µg/L	0.4554 ppb	07:54:11
1	Se 196.026†	19.6	4.0	6.1430 µg/L	6.1430 ppb	07:54:11
1	SiO2†	1816.9	290.6	60.173 µg/L	60.173 ppb	07:53:51
1	Si 251.611†	676.5	348.8	27.991 µg/L	27.991 ppb	07:54:11
1	Sn 189.927†	-0.1	-0.8	-0.3642 µg/L	-0.3642 ppb	07:54:11
1	Ti 334.940†	372.5	299.4	0.6931 µg/L	0.6931 ppb	07:53:51
1	Tl 190.801†	-24.8	-3.4	-4.6746 µg/L	-4.6746 ppb	07:54:11
1	U 409.014†	201.1	-4.5	-0.3767 µg/L	-0.3767 ppb	07:53:51
1	V 292.402†	-56.1	-9.3	-0.0907 µg/L	-0.0907 ppb	07:53:51
1	Zn 213.857†	590.0	47.7	1.1809 µg/L	1.1809 ppb	07:54:11
2	Sc RADIAL	51916.6	51916.6	98.4 %		07:52:49
2	Al 396.153Radial†	-7.7	18.6	13.494 µg/L	13.494 ppb	07:52:49
2	Ca 317.933Radial†	210.2	30.5	28.831 µg/L	28.831 ppb	07:53:09
2	Fe 238.204 Radial†	20.8	5.4	49.054 µg/L	49.054 ppb	07:53:09
2	K 766.490 Radial†	153.4	-91.2	-62.382 µg/L	-62.382 ppb	07:52:49
2	Mg 279.077 IEC†	8.4	-4.2	-39.898 µg/L	-39.898 ppb	07:53:09
2	Na 589.592 Radial†	531.6	-52.2	-16.150 µg/L	-16.150 ppb	07:52:49
2	Sr 421.552†	68.6	44.7	0.4441 µg/L	0.4441 ppb	07:52:49
2	Sc 361.383	1872580.0	1872580.0	98.385 %		07:54:17
2	Y 371.029	1297135.2	1297135.2	98.911 %		07:54:17
2	Ag 328.068†	-386.0	106.5	0.8128 µg/L	0.8128 ppb	07:54:23
2	As 188.979†	-2.0	-2.9	-5.5593 µg/L	-5.5593 ppb	07:54:44

2	B 249.677†	352.1	-96.3	-4.1427 µg/L	-4.1427 ppb	07:54:44
2	Ba 233.527†	-8.4	12.0	0.3067 µg/L	0.3067 ppb	07:54:44
2	Be 313.107†	-3158.2	328.2	0.2036 µg/L	0.2036 ppb	07:54:23
2	Cd 226.502†	-130.0	-2.8	-0.0790 µg/L	-0.0790 ppb	07:54:44
2	Co 228.616†	2.7	10.1	0.4894 µg/L	0.4894 ppb	07:54:44
2	Cr 267.716†	-7.6	38.4	0.8137 µg/L	0.8137 ppb	07:54:44
2	Cu 324.752†	3271.4	86.0	0.5819 µg/L	0.5819 ppb	07:54:23
2	Mn 257.610†	41.9	273.4	0.9243 µg/L	0.9243 ppb	07:54:44
2	Mo 202.031†	-1.8	2.2	0.2319 µg/L	0.2319 ppb	07:54:44
2	Ni 231.604†	307.7	24.8	1.3164 µg/L	1.3164 ppb	07:54:44
2	P 214.914†	18.7	-3.3	-7.0983 µg/L	-7.0983 ppb	07:54:44
2	Pb 220.353†	84.3	3.1	0.7952 µg/L	0.7952 ppb	07:54:44
2	S 181.975 Axial†	17.7	1.6	6.9579 µg/L	6.9579 ppb	07:54:44
2	Sb 206.836†	19.9	-1.6	-1.5357 µg/L	-1.5357 ppb	07:54:44
2	Se 196.026†	10.5	-5.1	-7.4539 µg/L	-7.4539 ppb	07:54:44
2	SiO2†	1820.8	305.1	63.166 µg/L	63.166 ppb	07:54:23
2	Si 251.611†	711.5	388.3	31.160 µg/L	31.160 ppb	07:54:44
2	Sn 189.927†	-0.4	-1.1	-0.5028 µg/L	-0.5028 ppb	07:54:44
2	Ti 334.940†	268.8	196.2	0.4534 µg/L	0.4534 ppb	07:54:23
2	Tl 190.801†	-25.3	-4.0	-5.5615 µg/L	-5.5615 ppb	07:54:44
2	U 409.014†	156.6	-48.7	-3.9819 µg/L	-3.9819 ppb	07:54:23
2	V 292.402†	-66.6	-20.3	-0.2003 µg/L	-0.2003 ppb	07:54:23
2	Zn 213.857†	592.1	53.4	1.3152 µg/L	1.3152 ppb	07:54:44
3	Sc RADIAL	52004.2	52004.2	98.5 %		07:53:15
3	Al 396.153Radial†	-28.2	-2.2	-1.5967 µg/L	-1.5967 ppb	07:53:15
3	Ca 317.933Radial†	200.8	20.6	19.466 µg/L	19.466 ppb	07:53:35
3	Fe 238.204 Radial†	22.3	6.8	61.703 µg/L	61.703 ppb	07:53:35
3	K 766.490 Radial†	168.7	-76.0	-51.964 µg/L	-51.964 ppb	07:53:15
3	Mg 279.077 IEC†	9.1	-3.5	-33.710 µg/L	-33.710 ppb	07:53:35
3	Na 589.592 Radial†	514.3	-70.6	-21.830 µg/L	-21.830 ppb	07:53:15
3	Sr 421.552†	65.5	41.4	0.4119 µg/L	0.4119 ppb	07:53:15
3	Sc 361.383	1857743.6	1857743.6	97.605 %		07:54:50
3	Y 371.029	1287475.2	1287475.2	98.175 %		07:54:50
3	Ag 328.068†	-393.2	95.9	0.7327 µg/L	0.7327 ppb	07:54:55
3	As 188.979†	-2.4	-3.3	-6.3227 µg/L	-6.3227 ppb	07:55:16
3	B 249.677†	333.8	-112.2	-4.8276 µg/L	-4.8276 ppb	07:55:16
3	Ba 233.527†	-3.2	17.2	0.4404 µg/L	0.4404 ppb	07:55:16
3	Be 313.107†	-3157.8	302.9	0.1879 µg/L	0.1879 ppb	07:54:55
3	Cd 226.502†	-126.2	0.0	-0.0053 µg/L	-0.0053 ppb	07:55:16
3	Co 228.616†	-4.7	2.6	0.1239 µg/L	0.1239 ppb	07:55:16
3	Cr 267.716†	-32.9	12.4	0.2626 µg/L	0.2626 ppb	07:55:16
3	Cu 324.752†	3283.6	125.0	0.8444 µg/L	0.8444 ppb	07:54:55
3	Mn 257.610†	44.5	276.4	0.9358 µg/L	0.9358 ppb	07:55:16
3	Mo 202.031†	-5.3	-1.4	-0.1426 µg/L	-0.1426 ppb	07:55:16
3	Ni 231.604†	306.7	26.2	1.3903 µg/L	1.3903 ppb	07:55:16
3	P 214.914†	16.3	-5.6	-11.959 µg/L	-11.959 ppb	07:55:16
3	Pb 220.353†	79.9	-0.7	-0.1956 µg/L	-0.1956 ppb	07:55:16
3	S 181.975 Axial†	17.1	1.1	4.8035 µg/L	4.8035 ppb	07:55:16
3	Sb 206.836†	21.2	-0.1	-0.1062 µg/L	-0.1062 ppb	07:55:16
3	Se 196.026†	8.1	-7.6	-11.027 µg/L	-11.027 ppb	07:55:16
3	SiO2†	1905.1	406.3	84.119 µg/L	84.119 ppb	07:54:55
3	Si 251.611†	728.5	411.5	33.019 µg/L	33.019 ppb	07:55:16
3	Sn 189.927†	2.7	2.1	0.9316 µg/L	0.9316 ppb	07:55:16
3	Ti 334.940†	279.8	209.7	0.4836 µg/L	0.4836 ppb	07:54:55
3	Tl 190.801†	-23.3	-2.1	-2.9223 µg/L	-2.9223 ppb	07:55:16
3	U 409.014†	236.7	34.7	2.8237 µg/L	2.8237 ppb	07:54:55
3	V 292.402†	-73.3	-27.7	-0.2709 µg/L	-0.2709 ppb	07:54:55
3	Zn 213.857†	575.8	41.5	1.0186 µg/L	1.0186 ppb	07:55:16

Mean Data: 1202038311|951151|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1871230.7	98.314 %		0.6760			0.69%
Sc RADIAL	51725.4	98.0 %		0.78			0.79%
Y 371.029	1295955.3	98.821 %		0.6067			0.61%
Ag 328.068†	79.4	0.6067 µg/L		0.29045	0.6067 ppb	0.29045	47.88%
Al 396.153Radial†	16.0	11.622 µg/L		12.3900	11.622 ppb	12.3900	106.60%
As 188.979†	-2.1	-3.9407 µg/L		3.48559	-3.9407 ppb	3.48559	88.45%
B 249.677†	-110.0	-4.7296 µg/L		0.54452	-4.7296 ppb	0.54452	11.51%
Ba 233.527†	16.9	0.4335 µg/L		0.12352	0.4335 ppb	0.12352	28.49%

Be 313.107†	293.0	0.1817 µg/L	0.02552	0.1817 ppb	0.02552	14.05%
Ca 317.933Radial†	26.8	25.390 µg/L	5.1526	25.390 ppb	5.1526	20.29%
Cd 226.502†	-0.9	-0.0293 µg/L	0.04308	-0.0293 ppb	0.04308	147.03%
Co 228.616†	7.9	0.3812 µg/L	0.22377	0.3812 ppb	0.22377	58.70%
Cr 267.716†	26.3	0.5579 µg/L	0.27768	0.5579 ppb	0.27768	49.77%
Cu 324.752†	94.9	0.6410 µg/L	0.18119	0.6410 ppb	0.18119	28.26%
Fe 238.204 Radial†	5.5	49.316 µg/L	12.2579	49.316 ppb	12.2579	24.86%
K 766.490 Radial†	-56.6	-38.735 µg/L	32.3579	-38.735 ppb	32.3579	83.54%
Mg 279.077 IEC†	-5.3	-50.683 µg/L	24.2380	-50.683 ppb	24.2380	47.82%
Mn 257.610†	278.9	0.9431 µg/L	0.02327	0.9431 ppb	0.02327	2.47%
Mo 202.031†	-0.5	-0.0530 µg/L	0.25225	-0.0530 ppb	0.25225	476.16%
Na 589.592 Radial†	-62.1	-19.210 µg/L	2.8659	-19.210 ppb	2.8659	14.92%
Ni 231.604†	21.5	1.1432 µg/L	0.36577	1.1432 ppb	0.36577	31.99%
P 214.914†	-8.1	-17.128 µg/L	13.3855	-17.128 ppb	13.3855	78.15%
Pb 220.353†	0.7	0.1737 µg/L	0.54139	0.1737 ppb	0.54139	311.66%
S 181.975 Axial†	1.0	4.5249 µg/L	2.58362	4.5249 ppb	2.58362	57.10%
Sb 206.836†	-0.4	-0.3955 µg/L	1.02660	-0.3955 ppb	1.02660	259.58%
Se 196.026†	-2.9	-4.1125 µg/L	9.05943	-4.1125 ppb	9.05943	220.29%
SiO2†	334.0	69.153 µg/L	13.0474	69.153 ppb	13.0474	18.87%
Si 251.611†	382.8	30.723 µg/L	2.5422	30.723 ppb	2.5422	8.27%
Sn 189.927†	0.1	0.0215 µg/L	0.79118	0.0215 ppb	0.79118	>999.9%
Sr 421.552†	30.0	0.2983 µg/L	0.22528	0.2983 ppb	0.22528	75.52%
Ti 334.940†	235.1	0.5434 µg/L	0.13052	0.5434 ppb	0.13052	24.02%
Tl 190.801†	-3.2	-4.3862 µg/L	1.34308	-4.3862 ppb	1.34308	30.62%
U 409.014†	-6.2	-0.5116 µg/L	3.40479	-0.5116 ppb	3.40479	665.47%
V 292.402†	-19.1	-0.1873 µg/L	0.09082	-0.1873 ppb	0.09082	48.49%
Zn 213.857†	47.5	1.1716 µg/L	0.14854	1.1716 ppb	0.14854	12.68%

Sequence No.: 2

Sample ID: 1202038316|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 302

Date Collected: 2/25/2010 07:55:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202038316|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54325.5	54325.5	103 %		07:55:58
1	Al 396.153Radial†	121367.0	117924.8	85460 µg/L	85460 ppb	07:55:58
1	Ca 317.933Radial†	109711.3	106392.6	100680 µg/L	100680 ppb	07:55:58
1	Fe 238.204 Radial†	22273.7	21621.4	195400 µg/L	195400 ppb	07:56:19
1	K 766.490 Radial†	60583.8	58605.2	40076 µg/L	40076 ppb	07:55:58
1	Mg 279.077 IEC†	4034.3	3906.3	37217 µg/L	37217 ppb	07:56:19
1	Na 589.592 Radial†	32149.3	30638.0	9475.5 µg/L	9475.5 ppb	07:55:58
1	Sr 421.552†	226546.3	220046.8	2186.9 µg/L	2186.9 ppb	07:55:58
1	Sc 361.383	1904169.6	1904169.6	100.04 %		07:57:23
1	Y 371.029	1345824.8	1345824.8	102.62 %		07:57:23
1	Ag 328.068†	37443.9	37926.1	309.28 µg/L	309.28 ppb	07:57:29
1	As 188.979†	562.8	561.7	1076.1 µg/L	1076.1 ppb	07:57:50
1	B 249.677†	35295.1	34825.2	1391.0 µg/L	1391.0 ppb	07:57:29
1	Ba 233.527†	77685.1	77671.1	1994.2 µg/L	1994.2 ppb	07:57:29
1	Be 313.107†	1252251.7	1255234.6	777.13 µg/L	777.13 ppb	07:57:23
1	Cd 226.502†	22482.1	22601.5	588.07 µg/L	588.07 ppb	07:57:29
1	Co 228.616†	19187.8	19186.7	916.02 µg/L	916.02 ppb	07:57:29
1	Cr 267.716†	110497.1	110494.3	2341.3 µg/L	2341.3 ppb	07:57:29
1	Cu 324.752†	277721.8	274359.5	1861.2 µg/L	1861.2 ppb	07:57:29
1	Mn 257.610†	1634851.5	1634357.3	5500.4 µg/L	5500.4 ppb	07:57:23
1	Mo 202.031†	4875.5	4877.4	511.97 µg/L	511.97 ppb	07:57:50
1	Ni 231.604†	25356.5	25057.3	1331.0 µg/L	1331.0 ppb	07:57:29
1	P 214.914†	3904.8	3880.7	7828.7 µg/L	7828.7 ppb	07:57:50
1	Pb 220.353†	3484.2	3400.1	869.02 µg/L	869.02 ppb	07:57:50
1	S 181.975 Axial†	888.8	872.1	3782.1 µg/L	3782.1 ppb	07:57:50
1	Sb 206.836†	1505.8	1483.3	1379.7 µg/L	1379.7 ppb	07:57:50
1	Se 196.026†	1923.7	1907.0	3300.3 µg/L	3300.3 ppb	07:57:50
1	SiO2†	282124.3	280453.6	58067 µg/L	58067 ppb	07:57:29
1	Si 251.611†	337670.4	337185.8	27059 µg/L	27059 ppb	07:57:29
1	Sn 189.927†	2424.0	2422.3	1064.7 µg/L	1064.7 ppb	07:57:50
1	Ti 334.940†	2487853.9	2486673.6	5699.0 µg/L	5699.0 ppb	07:57:23
1	Tl 190.801†	796.4	817.8	1227.8 µg/L	1227.8 ppb	07:57:50
1	U 409.014†	229.7	21.8	-31.519 µg/L	-31.519 ppb	07:57:29
1	V 292.402†	119920.8	119915.1	1248.5 µg/L	1248.5 ppb	07:57:29
1	Zn 213.857†	234075.6	233423.3	5760.8 µg/L	5760.8 ppb	07:57:29
2	Sc RADIAL	53785.1	53785.1	102 %		07:56:24
2	Al 396.153Radial†	121052.3	118800.7	86095 µg/L	86095 ppb	07:56:24
2	Ca 317.933Radial†	108971.2	106737.3	101010 µg/L	101010 ppb	07:56:24
2	Fe 238.204 Radial†	22232.5	21798.4	197000 µg/L	197000 ppb	07:56:45
2	K 766.490 Radial†	60325.9	58943.5	40307 µg/L	40307 ppb	07:56:24
2	Mg 279.077 IEC†	4035.8	3947.1	37606 µg/L	37606 ppb	07:56:45
2	Na 589.592 Radial†	32086.4	30890.0	9553.5 µg/L	9553.5 ppb	07:56:24
2	Sr 421.552†	225089.3	220828.5	2194.7 µg/L	2194.7 ppb	07:56:24
2	Sc 361.383	1902991.3	1902991.3	99.982 %		07:57:57
2	Y 371.029	1344441.1	1344441.1	102.52 %		07:57:57
2	Ag 328.068†	37428.2	37933.5	309.43 µg/L	309.43 ppb	07:58:03
2	As 188.979†	559.3	558.5	1070.1 µg/L	1070.1 ppb	07:58:23
2	B 249.677†	35220.1	34772.1	1387.9 µg/L	1387.9 ppb	07:58:03
2	Ba 233.527†	77625.4	77659.5	1993.9 µg/L	1993.9 ppb	07:58:03
2	Be 313.107†	1251628.8	1255386.7	777.22 µg/L	777.22 ppb	07:57:57
2	Cd 226.502†	22440.0	22573.3	587.12 µg/L	587.12 ppb	07:58:03
2	Co 228.616†	19195.6	19206.4	916.97 µg/L	916.97 ppb	07:58:03
2	Cr 267.716†	110298.2	110363.7	2338.6 µg/L	2338.6 ppb	07:58:03
2	Cu 324.752†	277115.6	273925.2	1858.5 µg/L	1858.5 ppb	07:58:03
2	Mn 257.610†	1634071.3	1634588.8	5501.4 µg/L	5501.4 ppb	07:57:57
2	Mo 202.031†	4872.2	4877.1	512.01 µg/L	512.01 ppb	07:58:23
2	Ni 231.604†	25267.3	24983.8	1327.2 µg/L	1327.2 ppb	07:58:03
2	P 214.914†	3898.4	3876.8	7819.6 µg/L	7819.6 ppb	07:58:23
2	Pb 220.353†	3462.9	3381.0	864.10 µg/L	864.10 ppb	07:58:23

2	S 181.975 Axial†	897.4	881.2	3821.9 µg/L	3821.9 ppb	07:58:23
2	Sb 206.836†	1494.0	1472.5	1369.3 µg/L	1369.3 ppb	07:58:23
2	Se 196.026†	1913.8	1898.3	3291.3 µg/L	3291.3 ppb	07:58:23
2	SiO2†	281425.3	279929.1	57958 µg/L	57958 ppb	07:58:03
2	Si 251.611†	336859.6	336583.8	27010 µg/L	27010 ppb	07:58:03
2	Sn 189.927†	2413.3	2413.0	1060.4 µg/L	1060.4 ppb	07:58:23
2	Ti 334.940†	2486556.0	2486915.4	5699.5 µg/L	5699.5 ppb	07:57:57
2	Tl 190.801†	810.3	832.2	1248.0 µg/L	1248.0 ppb	07:58:23
2	U 409.014†	113.9	-93.9	-41.210 µg/L	-41.210 ppb	07:58:03
2	V 292.402†	119640.7	119709.1	1246.6 µg/L	1246.6 ppb	07:58:03
2	Zn 213.857†	233536.3	233028.8	5751.0 µg/L	5751.0 ppb	07:58:03
3	Sc RADIAL	54331.6	54331.6	103 %		07:56:50
3	Al 396.153Radial†	122324.6	118841.8	86126 µg/L	86126 ppb	07:56:50
3	Ca 317.933Radial†	110454.8	107102.8	101350 µg/L	101350 ppb	07:56:50
3	Fe 238.204 Radial†	22200.5	21547.9	194730 µg/L	194730 ppb	07:57:11
3	K 766.490 Radial†	60876.9	58883.3	40266 µg/L	40266 ppb	07:56:50
3	Mg 279.077 IEC†	4041.3	3912.6	37278 µg/L	37278 ppb	07:57:11
3	Na 589.592 Radial†	32410.5	30888.2	9552.9 µg/L	9552.9 ppb	07:56:50
3	Sr 421.552†	228083.4	221515.1	2201.5 µg/L	2201.5 ppb	07:56:50
3	Sc 361.383	1896445.1	1896445.1	99.639 %		07:58:30
3	Y 371.029	1339181.3	1339181.3	102.12 %		07:58:30
3	Ag 328.068†	36632.5	37264.2	303.88 µg/L	303.88 ppb	07:58:36
3	As 188.979†	520.0	521.0	998.50 µg/L	998.50 ppb	07:58:57
3	B 249.677†	34273.8	33943.9	1353.5 µg/L	1353.5 ppb	07:58:36
3	Ba 233.527†	74754.5	75046.2	1926.8 µg/L	1926.8 ppb	07:58:36
3	Be 313.107†	1227082.7	1235072.6	764.65 µg/L	764.65 ppb	07:58:30
3	Cd 226.502†	21744.3	21952.5	570.61 µg/L	570.61 ppb	07:58:36
3	Co 228.616†	18412.9	18487.1	882.39 µg/L	882.39 ppb	07:58:36
3	Cr 267.716†	105196.2	105624.0	2238.1 µg/L	2238.1 ppb	07:58:36
3	Cu 324.752†	266574.4	264302.4	1793.8 µg/L	1793.8 ppb	07:58:36
3	Mn 257.610†	1602067.8	1608110.7	5412.4 µg/L	5412.4 ppb	07:58:30
3	Mo 202.031†	4578.0	4598.7	483.12 µg/L	483.12 ppb	07:58:57
3	Ni 231.604†	24311.7	24111.9	1280.9 µg/L	1280.9 ppb	07:58:36
3	P 214.914†	3656.6	3647.5	7346.3 µg/L	7346.3 ppb	07:58:57
3	Pb 220.353†	3312.3	3241.7	828.42 µg/L	828.42 ppb	07:58:57
3	S 181.975 Axial†	856.0	842.7	3654.7 µg/L	3654.7 ppb	07:58:57
3	Sb 206.836†	1394.9	1378.1	1280.5 µg/L	1280.5 ppb	07:58:57
3	Se 196.026†	1836.3	1827.1	3179.8 µg/L	3179.8 ppb	07:58:57
3	SiO2†	271915.3	271356.2	56183 µg/L	56183 ppb	07:58:36
3	Si 251.611†	325371.6	326217.1	26178 µg/L	26178 ppb	07:58:36
3	Sn 189.927†	2259.2	2266.7	995.28 µg/L	995.28 ppb	07:58:57
3	Ti 334.940†	2433245.0	2441995.5	5596.6 µg/L	5596.6 ppb	07:58:30
3	Tl 190.801†	768.6	793.1	1192.4 µg/L	1192.4 ppb	07:58:57
3	U 409.014†	348.4	141.9	-21.659 µg/L	-21.659 ppb	07:58:36
3	V 292.402†	114693.9	115157.4	1199.7 µg/L	1199.7 ppb	07:58:36
3	Zn 213.857†	225367.7	225636.8	5568.3 µg/L	5568.3 ppb	07:58:36

Mean Data: 1202038316|951151|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1901202.0	99.888 %	0.2186			0.22%
Sc RADIAL	54147.4	103 %	0.6			0.58%
Y 371.029	1343149.1	102.42 %	0.267			0.26%
Ag 328.068†	37708.0	307.53 µg/L	3.162	307.53 ppb	3.162	1.03%
Al 396.153Radial†	118522.4	85894 µg/L	375.6	85894 ppb	375.6	0.44%
As 188.979†	547.1	1048.2 µg/L	43.17	1048.2 ppb	43.17	4.12%
B 249.677†	34513.8	1377.5 µg/L	20.81	1377.5 ppb	20.81	1.51%
Ba 233.527†	76792.3	1971.7 µg/L	38.83	1971.7 ppb	38.83	1.97%
Be 313.107†	1248564.6	773.00 µg/L	7.232	773.00 ppb	7.232	0.94%
Ca 317.933Radial†	106744.3	101010 µg/L	336.1	101010 ppb	336.1	0.33%
Cd 226.502†	22375.8	581.93 µg/L	9.818	581.93 ppb	9.818	1.69%
Co 228.616†	18960.1	905.13 µg/L	19.697	905.13 ppb	19.697	2.18%
Cr 267.716†	108827.3	2306.0 µg/L	58.80	2306.0 ppb	58.80	2.55%
Cu 324.752†	270862.4	1837.8 µg/L	38.12	1837.8 ppb	38.12	2.07%
Fe 238.204 Radial†	21655.9	195710 µg/L	1163.9	195710 ppb	1163.9	0.59%
K 766.490 Radial†	58810.7	40216 µg/L	123.4	40216 ppb	123.4	0.31%
Mg 279.077 IEC†	3922.0	37367 µg/L	209.5	37367 ppb	209.5	0.56%
Mn 257.610†	1625685.6	5471.4 µg/L	51.11	5471.4 ppb	51.11	0.93%
Mo 202.031†	4784.4	502.37 µg/L	16.668	502.37 ppb	16.668	3.32%
Na 589.592 Radial†	30805.4	9527.3 µg/L	44.84	9527.3 ppb	44.84	0.47%

Ni 231.604†	24717.7	1313.0 µg/L	27.89	1313.0 ppb	27.89	2.12%
P 214.914†	3801.7	7664.9 µg/L	275.93	7664.9 ppb	275.93	3.60%
Pb 220.353†	3340.9	853.85 µg/L	22.157	853.85 ppb	22.157	2.59%
S 181.975 Axial†	865.3	3752.9 µg/L	87.31	3752.9 ppb	87.31	2.33%
Sb 206.836†	1444.6	1343.2 µg/L	54.50	1343.2 ppb	54.50	4.06%
Se 196.026†	1877.5	3257.1 µg/L	67.12	3257.1 ppb	67.12	2.06%
SiO2†	277246.3	57403 µg/L	1057.5	57403 ppb	1057.5	1.84%
Si 251.611†	333328.9	26749 µg/L	494.8	26749 ppb	494.8	1.85%
Sn 189.927†	2367.3	1040.1 µg/L	38.90	1040.1 ppb	38.90	3.74%
Sr 421.552†	220796.8	2194.4 µg/L	7.30	2194.4 ppb	7.30	0.33%
Ti 334.940†	2471861.5	5665.0 µg/L	59.28	5665.0 ppb	59.28	1.05%
Tl 190.801†	814.4	1222.7 µg/L	28.15	1222.7 ppb	28.15	2.30%
U 409.014†	23.3	-31.463 µg/L	9.7753	-31.463 ppb	9.7753	31.07%
V 292.402†	118260.5	1231.6 µg/L	27.63	1231.6 ppb	27.63	2.24%
Zn 213.857†	230696.3	5693.4 µg/L	108.40	5693.4 ppb	108.40	1.90%

Sequence No.: 3
 Sample ID: 246344001|951151|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 303
 Date Collected: 2/25/2010 07:59:06
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 246344001|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53827.6	53827.6	102 %		07:59:39
1	Al 396.153Radial†	77445.4	75954.4	55051 µg/L	55051 ppb	07:59:39
1	Ca 317.933Radial†	13666.7	13215.7	12506 µg/L	12506 ppb	07:59:59
1	Fe 238.204 Radial†	11298.6	11061.4	99957 µg/L	99957 ppb	07:59:59
1	K 766.490 Radial†	15372.7	14824.3	10137 µg/L	10137 ppb	07:59:39
1	Mg 279.077 IEC†	1163.5	1128.0	10698 µg/L	10698 ppb	07:59:59
1	Na 589.592 Radial†	3467.9	2807.5	868.27 µg/L	868.27 ppb	07:59:39
1	Sr 421.552†	13611.7	13320.0	132.38 µg/L	132.38 ppb	07:59:39
1	Sc 361.383	1886407.2	1886407.2	99.111 %		08:01:02
1	Y 371.029	1336373.4	1336373.4	101.90 %		08:01:02
1	Ag 328.068†	-1448.0	-962.2	-0.0998 µg/L	-0.0998 ppb	08:01:08
1	As 188.979†	10.5	9.7	23.728 µg/L	23.728 ppb	08:01:28
1	B 249.677†	991.0	545.7	-28.713 µg/L	-28.713 ppb	08:01:08
1	Ba 233.527†	29144.3	29426.1	754.95 µg/L	754.95 ppb	08:01:08
1	Be 313.107†	10600.2	14233.5	7.8418 µg/L	7.8418 ppb	08:01:08
1	Cd 226.502†	239.4	370.9	-1.2573 µg/L	-1.2573 ppb	08:01:28
1	Co 228.616†	1585.5	1607.1	72.238 µg/L	72.238 ppb	08:01:28
1	Cr 267.716†	3098.3	3172.2	67.285 µg/L	67.285 ppb	08:01:28
1	Cu 324.752†	14180.9	11069.0	87.886 µg/L	87.886 ppb	08:01:08
1	Mn 257.610†	683652.1	690014.1	2324.8 µg/L	2324.8 ppb	08:01:02
1	Mo 202.031†	7.7	11.8	5.0223 µg/L	5.0223 ppb	08:01:28
1	Ni 231.604†	1150.9	873.2	47.542 µg/L	47.542 ppb	08:01:28
1	P 214.914†	334.0	314.6	586.83 µg/L	586.83 ppb	08:01:28
1	Pb 220.353†	908.2	833.8	213.25 µg/L	213.25 ppb	08:01:28
1	S 181.975 Axial†	105.5	90.1	390.75 µg/L	390.75 ppb	08:01:28
1	Sb 206.836†	37.5	16.0	13.355 µg/L	13.355 ppb	08:01:28
1	Se 196.026†	-30.3	-46.4	191.40 µg/L	191.40 ppb	08:01:28
1	SiO2†	290089.7	291145.7	60281 µg/L	60281 ppb	08:01:02
1	Si 251.611†	344728.8	347485.5	27885 µg/L	27885 ppb	08:01:02
1	Sn 189.927†	-10.0	-10.7	-14.250 µg/L	-14.250 ppb	08:01:28
1	Ti 334.940†	1129100.6	1139149.8	2610.7 µg/L	2610.7 ppb	08:01:02
1	Tl 190.801†	-46.9	-25.6	13.911 µg/L	13.911 ppb	08:01:28
1	U 409.014†	595.3	392.8	17.420 µg/L	17.420 ppb	08:01:08
1	V 292.402†	13783.0	13954.0	153.48 µg/L	153.48 ppb	08:01:08
1	Zn 213.857†	9459.0	8995.4	217.10 µg/L	217.10 ppb	08:01:08
2	Sc RADIAL	53390.1	53390.1	101 %		08:00:05
2	Al 396.153Radial†	77207.5	76341.5	55332 µg/L	55332 ppb	08:00:05
2	Ca 317.933Radial†	13677.8	13336.4	12621 µg/L	12621 ppb	08:00:25
2	Fe 238.204 Radial†	11309.1	11162.6	100870 µg/L	100870 ppb	08:00:25
2	K 766.490 Radial†	15300.3	14876.3	10173 µg/L	10173 ppb	08:00:05
2	Mg 279.077 IEC†	1163.1	1136.9	10782 µg/L	10782 ppb	08:00:25
2	Na 589.592 Radial†	3447.5	2815.1	870.64 µg/L	870.64 ppb	08:00:05
2	Sr 421.552†	13518.5	13337.2	132.55 µg/L	132.55 ppb	08:00:05
2	Sc 361.383	1879522.7	1879522.7	98.749 %		08:01:34
2	Y 371.029	1331389.0	1331389.0	101.52 %		08:01:34
2	Ag 328.068†	-1529.7	-1050.3	-0.7003 µg/L	-0.7003 ppb	08:01:40
2	As 188.979†	17.4	16.8	37.163 µg/L	37.163 ppb	08:02:00
2	B 249.677†	1011.9	570.5	-28.127 µg/L	-28.127 ppb	08:01:40
2	Ba 233.527†	29469.3	29863.0	766.16 µg/L	766.16 ppb	08:01:40
2	Be 313.107†	10814.8	14490.0	7.9981 µg/L	7.9981 ppb	08:01:40
2	Cd 226.502†	240.6	373.0	-1.3044 µg/L	-1.3044 ppb	08:02:00
2	Co 228.616†	1583.3	1610.8	72.399 µg/L	72.399 ppb	08:02:00
2	Cr 267.716†	3121.5	3207.1	68.026 µg/L	68.026 ppb	08:02:00
2	Cu 324.752†	14292.3	11234.2	89.117 µg/L	89.117 ppb	08:01:40
2	Mn 257.610†	683038.9	691919.8	2331.3 µg/L	2331.3 ppb	08:01:34
2	Mo 202.031†	2.8	6.9	4.5462 µg/L	4.5462 ppb	08:02:00
2	Ni 231.604†	1143.1	869.6	47.360 µg/L	47.360 ppb	08:02:00
2	P 214.914†	344.6	326.6	611.10 µg/L	611.10 ppb	08:02:00
2	Pb 220.353†	906.9	835.8	213.75 µg/L	213.75 ppb	08:02:00

2	S 181.975 Axial†	104.8	89.8	389.43 µg/L	389.43 ppb	08:02:00
2	Sb 206.836†	29.6	8.1	5.8720 µg/L	5.8720 ppb	08:02:00
2	Se 196.026†	-30.8	-47.1	192.76 µg/L	192.76 ppb	08:02:00
2	SiO2†	289840.2	291965.2	60450 µg/L	60450 ppb	08:01:34
2	Si 251.611†	344551.9	348580.4	27973 µg/L	27973 ppb	08:01:34
2	Sn 189.927†	-11.0	-11.8	-14.821 µg/L	-14.821 ppb	08:02:00
2	Ti 334.940†	1128314.2	1142526.3	2618.4 µg/L	2618.4 ppb	08:01:34
2	Tl 190.801†	-49.7	-28.6	10.020 µg/L	10.020 ppb	08:02:00
2	U 409.014†	502.7	301.3	9.8095 µg/L	9.8095 ppb	08:01:40
2	V 292.402†	13921.8	14145.5	155.52 µg/L	155.52 ppb	08:01:40
2	Zn 213.857†	9543.7	9116.1	220.04 µg/L	220.04 ppb	08:01:40
3	Sc RADIAL	53837.6	53837.6	102 %		08:00:31
3	Al 396.153Radial†	77696.4	76186.4	55219 µg/L	55219 ppb	08:00:31
3	Ca 317.933Radial†	13697.1	13243.1	12532 µg/L	12532 ppb	08:00:51
3	Fe 238.204 Radial†	11318.5	11078.9	100120 µg/L	100120 ppb	08:00:51
3	K 766.490 Radial†	15384.3	14832.9	10143 µg/L	10143 ppb	08:00:31
3	Mg 279.077 IEC†	1160.1	1124.4	10664 µg/L	10664 ppb	08:00:51
3	Na 589.592 Radial†	3450.0	2789.2	862.64 µg/L	862.64 ppb	08:00:31
3	Sr 421.552†	13646.4	13351.5	132.69 µg/L	132.69 ppb	08:00:31
3	Sc 361.383	1909026.4	1909026.4	100.30 %		08:02:07
3	Y 371.029	1350229.4	1350229.4	102.96 %		08:02:07
3	Ag 328.068†	-1407.8	-904.8	0.3156 µg/L	0.3156 ppb	08:02:12
3	As 188.979†	6.4	5.5	15.689 µg/L	15.689 ppb	08:02:33
3	B 249.677†	968.0	510.9	-30.292 µg/L	-30.292 ppb	08:02:12
3	Ba 233.527†	28615.3	28550.3	732.48 µg/L	732.48 ppb	08:02:12
3	Be 313.107†	10763.8	14269.9	7.8864 µg/L	7.8864 ppb	08:02:12
3	Cd 226.502†	233.0	361.7	-1.5264 µg/L	-1.5264 ppb	08:02:33
3	Co 228.616†	1474.9	1477.9	66.112 µg/L	66.112 ppb	08:02:33
3	Cr 267.716†	2915.3	2952.8	62.633 µg/L	62.633 ppb	08:02:33
3	Cu 324.752†	14036.1	10755.1	85.810 µg/L	85.810 ppb	08:02:12
3	Mn 257.610†	677798.3	676004.9	2277.8 µg/L	2277.8 ppb	08:02:07
3	Mo 202.031†	14.7	18.7	5.7355 µg/L	5.7355 ppb	08:02:33
3	Ni 231.604†	1110.0	818.7	44.659 µg/L	44.659 ppb	08:02:33
3	P 214.914†	318.7	295.4	546.71 µg/L	546.71 ppb	08:02:33
3	Pb 220.353†	867.1	782.0	199.95 µg/L	199.95 ppb	08:02:33
3	S 181.975 Axial†	105.2	88.5	383.81 µg/L	383.81 ppb	08:02:33
3	Sb 206.836†	37.9	15.9	13.342 µg/L	13.342 ppb	08:02:33
3	Se 196.026†	-28.9	-44.7	194.36 µg/L	194.36 ppb	08:02:33
3	SiO2†	288565.3	286158.0	59248 µg/L	59248 ppb	08:02:07
3	Si 251.611†	342955.6	341596.5	27413 µg/L	27413 ppb	08:02:07
3	Sn 189.927†	-4.6	-5.3	-11.830 µg/L	-11.830 ppb	08:02:33
3	Ti 334.940†	1117344.3	1113930.4	2552.9 µg/L	2552.9 ppb	08:02:07
3	Tl 190.801†	-44.7	-22.9	17.105 µg/L	17.105 ppb	08:02:33
3	U 409.014†	569.3	359.8	14.698 µg/L	14.698 ppb	08:02:12
3	V 292.402†	13475.5	13482.7	148.71 µg/L	148.71 ppb	08:02:12
3	Zn 213.857†	9298.1	8721.9	210.33 µg/L	210.33 ppb	08:02:12

Mean Data: 246344001|951151|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1891652.1	99.387 %	0.8110			0.82%
Sc RADIAL	53685.1	102 %	0.5			0.48%
Y 371.029	1339330.6	102.13 %	0.744			0.73%
Ag 328.068†	-972.4	-0.1615 µg/L	0.51078	-0.1615 ppb	0.51078	316.26%
Al 396.153Radial†	76160.8	55201 µg/L	141.2	55201 ppb	141.2	0.26%
As 188.979†	10.7	25.527 µg/L	10.8493	25.527 ppb	10.8493	42.50%
B 249.677†	542.4	-29.044 µg/L	1.1196	-29.044 ppb	1.1196	3.85%
Ba 233.527†	29279.8	751.20 µg/L	17.150	751.20 ppb	17.150	2.28%
Be 313.107†	14331.1	7.9088 µg/L	0.08050	7.9088 ppb	0.08050	1.02%
Ca 317.933Radial†	13265.1	12553 µg/L	59.9	12553 ppb	59.9	0.48%
Cd 226.502†	368.5	-1.3627 µg/L	0.14373	-1.3627 ppb	0.14373	10.55%
Co 228.616†	1565.3	70.250 µg/L	3.5840	70.250 ppb	3.5840	5.10%
Cr 267.716†	3110.7	65.981 µg/L	2.9230	65.981 ppb	2.9230	4.43%
Cu 324.752†	11019.4	87.604 µg/L	1.6719	87.604 ppb	1.6719	1.91%
Fe 238.204 Radial†	11101.0	100310 µg/L	488.6	100310 ppb	488.6	0.49%
K 766.490 Radial†	14844.5	10151 µg/L	19.0	10151 ppb	19.0	0.19%
Mg 279.077 IEC†	1129.8	10715 µg/L	61.0	10715 ppb	61.0	0.57%
Mn 257.610†	685979.6	2311.3 µg/L	29.15	2311.3 ppb	29.15	1.26%
Mo 202.031†	12.5	5.1013 µg/L	0.59859	5.1013 ppb	0.59859	11.73%
Na 589.592 Radial†	2803.9	867.18 µg/L	4.111	867.18 ppb	4.111	0.47%

Ni 231.604†	853.8	46.520 µg/L	1.6147	46.520 ppb	1.6147	3.47%
P 214.914†	312.2	581.54 µg/L	32.519	581.54 ppb	32.519	5.59%
Pb 220.353†	817.2	208.98 µg/L	7.827	208.98 ppb	7.827	3.75%
S 181.975 Axial†	89.5	388.00 µg/L	3.685	388.00 ppb	3.685	0.95%
Sb 206.836†	13.4	10.856 µg/L	4.3164	10.856 ppb	4.3164	39.76%
Se 196.026†	-46.0	192.84 µg/L	1.481	192.84 ppb	1.481	0.77%
SiO2†	289756.3	59993 µg/L	650.8	59993 ppb	650.8	1.08%
Si 251.611†	345887.5	27757 µg/L	301.4	27757 ppb	301.4	1.09%
Sn 189.927†	-9.3	-13.633 µg/L	1.5879	-13.633 ppb	1.5879	11.65%
Sr 421.552†	13336.3	132.54 µg/L	0.157	132.54 ppb	0.157	0.12%
Ti 334.940†	1131868.9	2594.0 µg/L	35.82	2594.0 ppb	35.82	1.38%
Tl 190.801†	-25.7	13.678 µg/L	3.5484	13.678 ppb	3.5484	25.94%
U 409.014†	351.3	13.976 µg/L	3.8564	13.976 ppb	3.8564	27.59%
V 292.402†	13860.7	152.57 µg/L	3.495	152.57 ppb	3.495	2.29%
Zn 213.857†	8944.4	215.82 µg/L	4.975	215.82 ppb	4.975	2.31%

Sequence No.: 4

Sample ID: 1202038312|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 304

Date Collected: 2/25/2010 08:02:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202038312|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53119.6	53119.6	101 %			08:03:15
1	Al 396.153Radial†	65923.1	65519.4	47488 µg/L		47488 ppb	08:03:15
1	Ca 317.933Radial†	12990.1	12722.1	12039 µg/L		12039 ppb	08:03:35
1	Fe 238.204 Radial†	10193.4	10111.1	91369 µg/L		91369 ppb	08:03:35
1	K 766.490 Radial†	13004.8	12672.7	8666.0 µg/L		8666.0 ppb	08:03:15
1	Mg 279.077 IEC†	1196.7	1176.2	11168 µg/L		11168 ppb	08:03:35
1	Na 589.592 Radial†	3547.0	2931.3	906.57 µg/L		906.57 ppb	08:03:15
1	Sr 421.552†	11938.6	11835.7	117.63 µg/L		117.63 ppb	08:03:15
1	Sc 361.383	1904159.4	1904159.4	100.04 %			08:04:39
1	Y 371.029	1359509.5	1359509.5	103.67 %			08:04:39
1	Ag 328.068†	-1415.1	-915.7	-0.3263 µg/L		-0.3263 ppb	08:04:45
1	As 188.979†	13.1	12.3	28.048 µg/L		28.048 ppb	08:05:05
1	B 249.677†	928.5	473.9	-27.287 µg/L		-27.287 ppb	08:04:45
1	Ba 233.527†	24888.0	24897.6	638.80 µg/L		638.80 ppb	08:04:45
1	Be 313.107†	8874.7	12409.1	6.7708 µg/L		6.7708 ppb	08:04:45
1	Cd 226.502†	202.4	331.6	-1.3438 µg/L		-1.3438 ppb	08:05:05
1	Co 228.616†	1553.0	1559.7	70.284 µg/L		70.284 ppb	08:05:05
1	Cr 267.716†	3615.3	3659.9	77.611 µg/L		77.611 ppb	08:04:45
1	Cu 324.752†	11459.2	8215.1	67.615 µg/L		67.615 ppb	08:04:45
1	Mn 257.610†	723012.2	722926.3	2433.9 µg/L		2433.9 ppb	08:04:39
1	Mo 202.031†	2.8	6.9	4.1817 µg/L		4.1817 ppb	08:05:05
1	Ni 231.604†	1180.1	891.6	48.409 µg/L		48.409 ppb	08:05:05
1	P 214.914†	419.5	397.0	766.35 µg/L		766.35 ppb	08:05:05
1	Pb 220.353†	1057.3	974.3	249.32 µg/L		249.32 ppb	08:05:05
1	S 181.975 Axial†	92.6	76.2	330.36 µg/L		330.36 ppb	08:05:05
1	Sb 206.836†	31.0	9.2	6.8177 µg/L		6.8177 ppb	08:05:05
1	Se 196.026†	-29.2	-45.0	169.62 µg/L		169.62 ppb	08:05:05
1	SiO2†	272717.3	271052.3	56120 µg/L		56120 ppb	08:04:39
1	Si 251.611†	324190.7	323713.8	25978 µg/L		25978 ppb	08:04:39
1	Sn 189.927†	-10.8	-11.5	-13.604 µg/L		-13.604 ppb	08:05:05
1	Ti 334.940†	1069073.4	1068528.1	2448.7 µg/L		2448.7 ppb	08:04:39
1	Tl 190.801†	-52.7	-31.0	3.6660 µg/L		3.6660 ppb	08:05:05
1	U 409.014†	182.6	-25.3	-15.501 µg/L		-15.501 ppb	08:04:45
1	V 292.402†	13312.9	13354.5	146.38 µg/L		146.38 ppb	08:04:45
1	Zn 213.857†	9450.1	8897.5	215.08 µg/L		215.08 ppb	08:04:45
2	Sc RADIAL	53024.3	53024.3	100 %			08:03:41
2	Al 396.153Radial†	65779.6	65494.2	47470 µg/L		47470 ppb	08:03:41
2	Ca 317.933Radial†	13043.5	12798.4	12111 µg/L		12111 ppb	08:04:01
2	Fe 238.204 Radial†	10208.6	10144.4	91671 µg/L		91671 ppb	08:04:01
2	K 766.490 Radial†	12961.4	12652.8	8652.3 µg/L		8652.3 ppb	08:03:41
2	Mg 279.077 IEC†	1201.3	1182.9	11233 µg/L		11233 ppb	08:04:01
2	Na 589.592 Radial†	3512.3	2903.1	897.84 µg/L		897.84 ppb	08:03:41
2	Sr 421.552†	11903.5	11822.0	117.49 µg/L		117.49 ppb	08:03:41
2	Sc 361.383	1904904.7	1904904.7	100.08 %			08:05:12
2	Y 371.029	1359653.8	1359653.8	103.68 %			08:05:12
2	Ag 328.068†	-1378.6	-878.7	-0.0153 µg/L		-0.0153 ppb	08:05:18
2	As 188.979†	16.2	15.3	33.850 µg/L		33.850 ppb	08:05:38
2	B 249.677†	932.3	477.4	-27.295 µg/L		-27.295 ppb	08:05:18
2	Ba 233.527†	25090.2	25089.9	643.73 µg/L		643.73 ppb	08:05:18
2	Be 313.107†	9087.7	12618.5	6.9026 µg/L		6.9026 ppb	08:05:18
2	Cd 226.502†	194.5	323.7	-1.5928 µg/L		-1.5928 ppb	08:05:38
2	Co 228.616†	1553.2	1559.3	70.276 µg/L		70.276 ppb	08:05:38
2	Cr 267.716†	3641.6	3684.7	78.138 µg/L		78.138 ppb	08:05:18
2	Cu 324.752†	11563.7	8315.0	68.325 µg/L		68.325 ppb	08:05:18
2	Mn 257.610†	723096.8	722728.1	2433.2 µg/L		2433.2 ppb	08:05:12
2	Mo 202.031†	15.0	19.0	5.4519 µg/L		5.4519 ppb	08:05:38
2	Ni 231.604†	1187.1	898.1	48.759 µg/L		48.759 ppb	08:05:38
2	P 214.914†	423.4	400.7	773.82 µg/L		773.82 ppb	08:05:38
2	Pb 220.353†	1064.2	980.8	250.98 µg/L		250.98 ppb	08:05:38

2	S 181.975 Axial†	95.2	78.8	341.58 µg/L	341.58 ppb	08:05:38
2	Sb 206.836†	28.6	6.7	4.4848 µg/L	4.4848 ppb	08:05:38
2	Se 196.026†	-31.2	-47.0	167.45 µg/L	167.45 ppb	08:05:38
2	SiO2†	272107.7	270336.5	55972 µg/L	55972 ppb	08:05:12
2	Si 251.611†	323584.7	322981.5	25919 µg/L	25919 ppb	08:05:12
2	Sn 189.927†	-9.5	-10.2	-13.046 µg/L	-13.046 ppb	08:05:38
2	Ti 334.940†	1067371.6	1066409.6	2443.9 µg/L	2443.9 ppb	08:05:12
2	Tl 190.801†	-47.2	-25.5	11.310 µg/L	11.310 ppb	08:05:38
2	U 409.014†	158.8	-49.1	-17.491 µg/L	-17.491 ppb	08:05:18
2	V 292.402†	13470.6	13506.8	147.97 µg/L	147.97 ppb	08:05:18
2	Zn 213.857†	9494.9	8938.6	216.08 µg/L	216.08 ppb	08:05:18
3	Sc RADIAL	53444.2	53444.2	101 %		08:04:06
3	Al 396.153Radial†	66238.1	65432.6	47425 µg/L	47425 ppb	08:04:06
3	Ca 317.933Radial†	12929.9	12584.3	11909 µg/L	11909 ppb	08:04:27
3	Fe 238.204 Radial†	10136.4	9993.4	90306 µg/L	90306 ppb	08:04:27
3	K 766.490 Radial†	13051.3	12640.2	8643.7 µg/L	8643.7 ppb	08:04:06
3	Mg 279.077 IEC†	1190.5	1162.9	11042 µg/L	11042 ppb	08:04:27
3	Na 589.592 Radial†	3514.8	2878.2	890.14 µg/L	890.14 ppb	08:04:06
3	Sr 421.552†	11966.9	11791.5	117.19 µg/L	117.19 ppb	08:04:06
3	Sc 361.383	1897053.6	1897053.6	99.670 %		08:05:46
3	Y 371.029	1353758.6	1353758.6	103.23 %		08:05:46
3	Ag 328.068†	-1364.6	-870.3	-0.0732 µg/L	-0.0732 ppb	08:05:51
3	As 188.979†	8.3	7.4	18.789 µg/L	18.789 ppb	08:06:12
3	B 249.677†	900.0	448.8	-27.810 µg/L	-27.810 ppb	08:05:51
3	Ba 233.527†	24169.8	24270.2	622.70 µg/L	622.70 ppb	08:05:51
3	Be 313.107†	8607.6	12174.3	6.6412 µg/L	6.6412 ppb	08:05:51
3	Cd 226.502†	173.0	302.9	-2.0017 µg/L	-2.0017 ppb	08:06:12
3	Co 228.616†	1441.7	1453.9	65.256 µg/L	65.256 ppb	08:06:12
3	Cr 267.716†	3477.8	3535.4	74.973 µg/L	74.973 ppb	08:05:51
3	Cu 324.752†	11216.1	8014.0	66.123 µg/L	66.123 ppb	08:05:51
3	Mn 257.610†	710937.1	713518.2	2402.2 µg/L	2402.2 ppb	08:05:46
3	Mo 202.031†	13.9	18.0	5.2893 µg/L	5.2893 ppb	08:06:12
3	Ni 231.604†	1105.2	820.9	44.650 µg/L	44.650 ppb	08:06:12
3	P 214.914†	395.9	374.9	720.99 µg/L	720.99 ppb	08:06:12
3	Pb 220.353†	1007.8	928.5	237.61 µg/L	237.61 ppb	08:06:12
3	S 181.975 Axial†	94.5	78.5	340.31 µg/L	340.31 ppb	08:06:12
3	Sb 206.836†	29.0	7.3	5.1025 µg/L	5.1025 ppb	08:06:12
3	Se 196.026†	-23.3	-39.2	175.48 µg/L	175.48 ppb	08:06:12
3	SiO2†	268958.9	268302.5	55551 µg/L	55551 ppb	08:05:46
3	Si 251.611†	319657.6	320379.5	25710 µg/L	25710 ppb	08:05:46
3	Sn 189.927†	-10.6	-11.3	-13.442 µg/L	-13.442 ppb	08:06:12
3	Ti 334.940†	1046703.8	1050087.2	2406.5 µg/L	2406.5 ppb	08:05:46
3	Tl 190.801†	-43.5	-22.0	15.556 µg/L	15.556 ppb	08:06:12
3	U 409.014†	217.8	10.8	-12.399 µg/L	-12.399 ppb	08:05:51
3	V 292.402†	12884.7	12974.8	142.41 µg/L	142.41 ppb	08:05:51
3	Zn 213.857†	9160.6	8642.4	208.84 µg/L	208.84 ppb	08:05:51

Mean Data: 1202038312|951151|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1902039.2	99.932 %	0.2277			0.23%
Sc RADIAL	53196.0	101 %	0.4			0.41%
Y 371.029	1357640.6	103.53 %	0.256			0.25%
Ag 328.068†	-888.2	-0.1383 µg/L	0.16540	-0.1383 ppb	0.16540	119.61%
Al 396.153Radial†	65482.1	47461 µg/L	32.4	47461 ppb	32.4	0.07%
As 188.979†	11.7	26.896 µg/L	7.5967	26.896 ppb	7.5967	28.25%
B 249.677†	466.7	-27.464 µg/L	0.2994	-27.464 ppb	0.2994	1.09%
Ba 233.527†	24752.6	635.08 µg/L	10.999	635.08 ppb	10.999	1.73%
Be 313.107†	12400.6	6.7715 µg/L	0.13073	6.7715 ppb	0.13073	1.93%
Ca 317.933Radial†	12701.6	12020 µg/L	102.7	12020 ppb	102.7	0.85%
Cd 226.502†	319.4	-1.6461 µg/L	0.33219	-1.6461 ppb	0.33219	20.18%
Co 228.616†	1524.3	68.605 µg/L	2.9006	68.605 ppb	2.9006	4.23%
Cr 267.716†	3626.7	76.907 µg/L	1.6961	76.907 ppb	1.6961	2.21%
Cu 324.752†	8181.4	67.355 µg/L	1.1238	67.355 ppb	1.1238	1.67%
Fe 238.204 Radial†	10083.0	91115 µg/L	717.2	91115 ppb	717.2	0.79%
K 766.490 Radial†	12655.2	8654.0 µg/L	11.21	8654.0 ppb	11.21	0.13%
Mg 279.077 IEC†	1174.0	11148 µg/L	97.0	11148 ppb	97.0	0.87%
Mn 257.610†	719724.2	2423.1 µg/L	18.10	2423.1 ppb	18.10	0.75%
Mo 202.031†	14.6	4.9743 µg/L	0.69123	4.9743 ppb	0.69123	13.90%
Na 589.592 Radial†	2904.2	898.18 µg/L	8.221	898.18 ppb	8.221	0.92%

Ni 231.604†	870.2	47.273 µg/L	2.2779	47.273 ppb	2.2779	4.82%
P 214.914†	390.9	753.72 µg/L	28.589	753.72 ppb	28.589	3.79%
Pb 220.353†	961.2	245.97 µg/L	7.292	245.97 ppb	7.292	2.96%
S 181.975 Axial†	77.8	337.42 µg/L	6.147	337.42 ppb	6.147	1.82%
Sb 206.836†	7.8	5.4683 µg/L	1.20869	5.4683 ppb	1.20869	22.10%
Se 196.026†	-43.7	170.85 µg/L	4.155	170.85 ppb	4.155	2.43%
SiO2†	269897.1	55881 µg/L	295.4	55881 ppb	295.4	0.53%
Si 251.611†	322358.3	25869 µg/L	140.6	25869 ppb	140.6	0.54%
Sn 189.927†	-11.0	-13.364 µg/L	0.2870	-13.364 ppb	0.2870	2.15%
Sr 421.552†	11816.4	117.44 µg/L	0.225	117.44 ppb	0.225	0.19%
Ti 334.940†	1061675.0	2433.0 µg/L	23.13	2433.0 ppb	23.13	0.95%
Tl 190.801†	-26.2	10.178 µg/L	6.0255	10.178 ppb	6.0255	59.20%
U 409.014†	-21.2	-15.130 µg/L	2.5663	-15.130 ppb	2.5663	16.96%
V 292.402†	13278.7	145.58 µg/L	2.864	145.58 ppb	2.864	1.97%
Zn 213.857†	8826.2	213.33 µg/L	3.922	213.33 ppb	3.922	1.84%

Sequence No.: 5

Sample ID: 1202038314|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 305

Date Collected: 2/25/2010 08:06:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202038314|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53989.3	53989.3	102 %		08:06:54
1	Al 396.153Radial†	132648.4	129686.3	93988 µg/L	93988 ppb	08:06:54
1	Ca 317.933Radial†	18407.0	17809.1	16853 µg/L	16853 ppb	08:07:14
1	Fe 238.204 Radial†	12470.2	12173.5	110020 µg/L	110020 ppb	08:07:14
1	K 766.490 Radial†	23616.3	22837.0	15617 µg/L	15617 ppb	08:06:54
1	Mg 279.077 IEC†	1824.1	1770.2	16845 µg/L	16845 ppb	08:07:14
1	Na 589.592 Radial†	19358.4	18329.7	5668.9 µg/L	5668.9 ppb	08:06:54
1	Sr 421.552†	63409.5	61955.9	615.74 µg/L	615.74 ppb	08:06:54
1	Sc 361.383	1949404.2	1949404.2	102.42 %		08:08:20
1	Y 371.029	1407874.5	1407874.5	107.36 %		08:08:20
1	Ag 328.068†	63106.9	62114.0	483.60 µg/L	483.60 ppb	08:08:26
1	As 188.979†	267.3	260.1	500.74 µg/L	500.74 ppb	08:08:47
1	B 249.677†	12213.2	11470.3	433.85 µg/L	433.85 ppb	08:08:26
1	Ba 233.527†	47632.1	46526.6	1194.2 µg/L	1194.2 ppb	08:08:26
1	Be 313.107†	822612.3	806706.1	499.65 µg/L	499.65 ppb	08:08:20
1	Cd 226.502†	18683.5	18371.2	482.88 µg/L	482.88 ppb	08:08:26
1	Co 228.616†	11355.0	11094.0	530.14 µg/L	530.14 ppb	08:08:26
1	Cr 267.716†	22613.0	22124.6	468.98 µg/L	468.98 ppb	08:08:26
1	Cu 324.752†	75447.3	70424.8	486.06 µg/L	486.06 ppb	08:08:26
1	Mn 257.610†	878996.2	858449.8	2890.2 µg/L	2890.2 ppb	08:08:20
1	Mo 202.031†	3787.9	3702.4	387.18 µg/L	387.18 ppb	08:08:47
1	Ni 231.604†	8900.7	8402.3	446.64 µg/L	446.64 ppb	08:08:26
1	P 214.914†	664.7	626.6	1208.6 µg/L	1208.6 ppb	08:08:47
1	Pb 220.353†	2584.2	2440.6	627.80 µg/L	627.80 ppb	08:08:47
1	S 181.975 Axial†	1071.4	1029.7	4465.7 µg/L	4465.7 ppb	08:08:47
1	Sb 206.836†	372.6	342.0	323.80 µg/L	323.80 ppb	08:08:47
1	Se 196.026†	238.2	216.8	602.32 µg/L	602.32 ppb	08:08:47
1	SiO2†	331352.1	321974.2	66664 µg/L	66664 ppb	08:08:20
1	Si 251.611†	394115.0	384464.2	30853 µg/L	30853 ppb	08:08:20
1	Sn 189.927†	944.6	921.6	401.71 µg/L	401.71 ppb	08:08:47
1	Ti 334.940†	1386410.1	1353561.9	3101.8 µg/L	3101.8 ppb	08:08:20
1	Tl 190.801†	245.7	261.6	422.02 µg/L	422.02 ppb	08:08:47
1	U 409.014†	5176.9	4846.7	379.45 µg/L	379.45 ppb	08:08:20
1	V 292.402†	52618.9	51422.5	538.92 µg/L	538.92 ppb	08:08:26
1	Zn 213.857†	27172.1	25981.3	634.55 µg/L	634.55 ppb	08:08:26
2	Sc RADIAL	53911.2	53911.2	102 %		08:07:20
2	Al 396.153Radial†	133629.1	130834.2	94820 µg/L	94820 ppb	08:07:20
2	Ca 317.933Radial†	18437.8	17865.3	16906 µg/L	16906 ppb	08:07:41
2	Fe 238.204 Radial†	12519.1	12239.0	110610 µg/L	110610 ppb	08:07:41
2	K 766.490 Radial†	23807.7	23057.8	15768 µg/L	15768 ppb	08:07:20
2	Mg 279.077 IEC†	1831.4	1780.0	16938 µg/L	16938 ppb	08:07:41
2	Na 589.592 Radial†	19494.2	18490.1	5718.5 µg/L	5718.5 ppb	08:07:20
2	Sr 421.552†	63787.3	62415.6	620.31 µg/L	620.31 ppb	08:07:20
2	Sc 361.383	1947381.6	1947381.6	102.31 %		08:08:55
2	Y 371.029	1405324.5	1405324.5	107.16 %		08:08:55
2	Ag 328.068†	62789.2	61867.5	481.74 µg/L	481.74 ppb	08:09:00
2	As 188.979†	268.5	261.6	503.48 µg/L	503.48 ppb	08:09:21
2	B 249.677†	12125.3	11396.8	430.39 µg/L	430.39 ppb	08:09:00
2	Ba 233.527†	47291.5	46242.1	1186.9 µg/L	1186.9 ppb	08:09:00
2	Be 313.107†	819199.9	804205.0	498.10 µg/L	498.10 ppb	08:08:55
2	Cd 226.502†	18508.5	18219.1	478.71 µg/L	478.71 ppb	08:09:00
2	Co 228.616†	11263.1	11015.8	526.37 µg/L	526.37 ppb	08:09:00
2	Cr 267.716†	22407.1	21946.3	465.21 µg/L	465.21 ppb	08:09:00
2	Cu 324.752†	75012.8	70076.7	483.81 µg/L	483.81 ppb	08:09:00
2	Mn 257.610†	873684.0	854149.1	2875.9 µg/L	2875.9 ppb	08:08:55
2	Mo 202.031†	3754.7	3673.9	384.25 µg/L	384.25 ppb	08:09:21
2	Ni 231.604†	8824.4	8336.7	443.17 µg/L	443.17 ppb	08:09:00
2	P 214.914†	658.4	621.1	1197.1 µg/L	1197.1 ppb	08:09:21
2	Pb 220.353†	2585.3	2444.3	628.77 µg/L	628.77 ppb	08:09:21

2	S 181.975 Axial†	1065.4	1024.9	4445.0 µg/L	4445.0 ppb	08:09:21
2	Sb 206.836†	363.8	333.8	316.01 µg/L	316.01 ppb	08:09:21
2	Se 196.026†	245.4	224.1	614.65 µg/L	614.65 ppb	08:09:21
2	SiO2†	329462.2	320463.0	66351 µg/L	66351 ppb	08:08:55
2	Si 251.611†	392042.8	382838.6	30722 µg/L	30722 ppb	08:08:55
2	Sn 189.927†	947.6	925.5	403.39 µg/L	403.39 ppb	08:09:21
2	Ti 334.940†	1381917.5	1350576.8	3094.9 µg/L	3094.9 ppb	08:08:55
2	Tl 190.801†	242.7	258.9	418.31 µg/L	418.31 ppb	08:09:21
2	U 409.014†	5104.0	4780.8	373.98 µg/L	373.98 ppb	08:08:55
2	V 292.402†	52299.2	51163.4	536.33 µg/L	536.33 ppb	08:09:00
2	Zn 213.857†	27007.3	25847.8	631.23 µg/L	631.23 ppb	08:09:00
3	Sc RADIAL	52660.9	52660.9	99.8 %		08:07:46
3	Al 396.153Radial†	134044.9	134356.6	97373 µg/L	97373 ppb	08:07:46
3	Ca 317.933Radial†	18142.5	17997.8	17032 µg/L	17032 ppb	08:08:07
3	Fe 238.204 Radial†	12299.8	12310.2	111250 µg/L	111250 ppb	08:08:07
3	K 766.490 Radial†	23777.3	23580.8	16125 µg/L	16125 ppb	08:07:46
3	Mg 279.077 IEC†	1802.1	1793.2	17064 µg/L	17064 ppb	08:08:07
3	Na 589.592 Radial†	19531.0	18980.0	5870.0 µg/L	5870.0 ppb	08:07:46
3	Sr 421.552†	63815.9	63926.7	635.33 µg/L	635.33 ppb	08:07:46
3	Sc 361.383	1940043.9	1940043.9	101.93 %		08:09:29
3	Y 371.029	1398369.7	1398369.7	106.63 %		08:09:29
3	Ag 328.068†	61372.8	60710.0	472.81 µg/L	472.81 ppb	08:09:35
3	As 188.979†	258.0	252.2	485.78 µg/L	485.78 ppb	08:09:55
3	B 249.677†	11782.4	11105.2	417.55 µg/L	417.55 ppb	08:09:35
3	Ba 233.527†	45477.8	44637.5	1145.7 µg/L	1145.7 ppb	08:09:35
3	Be 313.107†	794138.1	782645.9	484.75 µg/L	484.75 ppb	08:09:29
3	Cd 226.502†	17914.0	17704.3	464.75 µg/L	464.75 ppb	08:09:35
3	Co 228.616†	10827.9	10630.4	507.91 µg/L	507.91 ppb	08:09:35
3	Cr 267.716†	21244.7	20888.7	442.79 µg/L	442.79 ppb	08:09:35
3	Cu 324.752†	71750.9	67153.8	464.36 µg/L	464.36 ppb	08:09:35
3	Mn 257.610†	850175.4	834315.2	2809.5 µg/L	2809.5 ppb	08:09:29
3	Mo 202.031†	3496.7	3434.6	359.52 µg/L	359.52 ppb	08:09:55
3	Ni 231.604†	8441.0	7993.3	424.98 µg/L	424.98 ppb	08:09:35
3	P 214.914†	627.7	593.5	1140.9 µg/L	1140.9 ppb	08:09:55
3	Pb 220.353†	2436.7	2308.1	593.88 µg/L	593.88 ppb	08:09:55
3	S 181.975 Axial†	1016.7	981.1	4255.1 µg/L	4255.1 ppb	08:09:55
3	Sb 206.836†	337.5	309.3	292.61 µg/L	292.61 ppb	08:09:55
3	Se 196.026†	236.8	216.5	604.99 µg/L	604.99 ppb	08:09:55
3	SiO2†	318500.3	310926.5	64376 µg/L	64376 ppb	08:09:29
3	Si 251.611†	379037.8	371529.0	29815 µg/L	29815 ppb	08:09:29
3	Sn 189.927†	870.9	853.8	371.31 µg/L	371.31 ppb	08:09:55
3	Ti 334.940†	1336616.4	1311241.7	3004.7 µg/L	3004.7 ppb	08:09:29
3	Tl 190.801†	227.7	245.1	398.47 µg/L	398.47 ppb	08:09:55
3	U 409.014†	4929.9	4628.8	361.48 µg/L	361.48 ppb	08:09:29
3	V 292.402†	49732.7	48838.9	512.57 µg/L	512.57 ppb	08:09:35
3	Zn 213.857†	25967.6	24927.7	608.51 µg/L	608.51 ppb	08:09:35

Mean Data: 1202038314|951151|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1945609.9	102.22	%	0.259			0.25%
Sc RADIAL	53520.5	101	%	1.4			1.39%
Y 371.029	1403856.2	107.05	%	0.375			0.35%
Ag 328.068†	61563.8	479.38	µg/L	5.770	479.38 ppb	5.770	1.20%
Al 396.153Radial†	131625.7	95393	µg/L	1764.2	95393 ppb	1764.2	1.85%
As 188.979†	258.0	496.67	µg/L	9.524	496.67 ppb	9.524	1.92%
B 249.677†	11324.1	427.26	µg/L	8.587	427.26 ppb	8.587	2.01%
Ba 233.527†	45802.1	1175.6	µg/L	26.15	1175.6 ppb	26.15	2.22%
Be 313.107†	797852.3	494.17	µg/L	8.192	494.17 ppb	8.192	1.66%
Ca 317.933Radial†	17890.7	16930	µg/L	91.7	16930 ppb	91.7	0.54%
Cd 226.502†	18098.2	475.45	µg/L	9.494	475.45 ppb	9.494	2.00%
Co 228.616†	10913.4	521.47	µg/L	11.896	521.47 ppb	11.896	2.28%
Cr 267.716†	21653.2	458.99	µg/L	14.160	458.99 ppb	14.160	3.08%
Cu 324.752†	69218.5	478.08	µg/L	11.930	478.08 ppb	11.930	2.50%
Fe 238.204 Radial†	12240.9	110620	µg/L	617.7	110620 ppb	617.7	0.56%
K 766.490 Radial†	23158.5	15836	µg/L	261.2	15836 ppb	261.2	1.65%
Mg 279.077 IEC†	1781.1	16949	µg/L	109.6	16949 ppb	109.6	0.65%
Mn 257.610†	848971.4	2858.5	µg/L	43.06	2858.5 ppb	43.06	1.51%
Mo 202.031†	3603.6	376.99	µg/L	15.194	376.99 ppb	15.194	4.03%
Na 589.592 Radial†	18599.9	5752.5	µg/L	104.78	5752.5 ppb	104.78	1.82%

Ni 231.604†	8244.1	438.27 µg/L	11.636	438.27 ppb	11.636	2.66%
P 214.914†	613.7	1182.2 µg/L	36.23	1182.2 ppb	36.23	3.06%
Pb 220.353†	2397.6	616.81 µg/L	19.872	616.81 ppb	19.872	3.22%
S 181.975 Axial†	1011.9	4388.6 µg/L	116.11	4388.6 ppb	116.11	2.65%
Sb 206.836†	328.4	310.80 µg/L	16.231	310.80 ppb	16.231	5.22%
Se 196.026†	219.1	607.32 µg/L	6.488	607.32 ppb	6.488	1.07%
SiO2†	317787.9	65797 µg/L	1240.2	65797 ppb	1240.2	1.88%
Si 251.611†	379610.6	30463 µg/L	565.4	30463 ppb	565.4	1.86%
Sn 189.927†	900.3	392.14 µg/L	18.055	392.14 ppb	18.055	4.60%
Sr 421.552†	62766.0	623.80 µg/L	10.247	623.80 ppb	10.247	1.64%
Ti 334.940†	1338460.1	3067.2 µg/L	54.15	3067.2 ppb	54.15	1.77%
Tl 190.801†	255.2	412.94 µg/L	12.664	412.94 ppb	12.664	3.07%
U 409.014†	4752.1	371.64 µg/L	9.214	371.64 ppb	9.214	2.48%
V 292.402†	50475.0	529.27 µg/L	14.522	529.27 ppb	14.522	2.74%
Zn 213.857†	25585.6	624.76 µg/L	14.171	624.76 ppb	14.171	2.27%

Sequence No.: 6

Sample ID: 1202038315|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 306

Date Collected: 2/25/2010 08:10:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202038315|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54659.8	54659.8	104 %		08:10:37
1	Al 396.153Radial†	91862.7	88718.1	64294 µg/L	64294 ppb	08:10:37
1	Ca 317.933Radial†	13772.6	13114.0	12410 µg/L	12410 ppb	08:10:57
1	Fe 238.204 Radial†	7577.8	7300.5	65981 µg/L	65981 ppb	08:10:57
1	K 766.490 Radial†	18245.6	17368.5	11877 µg/L	11877 ppb	08:10:37
1	Mg 279.077 IEC†	1375.7	1315.5	12537 µg/L	12537 ppb	08:10:57
1	Na 589.592 Radial†	18146.0	16927.1	5235.1 µg/L	5235.1 ppb	08:10:37
1	Sr 421.552†	57942.7	55917.5	555.73 µg/L	555.73 ppb	08:10:37
1	Sc 361.383	1915596.1	1915596.1	100.64 %		08:12:02
1	Y 371.029	1340931.3	1340931.3	102.25 %		08:12:02
1	Ag 328.068†	63472.9	63565.1	491.67 µg/L	491.67 ppb	08:12:08
1	As 188.979†	266.0	263.4	504.65 µg/L	504.65 ppb	08:12:28
1	B 249.677†	12189.6	11657.3	464.80 µg/L	464.80 ppb	08:12:08
1	Ba 233.527†	37637.3	37416.7	960.52 µg/L	960.52 ppb	08:12:08
1	Be 313.107†	804636.6	803020.5	497.69 µg/L	497.69 ppb	08:12:02
1	Cd 226.502†	18578.9	18589.2	493.72 µg/L	493.72 ppb	08:12:08
1	Co 228.616†	10890.6	10828.3	519.08 µg/L	519.08 ppb	08:12:08
1	Cr 267.716†	21681.9	21589.2	457.62 µg/L	457.62 ppb	08:12:08
1	Cu 324.752†	72313.7	68611.4	467.81 µg/L	467.81 ppb	08:12:08
1	Mn 257.610†	535773.5	532572.2	1792.7 µg/L	1792.7 ppb	08:12:02
1	Mo 202.031†	3863.1	3842.4	399.99 µg/L	399.99 ppb	08:12:28
1	Ni 231.604†	8654.4	8311.0	441.24 µg/L	441.24 ppb	08:12:08
1	P 214.914†	476.6	451.2	869.39 µg/L	869.39 ppb	08:12:28
1	Pb 220.353†	2366.9	2269.2	583.86 µg/L	583.86 ppb	08:12:28
1	S 181.975 Axial†	1053.7	1030.5	4469.4 µg/L	4469.4 ppb	08:12:28
1	Sb 206.836†	397.9	373.5	354.44 µg/L	354.44 ppb	08:12:28
1	Se 196.026†	276.1	258.5	548.98 µg/L	548.98 ppb	08:12:28
1	SiO2†	278087.2	274760.3	56888 µg/L	56888 ppb	08:12:02
1	Si 251.611†	330663.9	328210.8	26338 µg/L	26338 ppb	08:12:02
1	Sn 189.927†	970.5	963.6	424.65 µg/L	424.65 ppb	08:12:28
1	Ti 334.940†	990305.0	983884.3	2254.6 µg/L	2254.6 ppb	08:12:02
1	Tl 190.801†	255.2	275.3	420.95 µg/L	420.95 ppb	08:12:28
1	U 409.014†	5349.7	5107.6	407.15 µg/L	407.15 ppb	08:12:08
1	V 292.402†	48491.6	48228.4	501.45 µg/L	501.45 ppb	08:12:08
1	Zn 213.857†	23081.5	22385.2	547.86 µg/L	547.86 ppb	08:12:08
2	Sc RADIAL	54609.0	54609.0	103 %		08:11:03
2	Al 396.153Radial†	91903.8	88840.3	64383 µg/L	64383 ppb	08:11:03
2	Ca 317.933Radial†	13736.0	13091.0	12388 µg/L	12388 ppb	08:11:23
2	Fe 238.204 Radial†	7549.6	7280.0	65796 µg/L	65796 ppb	08:11:23
2	K 766.490 Radial†	18285.2	17423.3	11915 µg/L	11915 ppb	08:11:03
2	Mg 279.077 IEC†	1373.9	1315.0	12532 µg/L	12532 ppb	08:11:23
2	Na 589.592 Radial†	18141.2	16938.7	5238.7 µg/L	5238.7 ppb	08:11:03
2	Sr 421.552†	57995.0	56020.1	556.75 µg/L	556.75 ppb	08:11:03
2	Sc 361.383	1926302.3	1926302.3	101.21 %		08:12:36
2	Y 371.029	1348137.9	1348137.9	102.80 %		08:12:36
2	Ag 328.068†	62990.3	62737.7	485.30 µg/L	485.30 ppb	08:12:41
2	As 188.979†	266.6	262.5	502.94 µg/L	502.94 ppb	08:13:02
2	B 249.677†	12010.9	11413.4	454.46 µg/L	454.46 ppb	08:12:41
2	Ba 233.527†	37237.2	36813.5	945.03 µg/L	945.03 ppb	08:12:41
2	Be 313.107†	807786.3	801689.2	496.86 µg/L	496.86 ppb	08:12:36
2	Cd 226.502†	18362.9	18273.2	485.23 µg/L	485.23 ppb	08:12:41
2	Co 228.616†	10752.1	10631.3	509.55 µg/L	509.55 ppb	08:12:41
2	Cr 267.716†	21449.7	21240.0	450.22 µg/L	450.22 ppb	08:12:41
2	Cu 324.752†	71744.9	67650.0	461.36 µg/L	461.36 ppb	08:12:41
2	Mn 257.610†	537442.0	531262.1	1788.2 µg/L	1788.2 ppb	08:12:36
2	Mo 202.031†	3840.1	3798.3	395.43 µg/L	395.43 ppb	08:13:02
2	Ni 231.604†	8587.7	8197.3	435.21 µg/L	435.21 ppb	08:12:41
2	P 214.914†	471.6	443.7	854.23 µg/L	854.23 ppb	08:13:02
2	Pb 220.353†	2353.2	2242.6	577.04 µg/L	577.04 ppb	08:13:02

2	S 181.975 Axial†	1044.8	1016.0	4406.1 µg/L	4406.1 ppb	08:13:02
2	Sb 206.836†	400.4	373.8	354.76 µg/L	354.76 ppb	08:13:02
2	Se 196.026†	263.5	244.5	527.68 µg/L	527.68 ppb	08:13:02
2	SiO2†	278933.3	274060.6	56743 µg/L	56743 ppb	08:12:36
2	Si 251.611†	331679.3	327388.1	26272 µg/L	26272 ppb	08:12:36
2	Sn 189.927†	952.6	940.6	414.41 µg/L	414.41 ppb	08:13:02
2	Ti 334.940†	995056.8	983110.7	2252.8 µg/L	2252.8 ppb	08:12:36
2	Tl 190.801†	253.8	272.5	417.04 µg/L	417.04 ppb	08:13:02
2	U 409.014†	5300.0	5029.0	400.75 µg/L	400.75 ppb	08:12:41
2	V 292.402†	47979.9	47455.0	493.53 µg/L	493.53 ppb	08:12:41
2	Zn 213.857†	22869.6	22048.3	539.57 µg/L	539.57 ppb	08:12:41
3	Sc RADIAL	53956.1	53956.1	102 %		08:11:29
3	Al 396.153Radial†	91029.5	89059.8	64542 µg/L	64542 ppb	08:11:29
3	Ca 317.933Radial†	13697.5	13213.9	12505 µg/L	12505 ppb	08:11:49
3	Fe 238.204 Radial†	7525.7	7344.9	66382 µg/L	66382 ppb	08:11:49
3	K 766.490 Radial†	18047.6	17404.7	11902 µg/L	11902 ppb	08:11:29
3	Mg 279.077 IEC†	1376.2	1333.3	12706 µg/L	12706 ppb	08:11:49
3	Na 589.592 Radial†	18048.2	17059.9	5276.2 µg/L	5276.2 ppb	08:11:29
3	Sr 421.552†	57294.6	56013.2	556.68 µg/L	556.68 ppb	08:11:29
3	Sc 361.383	1929477.5	1929477.5	101.37 %		08:13:09
3	Y 371.029	1350548.1	1350548.1	102.98 %		08:13:09
3	Ag 328.068†	62373.3	62026.7	479.81 µg/L	479.81 ppb	08:13:15
3	As 188.979†	247.6	243.4	466.54 µg/L	466.54 ppb	08:13:35
3	B 249.677†	11901.9	11286.4	448.69 µg/L	448.69 ppb	08:13:15
3	Ba 233.527†	36256.4	35785.4	918.63 µg/L	918.63 ppb	08:13:15
3	Be 313.107†	792479.9	785276.8	486.69 µg/L	486.69 ppb	08:13:09
3	Cd 226.502†	17974.6	17860.4	474.02 µg/L	474.02 ppb	08:13:15
3	Co 228.616†	10403.2	10269.6	492.15 µg/L	492.15 ppb	08:13:15
3	Cr 267.716†	20588.2	20355.3	431.47 µg/L	431.47 ppb	08:13:15
3	Cu 324.752†	69747.9	65563.5	447.49 µg/L	447.49 ppb	08:13:15
3	Mn 257.610†	528595.0	521661.2	1756.1 µg/L	1756.1 ppb	08:13:09
3	Mo 202.031†	3550.9	3506.8	365.29 µg/L	365.29 ppb	08:13:35
3	Ni 231.604†	8304.7	7904.1	419.69 µg/L	419.69 ppb	08:13:15
3	P 214.914†	444.7	416.4	797.53 µg/L	797.53 ppb	08:13:35
3	Pb 220.353†	2244.0	2131.0	548.32 µg/L	548.32 ppb	08:13:35
3	S 181.975 Axial†	1000.2	970.2	4207.9 µg/L	4207.9 ppb	08:13:35
3	Sb 206.836†	374.8	347.9	329.84 µg/L	329.84 ppb	08:13:35
3	Se 196.026†	252.6	233.3	512.52 µg/L	512.52 ppb	08:13:35
3	SiO2†	273069.0	267822.2	55452 µg/L	55452 ppb	08:13:09
3	Si 251.611†	324737.6	320001.2	25680 µg/L	25680 ppb	08:13:09
3	Sn 189.927†	880.6	867.9	381.92 µg/L	381.92 ppb	08:13:35
3	Ti 334.940†	974466.8	961181.8	2202.6 µg/L	2202.6 ppb	08:13:09
3	Tl 190.801†	245.5	263.9	404.72 µg/L	404.72 ppb	08:13:35
3	U 409.014†	5113.2	4836.2	384.92 µg/L	384.92 ppb	08:13:15
3	V 292.402†	46365.6	45784.6	476.36 µg/L	476.36 ppb	08:13:15
3	Zn 213.857†	22341.0	21489.7	525.79 µg/L	525.79 ppb	08:13:15

Mean Data: 1202038315|951151|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1923792.0	101.08 %	%	0.382			0.38%
Sc RADIAL	54408.3	103 %	%	0.7			0.72%
Y 371.029	1346539.1	102.68 %	%	0.382			0.37%
Ag 328.068†	62776.5	485.59 µg/L	µg/L	5.935	485.59 ppb	5.935	1.22%
Al 396.153Radial†	88872.7	64406 µg/L	µg/L	125.9	64406 ppb	125.9	0.20%
As 188.979†	256.5	491.38 µg/L	µg/L	21.526	491.38 ppb	21.526	4.38%
B 249.677†	11452.4	455.98 µg/L	µg/L	8.165	455.98 ppb	8.165	1.79%
Ba 233.527†	36671.9	941.39 µg/L	µg/L	21.177	941.39 ppb	21.177	2.25%
Be 313.107†	796662.2	493.75 µg/L	µg/L	6.124	493.75 ppb	6.124	1.24%
Ca 317.933Radial†	13139.6	12434 µg/L	µg/L	61.8	12434 ppb	61.8	0.50%
Cd 226.502†	18241.0	484.33 µg/L	µg/L	9.881	484.33 ppb	9.881	2.04%
Co 228.616†	10576.4	506.93 µg/L	µg/L	13.655	506.93 ppb	13.655	2.69%
Cr 267.716†	21061.5	446.44 µg/L	µg/L	13.480	446.44 ppb	13.480	3.02%
Cu 324.752†	67275.0	458.89 µg/L	µg/L	10.382	458.89 ppb	10.382	2.26%
Fe 238.204 Radial†	7308.5	66053 µg/L	µg/L	299.6	66053 ppb	299.6	0.45%
K 766.490 Radial†	17398.8	11898 µg/L	µg/L	19.0	11898 ppb	19.0	0.16%
Mg 279.077 IEC†	1321.3	12592 µg/L	µg/L	99.2	12592 ppb	99.2	0.79%
Mn 257.610†	528498.5	1779.0 µg/L	µg/L	19.93	1779.0 ppb	19.93	1.12%
Mo 202.031†	3715.9	386.90 µg/L	µg/L	18.852	386.90 ppb	18.852	4.87%
Na 589.592 Radial†	16975.3	5250.0 µg/L	µg/L	22.75	5250.0 ppb	22.75	0.43%

Ni 231.604†	8137.5	432.05 µg/L	11.120	432.05 ppb	11.120	2.57%
P 214.914†	437.1	840.38 µg/L	37.876	840.38 ppb	37.876	4.51%
Pb 220.353†	2214.3	569.74 µg/L	18.861	569.74 ppb	18.861	3.31%
S 181.975 Axial†	1005.6	4361.1 µg/L	136.45	4361.1 ppb	136.45	3.13%
Sb 206.836†	365.1	346.35 µg/L	14.294	346.35 ppb	14.294	4.13%
Se 196.026†	245.4	529.73 µg/L	18.315	529.73 ppb	18.315	3.46%
SiO2†	272214.4	56361 µg/L	790.9	56361 ppb	790.9	1.40%
Si 251.611†	325200.0	26097 µg/L	362.8	26097 ppb	362.8	1.39%
Sn 189.927†	924.0	406.99 µg/L	22.306	406.99 ppb	22.306	5.48%
Sr 421.552†	55983.6	556.39 µg/L	0.570	556.39 ppb	0.570	0.10%
Ti 334.940†	976058.9	2236.7 µg/L	29.55	2236.7 ppb	29.55	1.32%
Tl 190.801†	270.5	414.24 µg/L	8.470	414.24 ppb	8.470	2.04%
U 409.014†	4990.9	397.61 µg/L	11.444	397.61 ppb	11.444	2.88%
V 292.402†	47156.0	490.45 µg/L	12.825	490.45 ppb	12.825	2.61%
Zn 213.857†	21974.4	537.74 µg/L	11.152	537.74 ppb	11.152	2.07%

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 08:17:19

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	53104.1	53104.1	101 %		08:17:58
1	Al 396.153Radial†	6995.8	6978.7	5047.6 µg/L	5047.6 ppb	08:17:58
1	Ca 317.933Radial†	5476.8	5259.4	4977.2 µg/L	4977.2 ppb	08:18:18
1	Fe 238.204 Radial†	584.5	565.1	5117.3 µg/L	5117.3 ppb	08:18:18
1	K 766.490 Radial†	7667.2	7372.2	5041.3 µg/L	5041.3 ppb	08:17:58
1	Mg 279.077 IEC†	546.5	530.3	5083.2 µg/L	5083.2 ppb	08:18:18
1	Na 589.592 Radial†	33119.9	32320.9	9996.0 µg/L	9996.0 ppb	08:17:58
1	Sr 421.552†	50421.1	50081.7	497.73 µg/L	497.73 ppb	08:17:58
1	Sc 361.383	1927778.8	1927778.8	101.28 %		08:19:22
1	Y 371.029	1333658.9	1333658.9	101.70 %		08:19:22
1	Ag 328.068†	65897.8	65560.7	503.12 µg/L	503.12 ppb	08:19:27
1	As 188.979†	267.2	262.9	500.28 µg/L	500.28 ppb	08:19:48
1	B 249.677†	12150.0	11541.7	491.69 µg/L	491.69 ppb	08:19:27
1	Ba 233.527†	19801.6	19570.9	502.84 µg/L	502.84 ppb	08:19:27
1	Be 313.107†	811011.4	804262.1	499.13 µg/L	499.13 ppb	08:19:22
1	Cd 226.502†	18954.0	18842.9	507.50 µg/L	507.50 ppb	08:19:27
1	Co 228.616†	10542.8	10416.5	502.95 µg/L	502.95 ppb	08:19:27
1	Cr 267.716†	24147.0	23886.9	506.30 µg/L	506.30 ppb	08:19:27
1	Cu 324.752†	78721.2	74483.5	498.61 µg/L	498.61 ppb	08:19:27
1	Mn 257.610†	154858.1	153124.6	513.52 µg/L	513.52 ppb	08:19:22
1	Mo 202.031†	4995.4	4936.1	510.82 µg/L	510.82 ppb	08:19:48
1	Ni 231.604†	9981.5	9566.9	507.11 µg/L	507.11 ppb	08:19:27
1	P 214.914†	1236.0	1198.0	2465.3 µg/L	2465.3 ppb	08:19:48
1	Pb 220.353†	2077.2	1968.3	505.80 µg/L	505.80 ppb	08:19:48
1	S 181.975 Axial†	248.6	229.1	993.44 µg/L	993.44 ppb	08:19:48
1	Sb 206.836†	551.0	522.2	497.43 µg/L	497.43 ppb	08:19:48
1	Se 196.026†	371.6	351.1	528.58 µg/L	528.58 ppb	08:19:48
1	SiO2†	28359.0	26453.7	5477.1 µg/L	5477.1 ppb	08:19:27
1	Si 251.611†	32551.4	31803.7	2552.2 µg/L	2552.2 ppb	08:19:27
1	Sn 189.927†	1150.5	1135.2	506.96 µg/L	506.96 ppb	08:19:48
1	Ti 334.940†	219260.3	216402.0	495.75 µg/L	495.75 ppb	08:19:22
1	Tl 190.801†	345.4	362.7	509.05 µg/L	509.05 ppb	08:19:48
1	U 409.014†	6366.0	6077.4	495.26 µg/L	495.26 ppb	08:19:27
1	V 292.402†	49992.8	49406.1	507.30 µg/L	507.30 ppb	08:19:27
1	Zn 213.857†	21246.5	20428.5	502.37 µg/L	502.37 ppb	08:19:27
2	Sc RADIAL	53478.1	53478.1	101 %		08:18:24
2	Al 396.153Radial†	6980.1	6914.5	5001.1 µg/L	5001.1 ppb	08:18:24
2	Ca 317.933Radial†	5473.5	5218.1	4938.1 µg/L	4938.1 ppb	08:18:44
2	Fe 238.204 Radial†	581.4	558.0	5052.7 µg/L	5052.7 ppb	08:18:44
2	K 766.490 Radial†	7696.1	7347.4	5024.4 µg/L	5024.4 ppb	08:18:24
2	Mg 279.077 IEC†	537.9	518.0	4965.5 µg/L	4965.5 ppb	08:18:44
2	Na 589.592 Radial†	33326.7	32294.8	9987.9 µg/L	9987.9 ppb	08:18:24
2	Sr 421.552†	50749.3	50055.1	497.47 µg/L	497.47 ppb	08:18:24
2	Sc 361.383	1918488.4	1918488.4	100.80 %		08:19:55
2	Y 371.029	1327466.7	1327466.7	101.22 %		08:19:55
2	Ag 328.068†	65331.9	65314.3	501.23 µg/L	501.23 ppb	08:20:00
2	As 188.979†	267.2	264.3	502.86 µg/L	502.86 ppb	08:20:21
2	B 249.677†	12008.6	11459.5	488.21 µg/L	488.21 ppb	08:20:00
2	Ba 233.527†	19665.2	19530.3	501.80 µg/L	501.80 ppb	08:20:00
2	Be 313.107†	806749.7	803911.6	498.91 µg/L	498.91 ppb	08:19:55
2	Cd 226.502†	18852.2	18832.5	507.23 µg/L	507.23 ppb	08:20:00
2	Co 228.616†	10466.0	10390.8	501.70 µg/L	501.70 ppb	08:20:00
2	Cr 267.716†	24010.4	23866.7	505.87 µg/L	505.87 ppb	08:20:00
2	Cu 324.752†	78362.4	74503.9	498.73 µg/L	498.73 ppb	08:20:00
2	Mn 257.610†	153926.0	152940.2	512.90 µg/L	512.90 ppb	08:19:55
2	Mo 202.031†	4957.0	4921.8	509.34 µg/L	509.34 ppb	08:20:21
2	Ni 231.604†	9897.5	9531.3	505.23 µg/L	505.23 ppb	08:20:00
2	P 214.914†	1215.5	1183.6	2435.1 µg/L	2435.1 ppb	08:20:21
2	Pb 220.353†	2067.4	1968.5	505.84 µg/L	505.84 ppb	08:20:21

2	S 181.975 Axial†	252.0	233.6	1013.2 µg/L	1013.2 ppb	08:20:21
2	Sb 206.836†	546.7	520.6	495.81 µg/L	495.81 ppb	08:20:21
2	Se 196.026†	361.3	342.7	516.06 µg/L	516.06 ppb	08:20:21
2	SiO2†	28243.5	26474.7	5481.5 µg/L	5481.5 ppb	08:20:00
2	Si 251.611†	32480.9	31889.3	2559.1 µg/L	2559.1 ppb	08:20:00
2	Sn 189.927†	1147.9	1138.2	508.26 µg/L	508.26 ppb	08:20:21
2	Ti 334.940†	218275.6	216473.4	495.92 µg/L	495.92 ppb	08:19:55
2	Tl 190.801†	350.2	369.1	517.97 µg/L	517.97 ppb	08:20:21
2	U 409.014†	6382.8	6124.6	499.12 µg/L	499.12 ppb	08:20:00
2	V 292.402†	49730.2	49384.6	507.07 µg/L	507.07 ppb	08:20:00
2	Zn 213.857†	21152.4	20436.7	502.59 µg/L	502.59 ppb	08:20:00
3	Sc RADIAL	53584.5	53584.5	102 %		08:18:50
3	Al 396.153Radial†	6981.9	6902.6	4994.1 µg/L	4994.1 ppb	08:18:50
3	Ca 317.933Radial†	5479.0	5212.8	4933.1 µg/L	4933.1 ppb	08:19:10
3	Fe 238.204 Radial†	585.0	560.4	5073.7 µg/L	5073.7 ppb	08:19:10
3	K 766.490 Radial†	7744.9	7380.5	5047.0 µg/L	5047.0 ppb	08:18:50
3	Mg 279.077 IEC†	545.1	524.1	5022.4 µg/L	5022.4 ppb	08:19:10
3	Na 589.592 Radial†	33159.5	32064.7	9916.8 µg/L	9916.8 ppb	08:18:50
3	Sr 421.552†	50687.7	49895.0	495.88 µg/L	495.88 ppb	08:18:50
3	Sc 361.383	1922037.6	1922037.6	100.98 %		08:20:28
3	Y 371.029	1329682.5	1329682.5	101.39 %		08:20:28
3	Ag 328.068†	62774.2	62661.9	480.74 µg/L	480.74 ppb	08:20:34
3	As 188.979†	238.3	235.1	447.52 µg/L	447.52 ppb	08:20:54
3	B 249.677†	11463.2	10897.4	464.08 µg/L	464.08 ppb	08:20:34
3	Ba 233.527†	18332.9	18174.9	466.96 µg/L	466.96 ppb	08:20:34
3	Be 313.107†	763797.1	759899.3	471.60 µg/L	471.60 ppb	08:20:28
3	Cd 226.502†	17497.3	17456.3	470.11 µg/L	470.11 ppb	08:20:34
3	Co 228.616†	9649.7	9563.2	461.68 µg/L	461.68 ppb	08:20:34
3	Cr 267.716†	21523.0	21359.5	452.74 µg/L	452.74 ppb	08:20:34
3	Cu 324.752†	72415.0	68470.9	458.41 µg/L	458.41 ppb	08:20:34
3	Mn 257.610†	146304.0	145110.4	486.67 µg/L	486.67 ppb	08:20:28
3	Mo 202.031†	4179.6	4143.0	428.77 µg/L	428.77 ppb	08:20:54
3	Ni 231.604†	9113.2	8736.5	463.10 µg/L	463.10 ppb	08:20:34
3	P 214.914†	1043.7	1011.2	2076.4 µg/L	2076.4 ppb	08:20:54
3	Pb 220.353†	1817.2	1716.9	441.12 µg/L	441.12 ppb	08:20:54
3	S 181.975 Axial†	222.7	204.2	885.50 µg/L	885.50 ppb	08:20:54
3	Sb 206.836†	475.7	449.3	427.50 µg/L	427.50 ppb	08:20:54
3	Se 196.026†	324.6	305.6	461.10 µg/L	461.10 ppb	08:20:54
3	SiO2†	26907.5	25100.0	5196.9 µg/L	5196.9 ppb	08:20:34
3	Si 251.611†	30807.3	30172.5	2421.3 µg/L	2421.3 ppb	08:20:34
3	Sn 189.927†	946.7	936.8	418.32 µg/L	418.32 ppb	08:20:54
3	Ti 334.940†	205758.9	203678.7	466.59 µg/L	466.59 ppb	08:20:28
3	Tl 190.801†	310.3	329.0	461.95 µg/L	461.95 ppb	08:20:54
3	U 409.014†	5651.8	5389.0	439.05 µg/L	439.05 ppb	08:20:34
3	V 292.402†	45434.9	45040.0	462.20 µg/L	462.20 ppb	08:20:34
3	Zn 213.857†	19539.8	18801.1	462.32 µg/L	462.32 ppb	08:20:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1922768.3	101.02 %	0.246			0.24%
Sc RADIAL	53388.9	101 %	0.5			0.47%
Y 371.029	1330269.3	101.44 %	0.239			0.24%
Ag 328.068†	64512.3	495.03 µg/L	12.413	495.03 ppb	12.413	2.51%
QC value within limits for Ag 328.068 Recovery = 99.01%						
Al 396.153Radial†	6931.9	5014.3 µg/L	29.04	5014.3 ppb	29.04	0.58%
QC value within limits for Al 396.153Radial Recovery = 100.29%						
As 188.979†	254.1	483.55 µg/L	31.231	483.55 ppb	31.231	6.46%
QC value within limits for As 188.979 Recovery = 96.71%						
B 249.677†	11299.5	481.33 µg/L	15.040	481.33 ppb	15.040	3.12%
QC value within limits for B 249.677 Recovery = 96.27%						
Ba 233.527†	19092.0	490.53 µg/L	20.424	490.53 ppb	20.424	4.16%
QC value within limits for Ba 233.527 Recovery = 98.11%						
Be 313.107†	789357.7	489.88 µg/L	15.833	489.88 ppb	15.833	3.23%
QC value within limits for Be 313.107 Recovery = 97.98%						
Ca 317.933Radial†	5230.1	4949.4 µg/L	24.14	4949.4 ppb	24.14	0.49%
QC value within limits for Ca 317.933Radial Recovery = 98.99%						
Cd 226.502†	18377.3	494.95 µg/L	21.508	494.95 ppb	21.508	4.35%
QC value within limits for Cd 226.502 Recovery = 98.99%						
Co 228.616†	10123.5	488.78 µg/L	23.471	488.78 ppb	23.471	4.80%

Cr	267.716†	23037.7	488.30 µg/L	30.802	488.30 ppb	30.802	6.31%
Cu	324.752†	72486.1	485.25 µg/L	23.245	485.25 ppb	23.245	4.79%
Fe	238.204 Radial†	561.2	5081.2 µg/L	32.93	5081.2 ppb	32.93	0.65%
K	766.490 Radial†	7366.7	5037.6 µg/L	11.75	5037.6 ppb	11.75	0.23%
Mg	279.077 IEC†	524.2	5023.7 µg/L	58.91	5023.7 ppb	58.91	1.17%
Mn	257.610†	150391.7	504.36 µg/L	15.328	504.36 ppb	15.328	3.04%
Mo	202.031†	4667.0	482.98 µg/L	46.948	482.98 ppb	46.948	9.72%
Na	589.592 Radial†	32226.8	9966.9 µg/L	43.59	9966.9 ppb	43.59	0.44%
Ni	231.604†	9278.2	491.81 µg/L	24.885	491.81 ppb	24.885	5.06%
P	214.914†	1130.9	2325.6 µg/L	216.35	2325.6 ppb	216.35	9.30%
Pb	220.353†	1884.6	484.25 µg/L	37.354	484.25 ppb	37.354	7.71%
S	181.975 Axial†	222.3	964.05 µg/L	68.751	964.05 ppb	68.751	7.13%
Sb	206.836†	497.4	473.58 µg/L	39.915	473.58 ppb	39.915	8.43%
Se	196.026†	333.1	501.91 µg/L	35.897	501.91 ppb	35.897	7.15%
SiO2†		26009.5	5385.2 µg/L	163.09	5385.2 ppb	163.09	3.03%
Si	251.611†	31288.5	2510.9 µg/L	77.64	2510.9 ppb	77.64	3.09%
Sn	189.927†	1070.1	477.85 µg/L	51.555	477.85 ppb	51.555	10.79%
Sr	421.552†	50010.6	497.03 µg/L	1.004	497.03 ppb	1.004	0.20%
Ti	334.940†	212184.7	486.09 µg/L	16.887	486.09 ppb	16.887	3.47%
Tl	190.801†	353.6	496.33 µg/L	30.100	496.33 ppb	30.100	6.06%
U	409.014†	5863.7	477.81 µg/L	33.620	477.81 ppb	33.620	7.04%
V	292.402†	47943.6	492.19 µg/L	25.972	492.19 ppb	25.972	5.28%
Zn	213.857†	19888.8	489.09 µg/L	23.182	489.09 ppb	23.182	4.74%

QC value within limits for Co 228.616 Recovery = 97.76%

QC value within limits for Cr 267.716 Recovery = 97.66%

QC value within limits for Cu 324.752 Recovery = 97.05%

QC value within limits for Fe 238.204 Radial Recovery = 101.62%

QC value within limits for K 766.490 Radial Recovery = 100.75%

QC value within limits for Mg 279.077 IEC Recovery = 100.47%

QC value within limits for Mn 257.610 Recovery = 100.87%

QC value within limits for Mo 202.031 Recovery = 96.60%

QC value within limits for Na 589.592 Radial Recovery = 99.67%

QC value within limits for Ni 231.604 Recovery = 98.36%

QC value within limits for P 214.914 Recovery = 93.02%

QC value within limits for Pb 220.353 Recovery = 96.85%

QC value within limits for S 181.975 Axial Recovery = 96.41%

QC value within limits for Sb 206.836 Recovery = 94.72%

QC value within limits for Se 196.026 Recovery = 100.38%

QC value within limits for SiO2 Recovery = 100.70%

QC value within limits for Si 251.611 Recovery = 100.43%

QC value within limits for Sn 189.927 Recovery = 95.57%

QC value within limits for Sr 421.552 Recovery = 99.41%

QC value within limits for Ti 334.940 Recovery = 97.22%

QC value within limits for Tl 190.801 Recovery = 99.27%

QC value within limits for U 409.014 Recovery = 95.56%

QC value within limits for V 292.402 Recovery = 98.44%

QC value within limits for Zn 213.857 Recovery = 97.82%

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 08:21:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52270.6	52270.6	99.0 %		08:21:37
1	Al 396.153Radial†	-17.4	8.9	6.4287 µg/L	6.4287 ppb	08:21:37
1	Ca 317.933Radial†	185.3	3.8	3.6413 µg/L	3.6413 ppb	08:21:57
1	Fe 238.204 Radial†	16.4	0.8	6.9069 µg/L	6.9069 ppb	08:21:57
1	K 766.490 Radial†	193.5	-51.9	-35.462 µg/L	-35.462 ppb	08:21:37
1	Mg 279.077 IEC†	6.2	-6.4	-61.738 µg/L	-61.738 ppb	08:21:57
1	Na 589.592 Radial†	462.3	-125.8	-38.917 µg/L	-38.917 ppb	08:21:37
1	Sr 421.552†	30.0	5.3	0.0526 µg/L	0.0526 ppb	08:21:37
1	Sc 361.383	1898248.7	1898248.7	99.733 %		08:23:00
1	Y 371.029	1316910.1	1316910.1	100.42 %		08:23:00
1	Ag 328.068†	-342.4	155.5	1.1834 µg/L	1.1834 ppb	08:23:05
1	As 188.979†	-1.7	-2.6	-4.9312 µg/L	-4.9312 ppb	08:23:26
1	B 249.677†	346.7	-106.5	-4.5584 µg/L	-4.5584 ppb	08:23:26
1	Ba 233.527†	-13.0	7.5	0.1915 µg/L	0.1915 ppb	08:23:26
1	Be 313.107†	-2875.2	655.3	0.4067 µg/L	0.4067 ppb	08:23:05
1	Cd 226.502†	-127.9	1.1	0.0296 µg/L	0.0296 ppb	08:23:26
1	Co 228.616†	5.1	12.5	0.6051 µg/L	0.6051 ppb	08:23:26
1	Cr 267.716†	-32.3	13.8	0.2911 µg/L	0.2911 ppb	08:23:26
1	Cu 324.752†	3174.5	-56.1	-0.3738 µg/L	-0.3738 ppb	08:23:05
1	Mn 257.610†	-190.2	40.1	0.1376 µg/L	0.1376 ppb	08:23:26
1	Mo 202.031†	5.8	9.9	1.0197 µg/L	1.0197 ppb	08:23:26
1	Ni 231.604†	302.6	15.4	0.8165 µg/L	0.8165 ppb	08:23:26
1	P 214.914†	9.6	-12.7	-26.661 µg/L	-26.661 ppb	08:23:26
1	Pb 220.353†	79.1	-3.3	-0.8456 µg/L	-0.8456 ppb	08:23:26
1	S 181.975 Axial†	12.3	-4.0	-17.279 µg/L	-17.279 ppb	08:23:26
1	Sb 206.836†	25.1	3.4	3.1954 µg/L	3.1954 ppb	08:23:26
1	Se 196.026†	18.6	2.8	4.2475 µg/L	4.2475 ppb	08:23:26
1	SiO2†	1680.7	139.6	28.910 µg/L	28.910 ppb	08:23:05
1	Si 251.611†	535.1	201.6	16.182 µg/L	16.182 ppb	08:23:26
1	Sn 189.927†	5.1	4.4	1.9431 µg/L	1.9431 ppb	08:23:26
1	Ti 334.940†	298.1	221.9	0.5136 µg/L	0.5136 ppb	08:23:05
1	Tl 190.801†	-19.6	2.0	2.8534 µg/L	2.8534 ppb	08:23:26
1	U 409.014†	274.4	67.4	5.4988 µg/L	5.4988 ppb	08:23:05
1	V 292.402†	-75.1	-27.9	-0.2678 µg/L	-0.2678 ppb	08:23:05
1	Zn 213.857†	526.5	-20.6	-0.5092 µg/L	-0.5092 ppb	08:23:26
2	Sc RADIAL	52376.5	52376.5	99.2 %		08:22:03
2	Al 396.153Radial†	-5.9	20.5	14.871 µg/L	14.871 ppb	08:22:03
2	Ca 317.933Radial†	182.6	0.7	0.6930 µg/L	0.6930 ppb	08:22:23
2	Fe 238.204 Radial†	16.0	0.3	2.9748 µg/L	2.9748 ppb	08:22:23
2	K 766.490 Radial†	196.1	-49.6	-33.907 µg/L	-33.907 ppb	08:22:03
2	Mg 279.077 IEC†	7.3	-5.3	-51.159 µg/L	-51.159 ppb	08:22:23
2	Na 589.592 Radial†	493.3	-95.5	-29.527 µg/L	-29.527 ppb	08:22:03
2	Sr 421.552†	51.0	26.4	0.2624 µg/L	0.2624 ppb	08:22:03
2	Sc 361.383	1885263.7	1885263.7	99.051 %		08:23:32
2	Y 371.029	1309283.3	1309283.3	99.838 %		08:23:32
2	Ag 328.068†	-362.2	133.1	1.0134 µg/L	1.0134 ppb	08:23:38
2	As 188.979†	4.3	3.5	6.5806 µg/L	6.5806 ppb	08:23:58
2	B 249.677†	351.1	-99.7	-4.2653 µg/L	-4.2653 ppb	08:23:58
2	Ba 233.527†	-7.8	12.6	0.3226 µg/L	0.3226 ppb	08:23:58
2	Be 313.107†	-2729.2	782.9	0.4859 µg/L	0.4859 ppb	08:23:38
2	Cd 226.502†	-121.3	6.9	0.1862 µg/L	0.1862 ppb	08:23:58
2	Co 228.616†	5.8	13.3	0.6427 µg/L	0.6427 ppb	08:23:58
2	Cr 267.716†	-43.8	1.9	0.0405 µg/L	0.0405 ppb	08:23:58
2	Cu 324.752†	3161.4	-47.4	-0.3162 µg/L	-0.3162 ppb	08:23:38
2	Mn 257.610†	-164.3	65.0	0.2201 µg/L	0.2201 ppb	08:23:58
2	Mo 202.031†	0.2	4.3	0.4413 µg/L	0.4413 ppb	08:23:58
2	Ni 231.604†	302.6	17.5	0.9284 µg/L	0.9284 ppb	08:23:58
2	P 214.914†	11.4	-10.8	-22.561 µg/L	-22.561 ppb	08:23:58
2	Pb 220.353†	81.7	-0.1	-0.0125 µg/L	-0.0125 ppb	08:23:58

2	S 181.975 Axial†	13.1	-3.1	-13.536 µg/L	-13.536 ppb	08:23:58
2	Sb 206.836†	28.4	6.9	6.5371 µg/L	6.5371 ppb	08:23:58
2	Se 196.026†	14.4	-1.3	-1.8598 µg/L	-1.8598 ppb	08:23:58
2	SiO2†	1752.8	224.1	46.392 µg/L	46.392 ppb	08:23:38
2	Si 251.611†	587.5	258.2	20.723 µg/L	20.723 ppb	08:23:58
2	Sn 189.927†	4.2	3.5	1.5657 µg/L	1.5657 ppb	08:23:58
2	Ti 334.940†	236.1	161.4	0.3740 µg/L	0.3740 ppb	08:23:38
2	Tl 190.801†	-23.0	-1.5	-2.1340 µg/L	-2.1340 ppb	08:23:58
2	U 409.014†	190.1	-15.9	-1.2979 µg/L	-1.2979 ppb	08:23:38
2	V 292.402†	-64.9	-18.1	-0.1810 µg/L	-0.1810 ppb	08:23:38
2	Zn 213.857†	528.9	-14.5	-0.3600 µg/L	-0.3600 ppb	08:23:58
3	Sc RADIAL	51811.7	51811.7	98.2 %		08:22:29
3	Al 396.153Radial†	-7.0	19.3	13.967 µg/L	13.967 ppb	08:22:29
3	Ca 317.933Radial†	180.1	0.2	0.1660 µg/L	0.1660 ppb	08:22:49
3	Fe 238.204 Radial†	14.8	-0.7	-6.5379 µg/L	-6.5379 ppb	08:22:49
3	K 766.490 Radial†	222.6	-20.5	-13.986 µg/L	-13.986 ppb	08:22:29
3	Mg 279.077 IEC†	7.6	-5.0	-47.630 µg/L	-47.630 ppb	08:22:49
3	Na 589.592 Radial†	464.7	-119.2	-36.862 µg/L	-36.862 ppb	08:22:29
3	Sr 421.552†	63.7	39.8	0.3959 µg/L	0.3959 ppb	08:22:29
3	Sc 361.383	1893043.7	1893043.7	99.460 %		08:24:04
3	Y 371.029	1315100.5	1315100.5	100.28 %		08:24:04
3	Ag 328.068†	-398.8	97.9	0.7450 µg/L	0.7450 ppb	08:24:10
3	As 188.979†	3.7	2.8	5.3770 µg/L	5.3770 ppb	08:24:30
3	B 249.677†	357.4	-94.9	-4.0534 µg/L	-4.0534 ppb	08:24:30
3	Ba 233.527†	-7.7	12.7	0.3264 µg/L	0.3264 ppb	08:24:30
3	Be 313.107†	-2726.0	797.5	0.4949 µg/L	0.4949 ppb	08:24:10
3	Cd 226.502†	-122.2	6.4	0.1751 µg/L	0.1751 ppb	08:24:30
3	Co 228.616†	15.4	22.9	1.1056 µg/L	1.1056 ppb	08:24:30
3	Cr 267.716†	-16.2	29.9	0.6324 µg/L	0.6324 ppb	08:24:30
3	Cu 324.752†	3155.9	-66.0	-0.4422 µg/L	-0.4422 ppb	08:24:10
3	Mn 257.610†	-141.3	88.7	0.2983 µg/L	0.2983 ppb	08:24:30
3	Mo 202.031†	6.4	10.5	1.0815 µg/L	1.0815 ppb	08:24:30
3	Ni 231.604†	302.5	16.1	0.8555 µg/L	0.8555 ppb	08:24:30
3	P 214.914†	2.8	-19.5	-40.894 µg/L	-40.894 ppb	08:24:30
3	Pb 220.353†	91.1	9.0	2.3135 µg/L	2.3135 ppb	08:24:30
3	S 181.975 Axial†	15.2	-1.1	-4.6164 µg/L	-4.6164 ppb	08:24:30
3	Sb 206.836†	26.1	4.4	4.2224 µg/L	4.2224 ppb	08:24:30
3	Se 196.026†	13.1	-2.7	-3.9663 µg/L	-3.9663 ppb	08:24:30
3	SiO2†	1790.6	254.7	52.742 µg/L	52.742 ppb	08:24:10
3	Si 251.611†	629.2	297.8	23.895 µg/L	23.895 ppb	08:24:30
3	Sn 189.927†	2.4	1.7	0.7453 µg/L	0.7453 ppb	08:24:30
3	Ti 334.940†	331.5	256.4	0.5914 µg/L	0.5914 ppb	08:24:10
3	Tl 190.801†	-21.6	0.0	0.0516 µg/L	0.0516 ppb	08:24:30
3	U 409.014†	353.9	148.0	12.086 µg/L	12.086 ppb	08:24:10
3	V 292.402†	-50.6	-3.5	-0.0137 µg/L	-0.0137 ppb	08:24:10
3	Zn 213.857†	533.1	-12.5	-0.3104 µg/L	-0.3104 ppb	08:24:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1892185.4	99.415 %	0.3433			0.35%
Sc RADIAL	52152.9	98.8 %	0.57			0.58%
Y 371.029	1313764.6	100.18 %	0.304			0.30%
Ag 328.068†	128.8	0.9806 µg/L	0.22101	0.9806 ppb	0.22101	22.54%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	16.2	11.756 µg/L	4.6352	11.756 ppb	4.6352	39.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.2	2.3421 µg/L	6.32759	2.3421 ppb	6.32759	270.17%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-100.4	-4.2924 µg/L	0.25359	-4.2924 ppb	0.25359	5.91%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.9	0.2802 µg/L	0.07679	0.2802 ppb	0.07679	27.41%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	745.2	0.4625 µg/L	0.04854	0.4625 ppb	0.04854	10.50%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.6	1.5001 µg/L	1.87296	1.5001 ppb	1.87296	124.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	4.8	0.1303 µg/L	0.08739	0.1303 ppb	0.08739	67.06%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	16.2	0.7845 µg/L	0.27878	0.7845 ppb	0.27878	35.54%

Cr	267.716†	15.2	0.3214 µg/L	0.29710	0.3214 ppb	0.29710	92.45%
Cu	324.752†	-56.5	-0.3774 µg/L	0.06307	-0.3774 ppb	0.06307	16.71%
Fe	238.204 Radial†	0.1	1.1146 µg/L	6.91272	1.1146 ppb	6.91272	620.20%
K	766.490 Radial†	-40.6	-27.785 µg/L	11.9755	-27.785 ppb	11.9755	43.10%
Mg	279.077 IEC†	-5.6	-53.509 µg/L	7.3414	-53.509 ppb	7.3414	13.72%
Mn	257.610†	64.6	0.2187 µg/L	0.08035	0.2187 ppb	0.08035	36.74%
Mo	202.031†	8.2	0.8475 µg/L	0.35310	0.8475 ppb	0.35310	41.66%
Na	589.592 Radial†	-113.5	-35.102 µg/L	4.9363	-35.102 ppb	4.9363	14.06%
Ni	231.604†	16.4	0.8668 µg/L	0.05681	0.8668 ppb	0.05681	6.55%
P	214.914†	-14.4	-30.039 µg/L	9.6217	-30.039 ppb	9.6217	32.03%
Pb	220.353†	1.9	0.4851 µg/L	1.63726	0.4851 ppb	1.63726	337.49%
S	181.975 Axial†	-2.7	-11.810 µg/L	6.5054	-11.810 ppb	6.5054	55.08%
Sb	206.836†	4.9	4.6516 µg/L	1.71167	4.6516 ppb	1.71167	36.80%
Se	196.026†	-0.4	-0.5262 µg/L	4.26619	-0.5262 ppb	4.26619	810.75%
SiO2†		206.1	42.681 µg/L	12.3417	42.681 ppb	12.3417	28.92%
Si	251.611†	252.6	20.267 µg/L	3.8768	20.267 ppb	3.8768	19.13%
Sn	189.927†	3.2	1.4180 µg/L	0.61239	1.4180 ppb	0.61239	43.19%
Sr	421.552†	23.8	0.2369 µg/L	0.17308	0.2369 ppb	0.17308	73.05%
Ti	334.940†	213.2	0.4930 µg/L	0.11017	0.4930 ppb	0.11017	22.35%
Tl	190.801†	0.2	0.2570 µg/L	2.50005	0.2570 ppb	2.50005	972.73%
U	409.014†	66.5	5.4291 µg/L	6.69241	5.4291 ppb	6.69241	123.27%
V	292.402†	-16.5	-0.1542 µg/L	0.12919	-0.1542 ppb	0.12919	83.80%
Zn	213.857†	-15.9	-0.3932 µg/L	0.10348	-0.3932 ppb	0.10348	26.32%

QC value within limits for Co 228.616 Recovery = Not calculated

QC value within limits for Cr 267.716 Recovery = Not calculated

QC value within limits for Cu 324.752 Recovery = Not calculated

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

QC value within limits for K 766.490 Radial Recovery = Not calculated

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

QC value within limits for Mn 257.610 Recovery = Not calculated

QC value within limits for Mo 202.031 Recovery = Not calculated

QC value within limits for Na 589.592 Radial Recovery = Not calculated

QC value within limits for Ni 231.604 Recovery = Not calculated

QC value within limits for P 214.914 Recovery = Not calculated

QC value within limits for Pb 220.353 Recovery = Not calculated

QC value within limits for S 181.975 Axial Recovery = Not calculated

QC value within limits for Sb 206.836 Recovery = Not calculated

QC value within limits for Se 196.026 Recovery = Not calculated

QC value within limits for SiO2 Recovery = Not calculated

QC value within limits for Si 251.611 Recovery = Not calculated

QC value within limits for Sn 189.927 Recovery = Not calculated

QC value within limits for Sr 421.552 Recovery = Not calculated

QC value within limits for Ti 334.940 Recovery = Not calculated

QC value within limits for Tl 190.801 Recovery = Not calculated

QC value within limits for U 409.014 Recovery = Not calculated

QC value within limits for V 292.402 Recovery = Not calculated

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: 246344002|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 2/25/2010 08:24:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246344002|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53796.7	53796.7	102 %		08:25:19
1	Al 396.153Radial†	70265.1	68954.3	49977 µg/L	49977 ppb	08:25:19
1	Ca 317.933Radial†	14943.9	14476.3	13699 µg/L	13699 ppb	08:25:19
1	Fe 238.204 Radial†	10093.8	9886.0	89335 µg/L	89335 ppb	08:25:39
1	K 766.490 Radial†	15205.8	14669.3	10031 µg/L	10031 ppb	08:25:19
1	Mg 279.077 IEC†	1030.5	998.2	9465.7 µg/L	9465.7 ppb	08:25:39
1	Na 589.592 Radial†	1744.7	1119.0	346.06 µg/L	346.06 ppb	08:25:19
1	Sr 421.552†	14277.8	13981.0	138.95 µg/L	138.95 ppb	08:25:19
1	Sc 361.383	1895871.7	1895871.7	99.608 %		08:26:42
1	Y 371.029	1339068.6	1339068.6	102.11 %		08:26:42
1	Ag 328.068†	-1414.5	-921.2	-0.3284 µg/L	-0.3284 ppb	08:26:47
1	As 188.979†	13.3	12.5	28.369 µg/L	28.369 ppb	08:27:08
1	B 249.677†	992.0	541.7	-23.252 µg/L	-23.252 ppb	08:26:47
1	Ba 233.527†	29494.7	29631.1	760.25 µg/L	760.25 ppb	08:26:47
1	Be 313.107†	9544.1	13119.9	6.9796 µg/L	6.9796 ppb	08:26:47
1	Cd 226.502†	248.5	378.8	0.1797 µg/L	0.1797 ppb	08:27:08
1	Co 228.616†	936.9	948.1	39.443 µg/L	39.443 ppb	08:27:08
1	Cr 267.716†	5791.8	5860.7	124.25 µg/L	124.25 ppb	08:26:47
1	Cu 324.752†	11145.5	7950.3	65.562 µg/L	65.562 ppb	08:26:47
1	Mn 257.610†	776812.1	780096.9	2625.2 µg/L	2625.2 ppb	08:26:42
1	Mo 202.031†	-4.9	-0.9	3.3011 µg/L	3.3011 ppb	08:27:08
1	Ni 231.604†	1600.9	1319.2	71.107 µg/L	71.107 ppb	08:27:08
1	P 214.914†	396.2	375.4	723.57 µg/L	723.57 ppb	08:27:08
1	Pb 220.353†	582.1	501.8	128.17 µg/L	128.17 ppb	08:27:08
1	S 181.975 Axial†	157.2	141.5	613.63 µg/L	613.63 ppb	08:27:08
1	Sb 206.836†	22.7	1.0	-1.6622 µg/L	-1.6622 ppb	08:27:08
1	Se 196.026†	-19.6	-35.5	179.22 µg/L	179.22 ppb	08:27:08
1	SiO2†	214036.7	213332.6	44170 µg/L	44170 ppb	08:26:42
1	Si 251.611†	254027.6	254691.4	20439 µg/L	20439 ppb	08:26:42
1	Sn 189.927†	-15.4	-16.2	-15.687 µg/L	-15.687 ppb	08:27:08
1	Ti 334.940†	1329564.6	1334714.7	3059.1 µg/L	3059.1 ppb	08:26:42
1	Tl 190.801†	-53.3	-31.8	8.4604 µg/L	8.4604 ppb	08:27:08
1	U 409.014†	78.9	-128.6	-23.756 µg/L	-23.756 ppb	08:26:47
1	V 292.402†	15762.9	15872.3	171.77 µg/L	171.77 ppb	08:26:47
1	Zn 213.857†	8534.9	8020.0	193.45 µg/L	193.45 ppb	08:26:47
2	Sc RADIAL	54379.7	54379.7	103 %		08:25:44
2	Al 396.153Radial†	70491.6	68435.2	49601 µg/L	49601 ppb	08:25:44
2	Ca 317.933Radial†	14977.9	14352.1	13582 µg/L	13582 ppb	08:25:44
2	Fe 238.204 Radial†	10055.7	9742.8	88041 µg/L	88041 ppb	08:26:05
2	K 766.490 Radial†	15248.8	14551.1	9950.5 µg/L	9950.5 ppb	08:25:44
2	Mg 279.077 IEC†	1031.5	988.3	9372.9 µg/L	9372.9 ppb	08:26:05
2	Na 589.592 Radial†	1698.7	1055.9	326.57 µg/L	326.57 ppb	08:25:44
2	Sr 421.552†	14303.1	13855.5	137.70 µg/L	137.70 ppb	08:25:44
2	Sc 361.383	1910826.1	1910826.1	100.39 %		08:27:14
2	Y 371.029	1350899.3	1350899.3	103.01 %		08:27:14
2	Ag 328.068†	-1382.9	-878.7	-0.0863 µg/L	-0.0863 ppb	08:27:20
2	As 188.979†	3.9	3.0	10.120 µg/L	10.120 ppb	08:27:40
2	B 249.677†	948.1	490.1	-24.783 µg/L	-24.783 ppb	08:27:20
2	Ba 233.527†	29665.9	29570.0	758.68 µg/L	758.68 ppb	08:27:20
2	Be 313.107†	9567.1	13067.8	6.9466 µg/L	6.9466 ppb	08:27:20
2	Cd 226.502†	232.3	360.7	-0.1631 µg/L	-0.1631 ppb	08:27:40
2	Co 228.616†	922.6	926.4	38.392 µg/L	38.392 ppb	08:27:40
2	Cr 267.716†	5790.7	5814.1	123.26 µg/L	123.26 ppb	08:27:20
2	Cu 324.752†	11141.6	7858.8	64.771 µg/L	64.771 ppb	08:27:20
2	Mn 257.610†	784146.6	781299.2	2629.1 µg/L	2629.1 ppb	08:27:14
2	Mo 202.031†	3.1	7.1	4.0816 µg/L	4.0816 ppb	08:27:40
2	Ni 231.604†	1580.4	1286.2	69.343 µg/L	69.343 ppb	08:27:40
2	P 214.914†	384.7	360.9	694.10 µg/L	694.10 ppb	08:27:40
2	Pb 220.353†	562.2	477.4	121.94 µg/L	121.94 ppb	08:27:40

2	S 181.975 Axial†	149.8	132.9	576.28 µg/L	576.28 ppb	08:27:40
2	Sb 206.836†	25.6	3.7	0.8971 µg/L	0.8971 ppb	08:27:40
2	Se 196.026†	-30.4	-46.1	160.06 µg/L	160.06 ppb	08:27:40
2	SiO2†	215510.5	213118.9	44125 µg/L	44125 ppb	08:27:14
2	Si 251.611†	256084.7	254744.6	20443 µg/L	20443 ppb	08:27:14
2	Sn 189.927†	-16.2	-16.8	-15.866 µg/L	-15.866 ppb	08:27:40
2	Ti 334.940†	1340778.0	1335437.9	3060.8 µg/L	3060.8 ppb	08:27:14
2	Tl 190.801†	-54.5	-32.6	7.1813 µg/L	7.1813 ppb	08:27:40
2	U 409.014†	61.0	-147.1	-25.075 µg/L	-25.075 ppb	08:27:20
2	V 292.402†	15881.8	15866.9	171.56 µg/L	171.56 ppb	08:27:20
2	Zn 213.857†	8569.6	7987.4	192.71 µg/L	192.71 ppb	08:27:20
3	Sc RADIAL	54881.3	54881.3	104 %		08:26:10
3	Al 396.153Radial†	70726.9	68036.2	49312 µg/L	49312 ppb	08:26:10
3	Ca 317.933Radial†	15018.5	14258.3	13493 µg/L	13493 ppb	08:26:10
3	Fe 238.204 Radial†	10037.5	9636.1	87077 µg/L	87077 ppb	08:26:31
3	K 766.490 Radial†	15377.7	14539.8	9942.7 µg/L	9942.7 ppb	08:26:10
3	Mg 279.077 IEC†	1038.2	985.6	9347.4 µg/L	9347.4 ppb	08:26:31
3	Na 589.592 Radial†	1706.0	1047.9	324.09 µg/L	324.09 ppb	08:26:10
3	Sr 421.552†	14355.5	13779.0	136.94 µg/L	136.94 ppb	08:26:10
3	Sc 361.383	1923357.1	1923357.1	101.05 %		08:27:46
3	Y 371.029	1358786.7	1358786.7	103.61 %		08:27:46
3	Ag 328.068†	-1287.6	-775.4	0.5997 µg/L	0.5997 ppb	08:27:52
3	As 188.979†	11.8	10.8	25.005 µg/L	25.005 ppb	08:28:12
3	B 249.677†	961.1	496.9	-23.999 µg/L	-23.999 ppb	08:27:52
3	Ba 233.527†	28937.0	28656.1	735.23 µg/L	735.23 ppb	08:27:52
3	Be 313.107†	9210.9	12653.2	6.7142 µg/L	6.7142 ppb	08:27:52
3	Cd 226.502†	196.0	323.3	-1.0667 µg/L	-1.0667 ppb	08:28:12
3	Co 228.616†	852.0	850.6	34.864 µg/L	34.864 ppb	08:28:12
3	Cr 267.716†	5618.1	5605.8	118.84 µg/L	118.84 ppb	08:27:52
3	Cu 324.752†	11017.7	7663.8	63.334 µg/L	63.334 ppb	08:27:52
3	Mn 257.610†	774923.3	767083.3	2581.3 µg/L	2581.3 ppb	08:27:46
3	Mo 202.031†	5.6	9.6	4.3069 µg/L	4.3069 ppb	08:28:12
3	Ni 231.604†	1493.9	1190.3	64.246 µg/L	64.246 ppb	08:28:12
3	P 214.914†	363.9	337.8	646.54 µg/L	646.54 ppb	08:28:12
3	Pb 220.353†	549.6	461.3	117.83 µg/L	117.83 ppb	08:28:12
3	S 181.975 Axial†	143.2	125.3	543.52 µg/L	543.52 ppb	08:28:12
3	Sb 206.836†	33.5	11.3	8.2340 µg/L	8.2340 ppb	08:28:12
3	Se 196.026†	-21.1	-36.7	171.50 µg/L	171.50 ppb	08:28:12
3	SiO2†	214157.6	210381.5	43559 µg/L	43559 ppb	08:27:46
3	Si 251.611†	254235.9	251253.1	20163 µg/L	20163 ppb	08:27:46
3	Sn 189.927†	-16.8	-17.4	-15.998 µg/L	-15.998 ppb	08:28:12
3	Ti 334.940†	1320657.7	1306826.0	2995.2 µg/L	2995.2 ppb	08:27:46
3	Tl 190.801†	-52.9	-30.6	9.0323 µg/L	9.0323 ppb	08:28:12
3	U 409.014†	83.6	-125.0	-23.134 µg/L	-23.134 ppb	08:27:52
3	V 292.402†	15373.2	15260.5	165.29 µg/L	165.29 ppb	08:27:52
3	Zn 213.857†	8381.4	7745.6	186.80 µg/L	186.80 ppb	08:27:52

Mean Data: 246344002|951151|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1910018.3	100.35 %	0.723			0.72%
Sc RADIAL	54352.6	103 %	1.0			1.00%
Y 371.029	1349584.8	102.91 %	0.757			0.74%
Ag 328.068†	-858.4	0.0617 µg/L	0.48141	0.0617 ppb	0.48141	780.53%
Al 396.153Radial†	68475.2	49630 µg/L	333.7	49630 ppb	333.7	0.67%
As 188.979†	8.8	21.165 µg/L	9.7118	21.165 ppb	9.7118	45.89%
B 249.677†	509.6	-24.011 µg/L	0.7658	-24.011 ppb	0.7658	3.19%
Ba 233.527†	29285.7	751.38 µg/L	14.013	751.38 ppb	14.013	1.86%
Be 313.107†	12946.9	6.8801 µg/L	0.14464	6.8801 ppb	0.14464	2.10%
Ca 317.933Radial†	14362.3	13591 µg/L	103.5	13591 ppb	103.5	0.76%
Cd 226.502†	354.3	-0.3500 µg/L	0.64386	-0.3500 ppb	0.64386	183.94%
Co 228.616†	908.3	37.566 µg/L	2.3984	37.566 ppb	2.3984	6.38%
Cr 267.716†	5760.2	122.12 µg/L	2.878	122.12 ppb	2.878	2.36%
Cu 324.752†	7824.3	64.556 µg/L	1.1297	64.556 ppb	1.1297	1.75%
Fe 238.204 Radial†	9755.0	88151 µg/L	1133.0	88151 ppb	1133.0	1.29%
K 766.490 Radial†	14586.7	9974.8 µg/L	49.05	9974.8 ppb	49.05	0.49%
Mg 279.077 IEC†	990.7	9395.3 µg/L	62.25	9395.3 ppb	62.25	0.66%
Mn 257.610†	776159.8	2611.9 µg/L	26.53	2611.9 ppb	26.53	1.02%
Mo 202.031†	5.3	3.8965 µg/L	0.52779	3.8965 ppb	0.52779	13.55%
Na 589.592 Radial†	1074.3	332.24 µg/L	12.035	332.24 ppb	12.035	3.62%

Ni 231.604†	1265.3	68.232 µg/L	3.5631	68.232 ppb	3.5631	5.22%
P 214.914†	358.0	688.07 µg/L	38.867	688.07 ppb	38.867	5.65%
Pb 220.353†	480.2	122.65 µg/L	5.207	122.65 ppb	5.207	4.25%
S 181.975 Axial†	133.2	577.81 µg/L	35.082	577.81 ppb	35.082	6.07%
Sb 206.836†	5.3	2.4896 µg/L	5.13669	2.4896 ppb	5.13669	206.32%
Se 196.026†	-39.4	170.26 µg/L	9.642	170.26 ppb	9.642	5.66%
SiO2†	212277.7	43951 µg/L	340.7	43951 ppb	340.7	0.78%
Si 251.611†	253563.0	20348 µg/L	160.5	20348 ppb	160.5	0.79%
Sn 189.927†	-16.8	-15.850 µg/L	0.1558	-15.850 ppb	0.1558	0.98%
Sr 421.552†	13871.8	137.86 µg/L	1.014	137.86 ppb	1.014	0.74%
Ti 334.940†	1325659.5	3038.4 µg/L	37.40	3038.4 ppb	37.40	1.23%
Tl 190.801†	-31.7	8.2247 µg/L	0.94773	8.2247 ppb	0.94773	11.52%
U 409.014†	-133.6	-23.988 µg/L	0.9907	-23.988 ppb	0.9907	4.13%
V 292.402†	15666.6	169.54 µg/L	3.680	169.54 ppb	3.680	2.17%
Zn 213.857†	7917.7	190.99 µg/L	3.646	190.99 ppb	3.646	1.91%

Sequence No.: 11
 Sample ID: 246344003|951151|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 309
 Date Collected: 2/25/2010 08:28:22
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 246344003|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53516.0	53516.0	101 %		08:28:54
1	Al 396.153Radial†	22905.1	22613.5	16390 µg/L	16390 ppb	08:28:54
1	Ca 317.933Radial†	4560.1	4313.6	4082.1 µg/L	4082.1 ppb	08:29:15
1	Fe 238.204 Radial†	8256.4	8126.0	73431 µg/L	73431 ppb	08:28:54
1	K 766.490 Radial†	6111.3	5779.3	3952.1 µg/L	3952.1 ppb	08:28:54
1	Mg 279.077 IEC†	238.8	222.7	2054.8 µg/L	2054.8 ppb	08:29:15
1	Na 589.592 Radial†	6663.9	5978.8	1849.1 µg/L	1849.1 ppb	08:28:54
1	Sr 421.552†	2977.9	2911.6	28.936 µg/L	28.936 ppb	08:28:54
1	Sc 361.383	1924682.4	1924682.4	101.12 %		08:30:20
1	Y 371.029	1425477.2	1425477.2	108.70 %		08:30:20
1	Ag 328.068†	-1182.7	-670.8	-0.3097 µg/L	-0.3097 ppb	08:30:25
1	As 188.979†	12.3	11.3	25.526 µg/L	25.526 ppb	08:30:46
1	B 249.677†	701.6	239.7	-28.024 µg/L	-28.024 ppb	08:30:25
1	Ba 233.527†	11986.6	11874.1	304.58 µg/L	304.58 ppb	08:30:25
1	Be 313.107†	3465.7	6965.5	3.7530 µg/L	3.7530 ppb	08:30:25
1	Cd 226.502†	146.3	274.0	-0.8904 µg/L	-0.8904 ppb	08:30:25
1	Co 228.616†	1058.1	1053.8	47.812 µg/L	47.812 ppb	08:30:46
1	Cr 267.716†	1230.5	1263.0	26.770 µg/L	26.770 ppb	08:30:25
1	Cu 324.752†	4898.6	1605.2	20.937 µg/L	20.937 ppb	08:30:25
1	Mn 257.610†	810821.6	802055.1	2697.0 µg/L	2697.0 ppb	08:30:20
1	Mo 202.031†	31.7	35.4	6.4550 µg/L	6.4550 ppb	08:30:46
1	Ni 231.604†	803.8	506.9	27.792 µg/L	27.792 ppb	08:30:46
1	P 214.914†	354.6	328.3	632.67 µg/L	632.67 ppb	08:30:46
1	Pb 220.353†	238.5	153.3	37.610 µg/L	37.610 ppb	08:30:46
1	S 181.975 Axial†	33.5	16.8	72.770 µg/L	72.770 ppb	08:30:46
1	Sb 206.836†	20.8	-1.2	-1.7461 µg/L	-1.7461 ppb	08:30:46
1	Se 196.026†	-31.9	-47.4	127.40 µg/L	127.40 ppb	08:30:46
1	SiO2†	128680.7	125707.2	26027 µg/L	26027 ppb	08:30:25
1	Si 251.611†	154796.5	152743.9	12257 µg/L	12257 ppb	08:30:20
1	Sn 189.927†	-0.8	-1.4	-8.2473 µg/L	-8.2473 ppb	08:30:46
1	Ti 334.940†	661750.3	654330.2	1499.9 µg/L	1499.9 ppb	08:30:20
1	Tl 190.801†	-40.1	-18.0	10.154 µg/L	10.154 ppb	08:30:46
1	U 409.014†	-1193.4	-1387.9	-123.79 µg/L	-123.79 ppb	08:30:20
1	V 292.402†	2589.8	2608.5	35.070 µg/L	35.070 ppb	08:30:25
1	Zn 213.857†	7541.2	6909.1	167.37 µg/L	167.37 ppb	08:30:25
2	Sc RADIAL	53426.0	53426.0	101 %		08:29:21
2	Al 396.153Radial†	22873.6	22620.4	16395 µg/L	16395 ppb	08:29:21
2	Ca 317.933Radial†	4580.0	4340.8	4107.8 µg/L	4107.8 ppb	08:29:41
2	Fe 238.204 Radial†	8239.5	8123.1	73404 µg/L	73404 ppb	08:29:21
2	K 766.490 Radial†	6167.4	5844.9	3996.9 µg/L	3996.9 ppb	08:29:21
2	Mg 279.077 IEC†	239.1	223.5	2062.0 µg/L	2062.0 ppb	08:29:41
2	Na 589.592 Radial†	6693.3	6018.9	1861.5 µg/L	1861.5 ppb	08:29:21
2	Sr 421.552†	2942.6	2881.6	28.638 µg/L	28.638 ppb	08:29:21
2	Sc 361.383	1928870.3	1928870.3	101.34 %		08:30:53
2	Y 371.029	1427517.4	1427517.4	108.85 %		08:30:53
2	Ag 328.068†	-1146.6	-632.6	-0.0258 µg/L	-0.0258 ppb	08:30:59
2	As 188.979†	12.4	11.3	25.670 µg/L	25.670 ppb	08:31:19
2	B 249.677†	692.3	229.0	-28.466 µg/L	-28.466 ppb	08:30:59
2	Ba 233.527†	11936.7	11799.1	302.66 µg/L	302.66 ppb	08:30:59
2	Be 313.107†	3432.0	6924.8	3.7284 µg/L	3.7284 ppb	08:30:59
2	Cd 226.502†	106.5	234.5	-1.9527 µg/L	-1.9527 ppb	08:30:59
2	Co 228.616†	1059.1	1052.5	47.755 µg/L	47.755 ppb	08:31:19
2	Cr 267.716†	1255.8	1285.3	27.241 µg/L	27.241 ppb	08:30:59
2	Cu 324.752†	4911.3	1607.2	20.946 µg/L	20.946 ppb	08:30:59
2	Mn 257.610†	810095.0	799597.3	2688.7 µg/L	2688.7 ppb	08:30:53
2	Mo 202.031†	32.2	35.9	6.4990 µg/L	6.4990 ppb	08:31:19
2	Ni 231.604†	797.3	498.7	27.358 µg/L	27.358 ppb	08:31:19
2	P 214.914†	353.9	326.8	629.60 µg/L	629.60 ppb	08:31:19
2	Pb 220.353†	239.9	154.2	37.826 µg/L	37.826 ppb	08:31:19

2	S 181.975 Axial†	35.9	19.1	82.707 µg/L	82.707 ppb	08:31:19
2	Sb 206.836†	23.1	1.0	0.3425 µg/L	0.3425 ppb	08:31:19
2	Se 196.026†	-16.5	-32.1	150.07 µg/L	150.07 ppb	08:31:19
2	SiO2†	128439.5	125192.9	25921 µg/L	25921 ppb	08:30:59
2	Si 251.611†	154834.1	152448.7	12234 µg/L	12234 ppb	08:30:53
2	Sn 189.927†	0.8	0.1	-7.5751 µg/L	-7.5751 ppb	08:31:19
2	Ti 334.940†	662415.9	653566.2	1498.1 µg/L	1498.1 ppb	08:30:53
2	Tl 190.801†	-39.1	-16.9	11.591 µg/L	11.591 ppb	08:31:19
2	U 409.014†	-1160.6	-1353.0	-120.93 µg/L	-120.93 ppb	08:30:53
2	V 292.402†	2519.3	2533.4	34.310 µg/L	34.310 ppb	08:30:59
2	Zn 213.857†	7526.3	6878.2	166.60 µg/L	166.60 ppb	08:30:59
3	Sc RADIAL	53457.3	53457.3	101 %		08:29:46
3	Al 396.153Radial†	22971.8	22704.2	16456 µg/L	16456 ppb	08:29:46
3	Ca 317.933Radial†	4567.1	4325.4	4093.3 µg/L	4093.3 ppb	08:30:07
3	Fe 238.204 Radial†	8250.1	8128.8	73456 µg/L	73456 ppb	08:29:46
3	K 766.490 Radial†	6141.3	5815.5	3976.8 µg/L	3976.8 ppb	08:29:46
3	Mg 279.077 IEC†	241.2	225.4	2080.2 µg/L	2080.2 ppb	08:30:07
3	Na 589.592 Radial†	6667.5	5989.6	1852.4 µg/L	1852.4 ppb	08:29:46
3	Sr 421.552†	2993.2	2929.9	29.119 µg/L	29.119 ppb	08:29:46
3	Sc 361.383	1927833.7	1927833.7	101.29 %		08:31:27
3	Y 371.029	1425560.8	1425560.8	108.70 %		08:31:27
3	Ag 328.068†	-1101.9	-589.1	0.3034 µg/L	0.3034 ppb	08:31:32
3	As 188.979†	6.9	6.0	15.468 µg/L	15.468 ppb	08:31:53
3	B 249.677†	674.3	211.5	-29.245 µg/L	-29.245 ppb	08:31:32
3	Ba 233.527†	11482.7	11357.2	291.32 µg/L	291.32 ppb	08:31:32
3	Be 313.107†	3077.9	6577.0	3.5266 µg/L	3.5266 ppb	08:31:32
3	Cd 226.502†	110.7	238.7	-1.8466 µg/L	-1.8466 ppb	08:31:32
3	Co 228.616†	974.3	969.4	43.813 µg/L	43.813 ppb	08:31:53
3	Cr 267.716†	1148.9	1180.5	25.021 µg/L	25.021 ppb	08:31:32
3	Cu 324.752†	4797.8	1497.7	20.222 µg/L	20.222 ppb	08:31:32
3	Mn 257.610†	792602.4	782756.9	2632.3 µg/L	2632.3 ppb	08:31:27
3	Mo 202.031†	26.4	30.1	5.9054 µg/L	5.9054 ppb	08:31:53
3	Ni 231.604†	757.2	459.6	25.289 µg/L	25.289 ppb	08:31:53
3	P 214.914†	325.2	298.8	570.74 µg/L	570.74 ppb	08:31:53
3	Pb 220.353†	238.7	153.1	37.557 µg/L	37.557 ppb	08:31:53
3	S 181.975 Axial†	33.0	16.2	70.234 µg/L	70.234 ppb	08:31:53
3	Sb 206.836†	14.2	-7.8	-7.9861 µg/L	-7.9861 ppb	08:31:53
3	Se 196.026†	-24.3	-39.9	138.64 µg/L	138.64 ppb	08:31:53
3	SiO2†	123909.9	120789.1	25009 µg/L	25009 ppb	08:31:32
3	Si 251.611†	152355.5	150083.8	12044 µg/L	12044 ppb	08:31:27
3	Sn 189.927†	2.4	1.7	-6.8450 µg/L	-6.8450 ppb	08:31:53
3	Ti 334.940†	645674.7	637389.3	1461.0 µg/L	1461.0 ppb	08:31:27
3	Tl 190.801†	-37.2	-15.1	13.638 µg/L	13.638 ppb	08:31:53
3	U 409.014†	-1240.1	-1432.2	-127.41 µg/L	-127.41 ppb	08:31:27
3	V 292.402†	2433.5	2450.0	33.453 µg/L	33.453 ppb	08:31:32
3	Zn 213.857†	7262.4	6621.6	160.26 µg/L	160.26 ppb	08:31:32

Mean Data: 246344003|951151|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1927128.8	101.25 %	0.115			0.11%
Sc RADIAL	53466.4	101 %	0.1			0.09%
Y 371.029	1426185.1	108.75 %	0.088			0.08%
Ag 328.068†	-630.8	-0.0107 µg/L	0.30680	-0.0107 ppb	0.30680	>999.9%
Al 396.153Radial†	22646.0	16414 µg/L	36.6	16414 ppb	36.6	0.22%
As 188.979†	9.5	22.221 µg/L	5.8491	22.221 ppb	5.8491	26.32%
B 249.677†	226.7	-28.578 µg/L	0.6177	-28.578 ppb	0.6177	2.16%
Ba 233.527†	11676.8	299.52 µg/L	7.165	299.52 ppb	7.165	2.39%
Be 313.107†	6822.5	3.6693 µg/L	0.12422	3.6693 ppb	0.12422	3.39%
Ca 317.933Radial†	4326.6	4094.4 µg/L	12.93	4094.4 ppb	12.93	0.32%
Cd 226.502†	249.0	-1.5632 µg/L	0.58507	-1.5632 ppb	0.58507	37.43%
Co 228.616†	1025.2	46.460 µg/L	2.2925	46.460 ppb	2.2925	4.93%
Cr 267.716†	1242.9	26.344 µg/L	1.1698	26.344 ppb	1.1698	4.44%
Cu 324.752†	1570.0	20.702 µg/L	0.4154	20.702 ppb	0.4154	2.01%
Fe 238.204 Radial†	8126.0	73430 µg/L	25.7	73430 ppb	25.7	0.04%
K 766.490 Radial†	5813.2	3975.2 µg/L	22.46	3975.2 ppb	22.46	0.57%
Mg 279.077 IEC†	223.9	2065.7 µg/L	13.09	2065.7 ppb	13.09	0.63%
Mn 257.610†	794803.1	2672.7 µg/L	35.19	2672.7 ppb	35.19	1.32%
Mo 202.031†	33.8	6.2865 µg/L	0.33074	6.2865 ppb	0.33074	5.26%
Na 589.592 Radial†	5995.8	1854.3 µg/L	6.42	1854.3 ppb	6.42	0.35%

Ni 231.604†	488.4	26.813 µg/L	1.3376	26.813 ppb	1.3376	4.99%
P 214.914†	318.0	611.00 µg/L	34.899	611.00 ppb	34.899	5.71%
Pb 220.353†	153.5	37.664 µg/L	0.1427	37.664 ppb	0.1427	0.38%
S 181.975 Axial†	17.3	75.237 µg/L	6.5923	75.237 ppb	6.5923	8.76%
Sb 206.836†	-2.7	-3.1299 µg/L	4.33330	-3.1299 ppb	4.33330	138.45%
Se 196.026†	-39.8	138.70 µg/L	11.333	138.70 ppb	11.333	8.17%
SiO2†	123896.4	25652 µg/L	559.7	25652 ppb	559.7	2.18%
Si 251.611†	151758.8	12178 µg/L	117.0	12178 ppb	117.0	0.96%
Sn 189.927†	0.1	-7.5558 µg/L	0.70134	-7.5558 ppb	0.70134	9.28%
Sr 421.552†	2907.7	28.898 µg/L	0.2424	28.898 ppb	0.2424	0.84%
Ti 334.940†	648428.5	1486.3 µg/L	21.93	1486.3 ppb	21.93	1.48%
Tl 190.801†	-16.7	11.794 µg/L	1.7507	11.794 ppb	1.7507	14.84%
U 409.014†	-1391.0	-124.04 µg/L	3.244	-124.04 ppb	3.244	2.61%
V 292.402†	2530.6	34.278 µg/L	0.8089	34.278 ppb	0.8089	2.36%
Zn 213.857†	6802.9	164.74 µg/L	3.903	164.74 ppb	3.903	2.37%

=====
Analysis Begun

Start Time: 2/25/2010 08:32:15

Plasma On Time: 2/8/2010 03:37:33

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022410F.sif

Batch ID:

Results Data Set: 022410

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 307

Sample ID: 1202038313|951151|5

Date Collected: 2/25/2010 08:32:17

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 1202038313|951151|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53032.3	53032.3	100 %		08:32:54
1	Al 396.153Radial†	14967.4	14920.7	10814 µg/L	10814 ppb	08:32:54
1	Ca 317.933Radial†	2790.4	2593.6	2454.4 µg/L	2454.4 ppb	08:33:14
1	Fe 238.204 Radial†	2234.5	2207.8	19951 µg/L	19951 ppb	08:33:14
1	K 766.490 Radial†	3113.9	2851.5	1949.9 µg/L	1949.9 ppb	08:32:54
1	Mg 279.077 IEC†	237.3	223.4	2118.9 µg/L	2118.9 ppb	08:33:14
1	Na 589.592 Radial†	1026.5	428.9	132.66 µg/L	132.66 ppb	08:32:54
1	Sr 421.552†	2620.0	2582.2	25.663 µg/L	25.663 ppb	08:32:54
1	Sc 361.383	1923777.5	1923777.5	101.07 %		08:34:16
1	Y 371.029	1340463.0	1340463.0	102.22 %		08:34:16
1	Ag 328.068†	-568.8	-63.9	0.9449 µg/L	0.9449 ppb	08:34:22
1	As 188.979†	4.2	3.3	7.2726 µg/L	7.2726 ppb	08:34:43
1	B 249.677†	466.8	7.6	-10.064 µg/L	-10.064 ppb	08:34:22
1	Ba 233.527†	5685.0	5645.0	144.83 µg/L	144.83 ppb	08:34:22
1	Be 313.107†	-314.2	3227.4	1.8125 µg/L	1.8125 ppb	08:34:22
1	Cd 226.502†	-69.1	61.0	-0.6010 µg/L	-0.6010 ppb	08:34:43
1	Co 228.616†	319.5	323.5	14.593 µg/L	14.593 ppb	08:34:43
1	Cr 267.716†	559.5	599.6	12.719 µg/L	12.719 ppb	08:34:22
1	Cu 324.752†	5126.4	1832.8	15.025 µg/L	15.025 ppb	08:34:22
1	Mn 257.610†	133046.4	131862.8	444.37 µg/L	444.37 ppb	08:34:22
1	Mo 202.031†	10.5	14.5	2.2538 µg/L	2.2538 ppb	08:34:43
1	Ni 231.604†	471.3	178.3	9.7013 µg/L	9.7013 ppb	08:34:43
1	P 214.914†	70.7	47.7	85.566 µg/L	85.566 ppb	08:34:43
1	Pb 220.353†	237.6	152.5	38.993 µg/L	38.993 ppb	08:34:43
1	S 181.975 Axial†	32.5	15.8	68.313 µg/L	68.313 ppb	08:34:43
1	Sb 206.836†	21.6	-0.4	-0.7556 µg/L	-0.7556 ppb	08:34:43
1	Se 196.026†	2.6	-13.2	32.336 µg/L	32.336 ppb	08:34:43
1	SiO2†	56617.7	54470.2	11278 µg/L	11278 ppb	08:34:22
1	Si 251.611†	66157.2	65119.0	5225.7 µg/L	5225.7 ppb	08:34:22
1	Sn 189.927†	-3.5	-4.2	-3.7443 µg/L	-3.7443 ppb	08:34:43
1	Ti 334.940†	221336.4	218906.3	501.68 µg/L	501.68 ppb	08:34:16
1	Tl 190.801†	-26.3	-4.3	3.6349 µg/L	3.6349 ppb	08:34:43
1	U 409.014†	269.9	59.3	1.9191 µg/L	1.9191 ppb	08:34:22
1	V 292.402†	2594.1	2613.9	28.905 µg/L	28.905 ppb	08:34:22
1	Zn 213.857†	2177.7	1606.1	38.646 µg/L	38.646 ppb	08:34:43
2	Sc RADIAL	53586.5	53586.5	102 %		08:33:20
2	Al 396.153Radial†	15146.9	14943.3	10831 µg/L	10831 ppb	08:33:20
2	Ca 317.933Radial†	2792.1	2566.5	2428.8 µg/L	2428.8 ppb	08:33:40
2	Fe 238.204 Radial†	2232.4	2182.8	19725 µg/L	19725 ppb	08:33:40
2	K 766.490 Radial†	3137.9	2843.1	1944.2 µg/L	1944.2 ppb	08:33:20
2	Mg 279.077 IEC†	236.5	220.2	2088.0 µg/L	2088.0 ppb	08:33:40
2	Na 589.592 Radial†	1071.9	463.1	143.21 µg/L	143.21 ppb	08:33:20
2	Sr 421.552†	2625.6	2560.7	25.449 µg/L	25.449 ppb	08:33:20
2	Sc 361.383	1934803.1	1934803.1	101.65 %		08:34:49
2	Y 371.029	1347992.8	1347992.8	102.79 %		08:34:49
2	Ag 328.068†	-555.4	-47.6	1.0527 µg/L	1.0527 ppb	08:34:55
2	As 188.979†	0.0	-0.8	-0.5900 µg/L	-0.5900 ppb	08:35:15

2	B 249.677†	462.4	0.7	-10.242 µg/L	-10.242 ppb	08:34:55
2	Ba 233.527†	5691.8	5619.7	144.18 µg/L	144.18 ppb	08:34:55
2	Be 313.107†	-293.5	3249.6	1.8263 µg/L	1.8263 ppb	08:34:55
2	Cd 226.502†	-60.2	70.1	-0.3322 µg/L	-0.3322 ppb	08:35:15
2	Co 228.616†	295.8	298.4	13.380 µg/L	13.380 ppb	08:35:15
2	Cr 267.716†	565.8	602.8	12.785 µg/L	12.785 ppb	08:34:55
2	Cu 324.752†	5154.1	1831.1	14.982 µg/L	14.982 ppb	08:34:55
2	Mn 257.610†	134347.8	132392.9	446.12 µg/L	446.12 ppb	08:34:55
2	Mo 202.031†	6.6	10.5	1.8377 µg/L	1.8377 ppb	08:35:15
2	Ni 231.604†	460.7	165.2	9.0052 µg/L	9.0052 ppb	08:35:15
2	P 214.914†	69.6	46.2	82.620 µg/L	82.620 ppb	08:35:15
2	Pb 220.353†	227.4	141.2	36.083 µg/L	36.083 ppb	08:35:15
2	S 181.975 Axial†	33.4	16.5	71.709 µg/L	71.709 ppb	08:35:15
2	Sb 206.836†	21.5	-0.7	-0.9853 µg/L	-0.9853 ppb	08:35:15
2	Se 196.026†	12.8	-3.2	46.561 µg/L	46.561 ppb	08:35:15
2	SiO2†	57177.6	54701.8	11326 µg/L	11326 ppb	08:34:55
2	Si 251.611†	66780.4	65359.0	5245.0 µg/L	5245.0 ppb	08:34:55
2	Sn 189.927†	-4.0	-4.6	-3.9246 µg/L	-3.9246 ppb	08:35:15
2	Ti 334.940†	222542.0	218844.4	501.54 µg/L	501.54 ppb	08:34:49
2	Tl 190.801†	-31.2	-8.9	-2.8090 µg/L	-2.8090 ppb	08:35:15
2	U 409.014†	330.4	117.2	6.6816 µg/L	6.6816 ppb	08:34:55
2	V 292.402†	2570.0	2575.6	28.492 µg/L	28.492 ppb	08:34:55
2	Zn 213.857†	2164.6	1580.9	38.039 µg/L	38.039 ppb	08:35:15
3	Sc RADIAL	52910.3	52910.3	100 %		08:33:45
3	Al 396.153Radial†	14960.2	14947.8	10834 µg/L	10834 ppb	08:33:45
3	Ca 317.933Radial†	2775.8	2585.4	2446.6 µg/L	2446.6 ppb	08:34:06
3	Fe 238.204 Radial†	2229.1	2207.5	19948 µg/L	19948 ppb	08:34:06
3	K 766.490 Radial†	3070.7	2815.6	1925.4 µg/L	1925.4 ppb	08:33:45
3	Mg 279.077 IEC†	233.9	220.5	2091.1 µg/L	2091.1 ppb	08:34:06
3	Na 589.592 Radial†	1034.3	439.0	135.78 µg/L	135.78 ppb	08:33:45
3	Sr 421.552†	2596.8	2565.0	25.492 µg/L	25.492 ppb	08:33:45
3	Sc 361.383	1928258.0	1928258.0	101.31 %		08:35:22
3	Y 371.029	1342368.0	1342368.0	102.36 %		08:35:22
3	Ag 328.068†	-587.6	-81.2	0.7988 µg/L	0.7988 ppb	08:35:27
3	As 188.979†	-2.6	-3.4	-5.4232 µg/L	-5.4232 ppb	08:35:48
3	B 249.677†	428.8	-30.9	-11.712 µg/L	-11.712 ppb	08:35:27
3	Ba 233.527†	5317.3	5269.0	135.18 µg/L	135.18 ppb	08:35:27
3	Be 313.107†	-576.8	2968.9	1.6606 µg/L	1.6606 ppb	08:35:27
3	Cd 226.502†	-82.8	47.6	-0.9631 µg/L	-0.9631 ppb	08:35:48
3	Co 228.616†	264.3	268.3	11.971 µg/L	11.971 ppb	08:35:48
3	Cr 267.716†	524.5	563.8	11.959 µg/L	11.959 ppb	08:35:27
3	Cu 324.752†	4993.8	1690.2	14.071 µg/L	14.071 ppb	08:35:27
3	Mn 257.610†	123737.4	122368.3	412.56 µg/L	412.56 ppb	08:35:27
3	Mo 202.031†	5.7	9.7	1.7609 µg/L	1.7609 ppb	08:35:48
3	Ni 231.604†	447.2	153.4	8.3863 µg/L	8.3863 ppb	08:35:48
3	P 214.914†	60.2	37.1	63.477 µg/L	63.477 ppb	08:35:48
3	Pb 220.353†	231.1	145.6	37.217 µg/L	37.217 ppb	08:35:48
3	S 181.975 Axial†	28.4	11.7	50.610 µg/L	50.610 ppb	08:35:48
3	Sb 206.836†	26.3	4.2	3.6236 µg/L	3.6236 ppb	08:35:48
3	Se 196.026†	6.3	-9.6	37.760 µg/L	37.760 ppb	08:35:48
3	SiO2†	53576.3	51338.0	10629 µg/L	10629 ppb	08:35:27
3	Si 251.611†	62594.1	61449.8	4931.3 µg/L	4931.3 ppb	08:35:27
3	Sn 189.927†	-1.2	-1.8	-2.7157 µg/L	-2.7157 ppb	08:35:48
3	Ti 334.940†	211903.8	209086.9	479.17 µg/L	479.17 ppb	08:35:22
3	Tl 190.801†	-28.8	-6.8	-0.0895 µg/L	-0.0895 ppb	08:35:48
3	U 409.014†	221.2	10.6	-2.0582 µg/L	-2.0582 ppb	08:35:27
3	V 292.402†	2384.8	2401.4	26.740 µg/L	26.740 ppb	08:35:27
3	Zn 213.857†	1929.4	1356.0	32.461 µg/L	32.461 ppb	08:35:48

Mean Data: 1202038313|951151|5

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Units	Units		Conc. Units		
Sc 361.383	1928946.2	101.35 %		0.291			0.29%
Sc RADIAL	53176.4	101 %		0.7			0.68%
Y 371.029	1343607.9	102.46 %		0.299			0.29%
Ag 328.068†	-64.2	0.9321 µg/L		0.12741	0.9321 ppb	0.12741	13.67%
Al 396.153Radial†	14937.3	10826 µg/L		10.6	10826 ppb	10.6	0.10%
As 188.979†	-0.3	0.4198 µg/L		6.40781	0.4198 ppb	6.40781	>999.9%
B 249.677†	-7.5	-10.673 µg/L		0.9045	-10.673 ppb	0.9045	8.47%
Ba 233.527†	5511.2	141.39 µg/L		5.392	141.39 ppb	5.392	3.81%

Be 313.107†	3148.6	1.7665 µg/L	0.09195	1.7665 ppb	0.09195	5.21%
Ca 317.933Radial†	2581.8	2443.3 µg/L	13.13	2443.3 ppb	13.13	0.54%
Cd 226.502†	59.6	-0.6321 µg/L	0.31660	-0.6321 ppb	0.31660	50.09%
Co 228.616†	296.8	13.315 µg/L	1.3122	13.315 ppb	1.3122	9.86%
Cr 267.716†	588.7	12.487 µg/L	0.4590	12.487 ppb	0.4590	3.68%
Cu 324.752†	1784.7	14.693 µg/L	0.5389	14.693 ppb	0.5389	3.67%
Fe 238.204 Radial†	2199.4	19875 µg/L	130.1	19875 ppb	130.1	0.65%
K 766.490 Radial†	2836.7	1939.8 µg/L	12.83	1939.8 ppb	12.83	0.66%
Mg 279.077 IEC†	221.4	2099.3 µg/L	17.01	2099.3 ppb	17.01	0.81%
Mn 257.610†	128874.6	434.35 µg/L	18.891	434.35 ppb	18.891	4.35%
Mo 202.031†	11.6	1.9508 µg/L	0.26519	1.9508 ppb	0.26519	13.59%
Na 589.592 Radial†	443.7	137.22 µg/L	5.420	137.22 ppb	5.420	3.95%
Ni 231.604†	165.6	9.0309 µg/L	0.65784	9.0309 ppb	0.65784	7.28%
P 214.914†	43.6	77.221 µg/L	11.9931	77.221 ppb	11.9931	15.53%
Pb 220.353†	146.4	37.431 µg/L	1.4665	37.431 ppb	1.4665	3.92%
S 181.975 Axial†	14.7	63.544 µg/L	11.3287	63.544 ppb	11.3287	17.83%
Sb 206.836†	1.0	0.6276 µg/L	2.59718	0.6276 ppb	2.59718	413.84%
Se 196.026†	-8.7	38.886 µg/L	7.1789	38.886 ppb	7.1789	18.46%
SiO2†	53503.3	11078 µg/L	389.0	11078 ppb	389.0	3.51%
Si 251.611†	63976.0	5134.0 µg/L	175.82	5134.0 ppb	175.82	3.42%
Sn 189.927†	-3.5	-3.4615 µg/L	0.65218	-3.4615 ppb	0.65218	18.84%
Sr 421.552†	2569.3	25.535 µg/L	0.1131	25.535 ppb	0.1131	0.44%
Ti 334.940†	215612.5	494.13 µg/L	12.955	494.13 ppb	12.955	2.62%
Tl 190.801†	-6.7	0.2455 µg/L	3.23499	0.2455 ppb	3.23499	>999.9%
U 409.014†	62.4	2.1808 µg/L	4.37575	2.1808 ppb	4.37575	200.65%
V 292.402†	2530.3	28.045 µg/L	1.1494	28.045 ppb	1.1494	4.10%
Zn 213.857†	1514.3	36.382 µg/L	3.4095	36.382 ppb	3.4095	9.37%

Sequence No.: 2

Sample ID: 246344004|951151|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 310

Date Collected: 2/25/2010 08:35:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246344004|951151|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54252.7	54252.7	103 %		08:36:33
1	Al 396.153Radial†	121392.1	118107.6	85603 µg/L	85603 ppb	08:36:33
1	Ca 317.933Radial†	31066.1	30035.5	28423 µg/L	28423 ppb	08:36:53
1	Fe 238.204 Radial†	12453.9	12098.4	109330 µg/L	109330 ppb	08:36:53
1	K 766.490 Radial†	19202.2	18431.3	12604 µg/L	12604 ppb	08:36:33
1	Mg 279.077 IEC†	1991.5	1924.4	18317 µg/L	18317 ppb	08:36:53
1	Na 589.592 Radial†	7984.6	7174.2	2218.8 µg/L	2218.8 ppb	08:36:53
1	Sr 421.552†	28579.6	27775.0	276.04 µg/L	276.04 ppb	08:36:33
1	Sc 361.383	1903253.7	1903253.7	99.996 %		08:37:59
1	Y 371.029	1339732.1	1339732.1	102.16 %		08:37:59
1	Ag 328.068†	-1638.1	-1139.4	-0.9352 µg/L	-0.9352 ppb	08:38:05
1	As 188.979†	18.3	17.5	38.185 µg/L	38.185 ppb	08:38:25
1	B 249.677†	931.4	477.2	-36.505 µg/L	-36.505 ppb	08:38:05
1	Ba 233.527†	57143.7	57166.3	1466.4 µg/L	1466.4 ppb	08:38:05
1	Be 313.107†	14542.2	18081.0	10.754 µg/L	10.754 ppb	08:38:05
1	Cd 226.502†	254.0	383.3	-1.9647 µg/L	-1.9647 ppb	08:38:25
1	Co 228.616†	949.0	956.5	43.654 µg/L	43.654 ppb	08:38:25
1	Cr 267.716†	3961.0	4007.2	84.965 µg/L	84.965 ppb	08:38:05
1	Cu 324.752†	10891.1	7652.4	66.350 µg/L	66.350 ppb	08:38:05
1	Mn 257.610†	474955.5	475204.2	1606.0 µg/L	1606.0 ppb	08:37:59
1	Mo 202.031†	-1.1	2.9	4.4573 µg/L	4.4573 ppb	08:38:25
1	Ni 231.604†	1483.8	1195.9	64.822 µg/L	64.822 ppb	08:38:25
1	P 214.914†	267.0	244.7	443.81 µg/L	443.81 ppb	08:38:25
1	Pb 220.353†	460.3	377.8	97.575 µg/L	97.575 ppb	08:38:25
1	S 181.975 Axial†	178.1	161.7	701.41 µg/L	701.41 ppb	08:38:25
1	Sb 206.836†	33.5	11.7	7.6561 µg/L	7.6561 ppb	08:38:25
1	Se 196.026†	-42.5	-58.3	188.11 µg/L	188.11 ppb	08:38:25
1	SiO2†	362275.7	360743.8	74691 µg/L	74691 ppb	08:37:59
1	Si 251.611†	430581.1	430262.4	34528 µg/L	34528 ppb	08:37:59
1	Sn 189.927†	2.8	2.1	-8.6879 µg/L	-8.6879 ppb	08:38:25
1	Ti 334.940†	539578.7	539522.0	1235.8 µg/L	1235.8 ppb	08:37:59
1	Tl 190.801†	-38.5	-16.8	13.521 µg/L	13.521 ppb	08:38:25
1	U 409.014†	-640.5	-848.3	-86.203 µg/L	-86.203 ppb	08:37:59
1	V 292.402†	12769.1	12817.1	142.98 µg/L	142.98 ppb	08:38:05
1	Zn 213.857†	9606.7	9058.6	217.75 µg/L	217.75 ppb	08:38:05
2	Sc RADIAL	54124.1	54124.1	103 %		08:36:59
2	Al 396.153Radial†	121509.9	118502.8	85890 µg/L	85890 ppb	08:36:59
2	Ca 317.933Radial†	31041.4	30083.2	28469 µg/L	28469 ppb	08:37:19
2	Fe 238.204 Radial†	12485.8	12158.3	109870 µg/L	109870 ppb	08:37:19
2	K 766.490 Radial†	19139.3	18414.4	12592 µg/L	12592 ppb	08:36:59
2	Mg 279.077 IEC†	1994.3	1931.8	18386 µg/L	18386 ppb	08:37:19
2	Na 589.592 Radial†	8003.7	7211.4	2230.3 µg/L	2230.3 ppb	08:37:19
2	Sr 421.552†	28502.3	27765.7	275.95 µg/L	275.95 ppb	08:36:59
2	Sc 361.383	1915380.1	1915380.1	100.63 %		08:38:33
2	Y 371.029	1347770.3	1347770.3	102.77 %		08:38:33
2	Ag 328.068†	-1602.5	-1093.6	-0.5549 µg/L	-0.5549 ppb	08:38:38
2	As 188.979†	11.6	10.6	25.170 µg/L	25.170 ppb	08:38:59
2	B 249.677†	932.7	472.7	-36.984 µg/L	-36.984 ppb	08:38:38
2	Ba 233.527†	57342.5	57002.1	1462.2 µg/L	1462.2 ppb	08:38:38
2	Be 313.107†	14582.3	18028.8	10.720 µg/L	10.720 ppb	08:38:38
2	Cd 226.502†	244.6	372.4	-2.3191 µg/L	-2.3191 ppb	08:38:59
2	Co 228.616†	945.4	946.9	43.183 µg/L	43.183 ppb	08:38:59
2	Cr 267.716†	3915.4	3936.9	83.476 µg/L	83.476 ppb	08:38:38
2	Cu 324.752†	10927.0	7619.1	66.203 µg/L	66.203 ppb	08:38:38
2	Mn 257.610†	479646.6	476858.7	1611.6 µg/L	1611.6 ppb	08:38:33
2	Mo 202.031†	3.2	7.2	4.9212 µg/L	4.9212 ppb	08:38:59
2	Ni 231.604†	1495.4	1198.0	64.943 µg/L	64.943 ppb	08:38:59
2	P 214.914†	272.9	248.9	452.28 µg/L	452.28 ppb	08:38:59
2	Pb 220.353†	472.4	386.9	99.914 µg/L	99.914 ppb	08:38:59

2	S 181.975 Axial†	171.4	153.9	667.63 µg/L	667.63 ppb	08:38:59
2	Sb 206.836†	34.5	12.5	8.4359 µg/L	8.4359 ppb	08:38:59
2	Se 196.026†	-25.6	-41.3	214.73 µg/L	214.73 ppb	08:38:59
2	SiO2†	366293.1	362442.1	75042 µg/L	75042 ppb	08:38:33
2	Si 251.611†	435560.8	432484.6	34706 µg/L	34706 ppb	08:38:33
2	Sn 189.927†	4.7	4.0	-7.9091 µg/L	-7.9091 ppb	08:38:59
2	Ti 334.940†	544704.0	541198.8	1239.6 µg/L	1239.6 ppb	08:38:33
2	Tl 190.801†	-45.4	-23.4	4.5102 µg/L	4.5102 ppb	08:38:59
2	U 409.014†	-632.3	-836.1	-85.279 µg/L	-85.279 ppb	08:38:33
2	V 292.402†	12812.8	12779.6	142.67 µg/L	142.67 ppb	08:38:38
2	Zn 213.857†	9621.1	9012.0	216.56 µg/L	216.56 ppb	08:38:38
3	Sc RADIAL	54157.2	54157.2	103 %		08:37:25
3	Al 396.153Radial†	121672.2	118588.8	85952 µg/L	85952 ppb	08:37:25
3	Ca 317.933Radial†	30918.2	29944.7	28337 µg/L	28337 ppb	08:37:46
3	Fe 238.204 Radial†	12449.5	12115.6	109480 µg/L	109480 ppb	08:37:46
3	K 766.490 Radial†	19244.0	18505.0	12654 µg/L	12654 ppb	08:37:25
3	Mg 279.077 IEC†	1987.2	1923.7	18310 µg/L	18310 ppb	08:37:46
3	Na 589.592 Radial†	8004.3	7207.2	2229.0 µg/L	2229.0 ppb	08:37:46
3	Sr 421.552†	28533.5	27779.1	276.08 µg/L	276.08 ppb	08:37:25
3	Sc 361.383	1921197.6	1921197.6	100.94 %		08:39:07
3	Y 371.029	1352711.0	1352711.0	103.15 %		08:39:07
3	Ag 328.068†	-1554.9	-1041.6	-0.2270 µg/L	-0.2270 ppb	08:39:12
3	As 188.979†	15.3	14.3	32.170 µg/L	32.170 ppb	08:39:33
3	B 249.677†	923.2	460.4	-37.312 µg/L	-37.312 ppb	08:39:12
3	Ba 233.527†	55088.4	54596.4	1400.5 µg/L	1400.5 ppb	08:39:12
3	Be 313.107†	13732.0	17142.5	10.183 µg/L	10.183 ppb	08:39:12
3	Cd 226.502†	210.5	337.9	-3.2127 µg/L	-3.2127 ppb	08:39:33
3	Co 228.616†	873.2	872.5	39.661 µg/L	39.661 ppb	08:39:33
3	Cr 267.716†	3731.2	3742.6	79.356 µg/L	79.356 ppb	08:39:12
3	Cu 324.752†	10643.5	7305.4	64.052 µg/L	64.052 ppb	08:39:12
3	Mn 257.610†	469538.8	465401.6	1573.2 µg/L	1573.2 ppb	08:39:07
3	Mo 202.031†	1.1	5.2	4.6968 µg/L	4.6968 ppb	08:39:33
3	Ni 231.604†	1390.1	1089.2	59.167 µg/L	59.167 ppb	08:39:33
3	P 214.914†	245.0	220.4	392.98 µg/L	392.98 ppb	08:39:33
3	Pb 220.353†	445.4	358.7	92.685 µg/L	92.685 ppb	08:39:33
3	S 181.975 Axial†	163.8	145.9	632.65 µg/L	632.65 ppb	08:39:33
3	Sb 206.836†	30.3	8.2	4.4226 µg/L	4.4226 ppb	08:39:33
3	Se 196.026†	-28.0	-43.6	210.37 µg/L	210.37 ppb	08:39:33
3	SiO2†	360478.8	355579.8	73621 µg/L	73621 ppb	08:39:07
3	Si 251.611†	428501.2	424180.1	34040 µg/L	34040 ppb	08:39:07
3	Sn 189.927†	3.6	2.9	-8.3596 µg/L	-8.3596 ppb	08:39:33
3	Ti 334.940†	530827.1	525811.9	1204.3 µg/L	1204.3 ppb	08:39:07
3	Tl 190.801†	-34.5	-12.5	19.137 µg/L	19.137 ppb	08:39:33
3	U 409.014†	-570.4	-772.9	-80.058 µg/L	-80.058 ppb	08:39:07
3	V 292.402†	12192.3	12126.3	135.99 µg/L	135.99 ppb	08:39:12
3	Zn 213.857†	9283.3	8648.5	207.61 µg/L	207.61 ppb	08:39:12

Mean Data: 246344004|951151|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1913277.1	100.52	%	0.481			0.48%
Sc RADIAL	54178.0	103	%	0.1			0.12%
Y 371.029	1346737.8	102.69	%	0.500			0.49%
Ag 328.068†	-1091.5	-0.5724	µg/L	0.35445	-0.5724 ppb	0.35445	61.93%
Al 396.153Radial†	118399.7	85815	µg/L	186.0	85815 ppb	186.0	0.22%
As 188.979†	14.1	31.842	µg/L	6.5135	31.842 ppb	6.5135	20.46%
B 249.677†	470.1	-36.933	µg/L	0.4058	-36.933 ppb	0.4058	1.10%
Ba 233.527†	56254.9	1443.0	µg/L	36.91	1443.0 ppb	36.91	2.56%
Be 313.107†	17750.8	10.553	µg/L	0.3201	10.553 ppb	0.3201	3.03%
Ca 317.933Radial†	30021.2	28410	µg/L	66.6	28410 ppb	66.6	0.23%
Cd 226.502†	364.5	-2.4988	µg/L	0.64310	-2.4988 ppb	0.64310	25.74%
Co 228.616†	925.3	42.166	µg/L	2.1824	42.166 ppb	2.1824	5.18%
Cr 267.716†	3895.6	82.599	µg/L	2.9060	82.599 ppb	2.9060	3.52%
Cu 324.752†	7525.7	65.535	µg/L	1.2863	65.535 ppb	1.2863	1.96%
Fe 238.204 Radial†	12124.1	109560	µg/L	278.7	109560 ppb	278.7	0.25%
K 766.490 Radial†	18450.2	12617	µg/L	33.0	12617 ppb	33.0	0.26%
Mg 279.077 IEC†	1926.6	18338	µg/L	42.3	18338 ppb	42.3	0.23%
Mn 257.610†	472488.1	1596.9	µg/L	20.76	1596.9 ppb	20.76	1.30%
Mo 202.031†	5.1	4.6918	µg/L	0.23203	4.6918 ppb	0.23203	4.95%
Na 589.592 Radial†	7197.6	2226.0	µg/L	6.29	2226.0 ppb	6.29	0.28%

Ni 231.604†	1161.0	62.977 µg/L	3.3005	62.977 ppb	3.3005	5.24%
P 214.914†	238.0	429.69 µg/L	32.071	429.69 ppb	32.071	7.46%
Pb 220.353†	374.4	96.725 µg/L	3.6888	96.725 ppb	3.6888	3.81%
S 181.975 Axial†	153.8	667.23 µg/L	34.383	667.23 ppb	34.383	5.15%
Sb 206.836†	10.8	6.8382 µg/L	2.12797	6.8382 ppb	2.12797	31.12%
Se 196.026†	-47.7	204.40 µg/L	14.278	204.40 ppb	14.278	6.99%
SiO2†	359588.6	74451 µg/L	740.0	74451 ppb	740.0	0.99%
Si 251.611†	428975.7	34425 µg/L	345.0	34425 ppb	345.0	1.00%
Sn 189.927†	3.0	-8.3189 µg/L	0.39100	-8.3189 ppb	0.39100	4.70%
Sr 421.552†	27773.3	276.02 µg/L	0.068	276.02 ppb	0.068	0.02%
Ti 334.940†	535510.9	1226.6 µg/L	19.35	1226.6 ppb	19.35	1.58%
Tl 190.801†	-17.6	12.389 µg/L	7.3787	12.389 ppb	7.3787	59.56%
U 409.014†	-819.1	-83.847 µg/L	3.3139	-83.847 ppb	3.3139	3.95%
V 292.402†	12574.3	140.55 µg/L	3.949	140.55 ppb	3.949	2.81%
Zn 213.857†	8906.4	213.97 µg/L	5.542	213.97 ppb	5.542	2.59%

Sequence No.: 3
 Sample ID: 246344005|951151|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 311
 Date Collected: 2/25/2010 08:39:42
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 246344005|951151|1

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52602.0	52602.0	99.7 %		08:40:15
1	Al 396.153Radial†	49035.5	49221.3	35675 µg/L	35675 ppb	08:40:15
1	Ca 317.933Radial†	58422.5	58429.2	55293 µg/L	55293 ppb	08:40:15
1	Fe 238.204 Radial†	6475.9	6481.2	58567 µg/L	58567 ppb	08:40:35
1	K 766.490 Radial†	13162.9	12958.5	8861.4 µg/L	8861.4 ppb	08:40:15
1	Mg 279.077 IEC†	1030.0	1020.6	9713.3 µg/L	9713.3 ppb	08:40:35
1	Na 589.592 Radial†	1708.2	1121.2	346.77 µg/L	346.77 ppb	08:40:15
1	Sr 421.552†	30186.6	30259.6	300.73 µg/L	300.73 ppb	08:40:15
1	Sc 361.383	1868807.8	1868807.8	98.186 %		08:41:38
1	Y 371.029	1310814.8	1310814.8	99.954 %		08:41:38
1	Ag 328.068†	-979.1	-498.4	0.4514 µg/L	0.4514 ppb	08:41:44
1	As 188.979†	3.0	2.2	4.7796 µg/L	4.7796 ppb	08:42:05
1	B 249.677†	1144.8	711.7	-0.0546 µg/L	-0.0546 ppb	08:41:44
1	Ba 233.527†	43516.8	44341.0	1137.4 µg/L	1137.4 ppb	08:41:44
1	Be 313.107†	8413.4	12107.0	6.7941 µg/L	6.7941 ppb	08:41:44
1	Cd 226.502†	185.6	318.3	1.9924 µg/L	1.9924 ppb	08:42:05
1	Co 228.616†	511.5	528.4	21.586 µg/L	21.586 ppb	08:42:05
1	Cr 267.716†	2022.3	2105.7	44.658 µg/L	44.658 ppb	08:42:05
1	Cu 324.752†	23745.1	20944.6	148.15 µg/L	148.15 ppb	08:41:44
1	Mn 257.610†	921710.5	938965.6	3153.4 µg/L	3153.4 ppb	08:41:38
1	Mo 202.031†	20.7	25.1	4.8270 µg/L	4.8270 ppb	08:42:05
1	Ni 231.604†	939.6	669.0	36.227 µg/L	36.227 ppb	08:42:05
1	P 214.914†	976.1	971.8	1986.4 µg/L	1986.4 ppb	08:42:05
1	Pb 220.353†	1047.8	984.6	252.18 µg/L	252.18 ppb	08:42:05
1	S 181.975 Axial†	624.1	619.2	2685.6 µg/L	2685.6 ppb	08:42:05
1	Sb 206.836†	39.2	18.2	11.942 µg/L	11.942 ppb	08:42:05
1	Se 196.026†	-16.7	-32.8	87.308 µg/L	87.308 ppb	08:42:05
1	SiO2†	239859.0	242743.7	50259 µg/L	50259 ppb	08:41:38
1	Si 251.611†	284969.1	289897.7	23264 µg/L	23264 ppb	08:41:38
1	Sn 189.927†	-3.3	-4.1	-7.2086 µg/L	-7.2086 ppb	08:42:05
1	Ti 334.940†	812191.2	827115.6	1896.2 µg/L	1896.2 ppb	08:41:38
1	Tl 190.801†	-46.0	-25.1	0.3951 µg/L	0.3951 ppb	08:42:05
1	U 409.014†	2832.2	2676.8	207.07 µg/L	207.07 ppb	08:41:44
1	V 292.402†	8148.6	8346.5	91.894 µg/L	91.894 ppb	08:41:44
1	Zn 213.857†	15429.6	15166.1	371.89 µg/L	371.89 ppb	08:41:44
2	Sc RADIAL	52423.1	52423.1	99.3 %		08:40:41
2	Al 396.153Radial†	49161.8	49516.4	35889 µg/L	35889 ppb	08:40:41
2	Ca 317.933Radial†	58147.9	58352.8	55221 µg/L	55221 ppb	08:40:41
2	Fe 238.204 Radial†	6453.3	6480.6	58562 µg/L	58562 ppb	08:41:01
2	K 766.490 Radial†	13197.0	13037.9	8915.7 µg/L	8915.7 ppb	08:40:41
2	Mg 279.077 IEC†	1030.9	1025.1	9756.6 µg/L	9756.6 ppb	08:41:01
2	Na 589.592 Radial†	1680.7	1099.4	340.01 µg/L	340.01 ppb	08:40:41
2	Sr 421.552†	30251.9	30428.8	302.41 µg/L	302.41 ppb	08:40:41
2	Sc 361.383	1860452.6	1860452.6	97.747 %		08:42:11
2	Y 371.029	1306494.9	1306494.9	99.625 %		08:42:11
2	Ag 328.068†	-991.5	-515.5	0.3283 µg/L	0.3283 ppb	08:42:16
2	As 188.979†	6.3	5.5	11.090 µg/L	11.090 ppb	08:42:37
2	B 249.677†	1164.2	736.8	1.0220 µg/L	1.0220 ppb	08:42:16
2	Ba 233.527†	43544.4	44568.3	1143.2 µg/L	1143.2 ppb	08:42:16
2	Be 313.107†	8670.2	12408.3	6.9829 µg/L	6.9829 ppb	08:42:16
2	Cd 226.502†	169.2	302.4	1.5650 µg/L	1.5650 ppb	08:42:37
2	Co 228.616†	519.2	538.6	22.090 µg/L	22.090 ppb	08:42:37
2	Cr 267.716†	2040.4	2133.6	45.248 µg/L	45.248 ppb	08:42:37
2	Cu 324.752†	23711.8	21019.1	148.65 µg/L	148.65 ppb	08:42:16
2	Mn 257.610†	913577.1	934860.6	3139.7 µg/L	3139.7 ppb	08:42:11
2	Mo 202.031†	21.7	26.2	4.9401 µg/L	4.9401 ppb	08:42:37
2	Ni 231.604†	939.8	673.5	36.468 µg/L	36.468 ppb	08:42:37
2	P 214.914†	971.5	971.5	1985.8 µg/L	1985.8 ppb	08:42:37
2	Pb 220.353†	1036.2	977.5	250.38 µg/L	250.38 ppb	08:42:37

2	S 181.975 Axial†	638.8	637.2	2763.5 µg/L	2763.5 ppb	08:42:37
2	Sb 206.836†	37.8	16.8	10.693 µg/L	10.693 ppb	08:42:37
2	Se 196.026†	-6.1	-22.0	103.31 µg/L	103.31 ppb	08:42:37
2	SiO2†	238243.8	242188.4	50144 µg/L	50144 ppb	08:42:11
2	Si 251.611†	283402.8	289598.7	23240 µg/L	23240 ppb	08:42:11
2	Sn 189.927†	-12.6	-13.6	-11.441 µg/L	-11.441 ppb	08:42:37
2	Ti 334.940†	806605.1	825115.6	1891.6 µg/L	1891.6 ppb	08:42:11
2	Tl 190.801†	-45.5	-24.8	0.7979 µg/L	0.7979 ppb	08:42:37
2	U 409.014†	2887.9	2746.6	212.78 µg/L	212.78 ppb	08:42:16
2	V 292.402†	8228.4	8465.5	93.108 µg/L	93.108 ppb	08:42:16
2	Zn 213.857†	15371.2	15177.0	372.15 µg/L	372.15 ppb	08:42:16
3	Sc RADIAL	52833.8	52833.8	100 %		08:41:07
3	Al 396.153Radial†	49505.1	49474.6	35859 µg/L	35859 ppb	08:41:07
3	Ca 317.933Radial†	58640.4	58389.6	55256 µg/L	55256 ppb	08:41:07
3	Fe 238.204 Radial†	6434.9	6411.8	57940 µg/L	57940 ppb	08:41:27
3	K 766.490 Radial†	13272.5	13010.0	8896.7 µg/L	8896.7 ppb	08:41:07
3	Mg 279.077 IEC†	1029.9	1016.0	9669.9 µg/L	9669.9 ppb	08:41:27
3	Na 589.592 Radial†	1732.0	1137.4	351.77 µg/L	351.77 ppb	08:41:07
3	Sr 421.552†	30455.7	30395.6	302.08 µg/L	302.08 ppb	08:41:07
3	Sc 361.383	1856587.0	1856587.0	97.544 %		08:42:43
3	Y 371.029	1302741.6	1302741.6	99.339 %		08:42:43
3	Ag 328.068†	-997.1	-523.4	0.2131 µg/L	0.2131 ppb	08:42:49
3	As 188.979†	0.9	0.0	0.5269 µg/L	0.5269 ppb	08:43:09
3	B 249.677†	1149.0	723.7	0.7848 µg/L	0.7848 ppb	08:42:49
3	Ba 233.527†	43033.1	44136.9	1132.1 µg/L	1132.1 ppb	08:42:49
3	Be 313.107†	8318.2	12065.8	6.7753 µg/L	6.7753 ppb	08:42:49
3	Cd 226.502†	168.5	302.1	1.6232 µg/L	1.6232 ppb	08:43:09
3	Co 228.616†	479.6	499.1	20.208 µg/L	20.208 ppb	08:43:09
3	Cr 267.716†	1933.3	2028.1	43.014 µg/L	43.014 ppb	08:43:09
3	Cu 324.752†	23434.3	20785.2	147.00 µg/L	147.00 ppb	08:42:49
3	Mn 257.610†	909117.8	932235.0	3130.8 µg/L	3130.8 ppb	08:42:43
3	Mo 202.031†	24.6	29.3	5.2286 µg/L	5.2286 ppb	08:43:09
3	Ni 231.604†	902.9	637.6	34.557 µg/L	34.557 ppb	08:43:09
3	P 214.914†	940.1	941.4	1923.3 µg/L	1923.3 ppb	08:43:09
3	Pb 220.353†	1015.7	958.7	245.58 µg/L	245.58 ppb	08:43:09
3	S 181.975 Axial†	609.2	608.2	2637.7 µg/L	2637.7 ppb	08:43:09
3	Sb 206.836†	29.2	8.1	2.4303 µg/L	2.4303 ppb	08:43:09
3	Se 196.026†	-17.7	-33.9	84.034 µg/L	84.034 ppb	08:43:09
3	SiO2†	237270.7	241698.3	50043 µg/L	50043 ppb	08:42:43
3	Si 251.611†	281854.4	288615.0	23161 µg/L	23161 ppb	08:42:43
3	Sn 189.927†	-2.7	-3.4	-6.8554 µg/L	-6.8554 ppb	08:43:09
3	Ti 334.940†	799304.6	819349.6	1878.4 µg/L	1878.4 ppb	08:42:43
3	Tl 190.801†	-45.7	-25.1	0.0707 µg/L	0.0707 ppb	08:43:09
3	U 409.014†	2752.9	2614.4	202.07 µg/L	202.07 ppb	08:42:49
3	V 292.402†	7974.5	8222.7	90.559 µg/L	90.559 ppb	08:42:49
3	Zn 213.857†	15241.3	15076.5	369.71 µg/L	369.71 ppb	08:42:49

Mean Data: 246344005|951151|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1861949.1	97.826 %		0.3282			0.34%
Sc RADIAL	52619.6	99.7 %		0.39			0.39%
Y 371.029	1306683.8	99.639 %		0.3081			0.31%
Ag 328.068†	-512.4	0.3309 µg/L		0.11918	0.3309 ppb	0.11918	36.02%
Al 396.153Radial†	49404.1	35808 µg/L		115.7	35808 ppb	115.7	0.32%
As 188.979†	2.6	5.4657 µg/L		5.31507	5.4657 ppb	5.31507	97.24%
B 249.677†	724.1	0.5841 µg/L		0.56568	0.5841 ppb	0.56568	96.85%
Ba 233.527†	44348.8	1137.6 µg/L		5.54	1137.6 ppb	5.54	0.49%
Be 313.107†	12193.7	6.8508 µg/L		0.11480	6.8508 ppb	0.11480	1.68%
Ca 317.933Radial†	58390.5	55257 µg/L		36.2	55257 ppb	36.2	0.07%
Cd 226.502†	307.6	1.7268 µg/L		0.23178	1.7268 ppb	0.23178	13.42%
Co 228.616†	522.0	21.295 µg/L		0.9745	21.295 ppb	0.9745	4.58%
Cr 267.716†	2089.1	44.307 µg/L		1.1580	44.307 ppb	1.1580	2.61%
Cu 324.752†	20916.3	147.93 µg/L		0.847	147.93 ppb	0.847	0.57%
Fe 238.204 Radial†	6457.8	58356 µg/L		360.6	58356 ppb	360.6	0.62%
K 766.490 Radial†	13002.2	8891.3 µg/L		27.54	8891.3 ppb	27.54	0.31%
Mg 279.077 IEC†	1020.6	9713.3 µg/L		43.38	9713.3 ppb	43.38	0.45%
Mn 257.610†	935353.7	3141.3 µg/L		11.40	3141.3 ppb	11.40	0.36%
Mo 202.031†	26.9	4.9986 µg/L		0.20710	4.9986 ppb	0.20710	4.14%
Na 589.592 Radial†	1119.3	346.18 µg/L		5.902	346.18 ppb	5.902	1.70%

Ni 231.604†	660.0	35.751 µg/L	1.0405	35.751 ppb	1.0405	2.91%
P 214.914†	961.6	1965.2 µg/L	36.22	1965.2 ppb	36.22	1.84%
Pb 220.353†	973.6	249.38 µg/L	3.413	249.38 ppb	3.413	1.37%
S 181.975 Axial†	621.5	2695.6 µg/L	63.50	2695.6 ppb	63.50	2.36%
Sb 206.836†	14.4	8.3551 µg/L	5.16896	8.3551 ppb	5.16896	61.87%
Se 196.026†	-29.6	91.552 µg/L	10.3166	91.552 ppb	10.3166	11.27%
SiO2†	242210.1	50149 µg/L	108.3	50149 ppb	108.3	0.22%
Si 251.611†	289370.5	23222 µg/L	53.9	23222 ppb	53.9	0.23%
Sn 189.927†	-7.0	-8.5017 µg/L	2.55161	-8.5017 ppb	2.55161	30.01%
Sr 421.552†	30361.3	301.74 µg/L	0.891	301.74 ppb	0.891	0.30%
Ti 334.940†	823860.3	1888.7 µg/L	9.24	1888.7 ppb	9.24	0.49%
Tl 190.801†	-25.0	0.4212 µg/L	0.36429	0.4212 ppb	0.36429	86.48%
U 409.014†	2679.3	207.30 µg/L	5.359	207.30 ppb	5.359	2.58%
V 292.402†	8344.9	91.854 µg/L	1.2751	91.854 ppb	1.2751	1.39%
Zn 213.857†	15139.8	371.25 µg/L	1.341	371.25 ppb	1.341	0.36%

Sequence No.: 5

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/25/2010 08:46:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52468.1	52468.1	99.4 %			08:47:25
1	Al 396.153Radial†	6890.8	6957.2	5031.9 µg/L		5031.9 ppb	08:47:25
1	Ca 317.933Radial†	5374.4	5222.4	4942.1 µg/L		4942.1 ppb	08:47:45
1	Fe 238.204 Radial†	577.9	565.5	5120.6 µg/L		5120.6 ppb	08:47:45
1	K 766.490 Radial†	7585.8	7382.7	5048.5 µg/L		5048.5 ppb	08:47:25
1	Mg 279.077 IEC†	534.5	524.9	5031.1 µg/L		5031.1 ppb	08:47:45
1	Na 589.592 Radial†	32879.5	32478.0	10045 µg/L		10045 ppb	08:47:25
1	Sr 421.552†	49868.2	50132.9	498.24 µg/L		498.24 ppb	08:47:25
1	Sc 361.383	1893694.4	1893694.4	99.494 %			08:48:45
1	Y 371.029	1312108.7	1312108.7	100.05 %			08:48:45
1	Ag 328.068†	65103.3	65933.2	505.99 µg/L		505.99 ppb	08:48:50
1	As 188.979†	267.2	267.7	509.36 µg/L		509.36 ppb	08:49:10
1	B 249.677†	11894.4	11500.7	489.95 µg/L		489.95 ppb	08:48:50
1	Ba 233.527†	19615.8	19736.1	507.09 µg/L		507.09 ppb	08:48:50
1	Be 313.107†	804218.5	811846.8	503.83 µg/L		503.83 ppb	08:48:45
1	Cd 226.502†	18714.1	18938.6	510.08 µg/L		510.08 ppb	08:48:50
1	Co 228.616†	10418.3	10478.7	505.95 µg/L		505.95 ppb	08:48:50
1	Cr 267.716†	23957.4	24125.4	511.36 µg/L		511.36 ppb	08:48:50
1	Cu 324.752†	78010.7	75168.4	503.18 µg/L		503.18 ppb	08:48:50
1	Mn 257.610†	153562.0	154573.8	518.38 µg/L		518.38 ppb	08:48:45
1	Mo 202.031†	5000.6	5030.1	520.54 µg/L		520.54 ppb	08:49:10
1	Ni 231.604†	9824.9	9586.9	508.17 µg/L		508.17 ppb	08:48:50
1	P 214.914†	1224.4	1208.3	2486.6 µg/L		2486.6 ppb	08:49:10
1	Pb 220.353†	2072.4	2000.4	514.05 µg/L		514.05 ppb	08:49:10
1	S 181.975 Axial†	247.9	232.8	1009.7 µg/L		1009.7 ppb	08:49:10
1	Sb 206.836†	550.9	531.9	506.66 µg/L		506.66 ppb	08:49:10
1	Se 196.026†	362.4	348.4	524.74 µg/L		524.74 ppb	08:49:10
1	SiO2†	27654.9	26250.0	5435.0 µg/L		5435.0 ppb	08:48:50
1	Si 251.611†	31839.5	31666.6	2541.2 µg/L		2541.2 ppb	08:48:50
1	Sn 189.927†	1166.7	1171.9	523.34 µg/L		523.34 ppb	08:49:10
1	Ti 334.940†	217227.2	218254.9	500.00 µg/L		500.00 ppb	08:48:45
1	Tl 190.801†	344.6	368.1	516.58 µg/L		516.58 ppb	08:49:10
1	U 409.014†	6369.2	6193.8	504.76 µg/L		504.76 ppb	08:48:50
1	V 292.402†	49597.4	49897.1	512.38 µg/L		512.38 ppb	08:48:50
1	Zn 213.857†	21039.0	20597.5	506.54 µg/L		506.54 ppb	08:48:50
2	Sc RADIAL	53226.3	53226.3	101 %			08:47:50
2	Al 396.153Radial†	6978.4	6945.5	5023.4 µg/L		5023.4 ppb	08:47:50
2	Ca 317.933Radial†	5382.6	5153.6	4877.0 µg/L		4877.0 ppb	08:48:11
2	Fe 238.204 Radial†	581.6	560.9	5079.2 µg/L		5079.2 ppb	08:48:11
2	K 766.490 Radial†	7713.0	7400.1	5060.4 µg/L		5060.4 ppb	08:47:50
2	Mg 279.077 IEC†	544.1	526.8	5049.3 µg/L		5049.3 ppb	08:48:11
2	Na 589.592 Radial†	33119.4	32244.7	9972.4 µg/L		9972.4 ppb	08:47:50
2	Sr 421.552†	50717.4	50260.4	499.51 µg/L		499.51 ppb	08:47:50
2	Sc 361.383	1896964.2	1896964.2	99.666 %			08:49:17
2	Y 371.029	1313044.7	1313044.7	100.12 %			08:49:17
2	Ag 328.068†	65304.7	66022.5	506.67 µg/L		506.67 ppb	08:49:23
2	As 188.979†	273.5	273.6	520.59 µg/L		520.59 ppb	08:49:43
2	B 249.677†	11964.6	11550.5	492.10 µg/L		492.10 ppb	08:49:23
2	Ba 233.527†	19625.3	19711.6	506.46 µg/L		506.46 ppb	08:49:23
2	Be 313.107†	806428.7	812671.1	504.35 µg/L		504.35 ppb	08:49:17
2	Cd 226.502†	18826.7	19019.1	512.25 µg/L		512.25 ppb	08:49:23
2	Co 228.616†	10495.7	10538.3	508.83 µg/L		508.83 ppb	08:49:23
2	Cr 267.716†	24003.4	24130.0	511.45 µg/L		511.45 ppb	08:49:23
2	Cu 324.752†	78217.4	75240.6	503.66 µg/L		503.66 ppb	08:49:23
2	Mn 257.610†	154161.0	154908.7	519.49 µg/L		519.49 ppb	08:49:17
2	Mo 202.031†	4976.0	4996.7	517.09 µg/L		517.09 ppb	08:49:43
2	Ni 231.604†	9858.7	9603.8	509.06 µg/L		509.06 ppb	08:49:23
2	P 214.914†	1234.9	1216.7	2504.1 µg/L		2504.1 ppb	08:49:43
2	Pb 220.353†	2068.1	1992.5	512.02 µg/L		512.02 ppb	08:49:43

2	S 181.975 Axial†	248.2	232.6	1008.9 µg/L	1008.9 ppb	08:49:43
2	Sb 206.836†	550.4	530.4	505.23 µg/L	505.23 ppb	08:49:43
2	Se 196.026†	364.3	349.7	526.47 µg/L	526.47 ppb	08:49:43
2	SiO2†	27984.2	26532.4	5493.4 µg/L	5493.4 ppb	08:49:23
2	Si 251.611†	32077.7	31850.4	2555.9 µg/L	2555.9 ppb	08:49:23
2	Sn 189.927†	1147.6	1150.8	513.89 µg/L	513.89 ppb	08:49:43
2	Ti 334.940†	218070.6	218724.9	501.07 µg/L	501.07 ppb	08:49:17
2	Tl 190.801†	339.6	362.5	508.76 µg/L	508.76 ppb	08:49:43
2	U 409.014†	6230.4	6043.5	492.50 µg/L	492.50 ppb	08:49:23
2	V 292.402†	49783.1	49997.5	513.35 µg/L	513.35 ppb	08:49:23
2	Zn 213.857†	21088.5	20610.8	506.87 µg/L	506.87 ppb	08:49:23
3	Sc RADIAL	52600.3	52600.3	99.7 %		08:48:16
3	Al 396.153Radial†	6906.8	6955.9	5032.3 µg/L	5032.3 ppb	08:48:16
3	Ca 317.933Radial†	5391.0	5225.5	4945.0 µg/L	4945.0 ppb	08:48:36
3	Fe 238.204 Radial†	580.6	566.7	5131.4 µg/L	5131.4 ppb	08:48:36
3	K 766.490 Radial†	7588.6	7366.3	5037.3 µg/L	5037.3 ppb	08:48:16
3	Mg 279.077 IEC†	535.1	524.1	5022.6 µg/L	5022.6 ppb	08:48:36
3	Na 589.592 Radial†	32785.2	32300.3	9989.6 µg/L	9989.6 ppb	08:48:16
3	Sr 421.552†	50044.5	50183.7	498.75 µg/L	498.75 ppb	08:48:16
3	Sc 361.383	1901432.9	1901432.9	99.901 %		08:49:50
3	Y 371.029	1317529.6	1317529.6	100.47 %		08:49:50
3	Ag 328.068†	63735.9	64298.1	493.36 µg/L	493.36 ppb	08:49:55
3	As 188.979†	240.4	239.7	456.23 µg/L	456.23 ppb	08:50:15
3	B 249.677†	11613.9	11171.3	475.80 µg/L	475.80 ppb	08:49:55
3	Ba 233.527†	18790.2	18829.4	483.79 µg/L	483.79 ppb	08:49:55
3	Be 313.107†	785550.0	789870.0	490.20 µg/L	490.20 ppb	08:49:50
3	Cd 226.502†	17903.0	18050.2	486.12 µg/L	486.12 ppb	08:49:55
3	Co 228.616†	9964.5	9981.8	481.90 µg/L	481.90 ppb	08:49:55
3	Cr 267.716†	22454.7	22523.1	477.40 µg/L	477.40 ppb	08:49:55
3	Cu 324.752†	74547.8	71382.9	477.88 µg/L	477.88 ppb	08:49:55
3	Mn 257.610†	150075.6	150455.8	504.58 µg/L	504.58 ppb	08:49:50
3	Mo 202.031†	4378.4	4386.8	454.00 µg/L	454.00 ppb	08:50:15
3	Ni 231.604†	9361.6	9083.0	481.46 µg/L	481.46 ppb	08:49:55
3	P 214.914†	1092.2	1070.9	2199.9 µg/L	2199.9 ppb	08:50:15
3	Pb 220.353†	1878.3	1797.6	461.86 µg/L	461.86 ppb	08:50:15
3	S 181.975 Axial†	231.3	215.2	933.22 µg/L	933.22 ppb	08:50:15
3	Sb 206.836†	496.8	475.5	452.47 µg/L	452.47 ppb	08:50:15
3	Se 196.026†	332.4	316.9	478.00 µg/L	478.00 ppb	08:50:15
3	SiO2†	27034.8	25516.1	5283.0 µg/L	5283.0 ppb	08:49:55
3	Si 251.611†	31066.8	30762.9	2468.7 µg/L	2468.7 ppb	08:49:55
3	Sn 189.927†	1003.1	1003.4	448.06 µg/L	448.06 ppb	08:50:15
3	Ti 334.940†	211869.8	212003.6	485.67 µg/L	485.67 ppb	08:49:50
3	Tl 190.801†	324.9	347.0	487.14 µg/L	487.14 ppb	08:50:15
3	U 409.014†	5929.4	5727.5	466.68 µg/L	466.68 ppb	08:49:55
3	V 292.402†	47186.9	47281.3	485.22 µg/L	485.22 ppb	08:49:55
3	Zn 213.857†	20056.4	19527.9	480.21 µg/L	480.21 ppb	08:49:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1897363.8	99.687 %	0.2041			0.20%
Sc RADIAL	52764.9	100.0 %	0.77			0.77%
Y 371.029	1314227.7	100.21 %	0.221			0.22%
Ag 328.068†	65417.9	502.00 µg/L	7.498	502.00 ppb	7.498	1.49%
QC value within limits for Ag 328.068 Recovery = 100.40%						
Al 396.153Radial†	6952.9	5029.2 µg/L	5.02	5029.2 ppb	5.02	0.10%
QC value within limits for Al 396.153Radial Recovery = 100.58%						
As 188.979†	260.3	495.39 µg/L	34.376	495.39 ppb	34.376	6.94%
QC value within limits for As 188.979 Recovery = 99.08%						
B 249.677†	11407.5	485.95 µg/L	8.854	485.95 ppb	8.854	1.82%
QC value within limits for B 249.677 Recovery = 97.19%						
Ba 233.527†	19425.7	499.11 µg/L	13.277	499.11 ppb	13.277	2.66%
QC value within limits for Ba 233.527 Recovery = 99.82%						
Be 313.107†	804796.0	499.46 µg/L	8.026	499.46 ppb	8.026	1.61%
QC value within limits for Be 313.107 Recovery = 99.89%						
Ca 317.933Radial†	5200.5	4921.4 µg/L	38.48	4921.4 ppb	38.48	0.78%
QC value within limits for Ca 317.933Radial Recovery = 98.43%						
Cd 226.502†	18669.3	502.82 µg/L	14.501	502.82 ppb	14.501	2.88%
QC value within limits for Cd 226.502 Recovery = 100.56%						
Co 228.616†	10333.0	498.90 µg/L	14.785	498.90 ppb	14.785	2.96%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = 99.78%			
	23592.8	500.07 µg/L	19.633	500.07 ppb	3.93%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = 100.01%			
	73930.6	494.91 µg/L	14.748	494.91 ppb	2.98%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = 98.98%			
	564.4	5110.4 µg/L	27.56	5110.4 ppb	0.54%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = 102.21%			
	7383.1	5048.8 µg/L	11.58	5048.8 ppb	0.23%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = 100.98%			
	525.3	5034.3 µg/L	13.61	5034.3 ppb	0.27%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = 100.69%			
	153312.8	514.15 µg/L	8.306	514.15 ppb	1.62%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = 102.83%			
	4804.5	497.21 µg/L	37.463	497.21 ppb	7.53%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = 99.44%			
	32341.0	10002 µg/L	37.7	10002 ppb	0.38%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = 100.02%			
	9424.5	499.56 µg/L	15.685	499.56 ppb	3.14%
P 214.914†	QC value within limits for Ni 231.604	Recovery = 99.91%			
	1165.3	2396.9 µg/L	170.78	2396.9 ppb	7.13%
Pb 220.353†	QC value within limits for P 214.914	Recovery = 95.88%			
	1930.2	495.97 µg/L	29.564	495.97 ppb	5.96%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = 99.19%			
	226.9	983.94 µg/L	43.926	983.94 ppb	4.46%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = 98.39%			
	512.6	488.12 µg/L	30.879	488.12 ppb	6.33%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = 97.62%			
	338.3	509.73 µg/L	27.497	509.73 ppb	5.39%
SiO2†	QC value within limits for Se 196.026	Recovery = 101.95%			
	26099.5	5403.8 µg/L	108.62	5403.8 ppb	2.01%
Si 251.611†	QC value within limits for SiO2	Recovery = 101.05%			
	31426.6	2521.9 µg/L	46.71	2521.9 ppb	1.85%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = 100.88%			
	1108.7	495.10 µg/L	41.007	495.10 ppb	8.28%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = 99.02%			
	50192.3	498.83 µg/L	0.638	498.83 ppb	0.13%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = 99.77%			
	216327.8	495.58 µg/L	8.600	495.58 ppb	1.74%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = 99.12%			
	359.2	504.16 µg/L	15.247	504.16 ppb	3.02%
U 409.014†	QC value within limits for Tl 190.801	Recovery = 100.83%			
	5988.3	487.98 µg/L	19.437	487.98 ppb	3.98%
V 292.402†	QC value within limits for U 409.014	Recovery = 97.60%			
	49058.6	503.65 µg/L	15.969	503.65 ppb	3.17%
Zn 213.857†	QC value within limits for V 292.402	Recovery = 100.73%			
	20245.4	497.87 µg/L	15.298	497.87 ppb	3.07%
	QC value within limits for Zn 213.857	Recovery = 99.57%			

All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/25/2010 08:50:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52254.8	52254.8	99.0 %		08:50:55
1	Al 396.153Radial†	-4.0	22.4	16.206 µg/L	16.206 ppb	08:50:55
1	Ca 317.933Radial†	183.3	1.9	1.7688 µg/L	1.7688 ppb	08:51:15
1	Fe 238.204 Radial†	14.3	-1.3	-11.505 µg/L	-11.505 ppb	08:51:15
1	K 766.490 Radial†	179.7	-65.7	-44.925 µg/L	-44.925 ppb	08:50:55
1	Mg 279.077 IEC†	6.8	-5.8	-55.734 µg/L	-55.734 ppb	08:51:15
1	Na 589.592 Radial†	451.4	-136.7	-42.268 µg/L	-42.268 ppb	08:50:55
1	Sr 421.552†	70.6	46.2	0.4596 µg/L	0.4596 ppb	08:50:55
1	Sc 361.383	1884464.4	1884464.4	99.009 %		08:52:13
1	Y 371.029	1306925.1	1306925.1	99.658 %		08:52:13
1	Ag 328.068†	-392.0	102.8	0.7847 µg/L	0.7847 ppb	08:52:19
1	As 188.979†	-1.3	-2.1	-4.0637 µg/L	-4.0637 ppb	08:52:39
1	B 249.677†	352.2	-98.5	-4.2043 µg/L	-4.2043 ppb	08:52:39
1	Ba 233.527†	-11.7	8.7	0.2239 µg/L	0.2239 ppb	08:52:39
1	Be 313.107†	-2819.6	690.4	0.4284 µg/L	0.4284 ppb	08:52:19
1	Cd 226.502†	-140.0	-12.1	-0.3231 µg/L	-0.3231 ppb	08:52:39
1	Co 228.616†	5.9	13.4	0.6467 µg/L	0.6467 ppb	08:52:39
1	Cr 267.716†	-33.6	12.2	0.2579 µg/L	0.2579 ppb	08:52:39
1	Cu 324.752†	3103.8	-104.3	-0.6986 µg/L	-0.6986 ppb	08:52:19
1	Mn 257.610†	-183.5	45.5	0.1532 µg/L	0.1532 ppb	08:52:39
1	Mo 202.031†	8.8	12.9	1.3361 µg/L	1.3361 ppb	08:52:39
1	Ni 231.604†	294.9	9.9	0.5236 µg/L	0.5236 ppb	08:52:39
1	P 214.914†	12.3	-9.9	-20.701 µg/L	-20.701 ppb	08:52:39
1	Pb 220.353†	77.7	-4.0	-1.0216 µg/L	-1.0216 ppb	08:52:39
1	S 181.975 Axial†	14.2	-2.0	-8.7132 µg/L	-8.7132 ppb	08:52:39
1	Sb 206.836†	16.8	-4.8	-4.5408 µg/L	-4.5408 ppb	08:52:39
1	Se 196.026†	19.1	3.5	5.1652 µg/L	5.1652 ppb	08:52:39
1	SiO2†	1627.9	98.6	20.410 µg/L	20.410 ppb	08:52:19
1	Si 251.611†	428.4	97.8	7.8486 µg/L	7.8486 ppb	08:52:39
1	Sn 189.927†	1.7	1.1	0.4663 µg/L	0.4663 ppb	08:52:39
1	Ti 334.940†	295.3	221.3	0.5117 µg/L	0.5117 ppb	08:52:19
1	Tl 190.801†	-14.3	7.3	10.125 µg/L	10.125 ppb	08:52:39
1	U 409.014†	69.5	-137.6	-11.236 µg/L	-11.236 ppb	08:52:19
1	V 292.402†	-19.4	27.9	0.2807 µg/L	0.2807 ppb	08:52:19
1	Zn 213.857†	527.9	-15.3	-0.3770 µg/L	-0.3770 ppb	08:52:39
2	Sc RADIAL	52373.2	52373.2	99.2 %		08:51:20
2	Al 396.153Radial†	-32.6	-6.4	-4.6591 µg/L	-4.6591 ppb	08:51:20
2	Ca 317.933Radial†	180.7	-1.2	-1.1151 µg/L	-1.1151 ppb	08:51:41
2	Fe 238.204 Radial†	16.8	1.2	10.491 µg/L	10.491 ppb	08:51:41
2	K 766.490 Radial†	142.1	-104.0	-71.124 µg/L	-71.124 ppb	08:51:20
2	Mg 279.077 IEC†	13.7	1.1	10.805 µg/L	10.805 ppb	08:51:41
2	Na 589.592 Radial†	441.7	-147.4	-45.602 µg/L	-45.602 ppb	08:51:20
2	Sr 421.552†	50.5	25.9	0.2572 µg/L	0.2572 ppb	08:51:20
2	Sc 361.383	1895835.9	1895835.9	99.607 %		08:52:44
2	Y 371.029	1314456.0	1314456.0	100.23 %		08:52:44
2	Ag 328.068†	-362.1	135.3	1.0307 µg/L	1.0307 ppb	08:52:49
2	As 188.979†	4.7	3.9	7.3807 µg/L	7.3807 ppb	08:53:10
2	B 249.677†	344.1	-108.7	-4.6549 µg/L	-4.6549 ppb	08:53:10
2	Ba 233.527†	-12.1	8.3	0.2134 µg/L	0.2134 ppb	08:53:10
2	Be 313.107†	-2902.6	624.2	0.3874 µg/L	0.3874 ppb	08:52:49
2	Cd 226.502†	-128.6	0.3	0.0066 µg/L	0.0066 ppb	08:53:10
2	Co 228.616†	9.2	16.7	0.8054 µg/L	0.8054 ppb	08:53:10
2	Cr 267.716†	-31.5	14.5	0.3069 µg/L	0.3069 ppb	08:53:10
2	Cu 324.752†	3111.8	-115.0	-0.7674 µg/L	-0.7674 ppb	08:52:49
2	Mn 257.610†	-184.1	46.0	0.1551 µg/L	0.1551 ppb	08:53:10
2	Mo 202.031†	10.3	14.4	1.4945 µg/L	1.4945 ppb	08:53:10
2	Ni 231.604†	304.3	17.5	0.9280 µg/L	0.9280 ppb	08:53:10
2	P 214.914†	19.7	-2.5	-5.2336 µg/L	-5.2336 ppb	08:53:10
2	Pb 220.353†	90.7	8.5	2.1992 µg/L	2.1992 ppb	08:53:10

2	S 181.975 Axial†	14.7	-1.6	-6.7875 µg/L	-6.7875 ppb	08:53:10
2	Sb 206.836†	24.8	3.1	2.9437 µg/L	2.9437 ppb	08:53:10
2	Se 196.026†	19.5	3.8	5.5847 µg/L	5.5847 ppb	08:53:10
2	SiO2†	1610.5	71.3	14.764 µg/L	14.764 ppb	08:52:49
2	Si 251.611†	457.7	124.6	10.001 µg/L	10.001 ppb	08:53:10
2	Sn 189.927†	4.3	3.6	1.6114 µg/L	1.6114 ppb	08:53:10
2	Ti 334.940†	237.7	161.7	0.3698 µg/L	0.3698 ppb	08:52:49
2	Tl 190.801†	-22.6	-1.0	-1.3866 µg/L	-1.3866 ppb	08:53:10
2	U 409.014†	92.6	-114.8	-9.3748 µg/L	-9.3748 ppb	08:52:49
2	V 292.402†	-60.2	-13.0	-0.1286 µg/L	-0.1286 ppb	08:52:49
2	Zn 213.857†	523.6	-22.8	-0.5688 µg/L	-0.5688 ppb	08:53:10
3	Sc RADIAL	52378.2	52378.2	99.3 %		08:51:46
3	Al 396.153Radial†	-27.8	-1.6	-1.1478 µg/L	-1.1478 ppb	08:51:46
3	Ca 317.933Radial†	178.1	-3.8	-3.5676 µg/L	-3.5676 ppb	08:52:06
3	Fe 238.204 Radial†	15.1	-0.6	-5.1751 µg/L	-5.1751 ppb	08:52:06
3	K 766.490 Radial†	207.4	-38.2	-26.131 µg/L	-26.131 ppb	08:51:46
3	Mg 279.077 IEC†	5.4	-7.3	-69.937 µg/L	-69.937 ppb	08:52:06
3	Na 589.592 Radial†	469.0	-120.0	-37.118 µg/L	-37.118 ppb	08:51:46
3	Sr 421.552†	12.7	-12.2	-0.1215 µg/L	-0.1215 ppb	08:51:46
3	Sc 361.383	1889092.1	1889092.1	99.252 %		08:53:15
3	Y 371.029	1311249.2	1311249.2	99.988 %		08:53:15
3	Ag 328.068†	-362.3	133.8	1.0167 µg/L	1.0167 ppb	08:53:20
3	As 188.979†	2.3	1.5	2.7634 µg/L	2.7634 ppb	08:53:40
3	B 249.677†	343.4	-108.2	-4.6217 µg/L	-4.6217 ppb	08:53:40
3	Ba 233.527†	-4.6	15.9	0.4069 µg/L	0.4069 ppb	08:53:40
3	Be 313.107†	-2718.9	798.9	0.4958 µg/L	0.4958 ppb	08:53:20
3	Cd 226.502†	-118.0	10.4	0.2822 µg/L	0.2822 ppb	08:53:40
3	Co 228.616†	6.0	13.5	0.6511 µg/L	0.6511 ppb	08:53:40
3	Cr 267.716†	-27.4	18.5	0.3915 µg/L	0.3915 ppb	08:53:40
3	Cu 324.752†	3017.5	-198.8	-1.3300 µg/L	-1.3300 ppb	08:53:20
3	Mn 257.610†	-142.5	87.2	0.2944 µg/L	0.2944 ppb	08:53:40
3	Mo 202.031†	4.1	8.2	0.8513 µg/L	0.8513 ppb	08:53:40
3	Ni 231.604†	302.7	17.0	0.8988 µg/L	0.8988 ppb	08:53:40
3	P 214.914†	13.6	-8.7	-18.014 µg/L	-18.014 ppb	08:53:40
3	Pb 220.353†	88.1	6.2	1.6052 µg/L	1.6052 ppb	08:53:40
3	S 181.975 Axial†	10.1	-6.2	-26.980 µg/L	-26.980 ppb	08:53:40
3	Sb 206.836†	26.5	4.8	4.6056 µg/L	4.6056 ppb	08:53:40
3	Se 196.026†	12.7	-3.0	-4.4232 µg/L	-4.4232 ppb	08:53:40
3	SiO2†	1636.1	102.9	21.297 µg/L	21.297 ppb	08:53:20
3	Si 251.611†	462.2	130.8	10.498 µg/L	10.498 ppb	08:53:40
3	Sn 189.927†	2.3	1.6	0.7058 µg/L	0.7058 ppb	08:53:40
3	Ti 334.940†	315.8	241.2	0.5585 µg/L	0.5585 ppb	08:53:20
3	Tl 190.801†	-26.1	-4.6	-6.4285 µg/L	-6.4285 ppb	08:53:40
3	U 409.014†	111.3	-95.6	-7.8062 µg/L	-7.8062 ppb	08:53:20
3	V 292.402†	-82.7	-35.9	-0.3652 µg/L	-0.3652 ppb	08:53:20
3	Zn 213.857†	526.7	-17.8	-0.4382 µg/L	-0.4382 ppb	08:53:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1889797.5	99.289 %		0.3004			0.30%
Sc RADIAL	52335.4	99.2 %		0.13			0.13%
Y 371.029	1310876.8	99.959 %		0.2882			0.29%
Ag 328.068†	124.0	0.9440 µg/L		0.13816	0.9440 ppb	0.13816	14.63%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	4.8	3.4663 µg/L		11.17156	3.4663 ppb	11.17156	322.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	1.1	2.0268 µg/L		5.75762	2.0268 ppb	5.75762	284.07%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-105.1	-4.4937 µg/L		0.25112	-4.4937 ppb	0.25112	5.59%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	11.0	0.2814 µg/L		0.10879	0.2814 ppb	0.10879	38.66%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	704.5	0.4372 µg/L		0.05472	0.4372 ppb	0.05472	12.52%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-1.0	-0.9713 µg/L		2.67107	-0.9713 ppb	2.67107	275.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-0.5	-0.0114 µg/L		0.30309	-0.0114 ppb	0.30309	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	14.5	0.7011 µg/L		0.09040	0.7011 ppb	0.09040	12.89%

Cr	267.716†	15.1	0.3188 µg/L	0.06757	0.3188 ppb	0.06757	21.19%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-139.4	-0.9320 µg/L	0.34638	-0.9320 ppb	0.34638	37.17%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-0.2	-2.0631 µg/L	11.32332	-2.0631 ppb	11.32332	548.85%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-69.3	-47.393 µg/L	22.5976	-47.393 ppb	22.5976	47.68%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-4.0	-38.289 µg/L	43.1055	-38.289 ppb	43.1055	112.58%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	59.6	0.2009 µg/L	0.08097	0.2009 ppb	0.08097	40.31%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	11.9	1.2273 µg/L	0.33508	1.2273 ppb	0.33508	27.30%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-134.7	-41.663 µg/L	4.2740	-41.663 ppb	4.2740	10.26%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	14.8	0.7835 µg/L	0.22554	0.7835 ppb	0.22554	28.79%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-7.0	-14.650 µg/L	8.2645	-14.650 ppb	8.2645	56.41%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	3.6	0.9276 µg/L	1.71396	0.9276 ppb	1.71396	184.78%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-3.3	-14.160 µg/L	11.1442	-14.160 ppb	11.1442	78.70%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	1.0	1.0028 µg/L	4.87232	1.0028 ppb	4.87232	485.87%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.4	2.1089 µg/L	5.66085	2.1089 ppb	5.66085	268.43%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		90.9	18.823 µg/L	3.5436	18.823 ppb	3.5436	18.83%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	117.8	9.4494 µg/L	1.40837	9.4494 ppb	1.40837	14.90%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	2.1	0.9278 µg/L	0.60396	0.9278 ppb	0.60396	65.09%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	20.0	0.1984 µg/L	0.29498	0.1984 ppb	0.29498	148.67%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	208.1	0.4800 µg/L	0.09828	0.4800 ppb	0.09828	20.48%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.6	0.7701 µg/L	8.48511	0.7701 ppb	8.48511	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-116.0	-9.4722 µg/L	1.71681	-9.4722 ppb	1.71681	18.12%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-7.0	-0.0710 µg/L	0.32676	-0.0710 ppb	0.32676	459.94%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-18.6	-0.4613 µg/L	0.09794	-0.4613 ppb	0.09794	21.23%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Wednesday, March 03, 2010 12:04:40

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.636

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		6025.9		6025.871		118.104		2.0
Mg	24.0		55283.2		55283.165		371.214		0.7
Co	58.9		95810.4		95810.420		471.561		0.5
Rh	102.9		189365.5		189365.471		1478.717		0.8
In	114.9		270547.8		270547.787		2382.775		0.9
Pb	208.0		292457.1		292457.148		1806.253		0.6
[> Ba	137.9		263351.1		263351.108		2083.681		0.8
[Ba++	69.0		3503.3		0.013		0.000		0.8
[> Ce	139.9		326855.2		326855.202		1857.344		0.6
[CeO	155.9		8109.5		0.025		0.000		2.0
Bkgd	220.0		14.8		14.800		1.525		10.3

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.3	6153.0
Co	59	11	6.8	101263.0
In	115	11	7.5	285997.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2050	0.706
Be	9.0	9.0	2053	2075	0.657
Mg	24.0	24.0	5685	2080	0.640
Mg	25.0	25.0	5925	2080	0.636
Mg	26.0	26.0	6179	2080	0.648
Co	58.9	59.0	14191	2110	0.629
Rh	102.9	102.9	24867	2160	0.640
In	114.9	114.9	27794	2180	0.645
Ce	139.9	139.9	33865	2200	0.640
Pb	206.0	206.0	49948	2295	0.633
Pb	207.0	207.0	50159	2240	0.639
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57731	2275	0.735

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 02:41:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Blank.232

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		67	
Be	9		ug/L		7	
B	11		ug/L		397	
Na	23		ug/L		7335	
Mg	24		ug/L		1000	
Al	27		ug/L		2667	
P	31		ug/L		4285	
K	39		ug/L		306274	
Ca	43		ug/L		109	
> Sc	45		ug/L		1478074	
Ti	47		ug/L		182	
V	51		ug/L		253	
Cr	52		ug/L		2305	
Cr	53		ug/L		41926	
Mn	55		ug/L		746	
Fe	57		ug/L		2477	
Co	59		ug/L		33	
Ni	60		ug/L		75	
Cu	63		ug/L		115	
Cu	65		ug/L		51	
Zn	66		ug/L		439	
Zn	67		ug/L		6312	
Zn	68		ug/L		1073	
> Ge	74		ug/L		328466	
As	75		ug/L		-108	
Se	77		ug/L		2060	
Se	82		ug/L		10	
Kr	83		ug/L		67	
Sr	88		ug/L		96	
Y	89		ug/L		47	
Mo	98		ug/L		48	
Ag	107		ug/L		20	
Cd	111		ug/L		12	
Cd	114		ug/L		29	
> In	115		ug/L		275709	
Sn	120		ug/L		177	
Sb	121		ug/L		85	
Sb	123		ug/L		69	
Ba	135		ug/L		19	
Ba	137		ug/L		35	
Ho	165		ug/L		15	
> Lu	175		ug/L		657600	
Tl	205		ug/L		5652	
Pb	208		ug/L		319	
Bi	209		ug/L		567	
Th	232		ug/L		392	
U	238		ug/L		197	

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 02:44:16

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
|	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
|	Cu	65					
|	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
|	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
|	Sb	123					
|	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
|	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 04, 2010 02:47:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Standard 1.233

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	1.077	22874	0.017
Be	9	10.000	ug/L	0.499	4424	0.003
B	11	20.000	ug/L	2.062	9411	0.007
Na	23	1000.000	ug/L	8.167	2836041	2.067
Mg	24	1000.000	ug/L	3.031	2165965	1.581
Al	27	1000.000	ug/L	5.129	2651021	1.934
P	31	1000.000	ug/L	1.674	156424	0.111
K	39	1000.000	ug/L	6.830	3708036	2.499
Ca	43	1000.000	ug/L	2.638	9419	0.007
> Sc	45		ug/L		1369500	1369499.663
Ti	47	10.000	ug/L	2.088	4798	0.003
V	51	10.000	ug/L	10.834	47283	0.034
Cr	52	10.000	ug/L	2.860	43550	0.030
Cr	53		ug/L		75848	0.027
Mn	55	10.000	ug/L	1.580	74035	0.054
Fe	57	1000.000	ug/L	2.106	147184	0.106
Co	59	10.000	ug/L	1.180	54002	0.039
Ni	60	10.000	ug/L	1.341	11326	0.008
Cu	63		ug/L		25952	0.019
Cu	65	10.000	ug/L	0.519	12808	0.009
Zn	66	10.000	ug/L	2.401	9625	0.031
Zn	67		ug/L		11846	0.020
Zn	68		ug/L		7741	0.023
> Ge	74		ug/L		298834	298834.183
As	75	10.000	ug/L	2.344	8158	0.028
Se	77		ug/L		4647	0.009
Se	82	10.000	ug/L	0.416	1013	0.003
Kr	83		ug/L		58	-0.000
Sr	88	10.000	ug/L	2.252	124940	0.476
Y	89		ug/L		50	0.000
Mo	98	10.000	ug/L	1.782	29100	0.111
Ag	107	10.000	ug/L	1.744	55089	0.210
Cd	111	10.000	ug/L	1.985	15231	0.058
Cd	114		ug/L		36990	0.141
> In	115		ug/L		262160	262159.761
Sn	120	10.000	ug/L	1.807	65858	0.251
Sb	121	10.000	ug/L	2.317	55336	0.211
Sb	123		ug/L		43880	0.167
Ba	135		ug/L		16029	0.025
Ba	137	10.000	ug/L	2.118	28505	0.045
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		631809	631809.085
Tl	205	10.000	ug/L	1.840	276884	0.430
Pb	208	10.000	ug/L	0.598	472153	0.747
Bi	209		ug/L		499	-0.000
Th	232	10.000	ug/L	0.376	584529	0.925
U	238	10.000	ug/L	1.915	635713	1.006

Sample ID: Standard 1

Report Date/Time: Thursday, March 04, 2010 02:50:20

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 04, 2010 02:53:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Standard 2.234

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.966	ug/L	0.729	235285	0.161
Be	9	99.979	ug/L	2.623	46125	0.032
B	11	200.000	ug/L	2.395	96825	0.066
Na	23	10015.640	ug/L	1.461	35833928	24.535
Mg	24	9999.110	ug/L	6.277	22902723	15.670
Al	27	10008.029	ug/L	6.521	30718357	21.049
P	31	9992.094	ug/L	0.715	1509637	1.031
K	39	9995.906	ug/L	0.321	35356948	24.002
Ca	43	10001.016	ug/L	1.005	100521	0.069
> Sc	45		ug/L		1460562	1460561.846
Ti	47	99.995	ug/L	0.933	49268	0.034
V	51	100.051	ug/L	0.782	529065	0.362
Cr	52	99.932	ug/L	0.856	415675	0.283
Cr	53		ug/L		126684	0.058
Mn	55	99.945	ug/L	2.688	741518	0.507
Fe	57	9989.344	ug/L	0.234	1397415	0.955
Co	59	99.944	ug/L	1.816	544690	0.373
Ni	60	99.953	ug/L	1.068	114676	0.078
Cu	63		ug/L		266267	0.182
Cu	65	99.952	ug/L	1.965	129862	0.089
Zn	66	99.984	ug/L	1.485	97559	0.304
Zn	67		ug/L		27214	0.066
Zn	68		ug/L		70646	0.218
> Ge	74		ug/L		319754	319753.655
As	75	100.027	ug/L	2.056	90689	0.284
Se	77		ug/L		12220	0.032
Se	82	99.945	ug/L	1.347	10188	0.032
Kr	83		ug/L		85	0.000
Sr	88	99.967	ug/L	0.546	1230495	4.608
Y	89		ug/L		149	0.000
Mo	98	100.038	ug/L	2.104	307657	1.152
Ag	107	99.970	ug/L	0.918	544238	2.038
Cd	111	100.022	ug/L	1.242	158627	0.594
Cd	114		ug/L		376927	1.411
> In	115		ug/L		267019	267019.296
Sn	120	99.990	ug/L	2.493	662804	2.482
Sb	121	99.988	ug/L	2.293	556162	2.083
Sb	123		ug/L		442029	1.655
Ba	135		ug/L		163862	0.260
Ba	137	100.027	ug/L	1.186	292498	0.463
Ho	165		ug/L		18	0.000
> Lu	175		ug/L		631034	631033.732
Tl	205	99.797	ug/L	0.614	2254036	3.563
Pb	208	99.851	ug/L	0.495	4096510	6.491
Bi	209		ug/L		1147	0.001
Th	232	99.822	ug/L	1.196	4945594	7.837
U	238	99.824	ug/L	0.168	5387457	8.537

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 02:56:24

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
[	Cu	65				
[	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
[	Kr	83				
[	Sr	88				
|	Y	89				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115				
|	Sn	120				
|	Sb	121				
[	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
[	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, March 04, 2010 02:59:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 1.235

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.978	ug/L	0.902	125343	0.084
Be	9	52.419	ug/L	1.802	24781	0.017
B	11	107.156	ug/L	2.506	53327	0.035
Na	23	4806.450	ug/L	10.290	17610233	11.774
Mg	24	5177.546	ug/L	7.731	12148237	8.114
Al	27	4754.781	ug/L	3.299	14968502	10.000
P	31	5283.042	ug/L	1.761	819610	0.545
K	39	5045.000	ug/L	4.545	18432091	12.114
Ca	43	5001.049	ug/L	1.042	51539	0.034
> Sc	45		ug/L		1496124	1496123.634
Ti	47	50.998	ug/L	0.636	25832	0.017
V	51	50.536	ug/L	4.226	273806	0.183
Cr	52	52.922	ug/L	1.903	226582	0.150
Cr	53		ug/L		108321	0.044
Mn	55	52.576	ug/L	2.821	400007	0.267
Fe	57	5337.436	ug/L	1.738	765924	0.510
Co	59	51.195	ug/L	1.799	285840	0.191
Ni	60	52.384	ug/L	1.555	61598	0.041
Cu	63		ug/L		143259	0.096
Cu	65	52.199	ug/L	0.252	69514	0.046
Zn	66	51.783	ug/L	1.501	51572	0.157
Zn	67		ug/L		20225	0.043
Zn	68		ug/L		37958	0.114
> Ge	74		ug/L		324991	324990.770
As	75	50.666	ug/L	0.706	46650	0.144
Se	77		ug/L		8603	0.020
Se	82	53.672	ug/L	1.215	5566	0.017
Kr	83		ug/L		68	0.000
Sr	88	55.299	ug/L	2.014	682389	2.549
Y	89		ug/L		83	0.000
Mo	98	50.765	ug/L	4.445	156449	0.585
Ag	107	52.523	ug/L	2.208	286635	1.071
Cd	111	51.880	ug/L	3.117	82469	0.308
Cd	114		ug/L		196480	0.734
> In	115		ug/L		267781	267780.744
Sn	120	52.392	ug/L	3.632	348109	1.300
Sb	121	52.431	ug/L	3.748	292285	1.092
Sb	123		ug/L		232084	0.867
Ba	135		ug/L		85574	0.134
Ba	137	51.579	ug/L	1.713	152328	0.239
Ho	165		ug/L		44	0.000
> Lu	175		ug/L		637292	637292.148
Tl	205	55.682	ug/L	0.405	1272548	1.988
Pb	208	55.200	ug/L	1.441	2287020	3.588
Bi	209		ug/L		840	0.000
Th	232	52.069	ug/L	1.073	2605589	4.088
U	238	53.633	ug/L	1.364	2923153	4.587

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 03:02:29

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	103.956				
Be	9	104.838				
B	11	107.156				
Na	23	96.129				
Mg	24	103.551				
Al	27	94.154				
P	31	105.661				
K	39	100.900				
Ca	43	100.021				
> Sc	45		101.2			
Ti	47	101.996				
V	51	101.071				
Cr	52	105.844				
Cr	53					
Mn	55	105.152				
Fe	57	106.749				
Co	59	102.389				
Ni	60	104.768				
Cu	63					
Cu	65	104.397				
Zn	66	103.565				
Zn	67					
Zn	68					
> Ge	74		98.9			
As	75	101.333				
Se	77					
Se	82	107.343				
Kr	83					
Sr	88	110.598				
Y	89					
Mo	98	101.530				
Ag	107	105.047				
Cd	111	103.760				
Cd	114					
> In	115		97.1			
Sn	120	104.784				
Sb	121	104.863				
Sb	123					
Ba	135					
Ba	137	103.159				
Ho	165					
> Lu	175		96.9			
Tl	205	111.365				
Pb	208	110.400				
Bi	209					
Th	232	104.138				
U	238	107.267				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Ti	205	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 03:02:29

Page 3

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 03:05:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 2.236

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.024	ug/L	31.758	131	0.000
Be	9	0.005	ug/L	177.415	10	0.000
B	11	3.948	ug/L	17.531	2458	0.001
Na	23	2.159	ug/L	85.800	16010	0.005
Mg	24	1.745	ug/L	71.684	5335	0.003
Al	27	0.565	ug/L	165.983	4668	0.001
P	31	0.542	ug/L	285.420	4622	0.000
K	39	0.247	ug/L	1226.724	324991	0.001
Ca	43	1.522	ug/L	108.063	132	0.000
> Sc	45		ug/L		1564058	1564057.904
Ti	47	-0.052	ug/L	51.092	166	-0.000
V	51	-0.226	ug/L	45.906	-1011	-0.001
Cr	52	0.162	ug/L	15.373	3159	0.000
Cr	53		ug/L		47778	0.002
Mn	55	0.010	ug/L	8.481	867	0.000
Fe	57	1.271	ug/L	28.336	2811	0.000
Co	59	0.010	ug/L	40.434	92	0.000
Ni	60	0.023	ug/L	44.404	107	0.000
Cu	63		ug/L		143	0.000
Cu	65	0.017	ug/L	37.794	77	0.000
Zn	66	-0.036	ug/L	43.949	429	-0.000
Zn	67		ug/L		6737	0.000
Zn	68		ug/L		1084	-0.000
> Ge	74		ug/L		349750	349750.460
As	75	-0.001	ug/L	7242.163	-115	-0.000
Se	77		ug/L		2438	0.001
Se	82	0.036	ug/L	394.826	15	0.000
Kr	83		ug/L		58	-0.000
Sr	88	0.010	ug/L	38.008	229	0.000
Y	89		ug/L		35	-0.000
Mo	98	0.032	ug/L	20.849	155	0.000
Ag	107	0.011	ug/L	43.329	83	0.000
Cd	111	0.011	ug/L	28.905	32	0.000
Cd	114		ug/L		71	0.000
> In	115		ug/L		285399	285399.047
Sn	120	0.019	ug/L	26.361	320	0.000
Sb	121	0.110	ug/L	14.253	743	0.002
Sb	123		ug/L		567	0.002
Ba	135		ug/L		39	0.000
Ba	137	0.008	ug/L	28.803	60	0.000
Ho	165		ug/L		9	-0.000
> Lu	175		ug/L		664211	664210.565
Tl	205	0.477	ug/L	27.575	17001	0.017
Pb	208	0.012	ug/L	35.091	833	0.001
Bi	209		ug/L		512	-0.000
Th	232	0.024	ug/L	5.368	1624	0.002
U	238	0.013	ug/L	24.434	966	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, March 04, 2010 03:08:39

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		105.8			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		106.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, March 04, 2010 03:12:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 3.237

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.340	ug/L	1.569	26673	0.018
Be	9	0.572	ug/L	5.429	270	0.000
B	11	17.440	ug/L	4.282	8776	0.006
Na	23	249.511	ug/L	9.384	896719	0.611
Mg	24	23.683	ug/L	15.687	55108	0.037
Al	27	42.139	ug/L	14.554	131610	0.089
P	31	77.671	ug/L	4.564	15892	0.008
K	39	355.305	ug/L	1.957	1544552	0.853
Ca	43	216.422	ug/L	0.795	2275	0.001
> Sc	45		ug/L		1456890	1456890.285
Ti	47	8.654	ug/L	2.507	4418	0.003
V	51	9.439	ug/L	8.706	49977	0.034
Cr	52	11.617	ug/L	2.881	50204	0.033
Cr	53		ug/L		80729	0.027
Mn	55	5.902	ug/L	2.233	44380	0.030
Fe	57	124.603	ug/L	1.365	19797	0.012
Co	59	1.136	ug/L	1.380	6209	0.004
Ni	60	2.331	ug/L	6.421	2739	0.002
Cu	63		ug/L		3297	0.002
Cu	65	1.194	ug/L	2.181	1597	0.001
Zn	66	11.514	ug/L	2.172	11580	0.035
Zn	67		ug/L		12115	0.019
Zn	68		ug/L		9208	0.026
> Ge	74		ug/L		318828	318827.711
As	75	5.459	ug/L	3.933	4838	0.016
Se	77		ug/L		4562	0.008
Se	82	6.375	ug/L	5.264	657	0.002
Kr	83		ug/L		52	-0.000
Sr	88	11.793	ug/L	3.098	146667	0.544
Y	89		ug/L		48	0.000
Mo	98	0.557	ug/L	5.223	1776	0.006
Ag	107	1.050	ug/L	0.897	5791	0.021
Cd	111	1.133	ug/L	6.547	1825	0.007
Cd	114		ug/L		4288	0.016
> In	115		ug/L		269663	269662.869
Sn	120	5.524	ug/L	2.252	37140	0.137
Sb	121	3.409	ug/L	3.079	19226	0.071
Sb	123		ug/L		15176	0.056
Ba	135		ug/L		3600	0.006
Ba	137	2.158	ug/L	2.728	6402	0.010
Ho	165		ug/L		16	0.000
> Lu	175		ug/L		636914	636913.868
Tl	205	1.402	ug/L	0.409	37364	0.050
Pb	208	2.520	ug/L	1.725	104621	0.164
Bi	209		ug/L		492	-0.000
Th	232	1.373	ug/L	0.309	69054	0.108
U	238	0.300	ug/L	2.755	16517	0.026

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 03:14:43

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	113.397				
Be	9	114.355				
B	11	116.270				
Na	23	99.804				
Mg	24	157.886				
Al	27	140.464				
P	31	155.343				
K	39	118.435				
Ca	43	108.211				
> Sc	45		98.6			
Ti	47	86.544				
V	51	94.394				
Cr	52	116.173				
Cr	53					
Mn	55	118.049				
Fe	57	124.603				
Co	59	113.598				
Ni	60	116.560				
Cu	63					
Cu	65	119.413				
Zn	66	115.137				
Zn	67					
Zn	68					
> Ge	74		97.1			
As	75	109.186				
Se	77					
Se	82	127.497				
Kr	83					
Sr	88	117.931				
Y	89					
Mo	98	111.355				
Ag	107	104.975				
Cd	111	113.251				
Cd	114					
> In	115		97.8			
Sn	120	110.484				
Sb	121	113.627				
Sb	123					
Ba	135					
Ba	137	107.920				
Ho	165					
> Lu	175		96.9			
Tl	205	140.219				
Pb	208	125.975				
Bi	209					
Th	232	137.334				
U	238	149.887				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	Ti	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 03:14:43

Page 3

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 03:18:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 4.238

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.101	ug/L	3.010	288	0.000
Be	9	0.080	ug/L	13.781	42	0.000
B	11	1.751	ug/L	10.920	1177	0.001
Na	23	91066.358	ug/L	4.534	310197177	223.079
Mg	24	97199.602	ug/L	3.603	211807135	152.328
Al	27	92756.490	ug/L	3.651	271285957	195.090
P	31	91011.566	ug/L	0.860	13059408	9.389
K	39	100158.588	ug/L	2.104	334738061	240.496
Ca	43	91286.964	ug/L	1.314	872622	0.627
> Sc	45		ug/L		1390586	1390586.420
Ti	47	1590.960	ug/L	0.640	743837	0.535
V	51	0.449	ug/L	279.347	2451	0.002
Cr	52	2.025	ug/L	3.747	10141	0.006
Cr	53		ug/L		64775	0.018
Mn	55	5.687	ug/L	1.288	40847	0.029
Fe	57	104493.896	ug/L	3.203	13893157	9.991
Co	59	0.418	ug/L	4.365	2202	0.002
Ni	60	4.482	ug/L	2.713	4964	0.004
Cu	63		ug/L		5969	0.004
Cu	65	3.788	ug/L	2.610	4733	0.003
Zn	66	4.235	ug/L	3.831	4280	0.013
Zn	67		ug/L		11115	0.018
Zn	68		ug/L		2012	0.003
> Ge	74		ug/L		301362	301362.076
As	75	0.125	ug/L	184.348	10	0.000
Se	77		ug/L		5626	0.012
Se	82	-1.639	ug/L	27.101	-148	-0.001
Kr	83		ug/L		338	0.001
Sr	88	3.198	ug/L	1.030	36513	0.147
Y	89		ug/L		435	0.002
Mo	98	1774.206	ug/L	1.403	5048149	20.431
Ag	107	0.114	ug/L	10.542	595	0.002
Cd	111	0.661	ug/L	6.478	981	0.004
Cd	114		ug/L		10257	0.041
> In	115		ug/L		247099	247098.685
Sn	120	0.262	ug/L	1.521	1764	0.006
Sb	121	0.066	ug/L	12.010	416	0.001
Sb	123		ug/L		318	0.001
Ba	135		ug/L		1180	0.002
Ba	137	0.750	ug/L	1.422	1992	0.003
Ho	165		ug/L		11111	0.020
> Lu	175		ug/L		564690	564690.202
Tl	205	0.037	ug/L	27.469	5591	0.001
Pb	208	0.237	ug/L	1.307	8970	0.015
Bi	209		ug/L		6610	0.011
Th	232	0.053	ug/L	31.950	2676	0.004
U	238	0.017	ug/L	5.829	974	0.001

Sample ID: QC Std 4

Report Date/Time: Thursday, March 04, 2010 03:20:49

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23	91.066				
Mg	24	97.200				
Al	27	92.756				
P	31	91.012				
K	39	100.159				
Ca	43	91.287				
> Sc	45		94.1			
Ti	47	79.548				
V	51					
Cr	52	61.349				
Cr	53					
Mn	55	98.055				
Fe	57	104.494				
Co	59	178.031				
Ni	60	135.419				
Cu	63					
Cu	65	113.408				
Zn	66	112.629				
Zn	67					
Zn	68					
> Ge	74		91.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	108.052				
Y	89					
Mo	98	88.710				
Ag	107					
Cd	111	148.922				
Cd	114					
> In	115		89.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137	93.992				
Ho	165					
> Lu	175		85.9			
Tl	205					
Pb	208	125.326				
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 03:24:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 5.239

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.437	ug/L	0.572	39941	0.030
Be	9	18.001	ug/L	0.883	7643	0.006
B	11	18.170	ug/L	1.446	8416	0.006
Na	23	87157.002	ug/L	4.066	286671424	213.503
Mg	24	95019.667	ug/L	5.973	199925272	148.911
Al	27	90051.073	ug/L	0.945	254319422	189.400
P	31	91530.086	ug/L	0.973	12682634	9.442
K	39	101754.003	ug/L	4.667	328396870	244.327
Ca	43	91787.441	ug/L	1.592	847175	0.631
Sc	45		ug/L		1342807	1342806.923
Ti	47	1600.143	ug/L	0.750	722420	0.538
V	51	20.681	ug/L	6.334	100697	0.075
Cr	52	22.184	ug/L	0.373	86472	0.063
Cr	53		ug/L		69439	0.023
Mn	55	26.022	ug/L	0.427	178065	0.132
Fe	57	105856.796	ug/L	2.233	13591557	10.121
Co	59	19.810	ug/L	0.465	99305	0.074
Ni	60	22.287	ug/L	0.565	23564	0.017
Cu	63		ug/L		50244	0.037
Cu	65	22.340	ug/L	0.086	26729	0.020
Zn	66	22.452	ug/L	1.826	20563	0.068
Zn	67		ug/L		13234	0.026
Zn	68		ug/L		13673	0.043
Ge	74		ug/L		295610	295610.472
As	75	20.632	ug/L	3.424	17221	0.059
Se	77		ug/L		6692	0.016
Se	82	19.649	ug/L	6.606	1859	0.006
Kr	83		ug/L		303	0.001
Sr	88	26.057	ug/L	0.905	292274	1.201
Y	89		ug/L		430	0.002
Mo	98	1781.546	ug/L	0.766	4991036	20.516
Ag	107	18.880	ug/L	0.488	93656	0.385
Cd	111	19.154	ug/L	1.080	27686	0.114
Cd	114		ug/L		75243	0.309
In	115		ug/L		243274	243274.121
Sn	120	20.583	ug/L	1.712	124427	0.511
Sb	121	20.744	ug/L	0.862	105187	0.432
Sb	123		ug/L		81725	0.336
Ba	135		ug/L		31051	0.056
Ba	137	21.594	ug/L	1.616	55465	0.100
Ho	165		ug/L		11024	0.020
Lu	175		ug/L		554111	554110.792
Tl	205	22.437	ug/L	0.262	448709	0.801
Pb	208	21.732	ug/L	0.594	783112	1.413
Bi	209		ug/L		7134	0.012
Th	232	23.652	ug/L	1.484	1029243	1.857
U	238	24.204	ug/L	1.863	1147164	2.070

Sample ID: QC Std 5

Report Date/Time: Thursday, March 04, 2010 03:26:55

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	92.183				
Be	9	90.007				
B	11	90.851				
Na	23	87.157				
Mg	24	95.020				
Al	27	90.051				
P	31	91.530				
K	39	101.754				
Ca	43	91.787				
> Sc	45		90.8			
Ti	47	80.007				
V	51	103.405				
Cr	52	95.208				
Cr	53					
Mn	55	100.860				
Fe	57	105.857				
Co	59	97.901				
Ni	60	95.610				
Cu	63					
Cu	65	95.717				
Zn	66	94.493				
Zn	67					
Zn	68					
> Ge	74		90.0			
As	75	103.158				
Se	77					
Se	82	98.243				
Kr	83					
Sr	88	113.487				
Y	89					
Mo	98	89.077				
Ag	107	94.398				
Cd	111	93.690				
Cd	114					
> In	115		88.2			
Sn	120	102.915				
Sb	121	103.722				
Sb	123					
Ba	135					
Ba	137	103.827				
Ho	165					
> Lu	175		84.3			
Tl	205	112.187				
Pb	208	107.645				
Bi	209					
Th	232	118.260				
U	238	121.022				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	CSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 03:30:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 6.240

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.355	ug/L	1.846	112800	0.081
Be	9	50.103	ug/L	3.217	22003	0.016
B	11	97.868	ug/L	1.552	45282	0.032
Na	23	4436.877	ug/L	3.856	15122307	10.869
Mg	24	4996.407	ug/L	2.317	10883636	7.830
Al	27	4654.453	ug/L	3.321	13606714	9.789
P	31	5140.373	ug/L	2.046	741030	0.530
K	39	5036.407	ug/L	2.862	17099000	12.093
Ca	43	4839.403	ug/L	2.079	46333	0.033
> Sc	45		ug/L		1390168	1390167.942
Ti	47	51.411	ug/L	1.731	24196	0.017
V	51	49.555	ug/L	1.159	249537	0.179
Cr	52	51.502	ug/L	1.248	204950	0.146
Cr	53		ug/L		97081	0.041
Mn	55	51.886	ug/L	1.296	366851	0.263
Fe	57	5278.561	ug/L	1.896	703859	0.505
Co	59	50.052	ug/L	2.427	259647	0.187
Ni	60	51.913	ug/L	2.228	56714	0.041
Cu	63		ug/L		129868	0.093
Cu	65	51.798	ug/L	1.594	64083	0.046
Zn	66	50.678	ug/L	1.199	47667	0.154
Zn	67		ug/L		17916	0.039
Zn	68		ug/L		34510	0.109
> Ge	74		ug/L		306895	306894.631
As	75	49.714	ug/L	3.580	43203	0.141
Se	77		ug/L		7755	0.019
Se	82	50.980	ug/L	1.891	4991	0.016
Kr	83		ug/L		63	0.000
Sr	88	51.428	ug/L	0.560	628337	2.371
Y	89		ug/L		89	0.000
Mo	98	48.116	ug/L	1.090	146896	0.554
Ag	107	49.217	ug/L	1.484	265922	1.003
Cd	111	48.966	ug/L	1.917	77082	0.291
Cd	114		ug/L		186112	0.702
> In	115		ug/L		265026	265026.461
Sn	120	50.317	ug/L	2.397	331058	1.249
Sb	121	50.123	ug/L	0.979	276741	1.044
Sb	123		ug/L		216068	0.815
Ba	135		ug/L		79677	0.128
Ba	137	49.808	ug/L	0.682	144215	0.231
Ho	165		ug/L		44	0.000
> Lu	175		ug/L		624812	624811.544
Tl	205	53.527	ug/L	2.523	1199300	1.911
Pb	208	53.578	ug/L	0.675	2176432	3.483
Bi	209		ug/L		854	0.001
Th	232	50.940	ug/L	2.620	2498725	3.999
U	238	52.575	ug/L	3.059	2808824	4.496

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 03:33:03

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	100.709				
Be	9	100.205				
B	11	97.868				
Na	23	88.738				
Mg	24	99.928				
Al	27	92.167				
P	31	102.807				
K	39	100.728				
Ca	43	96.788				
> Sc	45		94.1			
Ti	47	102.821				
V	51	99.111				
Cr	52	103.005				
Cr	53					
Mn	55	103.773				
Fe	57	105.571				
Co	59	100.104				
Ni	60	103.825				
Cu	63					
Cu	65	103.596				
Zn	66	101.357				
Zn	67					
Zn	68					
> Ge	74		93.4			
As	75	99.428				
Se	77					
Se	82	101.960				
Kr	83					
Sr	88	102.857				
Y	89					
Mo	98	96.232				
Ag	107	98.433				
Cd	111	97.932				
Cd	114					
> In	115		96.1			
Sn	120	100.633				
Sb	121	100.247				
Sb	123					
Ba	135					
Ba	137	99.616				
Ho	165					
> Lu	175		95.0			
Tl	205	107.053				
Pb	208	107.156				
Bi	209					
Th	232	101.880				
U	238	105.149				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message
 QC Std 6 Na 23CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
 Sample Date/Time: Thursday, March 04, 2010 03:36:28
 Sample Type:
 Sample Description:
 Number of Replicates: 3
 Batch ID:
 Method File: c:\elandata\Method\6020 2.mth
 Dataset File: C:\elandata\Dataset\100303\QC Std 7.241

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.004	ug/L	88.082	76	0.000
Be	9	0.010	ug/L	31.107	12	0.000
B	11	2.390	ug/L	21.972	1550	0.001
Na	23	2.250	ug/L	5.572	15342	0.006
Mg	24	2.344	ug/L	121.831	6336	0.004
Al	27	2.063	ug/L	41.118	9003	0.004
P	31	-0.042	ug/L	4867.930	4239	-0.000
K	39	-1.510	ug/L	246.565	298080	-0.004
Ca	43	2.946	ug/L	45.872	138	0.000
> Sc	45		ug/L		1464499	1464499.142
Ti	47	0.017	ug/L	160.672	189	0.000
V	51	-0.124	ug/L	247.676	-400	-0.000
Cr	52	0.015	ug/L	330.626	2346	0.000
Cr	53		ug/L		43392	0.001
Mn	55	-0.005	ug/L	79.411	700	-0.000
Fe	57	2.194	ug/L	37.847	2762	0.000
Co	59	0.004	ug/L	34.228	54	0.000
Ni	60	0.007	ug/L	154.707	83	0.000
Cu	63		ug/L		124	0.000
Cu	65	0.014	ug/L	19.118	69	0.000
Zn	66	0.010	ug/L	324.810	450	0.000
Zn	67		ug/L		6022	-0.001
Zn	68		ug/L		1016	-0.000
> Ge	74		ug/L		328681	328681.322
As	75	0.125	ug/L	144.439	9	0.000
Se	77		ug/L		2248	0.001
Se	82	0.111	ug/L	67.066	22	0.000
Kr	83		ug/L		60	-0.000
Sr	88	0.002	ug/L	54.523	123	0.000
Y	89		ug/L		31	-0.000
Mo	98	0.072	ug/L	2.603	278	0.001
Ag	107	0.006	ug/L	31.611	54	0.000
Cd	111	0.006	ug/L	36.629	22	0.000
Cd	114		ug/L		48	0.000
> In	115		ug/L		278376	278375.578
Sn	120	0.012	ug/L	17.174	264	0.000
Sb	121	0.062	ug/L	19.285	443	0.001
Sb	123		ug/L		356	0.001
Ba	135		ug/L		25	0.000
Ba	137	0.003	ug/L	103.984	44	0.000
Ho	165		ug/L		9	-0.000
> Lu	175		ug/L		662491	662491.070
Tl	205	0.402	ug/L	19.637	15212	0.014
Pb	208	0.004	ug/L	11.989	504	0.000
Bi	209		ug/L		528	-0.000
Th	232	0.020	ug/L	0.852	1421	0.002
U	238	0.006	ug/L	8.440	565	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		101.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Thursday, March 04, 2010 03:42:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 10.242

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	861.337	ug/L	0.825	1732194	1.387
Be	9	914.866	ug/L	1.277	360847	0.289
B	11	1.693	ug/L	4.695	1033	0.001
Na	23	44852.293	ug/L	4.810	137103725	109.872
Mg	24	48833.113	ug/L	4.157	95571512	76.529
Al	27	46400.561	ug/L	4.453	121801858	97.592
P	31	22807.169	ug/L	1.446	2941032	2.353
K	39	51008.995	ug/L	2.803	153149389	122.480
Ca	43	47370.440	ug/L	1.120	406575	0.326
> Sc	45		ug/L		1248349	1248348.885
Ti	47	55.559	ug/L	3.751	23460	0.019
V	51	799.170	ug/L	1.655	3611120	2.892
Cr	52	825.684	ug/L	0.606	2921570	2.339
Cr	53		ug/L		457928	0.338
Mn	55	854.481	ug/L	0.986	5415897	4.338
Fe	57	53370.524	ug/L	0.871	6371915	5.103
Co	59	788.685	ug/L	1.047	3674286	2.943
Ni	60	857.669	ug/L	0.798	840573	0.673
Cu	63		ug/L		1734886	1.390
Cu	65	833.486	ug/L	1.211	925507	0.741
Zn	66	1957.084	ug/L	0.348	1678244	5.947
Zn	67		ug/L		302864	1.054
Zn	68		ug/L		1267309	4.489
> Ge	74		ug/L		282118	282118.359
As	75	870.411	ug/L	0.843	697170	2.472
Se	77		ug/L		35732	0.120
Se	82	481.378	ug/L	1.705	43256	0.153
Kr	83		ug/L		165	0.000
Sr	88	937.603	ug/L	1.875	10264911	43.219
Y	89		ug/L		337	0.001
Mo	98	874.448	ug/L	0.703	2391384	10.070
Ag	107	213.228	ug/L	0.562	1032431	4.347
Cd	111	840.414	ug/L	1.078	1185323	4.991
Cd	114		ug/L		2803585	11.805
> In	115		ug/L		237489	237489.037
Sn	120	807.409	ug/L	0.668	4759073	20.038
Sb	121	227.859	ug/L	1.008	1127053	4.746
Sb	123		ug/L		902178	3.799
Ba	135		ug/L		1281112	2.276
Ba	137	863.861	ug/L	0.589	2252680	4.003
Ho	165		ug/L		148	0.000
> Lu	175		ug/L		562819	562818.917
Tl	205	463.248	ug/L	0.885	9315006	16.541
Pb	208	4536.166	ug/L	0.430	165974202	294.892
Bi	209		ug/L		5137	0.008
Th	232	2469.705	ug/L	0.687	109137405	193.906
U	238	5232.714	ug/L	1.390	251889505	447.521

Sample ID: QC Std 10

Report Date/Time: Thursday, March 04, 2010 03:45:15

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	86.134				
Be	9	91.487				
B	11					
Na	23	89.705				
Mg	24	97.666				
Al	27	92.801				
P	31	91.229				
K	39	102.018				
Ca	43	94.741				
> Sc	45		84.5			
Ti	47					
V	51	79.917				
Cr	52	82.568				
Cr	53					
Mn	55	85.448				
Fe	57	106.741				
Co	59	78.869				
Ni	60	85.767				
Cu	63					
Cu	65	83.349				
Zn	66	78.283				
Zn	67					
Zn	68					
> Ge	74		85.9			
As	75	87.041				
Se	77					
Se	82	96.276				
Kr	83					
Sr	88	93.760				
Y	89					
Mo	98	87.445				
Ag	107	85.291				
Cd	111	84.041				
Cd	114					
> In	115		86.1			
Sn	120	80.741				
Sb	121	91.144				
Sb	123					
Ba	135					
Ba	137	86.386				
Ho	165					
> Lu	175		85.6			
Tl	205	92.650				
Pb	208	90.723				
Bi	209					
Th	232	98.788				
U	238	104.654				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	7LRS is out of limits (+/- 10%)
QC Std 10	Na	23	23LRS is out of limits (+/- 10%)
QC Std 10	V	51	51LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	52LRS is out of limits (+/- 10%)
QC Std 10	Mn	55	55LRS is out of limits (+/- 10%)
QC Std 10	Co	59	59LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	60LRS is out of limits (+/- 10%)

Sample ID: QC Std 10

Report Date/Time: Thursday, March 04, 2010 03:45:15

Page 3

QC Std 10	Cu	65LRS is out of limits (+/- 10%)
QC Std 10	Zn	66LRS is out of limits (+/- 10%)
QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Mo	98LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Thursday, March 04, 2010 03:48:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 11.243

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.421	ug/L	1.922	117183	0.084
Be	9	52.480	ug/L	0.233	23004	0.017
B	11	102.499	ug/L	1.222	47308	0.034
Na	23	4643.330	ug/L	9.444	15779587	11.374
Mg	24	5228.603	ug/L	6.988	11365261	8.194
Al	27	5107.504	ug/L	2.723	14901529	10.742
P	31	5256.252	ug/L	1.273	756103	0.542
K	39	5051.038	ug/L	3.910	17108007	12.128
Ca	43	4990.647	ug/L	1.872	47679	0.034
> Sc	45		ug/L		1387043	1387043.135
Ti	47	52.459	ug/L	0.336	24630	0.018
V	51	51.391	ug/L	2.634	258202	0.186
Cr	52	53.330	ug/L	1.048	211695	0.151
Cr	53		ug/L		94465	0.040
Mn	55	53.220	ug/L	1.661	375432	0.270
Fe	57	5471.901	ug/L	0.335	728000	0.523
Co	59	51.991	ug/L	1.033	269152	0.194
Ni	60	52.910	ug/L	0.834	57686	0.042
Cu	63		ug/L		133701	0.096
Cu	65	52.571	ug/L	1.348	64904	0.047
Zn	66	52.477	ug/L	2.952	48999	0.159
Zn	67		ug/L		18947	0.043
Zn	68		ug/L		35521	0.113
> Ge	74		ug/L		304784	304783.684
As	75	50.912	ug/L	2.315	43953	0.145
Se	77		ug/L		7252	0.018
Se	82	53.346	ug/L	2.115	5188	0.017
Kr	83		ug/L		57	-0.000
Sr	88	54.218	ug/L	0.213	649517	2.499
Y	89		ug/L		73	0.000
Mo	98	50.443	ug/L	1.167	150991	0.581
Ag	107	51.311	ug/L	1.803	271840	1.046
Cd	111	50.994	ug/L	1.324	78709	0.303
Cd	114		ug/L		192262	0.740
> In	115		ug/L		259858	259858.022
Sn	120	52.424	ug/L	1.951	338258	1.301
Sb	121	53.047	ug/L	1.129	287182	1.105
Sb	123		ug/L		226379	0.871
Ba	135		ug/L		83429	0.133
Ba	137	51.711	ug/L	1.150	150818	0.240
Ho	165		ug/L		42	0.000
> Lu	175		ug/L		629383	629383.445
Tl	205	55.553	ug/L	1.381	1254001	1.984
Pb	208	54.623	ug/L	1.132	2235034	3.551
Bi	209		ug/L		838	0.000
Th	232	52.888	ug/L	1.002	2613846	4.152
U	238	54.473	ug/L	2.842	2931828	4.659

Sample ID: QC Std 11

Report Date/Time: Thursday, March 04, 2010 03:51:20

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	104.842				
Be	9	104.960				
B	11	102.499				
Na	23	92.867				
Mg	24	104.572				
Al	27	101.139				
P	31	105.125				
K	39	101.021				
Ca	43	99.813				
> Sc	45		93.8			
Ti	47	104.917				
V	51	102.783				
Cr	52	106.661				
Cr	53					
Mn	55	106.439				
Fe	57	109.438				
Co	59	103.982				
Ni	60	105.820				
Cu	63					
Cu	65	105.142				
Zn	66	104.955				
Zn	67					
Zn	68					
> Ge	74		92.8			
As	75	101.825				
Se	77					
Se	82	106.692				
Kr	83					
Sr	88	108.435				
Y	89					
Mo	98	100.887				
Ag	107	102.621				
Cd	111	101.987				
Cd	114					
> In	115		94.3			
Sn	120	104.848				
Sb	121	106.094				
Sb	123					
Ba	135					
Ba	137	103.423				
Ho	165					
> Lu	175		95.7			
Tl	205	111.107				
Pb	208	109.245				
Bi	209					
Th	232	105.777				
U	238	108.946				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message
 QC Std 11 TI 205CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Thursday, March 04, 2010 03:54:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 12.244

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.060	ug/L	15.052	209	0.000
Be	9	0.018	ug/L	47.804	16	0.000
B	11	2.477	ug/L	17.163	1609	0.001
Na	23	2.292	ug/L	24.065	15675	0.006
Mg	24	1.579	ug/L	15.801	4667	0.002
Al	27	1.388	ug/L	45.588	7002	0.003
P	31	-1.786	ug/L	56.462	4022	-0.000
K	39	8.752	ug/L	103.808	337971	0.021
Ca	43	0.958	ug/L	132.951	119	0.000
> Sc	45		ug/L		1481483	1481482.710
Ti	47	-0.062	ug/L	34.015	152	-0.000
V	51	-0.251	ug/L	189.338	-1105	-0.001
Cr	52	0.010	ug/L	723.197	2351	0.000
Cr	53		ug/L		41995	-0.000
Mn	55	0.004	ug/L	139.142	775	0.000
Fe	57	1.007	ug/L	47.775	2625	0.000
Co	59	0.021	ug/L	27.217	151	0.000
Ni	60	0.014	ug/L	29.386	92	0.000
Cu	63		ug/L		212	0.000
Cu	65	0.043	ug/L	24.174	108	0.000
Zn	66	0.046	ug/L	55.351	487	0.000
Zn	67		ug/L		6436	0.000
Zn	68		ug/L		1138	0.000
> Ge	74		ug/L		330089	330088.629
As	75	0.073	ug/L	229.215	-39	0.000
Se	77		ug/L		1920	-0.000
Se	82	0.047	ug/L	456.554	15	0.000
Kr	83		ug/L		64	-0.000
Sr	88	0.019	ug/L	16.199	338	0.001
Y	89		ug/L		36	-0.000
Mo	98	0.107	ug/L	11.463	389	0.001
Ag	107	0.011	ug/L	24.655	81	0.000
Cd	111	0.021	ug/L	2.684	46	0.000
Cd	114		ug/L		106	0.000
> In	115		ug/L		275850	275849.731
Sn	120	0.061	ug/L	7.878	592	0.002
Sb	121	0.227	ug/L	12.905	1390	0.005
Sb	123		ug/L		1074	0.004
Ba	135		ug/L		52	0.000
Ba	137	0.015	ug/L	21.870	81	0.000
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		664878	664878.381
Tl	205	0.712	ug/L	24.020	22600	0.025
Pb	208	0.079	ug/L	19.487	3755	0.005
Bi	209		ug/L		540	-0.000
Th	232	0.065	ug/L	9.356	3770	0.005
U	238	0.095	ug/L	16.813	5616	0.008

Sample ID: QC Std 12

Report Date/Time: Thursday, March 04, 2010 03:57:29

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038327

Sample Date/Time: Thursday, March 04, 2010 04:00:54

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038327.245

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.034	ug/L	17.751	149	0.000
Be	9	0.010	ug/L	33.719	12	0.000
B	11	0.927	ug/L	18.704	859	0.000
Na	23	31.068	ug/L	8.253	121181	0.076
Mg	24	2.838	ug/L	30.382	7669	0.004
Al	27	7.299	ug/L	28.624	25691	0.015
P	31	53.153	ug/L	12.194	12520	0.005
K	39	5.872	ug/L	103.119	330798	0.014
Ca	43	14.370	ug/L	14.453	258	0.000
> Sc	45		ug/L		1494530	1494529.593
Ti	47	0.425	ug/L	7.185	398	0.000
V	51	-0.446	ug/L	24.540	-2155	-0.002
Cr	52	0.298	ug/L	6.170	3591	0.001
Cr	53		ug/L		46596	0.003
Mn	55	0.291	ug/L	6.648	2965	0.001
Fe	57	18.972	ug/L	3.881	5216	0.002
Co	59	0.011	ug/L	8.426	96	0.000
Ni	60	0.111	ug/L	12.340	207	0.000
Cu	63		ug/L		869	0.001
Cu	65	0.277	ug/L	7.755	419	0.000
Zn	66	1.142	ug/L	2.149	1539	0.003
Zn	67		ug/L		6935	0.002
Zn	68		ug/L		1921	0.003
> Ge	74		ug/L		320270	320270.482
As	75	-0.039	ug/L	141.956	-139	-0.000
Se	77		ug/L		2161	0.000
Se	82	0.160	ug/L	11.683	26	0.000
Kr	83		ug/L		57	-0.000
Sr	88	0.056	ug/L	1.407	849	0.003
Y	89		ug/L		111	0.000
Mo	98	0.127	ug/L	26.567	473	0.001
Ag	107	0.005	ug/L	16.536	51	0.000
Cd	111	0.015	ug/L	29.199	39	0.000
Cd	114		ug/L		50	0.000
> In	115		ug/L		289349	289348.577
Sn	120	0.327	ug/L	5.207	2538	0.008
Sb	121	0.103	ug/L	15.757	712	0.002
Sb	123		ug/L		558	0.002
Ba	135		ug/L		738	0.001
Ba	137	0.412	ug/L	0.866	1347	0.002
Ho	165		ug/L		20	0.000
> Lu	175		ug/L		686212	686211.902
Tl	205	0.279	ug/L	8.656	12741	0.010
Pb	208	0.034	ug/L	16.908	1846	0.002
Bi	209		ug/L		488	-0.000
Th	232	0.150	ug/L	24.172	8524	0.012
U	238	0.067	ug/L	18.900	4122	0.006

Sample ID: 1202038327

Report Date/Time: Thursday, March 04, 2010 04:03:39

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		97.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		104.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038332

Sample Date/Time: Thursday, March 04, 2010 04:07:05

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 951157|40|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038332.246

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	2.462	ug/L	2.632	5792	0.004
Be	9	18.267	ug/L	2.382	8341	0.006
B	11	35.242	ug/L	4.862	17186	0.012
Na	23	246.684	ug/L	0.277	879962	0.604
Mg	24	999.554	ug/L	4.190	2262828	1.566
Al	27	2843.678	ug/L	2.885	8639538	5.981
P	31	220.198	ug/L	2.091	36997	0.023
K	39	1102.033	ug/L	3.504	4122375	2.646
Ca	43	2384.901	ug/L	0.211	23782	0.016
> Sc	45		ug/L		1444324	1444323.515
Ti	47	112.964	ug/L	1.652	55020	0.038
V	51	29.692	ug/L	1.162	155439	0.107
Cr	52	56.158	ug/L	1.915	231973	0.159
Cr	53		ug/L		84538	0.030
Mn	55	126.028	ug/L	1.319	924706	0.640
Fe	57	4534.923	ug/L	2.565	628557	0.434
Co	59	22.191	ug/L	2.571	119629	0.083
Ni	60	32.804	ug/L	1.557	37270	0.026
Cu	63		ug/L		113430	0.078
Cu	65	42.887	ug/L	2.644	55133	0.038
Zn	66	142.660	ug/L	0.776	137207	0.434
Zn	67		ug/L		28605	0.071
Zn	68		ug/L		98429	0.309
> Ge	74		ug/L		315520	315519.507
As	75	25.538	ug/L	2.521	22777	0.073
Se	77		ug/L		8064	0.019
Se	82	73.606	ug/L	1.605	7407	0.023
Kr	83		ug/L		56	-0.000
Sr	88	55.153	ug/L	2.477	697599	2.542
Y	89		ug/L		36791	0.134
Mo	98	11.488	ug/L	3.267	36339	0.132
Ag	107	5.017	ug/L	3.301	28081	0.102
Cd	111	13.996	ug/L	4.280	22812	0.083
Cd	114		ug/L		56008	0.204
> In	115		ug/L		274458	274457.685
Sn	120	6.614	ug/L	3.453	45209	0.164
Sb	121	13.952	ug/L	2.492	79814	0.291
Sb	123		ug/L		62637	0.228
Ba	135		ug/L		90373	0.137
Ba	137	53.178	ug/L	0.431	162132	0.246
Ho	165		ug/L		4011	0.006
> Lu	175		ug/L		657899	657899.256
Tl	205	33.909	ug/L	2.488	802132	1.211
Pb	208	22.239	ug/L	1.227	951420	1.446
Bi	209		ug/L		8974	0.013
Th	232	2.467	ug/L	1.697	127812	0.194
U	238	0.570	ug/L	0.907	32248	0.049

Sample ID: 1202038332

Report Date/Time: Thursday, March 04, 2010 04:09:49

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45		97.7			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
|	Cu	65					
[	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74		96.1			
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
[	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115		99.5			
|	Sn	120					
|	Sb	121					
|	Sb	123					
[	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175		100.0			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
|	U	238					

QC Out Of Limits

Measurement Type Analyte
Ti 47 Upper, S, EETi

Mass Out of Limits Message
47Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246344001

Sample Date/Time: Thursday, March 04, 2010 04:13:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246344001.247

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	41.297	ug/L	1.268	94175	0.067
Be	9	2.949	ug/L	1.731	1325	0.001
B	11	10.984	ug/L	1.773	5510	0.004
Na	23	628.840	ug/L	3.471	2186064	1.540
Mg	24	6484.966	ug/L	4.583	14381468	10.163
Al	27	44111.637	ug/L	1.657	131267398	92.778
P	31	297.429	ug/L	4.780	47510	0.031
K	39	6823.499	ug/L	6.675	23470216	16.384
Ca	43	5964.865	ug/L	0.690	58107	0.041
> Sc	45		ug/L		1414784	1414783.687
Ti	47	771.329	ug/L	1.305	366989	0.259
V	51	52.620	ug/L	1.176	269647	0.190
Cr	52	29.555	ug/L	2.799	120648	0.084
Cr	53		ug/L		53006	0.009
Mn	55	666.351	ug/L	0.897	4786542	3.383
Fe	57	40368.972	ug/L	2.179	5462669	3.860
Co	59	33.494	ug/L	1.243	176884	0.125
Ni	60	23.365	ug/L	2.480	26025	0.018
Cu	63		ug/L		85486	0.060
Cu	65	33.692	ug/L	1.032	42444	0.030
Zn	66	90.822	ug/L	0.734	82991	0.276
Zn	67		ug/L		19428	0.046
Zn	68		ug/L		61196	0.201
> Ge	74		ug/L		299248	299248.073
As	75	7.633	ug/L	2.355	6388	0.022
Se	77		ug/L		1744	-0.000
Se	82	0.714	ug/L	15.028	77	0.000
Kr	83		ug/L		205	0.000
Sr	88	63.816	ug/L	1.212	798685	2.942
Y	89		ug/L		524891	1.933
Mo	98	1.616	ug/L	2.422	5099	0.019
Ag	107	0.358	ug/L	3.969	2004	0.007
Cd	111	1.086	ug/L	6.689	1763	0.006
Cd	114		ug/L		1188	0.004
> In	115		ug/L		271501	271500.573
Sn	120	0.933	ug/L	1.522	6462	0.023
Sb	121	0.484	ug/L	6.592	2820	0.010
Sb	123		ug/L		2201	0.008
Ba	135		ug/L		548461	0.837
Ba	137	313.663	ug/L	2.661	951950	1.453
Ho	165		ug/L		60412	0.092
> Lu	175		ug/L		655165	655165.275
Tl	205	0.803	ug/L	5.760	24403	0.029
Pb	208	76.511	ug/L	1.569	3258555	4.974
Bi	209		ug/L		21204	0.032
Th	232	25.998	ug/L	2.439	1337356	2.041
U	238	34.670	ug/L	3.396	1942220	2.965

Sample ID: 246344001

Report Date/Time: Thursday, March 04, 2010 04:16:01

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		95.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		91.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message
Ti 47 Upper, S, EEE Ti 47 Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038328

Sample Date/Time: Thursday, March 04, 2010 04:19:25

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 9511572[baj]

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038328.248

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	41.599	ug/L	1.316	91476	0.067
Be	9	3.090	ug/L	1.247	1338	0.001
B	11	11.324	ug/L	1.043	5466	0.004
Na	23	594.712	ug/L	6.522	1992266	1.457
Mg	24	6617.851	ug/L	1.579	14144691	10.371
Al	27	47448.913	ug/L	5.319	136089466	99.797
P	31	294.991	ug/L	4.269	45443	0.030
K	39	7251.295	ug/L	5.130	24019666	17.411
Ca	43	6008.245	ug/L	1.982	56419	0.041
> Sc	45		ug/L		1364037	1364037.440
Ti	47	836.730	ug/L	1.365	383770	0.281
V	51	58.238	ug/L	3.242	287621	0.211
Cr	52	31.380	ug/L	2.502	123335	0.089
Cr	53		ug/L		47487	0.006
Mn	55	736.320	ug/L	2.752	5099539	3.738
Fe	57	43898.401	ug/L	1.310	5727313	4.197
Co	59	31.012	ug/L	0.311	157894	0.116
Ni	60	23.914	ug/L	2.960	25670	0.019
Cu	63		ug/L		83005	0.061
Cu	65	33.607	ug/L	1.795	40812	0.030
Zn	66	85.761	ug/L	2.263	75412	0.261
Zn	67		ug/L		17572	0.042
Zn	68		ug/L		56709	0.194
> Ge	74		ug/L		287949	287948.891
As	75	8.038	ug/L	2.230	6476	0.023
Se	77		ug/L		1526	-0.001
Se	82	0.348	ug/L	88.057	41	0.000
Kr	83		ug/L		230	0.001
Sr	88	67.884	ug/L	1.133	816710	3.129
Y	89		ug/L		509300	1.951
Mo	98	1.683	ug/L	0.655	5104	0.019
Ag	107	0.367	ug/L	3.884	1969	0.007
Cd	111	1.073	ug/L	3.005	1674	0.006
Cd	114		ug/L		1181	0.004
> In	115		ug/L		260990	260989.878
Sn	120	0.864	ug/L	3.296	5766	0.021
Sb	121	0.458	ug/L	3.265	2572	0.010
Sb	123		ug/L		2017	0.007
Ba	135		ug/L		549708	0.851
Ba	137	318.798	ug/L	0.286	953790	1.477
Ho	165		ug/L		59107	0.092
> Lu	175		ug/L		645693	645692.652
Tl	205	0.669	ug/L	1.199	20972	0.024
Pb	208	71.119	ug/L	0.516	2985520	4.623
Bi	209		ug/L		20112	0.030
Th	232	26.328	ug/L	0.815	1335024	2.067
U	238	32.686	ug/L	1.552	1805078	2.795

Sample ID: 1202038328

Report Date/Time: Thursday, March 04, 2010 04:22:09

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		92.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		87.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte
Ti 47 Upper, S, EEETi

MassOut of Limits Message
47Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038330

Sample Date/Time: Thursday, March 04, 2010 04:25:34

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038330.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
|	Li	7	77.966	ug/L	1.099	172545	0.126
|	Be	9	25.358	ug/L	2.315	11009	0.008
|	B	11	55.523	ug/L	0.376	25543	0.018
|	Na	23	1751.482	ug/L	3.771	5898479	4.290
|	Mg	24	8711.114	ug/L	4.366	18751066	13.652
|	Al	27	54349.533	ug/L	3.079	156985093	114.311
|	P	31	1180.989	ug/L	1.220	171302	0.122
|	K	39	9003.366	ug/L	4.840	29976543	21.618
|	Ca	43	7743.255	ug/L	2.510	73196	0.053
>	Sc	45		ug/L		1373334	1373334.283
|	Ti	47	1002.342	ug/L	2.203	462917	0.337
|	V	51	84.060	ug/L	0.512	418013	0.304
|	Cr	52	57.170	ug/L	0.587	224547	0.162
|	Cr	53		ug/L		58917	0.015
|	Mn	55	777.229	ug/L	2.656	5419639	3.946
|	Fe	57	43273.111	ug/L	1.392	5684313	4.137
|	Co	59	55.664	ug/L	0.290	285321	0.208
|	Ni	60	47.716	ug/L	0.735	51516	0.037
|	Cu	63		ug/L		137134	0.100
|	Cu	65	55.234	ug/L	0.927	67516	0.049
|	Zn	66	121.309	ug/L	1.944	106229	0.369
|	Zn	67		ug/L		22344	0.059
|	Zn	68		ug/L		78994	0.272
>	Ge	74		ug/L		287169	287169.183
|	As	75	41.921	ug/L	0.871	34092	0.119
|	Se	77		ug/L		2020	0.001
|	Se	82	7.531	ug/L	4.729	698	0.002
|	Kr	83		ug/L		270	0.001
|	Sr	88	96.518	ug/L	1.060	1171144	4.449
|	Y	89		ug/L		644542	2.449
|	Mo	98	22.617	ug/L	1.337	68594	0.260
|	Ag	107	21.867	ug/L	0.080	117360	0.446
|	Cd	111	5.940	ug/L	1.004	9297	0.035
|	Cd	114		ug/L		18442	0.070
>	In	115		ug/L		263208	263207.864
|	Sn	120	10.229	ug/L	1.384	66982	0.254
|	Sb	121	40.752	ug/L	1.449	223496	0.849
|	Sb	123		ug/L		176194	0.669
|	Ba	135		ug/L		587102	0.913
|	Ba	137	341.725	ug/L	2.118	1018216	1.583
|	Ho	165		ug/L		75783	0.118
>	Lu	175		ug/L		643153	643153.229
|	Tl	205	50.891	ug/L	1.360	1174144	1.817
|	Pb	208	157.685	ug/L	1.390	6592516	10.251
|	Bi	209		ug/L		24915	0.038
|	Th	232	48.431	ug/L	2.702	2445440	3.803
|	U	238	59.563	ug/L	1.759	3276058	5.094

Sample ID: 1202038330

Report Date/Time: Thursday, March 04, 2010 04:28:18

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		92.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		87.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAI		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202038331

Sample Date/Time: Thursday, March 04, 2010 04:31:43

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 951157[2]baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038331.250

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	75.349	ug/L	2.119	167508	0.121
Be	9	25.681	ug/L	0.844	11198	0.008
B	11	58.350	ug/L	2.503	26946	0.019
Na	23	1513.485	ug/L	4.354	5119480	3.707
Mg	24	8440.668	ug/L	3.995	18250607	13.228
Al	27	61500.809	ug/L	1.627	178416505	129.352
P	31	1197.442	ug/L	1.035	174404	0.124
K	39	9427.785	ug/L	2.230	31513801	22.638
Ca	43	7701.737	ug/L	0.353	73119	0.053
> Sc	45		ug/L		1379382	1379381.653
Ti	47	968.506	ug/L	1.348	449274	0.326
V	51	87.581	ug/L	1.643	437475	0.317
Cr	52	59.932	ug/L	1.813	236348	0.170
Cr	53		ug/L		60503	0.016
Mn	55	792.902	ug/L	0.860	5553411	4.025
Fe	57	46456.548	ug/L	1.944	6129717	4.442
Co	59	53.077	ug/L	0.581	273275	0.198
Ni	60	50.013	ug/L	1.013	54227	0.039
Cu	63		ug/L		140861	0.102
Cu	65	56.761	ug/L	1.444	69692	0.050
Zn	66	114.872	ug/L	1.262	101892	0.349
Zn	67		ug/L		21448	0.055
Zn	68		ug/L		75949	0.258
> Ge	74		ug/L		290794	290793.818
As	75	43.126	ug/L	0.895	35517	0.122
Se	77		ug/L		1970	0.001
Se	82	7.453	ug/L	2.956	699	0.002
Kr	83		ug/L		301	0.001
Sr	88	99.723	ug/L	0.200	1211449	4.597
Y	89		ug/L		620680	2.355
Mo	98	22.832	ug/L	2.217	69321	0.263
Ag	107	22.346	ug/L	0.593	120070	0.456
Cd	111	6.165	ug/L	1.231	9661	0.037
Cd	114		ug/L		18821	0.071
> In	115		ug/L		263526	263525.523
Sn	120	10.175	ug/L	2.129	66705	0.253
Sb	121	39.364	ug/L	1.628	216103	0.820
Sb	123		ug/L		168339	0.639
Ba	135		ug/L		637990	0.990
Ba	137	367.072	ug/L	0.340	1095841	1.701
Ho	165		ug/L		71916	0.112
> Lu	175		ug/L		644301	644300.653
Tl	205	51.873	ug/L	1.138	1198880	1.852
Pb	208	155.825	ug/L	0.568	6527241	10.130
Bi	209		ug/L		21738	0.033
Th	232	50.638	ug/L	2.546	2561818	3.976
U	238	59.977	ug/L	1.089	3305137	5.129

Sample ID: 1202038331

Report Date/Time: Thursday, March 04, 2010 04:34:27

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		93.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		88.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAI		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202038329

Sample Date/Time: Thursday, March 04, 2010 04:37:53

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 95115710|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202038329.251

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	8.910	ug/L	1.405	18246	0.014
Be	9	0.648	ug/L	0.533	265	0.000
B	11	4.063	ug/L	9.958	2041	0.001
Na	23	147.688	ug/L	2.995	464777	0.362
Mg	24	1305.458	ug/L	2.422	2593776	2.046
Al	27	9178.854	ug/L	1.710	24467529	19.305
P	31	70.955	ug/L	4.206	12951	0.007
K	39	1476.772	ug/L	4.994	4755894	3.546
Ca	43	1208.645	ug/L	2.505	10621	0.008
> Sc	45		ug/L		1267344	1267344.289
Ti	47	159.473	ug/L	0.668	68096	0.054
V	51	10.319	ug/L	5.945	47535	0.037
Cr	52	6.040	ug/L	2.616	23658	0.017
Cr	53		ug/L		43243	0.006
Mn	55	153.871	ug/L	0.539	990612	0.781
Fe	57	7934.695	ug/L	1.650	963547	0.759
Co	59	7.272	ug/L	1.002	34421	0.027
Ni	60	5.090	ug/L	1.379	5130	0.004
Cu	63		ug/L		17066	0.013
Cu	65	7.333	ug/L	0.771	8309	0.007
Zn	66	19.382	ug/L	1.601	16731	0.059
Zn	67		ug/L		8316	0.011
Zn	68		ug/L		12730	0.043
> Ge	74		ug/L		277794	277794.385
As	75	1.680	ug/L	14.096	1234	0.005
Se	77		ug/L		1824	0.000
Se	82	0.717	ug/L	8.513	72	0.000
Kr	83		ug/L		79	0.000
Sr	88	13.251	ug/L	1.169	151993	0.611
Y	89		ug/L		100692	0.405
Mo	98	0.318	ug/L	2.255	956	0.004
Ag	107	0.072	ug/L	5.099	384	0.001
Cd	111	0.195	ug/L	9.142	299	0.001
Cd	114		ug/L		263	0.001
> In	115		ug/L		248705	248704.790
Sn	120	0.194	ug/L	4.818	1354	0.005
Sb	121	0.121	ug/L	4.103	701	0.003
Sb	123		ug/L		525	0.002
Ba	135		ug/L		105459	0.170
Ba	137	64.655	ug/L	0.944	185858	0.300
Ho	165		ug/L		11372	0.018
> Lu	175		ug/L		620277	620276.970
Tl	205	0.160	ug/L	5.703	8882	0.006
Pb	208	17.599	ug/L	1.008	709905	1.144
Bi	209		ug/L		4518	0.006
Th	232	5.859	ug/L	1.243	285719	0.460
U	238	8.185	ug/L	1.007	434386	0.700

Sample ID: 1202038329

Report Date/Time: Thursday, March 04, 2010 04:40:37

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		85.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		84.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		90.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202038329

Report Date/Time: Thursday, March 04, 2010 04:40:37

Page 3

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, March 04, 2010 04:44:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 8.252

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.623	ug/L	2.487	108235	0.086
Be	9	53.042	ug/L	1.478	20983	0.017
B	11	100.502	ug/L	2.154	41886	0.033
Na	23	4525.038	ug/L	3.160	13890516	11.085
Mg	24	4866.915	ug/L	6.316	9551770	7.627
Al	27	4613.989	ug/L	6.928	12164001	9.704
P	31	5044.127	ug/L	2.923	655117	0.520
K	39	4947.896	ug/L	2.633	15132389	11.881
Ca	43	4808.584	ug/L	0.523	41471	0.033
> Sc	45		ug/L		1252026	1252025.776
Ti	47	48.838	ug/L	1.508	20708	0.016
V	51	49.905	ug/L	2.844	226309	0.181
Cr	52	52.315	ug/L	1.154	187483	0.148
Cr	53		ug/L		83165	0.038
Mn	55	52.771	ug/L	1.283	336048	0.268
Fe	57	5458.824	ug/L	2.113	655379	0.522
Co	59	51.202	ug/L	0.662	239263	0.191
Ni	60	52.403	ug/L	1.483	51566	0.041
Cu	63		ug/L		117436	0.094
Cu	65	50.731	ug/L	1.610	56524	0.045
Zn	66	50.714	ug/L	1.046	42774	0.154
Zn	67		ug/L		15306	0.036
Zn	68		ug/L		30894	0.109
> Ge	74		ug/L		275180	275179.526
As	75	49.991	ug/L	1.448	38971	0.142
Se	77		ug/L		6456	0.017
Se	82	52.892	ug/L	3.319	4643	0.017
Kr	83		ug/L		51	-0.000
Sr	88	51.256	ug/L	0.975	582770	2.363
Y	89		ug/L		106	0.000
Mo	98	47.098	ug/L	2.242	133785	0.542
Ag	107	48.689	ug/L	1.349	244815	0.993
Cd	111	48.893	ug/L	2.731	71615	0.290
Cd	114		ug/L		172971	0.701
> In	115		ug/L		246648	246648.265
Sn	120	49.514	ug/L	1.273	303223	1.229
Sb	121	50.073	ug/L	3.017	257240	1.043
Sb	123		ug/L		202266	0.820
Ba	135		ug/L		74139	0.121
Ba	137	47.455	ug/L	2.389	135240	0.220
Ho	165		ug/L		45	0.000
> Lu	175		ug/L		615011	615010.694
Tl	205	53.556	ug/L	2.186	1181315	1.912
Pb	208	53.632	ug/L	1.296	2144420	3.487
Bi	209		ug/L		804	0.000
Th	232	50.387	ug/L	1.138	2433409	3.956
U	238	52.464	ug/L	0.379	2759716	4.487

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 04:46:44

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	107.246				
Be	9	106.084				
B	11	100.502				
Na	23	90.501				
Mg	24	97.338				
Al	27	91.366				
P	31	100.883				
K	39	98.958				
Ca	43	96.172				
> Sc	45		84.7			
Ti	47	97.677				
V	51	99.811				
Cr	52	104.631				
Cr	53					
Mn	55	105.543				
Fe	57	109.176				
Co	59	102.404				
Ni	60	104.806				
Cu	63					
Cu	65	101.462				
Zn	66	101.428				
Zn	67					
Zn	68					
> Ge	74		83.8			
As	75	99.981				
Se	77					
Se	82	105.784				
Kr	83					
Sr	88	102.512				
Y	89					
Mo	98	94.196				
Ag	107	97.378				
Cd	111	97.786				
Cd	114					
> In	115		89.5			
Sn	120	99.029				
Sb	121	100.145				
Sb	123					
Ba	135					
Ba	137	94.911				
Ho	165					
> Lu	175		93.5			
Tl	205	107.112				
Pb	208	107.264				
Bi	209					
Th	232	100.774				
U	238	104.929				

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: Thursday, March 04, 2010 04:50:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 9.253

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.037	ug/L	19.908	142	0.000
Be	9	0.010	ug/L	12.499	11	0.000
B	11	2.606	ug/L	16.395	1531	0.001
Na	23	1.594	ug/L	98.975	12006	0.004
Mg	24	0.667	ug/L	81.552	2334	0.001
Al	27	0.781	ug/L	113.340	4668	0.002
P	31	-1.001	ug/L	192.676	3791	-0.000
K	39	-1.089	ug/L	258.194	277335	-0.003
Ca	43	-0.030	ug/L	3924.053	100	-0.000
> Sc	45		ug/L		1355493	1355492.861
Ti	47	0.009	ug/L	320.715	171	0.000
V	51	-0.193	ug/L	183.008	-707	-0.001
Cr	52	0.135	ug/L	18.877	2632	0.000
Cr	53		ug/L		37039	-0.001
Mn	55	0.001	ug/L	562.974	691	0.000
Fe	57	0.566	ug/L	34.410	2345	0.000
Co	59	0.008	ug/L	22.311	73	0.000
Ni	60	0.001	ug/L	310.934	71	0.000
Cu	63		ug/L		119	0.000
Cu	65	0.011	ug/L	74.170	60	0.000
Zn	66	-0.047	ug/L	37.371	358	-0.000
Zn	67		ug/L		5222	-0.002
Zn	68		ug/L		855	-0.000
> Ge	74		ug/L		299747	299746.801
As	75	0.014	ug/L	1327.472	-86	0.000
Se	77		ug/L		1701	-0.001
Se	82	0.218	ug/L	111.249	30	0.000
Kr	83		ug/L		58	-0.000
Sr	88	0.004	ug/L	22.216	139	0.000
Y	89		ug/L		44	-0.000
Mo	98	0.030	ug/L	18.913	134	0.000
Ag	107	0.004	ug/L	20.233	39	0.000
Cd	111	0.005	ug/L	169.287	19	0.000
Cd	114		ug/L		45	0.000
> In	115		ug/L		258869	258868.939
Sn	120	0.012	ug/L	15.428	244	0.000
Sb	121	0.062	ug/L	12.664	415	0.001
Sb	123		ug/L		332	0.001
Ba	135		ug/L		23	0.000
Ba	137	0.004	ug/L	90.866	46	0.000
Ho	165		ug/L		12	-0.000
> Lu	175		ug/L		645060	645059.975
Tl	205	0.373	ug/L	23.135	14154	0.013
Pb	208	0.008	ug/L	25.458	645	0.001
Bi	209		ug/L		489	-0.000
Th	232	0.020	ug/L	2.989	1385	0.002
U	238	0.009	ug/L	17.208	685	0.001

Sample ID: QC Std 9

Report Date/Time: Thursday, March 04, 2010 04:52:54

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		91.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		93.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246344002

Sample Date/Time: Thursday, March 04, 2010 04:56:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246344002.254

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	38.248	ug/L	2.134	78996	0.062
Be	9	2.976	ug/L	3.336	1211	0.001
B	11	14.004	ug/L	3.486	6267	0.005
Na	23	421.291	ug/L	4.004	1329183	1.032
Mg	24	6326.926	ug/L	3.065	12702509	9.915
Al	27	42957.416	ug/L	6.329	115729625	90.350
P	31	410.543	ug/L	2.013	57975	0.042
K	39	7675.419	ug/L	10.897	23854531	18.430
Ca	43	6858.365	ug/L	1.062	60497	0.047
> Sc	45		ug/L		1281493	1281492.782
Ti	47	976.217	ug/L	1.904	420593	0.328
V	51	58.760	ug/L	2.288	272655	0.213
Cr	52	32.451	ug/L	1.761	119772	0.092
Cr	53		ug/L		45330	0.007
Mn	55	890.443	ug/L	3.170	5791359	4.520
Fe	57	36511.658	ug/L	2.773	4474497	3.491
Co	59	17.506	ug/L	2.081	83731	0.065
Ni	60	24.484	ug/L	3.011	24689	0.019
Cu	63		ug/L		65806	0.051
Cu	65	28.409	ug/L	1.638	32419	0.025
Zn	66	83.890	ug/L	1.589	68639	0.255
Zn	67		ug/L		15930	0.040
Zn	68		ug/L		50933	0.187
> Ge	74		ug/L		267868	267868.287
As	75	7.202	ug/L	0.694	5390	0.020
Se	77		ug/L		1410	-0.001
Se	82	0.397	ug/L	81.073	42	0.000
Kr	83		ug/L		209	0.001
Sr	88	72.651	ug/L	1.527	827583	3.349
Y	89		ug/L		501354	2.029
Mo	98	1.077	ug/L	2.050	3108	0.012
Ag	107	0.308	ug/L	5.211	1571	0.006
Cd	111	1.235	ug/L	1.923	1824	0.007
Cd	114		ug/L		1860	0.007
> In	115		ug/L		247086	247086.253
Sn	120	0.695	ug/L	1.901	4418	0.017
Sb	121	0.348	ug/L	2.174	1867	0.007
Sb	123		ug/L		1462	0.006
Ba	135		ug/L		542537	0.873
Ba	137	321.783	ug/L	1.783	926823	1.491
Ho	165		ug/L		60628	0.097
> Lu	175		ug/L		621760	621759.521
Tl	205	0.751	ug/L	3.079	22021	0.027
Pb	208	63.782	ug/L	1.393	2577954	4.146
Bi	209		ug/L		20453	0.032
Th	232	30.046	ug/L	1.329	1466869	2.359
U	238	16.701	ug/L	3.205	888040	1.428

Sample ID: 246344002

Report Date/Time: Thursday, March 04, 2010 04:59:04

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		86.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		81.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		89.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte
Ti 47 Upper, S, EEETi

MassOut of Limits Message
47Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246344003

Sample Date/Time: Thursday, March 04, 2010 05:02:30

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|ba|

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246344003.255

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	9.667	ug/L	2.197	19681	0.016
Be	9	0.895	ug/L	3.705	363	0.000
B	11	1.475	ug/L	6.531	952	0.000
Na	23	762.042	ug/L	10.637	2356470	1.867
Mg	24	836.595	ug/L	6.830	1655033	1.311
Al	27	6383.410	ug/L	5.456	16938629	13.426
P	31	195.343	ug/L	3.539	29047	0.020
K	39	1766.361	ug/L	5.103	5608592	4.241
Ca	43	1560.174	ug/L	1.267	13611	0.011
> Sc	45		ug/L		1260626	1260625.944
Ti	47	286.222	ug/L	2.289	121416	0.096
V	51	9.008	ug/L	4.276	41308	0.033
Cr	52	9.414	ug/L	1.979	35578	0.027
Cr	53		ug/L		34409	-0.001
Mn	55	509.132	ug/L	2.128	3258099	2.585
Fe	57	15858.085	ug/L	1.138	1913252	1.516
Co	59	20.736	ug/L	2.473	97563	0.077
Ni	60	11.399	ug/L	1.944	11343	0.009
Cu	63		ug/L		19024	0.015
Cu	65	8.387	ug/L	2.739	9445	0.007
Zn	66	48.686	ug/L	1.587	41300	0.148
Zn	67		ug/L		10571	0.019
Zn	68		ug/L		30301	0.106
> Ge	74		ug/L		276654	276654.292
As	75	4.592	ug/L	3.065	3517	0.013
Se	77		ug/L		1323	-0.001
Se	82	1.498	ug/L	14.870	140	0.000
Kr	83		ug/L		105	0.000
Sr	88	11.032	ug/L	0.815	127808	0.509
Y	89		ug/L		827109	3.293
Mo	98	1.080	ug/L	3.361	3167	0.012
Ag	107	0.222	ug/L	1.768	1154	0.005
Cd	111	0.819	ug/L	2.120	1233	0.005
Cd	114		ug/L		282	0.001
> In	115		ug/L		251152	251152.359
Sn	120	0.301	ug/L	1.035	2035	0.007
Sb	121	0.092	ug/L	2.210	561	0.002
Sb	123		ug/L		430	0.001
Ba	135		ug/L		171372	0.264
Ba	137	102.774	ug/L	2.710	309509	0.476
Ho	165		ug/L		105379	0.162
> Lu	175		ug/L		650059	650058.634
Tl	205	0.060	ug/L	25.886	6969	0.002
Pb	208	14.996	ug/L	0.629	634011	0.975
Bi	209		ug/L		2535	0.003
Th	232	21.956	ug/L	2.029	1120791	1.724
U	238	2.616	ug/L	1.584	145605	0.224

Sample ID: 246344003

Report Date/Time: Thursday, March 04, 2010 05:05:15

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		85.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		84.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		91.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte
Ti 47 Upper, S, EEETi

MassOut of Limits Message
47Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246344004

Sample Date/Time: Thursday, March 04, 2010 05:08:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246344004.256

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	65.385	ug/L	1.512	146768	0.105
Be	9	5.305	ug/L	2.364	2341	0.002
B	11	16.417	ug/L	1.737	7926	0.005
Na	23	1320.918	ug/L	1.816	4515757	3.236
Mg	24	13817.689	ug/L	6.312	30135162	21.655
Al	27	87744.179	ug/L	6.671	257355539	184.548
P	31	312.448	ug/L	3.081	48916	0.032
K	39	11231.063	ug/L	4.636	37854993	26.967
Ca	43	25080.025	ug/L	2.340	240167	0.172
> Sc	45		ug/L		1393005	1393005.047
Ti	47	854.498	ug/L	0.943	400328	0.287
V	51	85.823	ug/L	0.860	432832	0.311
Cr	52	51.680	ug/L	0.894	206069	0.146
Cr	53		ug/L		58006	0.013
Mn	55	588.243	ug/L	0.883	4160288	2.986
Fe	57	68029.708	ug/L	2.722	9064496	6.505
Co	59	22.910	ug/L	0.608	119127	0.086
Ni	60	38.999	ug/L	1.807	42708	0.031
Cu	63		ug/L		81633	0.059
Cu	65	32.766	ug/L	0.363	40643	0.029
Zn	66	122.799	ug/L	1.958	108437	0.373
Zn	67		ug/L		23998	0.064
Zn	68		ug/L		84512	0.289
> Ge	74		ug/L		289529	289529.050
As	75	14.238	ug/L	0.758	11611	0.040
Se	77		ug/L		1763	-0.000
Se	82	-1.229	ug/L	8.385	-105	-0.000
Kr	83		ug/L		365	0.001
Sr	88	177.960	ug/L	0.790	2121602	8.203
Y	89		ug/L		717990	2.776
Mo	98	1.975	ug/L	0.967	5926	0.023
Ag	107	0.518	ug/L	2.693	2750	0.011
Cd	111	1.313	ug/L	6.560	2029	0.008
Cd	114		ug/L		605	0.002
> In	115		ug/L		258616	258615.988
Sn	120	0.537	ug/L	1.373	3615	0.013
Sb	121	0.250	ug/L	5.304	1424	0.005
Sb	123		ug/L		1166	0.004
Ba	135		ug/L		1439151	2.314
Ba	137	888.151	ug/L	1.593	2559099	4.115
Ho	165		ug/L		83477	0.134
> Lu	175		ug/L		621832	621832.167
Tl	205	0.775	ug/L	1.257	22549	0.028
Pb	208	49.538	ug/L	1.287	2002702	3.220
Bi	209		ug/L		24330	0.038
Th	232	37.009	ug/L	0.699	1807252	2.906
U	238	10.241	ug/L	1.705	544857	0.876

Sample ID: 246344004

Report Date/Time: Thursday, March 04, 2010 05:11:27

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		94.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		88.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		93.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe		57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 246344005

Sample Date/Time: Thursday, March 04, 2010 05:14:51

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246344005.257

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.462	ug/L	0.471	41793	0.030
Be	9	2.837	ug/L	1.644	1264	0.001
B	11	16.432	ug/L	3.314	7988	0.005
Na	23	335.849	ug/L	2.494	1161382	0.823
Mg	24	5575.336	ug/L	2.447	12261244	8.737
Al	27	24634.349	ug/L	6.209	72688206	51.812
P	31	907.210	ug/L	2.459	135379	0.094
K	39	5583.504	ug/L	6.382	19098637	13.407
Ca	43	23768.725	ug/L	0.997	229335	0.163
> Sc	45		ug/L		1403201	1403200.649
Ti	47	522.791	ug/L	1.356	246757	0.176
V	51	34.906	ug/L	3.437	177480	0.126
Cr	52	18.562	ug/L	2.057	75965	0.053
Cr	53		ug/L		44456	0.003
Mn	55	1390.632	ug/L	2.798	9905971	7.060
Fe	57	22972.497	ug/L	2.028	3084294	2.196
Co	59	10.540	ug/L	1.172	55227	0.039
Ni	60	17.879	ug/L	1.100	19767	0.014
Cu	63		ug/L		167758	0.119
Cu	65	67.024	ug/L	1.665	83694	0.060
Zn	66	147.823	ug/L	1.209	132947	0.449
Zn	67		ug/L		26409	0.070
Zn	68		ug/L		98099	0.329
> Ge	74		ug/L		295082	295082.034
As	75	6.566	ug/L	0.527	5405	0.019
Se	77		ug/L		1889	0.000
Se	82	0.521	ug/L	23.066	58	0.000
Kr	83		ug/L		111	0.000
Sr	88	133.972	ug/L	0.852	1638521	6.175
Y	89		ug/L		336640	1.269
Mo	98	1.547	ug/L	2.372	4774	0.018
Ag	107	0.340	ug/L	2.033	1861	0.007
Cd	111	2.391	ug/L	1.316	3780	0.014
Cd	114		ug/L		7656	0.029
> In	115		ug/L		265324	265324.449
Sn	120	1.276	ug/L	1.237	8569	0.032
Sb	121	0.781	ug/L	1.192	4399	0.016
Sb	123		ug/L		3538	0.013
Ba	135		ug/L		829294	1.290
Ba	137	468.746	ug/L	3.005	1395935	2.172
Ho	165		ug/L		37360	0.058
> Lu	175		ug/L		643023	643022.896
Tl	205	0.377	ug/L	2.329	14180	0.013
Pb	208	99.948	ug/L	3.293	4176318	6.498
Bi	209		ug/L		31323	0.048
Th	232	15.009	ug/L	2.471	757861	1.178
U	238	132.889	ug/L	2.411	7306313	11.365

Sample ID: 246344005

Report Date/Time: Thursday, March 04, 2010 05:17:35

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		94.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		89.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte
 Ti 47 Upper, S, EEETi
 Mn 55 Upper, S, EEIMn

MassOut of Limits Message
 47Sample is out of limits (over linear range)
 55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

Sample ID: 246344005

Report Date/Time: Thursday, March 04, 2010 05:17:35

Page 3

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, March 04, 2010 05:20:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 8.258

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.085	ug/L	0.381	111468	0.086
Be	9	51.466	ug/L	1.111	21188	0.016
B	11	98.317	ug/L	2.677	42646	0.032
Na	23	4528.538	ug/L	2.946	14455290	11.093
Mg	24	4928.687	ug/L	2.598	10060301	7.724
Al	27	4743.715	ug/L	5.109	12995584	9.977
P	31	5081.487	ug/L	1.917	686569	0.524
K	39	5026.172	ug/L	0.049	15994095	12.069
Ca	43	4789.055	ug/L	1.383	42973	0.033
> Sc	45		ug/L		1302901	1302900.737
Ti	47	48.775	ug/L	2.365	21525	0.016
V	51	49.264	ug/L	1.865	232442	0.178
Cr	52	52.160	ug/L	1.803	194483	0.148
Cr	53		ug/L		85730	0.037
Mn	55	53.094	ug/L	1.971	351725	0.270
Fe	57	5373.921	ug/L	2.060	671412	0.514
Co	59	51.385	ug/L	1.389	249841	0.192
Ni	60	52.550	ug/L	2.402	53798	0.041
Cu	63		ug/L		122806	0.094
Cu	65	51.185	ug/L	0.949	59351	0.046
Zn	66	50.199	ug/L	3.059	44412	0.153
Zn	67		ug/L		15570	0.035
Zn	68		ug/L		32243	0.108
> Ge	74		ug/L		288748	288747.879
As	75	49.859	ug/L	1.421	40777	0.142
Se	77		ug/L		6820	0.017
Se	82	51.212	ug/L	1.447	4718	0.016
Kr	83		ug/L		67	0.000
Sr	88	51.548	ug/L	1.724	597778	2.376
Y	89		ug/L		115	0.000
Mo	98	47.258	ug/L	3.914	136874	0.544
Ag	107	48.873	ug/L	1.751	250649	0.996
Cd	111	49.133	ug/L	3.852	73377	0.292
Cd	114		ug/L		179210	0.713
> In	115		ug/L		251624	251623.679
Sn	120	49.660	ug/L	3.161	310109	1.232
Sb	121	50.318	ug/L	2.140	263664	1.048
Sb	123		ug/L		207526	0.825
Ba	135		ug/L		77274	0.124
Ba	137	48.118	ug/L	1.538	138523	0.223
Ho	165		ug/L		48	0.000
> Lu	175		ug/L		621212	621212.014
Tl	205	53.549	ug/L	0.821	1193201	1.912
Pb	208	53.410	ug/L	1.011	2157060	3.472
Bi	209		ug/L		783	0.000
Th	232	50.287	ug/L	0.368	2453013	3.948
U	238	52.536	ug/L	2.840	2791109	4.493

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 05:23:42

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	106.169				
Be	9	102.932				
B	11	98.317				
Na	23	90.571				
Mg	24	98.574				
Al	27	93.935				
P	31	101.630				
K	39	100.523				
Ca	43	95.781				
> Sc	45		88.1			
Ti	47	97.550				
V	51	98.527				
Cr	52	104.320				
Cr	53					
Mn	55	106.188				
Fe	57	107.478				
Co	59	102.771				
Ni	60	105.100				
Cu	63					
Cu	65	102.370				
Zn	66	100.398				
Zn	67					
Zn	68					
> Ge	74		87.9			
As	75	99.719				
Se	77					
Se	82	102.423				
Kr	83					
Sr	88	103.097				
Y	89					
Mo	98	94.516				
Ag	107	97.747				
Cd	111	98.265				
Cd	114					
> In	115		91.3			
Sn	120	99.319				
Sb	121	100.636				
Sb	123					
Ba	135					
Ba	137	96.237				
Ho	165					
> Lu	175		94.5			
Tl	205	107.098				
Pb	208	106.819				
Bi	209					
Th	232	100.575				
U	238	105.073				

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: Thursday, March 04, 2010 05:27:08
 Sample Type:
 Sample Description:
 Number of Replicates: 3
 Batch ID:
 Method File: c:\elandata\Method\6020 2.mth
 Dataset File: C:\elandata\Dataset\100303\QC Std 9.259

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.032	ug/L	6.551	132	0.000
Be	9	0.012	ug/L	87.450	12	0.000
B	11	2.401	ug/L	20.277	1452	0.001
Na	23	1.263	ug/L	25.830	11004	0.003
Mg	24	0.195	ug/L	556.139	1334	0.000
Al	27	0.187	ug/L	375.147	3000	0.000
P	31	-3.047	ug/L	40.975	3531	-0.000
K	39	-2.124	ug/L	645.664	276364	-0.005
Ca	43	0.875	ug/L	79.922	109	0.000
> Sc	45		ug/L		1366453	1366452.996
Ti	47	-0.063	ug/L	48.288	140	-0.000
V	51	-0.066	ug/L	636.742	-98	-0.000
Cr	52	0.249	ug/L	22.160	3095	0.001
Cr	53		ug/L		37112	-0.001
Mn	55	0.018	ug/L	25.840	814	0.000
Fe	57	0.710	ug/L	47.222	2383	0.000
Co	59	0.005	ug/L	43.975	56	0.000
Ni	60	0.006	ug/L	126.036	76	0.000
Cu	63		ug/L		109	0.000
Cu	65	0.011	ug/L	27.658	61	0.000
Zn	66	-0.043	ug/L	18.193	362	-0.000
Zn	67		ug/L		5136	-0.002
Zn	68		ug/L		780	-0.001
> Ge	74		ug/L		299952	299952.288
As	75	0.076	ug/L	82.313	-34	0.000
Se	77		ug/L		1756	-0.000
Se	82	0.215	ug/L	44.206	30	0.000
Kr	83		ug/L		54	-0.000
Sr	88	0.005	ug/L	41.313	149	0.000
Y	89		ug/L		40	-0.000
Mo	98	0.020	ug/L	34.566	107	0.000
Ag	107	0.005	ug/L	33.661	47	0.000
Cd	111	0.004	ug/L	170.896	17	0.000
Cd	114		ug/L		34	0.000
> In	115		ug/L		260367	260366.846
Sn	120	0.009	ug/L	9.676	224	0.000
Sb	121	0.057	ug/L	3.735	390	0.001
Sb	123		ug/L		312	0.001
Ba	135		ug/L		33	0.000
Ba	137	0.009	ug/L	1.825	61	0.000
Ho	165		ug/L		11	-0.000
> Lu	175		ug/L		634383	634382.728
Tl	205	0.356	ug/L	20.526	13519	0.013
Pb	208	0.009	ug/L	12.927	682	0.001
Bi	209		ug/L		433	-0.000
Th	232	0.019	ug/L	3.502	1328	0.001
U	238	0.010	ug/L	5.935	710	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		92.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		96.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 08:59:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn ti and u.mth

Dataset File: C:\elandata\Dataset\100303\Blank.292

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	ug/L		8	
|>	Sc	45	ug/L		1380657	
[	Mn	55	ug/L		676	
|>	Lu	175	ug/L		636048	
|	Ti	205	ug/L		6206	
|	U	238	ug/L		334	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9					
|>	Sc	45					
[	Mn	55					
|>	Lu	175					
|	Ti	205					
|	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 04, 2010 09:02:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\Standard 1.293

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	1.407	4120	0.003
Sc	45		ug/L		1261247	1261246.619
Mn	55	10.000	ug/L	1.939	68686	0.054
Lu	175		ug/L		601389	601389.244
Tl	205	10.000	ug/L	0.767	244169	0.396
U	238	10.000	ug/L	1.075	607981	1.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45						
Mn	55						
Lu	175						
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 04, 2010 09:06:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\Standard 2.294

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.012	ug/L	1.611	40491	0.033
Sc	45		ug/L		1226398	1226398.208
Mn	55	99.958	ug/L	0.468	635659	0.518
Lu	175		ug/L		579649	579649.148
Ti	205	99.882	ug/L	0.786	2058413	3.542
U	238	99.854	ug/L	1.370	5101467	8.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45						
Mn	55						
Lu	175						
Ti	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: Thursday, March 04, 2010 09:09:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 1.295

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	52.952	ug/L	1.131	21019	0.017
|>	Sc	45		ug/L		1202225	1202224.963
[	Mn	55	53.270	ug/L	1.545	332310	0.276
[>	Lu	175		ug/L		586420	586420.425
|	Tl	205	54.831	ug/L	1.368	1145819	1.944
[	U	238	52.849	ug/L	3.431	2731336	4.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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	105.904				
|>	Sc	45		87.1			
[	Mn	55	106.540				
[>	Lu	175		92.2			
|	Tl	205	109.662				
[	U	238	105.698				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 09:12:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 2.296

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.005	ug/L	135.682	10	0.000
[> Sc	45		ug/L		1289171	1289171.461
[Mn	55	0.002	ug/L	200.028	644	0.000
[> Lu	175		ug/L		610819	610818.778
[Tl	205	0.418	ug/L	4.108	15020	0.015
[U	238	0.003	ug/L	13.920	475	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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		93.4				
[Mn	55						
[> Lu	175		96.0				
[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 3

Sample Date/Time: Thursday, March 04, 2010 09:16:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 3.297

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens.	Mean	Net Intens.	Mean
[	Be	9		0.505	ug/L	4.811		214		0.000
|>	Sc	45			ug/L			1238951		1238951.296
[	Mn	55		5.488	ug/L	0.556		35827		0.028
|>	Lu	175			ug/L			603230		603229.927
|	Tl	205		1.296	ug/L	2.939		33610		0.046
[	U	238		0.265	ug/L	3.209		14411		0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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	101.046					
|>	Sc	45		89.7				
[	Mn	55	109.759					
|>	Lu	175		94.8				
|	Tl	205	129.622					
[	U	238	132.562					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 09:19:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 4.298

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
|	Be	9	0.102	ug/L	18.703	46	0.000
|>	Sc	45		ug/L		1164194	1164194.232
|	Mn	55	5.784	ug/L	1.911	35450	0.030
|>	Lu	175		ug/L		533890	533889.515
|	Tl	205	0.009	ug/L	170.018	5385	0.000
|	U	238	0.013	ug/L	2.536	914	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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		84.3				
|	Mn	55	99.728					
|>	Lu	175		83.9				
|	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: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 09:22:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 5.299

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	17.471	ug/L	1.631	6611	0.006
[>	Sc	45		ug/L		1145415	1145415.238
[	Mn	55	25.780	ug/L	1.202	153516	0.134
[>	Lu	175		ug/L		527761	527761.068
|	Tl	205	20.863	ug/L	2.506	395529	0.740
[	U	238	23.282	ug/L	2.525	1083081	2.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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	87.355					
[>	Sc	45		83.0				
[	Mn	55	99.921					
[>	Lu	175		83.0				
|	Tl	205	104.314					
[	U	238	116.410					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 09:26:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 6.300

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	48.455	ug/L	0.968	19494	0.016
[> Sc	45		ug/L		1218514	1218514.490
[Mn	55	51.046	ug/L	1.307	322816	0.264
[> Lu	175		ug/L		596164	596164.061
[Ti	205	50.240	ug/L	1.574	1067787	1.781
[U	238	48.952	ug/L	2.588	2571747	4.315

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Ti	205Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9	96.911				
[> Sc	45		88.3			
[Mn	55	102.092				
[> Lu	175		93.7			
[Ti	205	100.481				
[U	238	97.904				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 09:29:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 7.301

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.006	ug/L	54.088	10	0.000
|>	Sc	45		ug/L		1313270	1313269.852
[	Mn	55	-0.003	ug/L	83.655	624	-0.000
[>	Lu	175		ug/L		624392	624391.693
|	Tl	205	0.407	ug/L	0.499	15104	0.014
[	U	238	0.002	ug/L	16.673	438	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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		95.1				
[	Mn	55						
[>	Lu	175		98.2				
|	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: 1202038327

Sample Date/Time: Thursday, March 04, 2010 09:33:08

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 951157[2]baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038327.302

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.006	ug/L	99.002	10	0.000
|>	Sc	45		ug/L		1281246	1281245.539
[	Mn	55	0.293	ug/L	2.258	2572	0.002
|>	Lu	175		ug/L		635380	635380.007
|	Tl	205	0.159	ug/L	8.543	9777	0.006
[	U	238	0.034	ug/L	5.498	2245	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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		92.8				
[	Mn	55						
|>	Lu	175		99.9				
|	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: 1202038332

Sample Date/Time: Thursday, March 04, 2010 09:36:33

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 951157|40|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038332.303

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	18.218	ug/L	1.866	7524	0.006
> Sc	45		ug/L		1250234	1250234.133
Mn	55	127.763	ug/L	1.175	828033	0.662
> Lu	175		ug/L		606758	606758.322
Tl	205	33.106	ug/L	2.646	718125	1.174
U	238	0.553	ug/L	3.435	29890	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		90.6			
Mn	55					
> Lu	175		95.4			
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: 246344001

Sample Date/Time: Thursday, March 04, 2010 09:39:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344001.304

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.904	ug/L	4.984	1197	0.001
|>	Sc	45		ug/L		1240571	1240571.123
[	Mn	55	640.231	ug/L	1.210	4115083	3.317
|>	Lu	175		ug/L		596429	596429.120
|	Tl	205	0.840	ug/L	3.665	23585	0.030
[	U	238	34.017	ug/L	0.653	1788530	2.998

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
|>	Sc	45		89.9				
[	Mn	55						
|>	Lu	175		93.8				
|	Tl	205						
[	U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038328

Sample Date/Time: Thursday, March 04, 2010 09:43:24

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 951157|2|ba|

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038328.305

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
|	Be	9	2.988	ug/L	1.106	1197	0.001
|>	Sc	45		ug/L		1206634	1206633.725
|	Mn	55	720.204	ug/L	0.697	4502110	3.731
|>	Lu	175		ug/L		599813	599812.705
|	Tl	205	0.651	ug/L	2.189	19688	0.023
|	U	238	32.327	ug/L	1.939	1709413	2.849

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		87.4			
|	Mn	55					
|>	Lu	175		94.3			
|	Tl	205					
|	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202038330

Sample Date/Time: Thursday, March 04, 2010 09:46:48

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038330.306

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	24.541	ug/L	0.956	9614	0.008
|>	Sc	45		ug/L		1186119	1186119.448
[	Mn	55	772.072	ug/L	2.744	4744502	4.000
|>	Lu	175		ug/L		597276	597275.819
|	Tl	205	50.864	ug/L	2.275	1082919	1.804
[	U	238	56.351	ug/L	1.770	2966228	4.967

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		85.9			
[	Mn	55					
|>	Lu	175		93.9			
|	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: 1202038331

Sample Date/Time: Thursday, March 04, 2010 09:50:12

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038331.307

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	25.049	ug/L	2.578	9866	0.008
|>	Sc	45		ug/L		1192571	1192570.651
[	Mn	55	776.994	ug/L	1.566	4800321	4.025
[>	Lu	175		ug/L		590693	590693.287
|	Tl	205	52.700	ug/L	1.577	1109607	1.869
[	U	238	57.231	ug/L	2.353	2980068	5.044

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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						
|>	Sc	45		86.4				
[	Mn	55						
[>	Lu	175		92.9				
|	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: 1202038329

Sample Date/Time: Thursday, March 04, 2010 09:53:37

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 951157|10|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\1202038329.308

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.640	ug/L	4.882	241	0.000
Sc	45		ug/L		1110423	1110422.801
Mn	55	151.585	ug/L	0.711	872486	0.785
Lu	175		ug/L		582833	582832.829
Tl	205	0.131	ug/L	13.239	8401	0.005
U	238	7.761	ug/L	2.340	398926	0.684

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		80.4				
Mn	55						
Lu	175		91.6				
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 6

Sample Date/Time: Thursday, March 04, 2010 09:57:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 6.309

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	50.350	ug/L	0.520	18151	0.017
|> Sc	45		ug/L		1091883	1091883.405
[Mn	55	51.777	ug/L	1.399	293419	0.268
[> Lu	175		ug/L		569761	569760.851
| Ti	205	51.345	ug/L	2.334	1042967	1.821
[U	238	49.847	ug/L	2.270	2503286	4.393

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9	100.701				
|> Sc	45		79.1			
[Mn	55	103.555				
[> Lu	175		89.6			
| Ti	205	102.690				
[U	238	99.694				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 10:00:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 7.310

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.007	ug/L	166.976	10	0.000
Sc	45		ug/L		1155195	1155194.619
Mn	55	0.003	ug/L	29.333	586	0.000
Lu	175		ug/L		584354	584354.187
Tl	205	0.326	ug/L	5.788	12453	0.012
U	238	0.002	ug/L	36.395	422	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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						
Sc	45		83.7				
Mn	55						
Lu	175		91.9				
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: 246344002

Sample Date/Time: Thursday, March 04, 2010 10:03:48

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344002.311

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.886	ug/L	3.903	1081	0.001
[>	Sc	45		ug/L		1127937	1127936.534
[	Mn	55	884.156	ug/L	1.933	5165740	4.580
[>	Lu	175		ug/L		581733	581732.748
|	Tl	205	0.808	ug/L	4.035	22342	0.029
[	U	238	16.461	ug/L	0.965	844301	1.451

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		81.7				
[	Mn	55						
[>	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: 246344003

Sample Date/Time: Thursday, March 04, 2010 10:07:14

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344003.312

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.826	ug/L	6.830	316	0.000
|> Sc	45		ug/L		1136334	1136333.835
[Mn	55	496.248	ug/L	0.722	2921844	2.571
|> Lu	175		ug/L		618931	618930.633
| Ti	205	0.006	ug/L	155.331	6162	0.000
[U	238	2.558	ug/L	3.175	139831	0.225

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
|> Sc	45		82.3			
[Mn	55					
|> Lu	175		97.3			
| Ti	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: 246344004

Sample Date/Time: Thursday, March 04, 2010 10:10:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344004.313

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	5.058	ug/L	2.326	2036	0.002
|>	Sc	45		ug/L		1215688	1215687.861
[	Mn	55	570.303	ug/L	1.228	3592189	2.954
|>	Lu	175		ug/L		590398	590398.294
|	Tl	205	0.740	ug/L	2.355	21244	0.026
[	U	238	9.871	ug/L	1.538	513831	0.870

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		88.1				
[	Mn	55						
|>	Lu	175		92.8				
|	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: 246344005

Sample Date/Time: Thursday, March 04, 2010 10:14:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|2|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344005.314

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.927	ug/L	5.809	1145	0.001
|> Sc	45		ug/L		1178694	1178693.619
[Mn	55	1373.683	ug/L	1.472	8388110	7.116
|> Lu	175		ug/L		602325	602324.780
[Tl	205	0.337	ug/L	5.447	13081	0.012
[U	238	126.072	ug/L	1.675	6693100	11.112

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
|> Sc	45		85.4			
[Mn	55					
|> Lu	175		94.7			
[Tl	205					
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 246344005

Sample Date/Time: Thursday, March 04, 2010 10:18:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 951157|20|baj

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\246344005.315

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.336	ug/L	1.993	132	0.000
> Sc	45		ug/L		1130738	1130737.624
Mn	55	163.096	ug/L	0.978	955829	0.845
> Lu	175		ug/L		595115	595114.891
Tl	205	-0.086	ug/L	12.631	3992	-0.003
U	238	15.563	ug/L	4.564	816022	1.372

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	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		81.9			
Mn	55					
> Lu	175		93.6			
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 6

Sample Date/Time: Thursday, March 04, 2010 10:22:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn ti and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 6.316

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	49.725	ug/L	1.217	18301	0.016
> Sc	45		ug/L		1114662	1114662.073
[Mn	55	51.575	ug/L	1.354	298335	0.267
> Lu	175		ug/L		577376	577375.836
[Ti	205	51.206	ug/L	1.934	1053762	1.816
[U	238	50.444	ug/L	4.218	2566235	4.446

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	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	99.450				
> Sc	45		80.7			
[Mn	55	103.149				
> Lu	175		90.8			
[Ti	205	102.412				
[U	238	100.889				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 10:25:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be mn tl and u.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 7.317

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.002	ug/L	332.707	8	0.000
|>	Sc	45		ug/L		1176885	1176885.212
[	Mn	55	0.007	ug/L	43.771	619	0.000
|>	Lu	175		ug/L		615274	615274.092
|	Tl	205	0.254	ug/L	5.746	11544	0.009
[	U	238	0.002	ug/L	11.433	431	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	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		85.2				
[	Mn	55						
|>	Lu	175		96.7				
|	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

=====
Analysis BegunLogged In Analyst: Administrator
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS
Autosampler Model: S10Sample Information File: C:\data-AA\Administrator\Sample Information\022210S1.SIF
Batch ID:
Results Data Set: 022210S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1
Sample ID: Calib Blank
Analyst:Autosampler Location: 1
Date Collected: 2/22/2010 09:10:53
Data Type: Original-----
Replicate Data: Calib Blank

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.00]	0.0004	0.0039	0.0004	09:11:45	Yes
2		[0.00]	0.0002	0.0015	0.0002	09:12:15	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0002				
%RSD:		0.00	53.64				

Auto-zero performed.

Sequence No.: 2
Sample ID: S0.2
Analyst:Autosampler Location: 2
Date Collected: 2/22/2010 09:12:34
Data Type: Original-----
Replicate Data: S0.2

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.2]	0.0025	0.0130	0.0028	09:13:24	Yes
2		[0.2]	0.0024	0.0118	0.0027	09:13:54	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0001				
%RSD:		0.0	2.95				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.01227 Intercept: 0.00000

Sequence No.: 3
Sample ID: S0.5
Analyst:Autosampler Location: 3
Date Collected: 2/22/2010 09:14:13
Data Type: Original-----
Replicate Data: S0.5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.5]	0.0064	0.0296	0.0067	09:15:04	Yes
2		[0.5]	0.0064	0.0296	0.0067	09:15:34	Yes
Mean:		[0.5]	0.0064				
SD:		0.0	0.0000				
%RSD:		0.0	0.76				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999833 Slope: 0.01281 Intercept: -0.00004

Sequence No.: 4
Sample ID: S2.0
Analyst:Autosampler Location: 4
Date Collected: 2/22/2010 09:15:53
Data Type: Original

Replicate Data: S2.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0266	0.1214	0.0270	09:16:44	Yes
2		[2.0]	0.0268	0.1221	0.0271	09:17:14	Yes
Mean:		[2.0]	0.0267				
SD:		0.0	0.0001				
%RSD:		0.0	0.39				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999935 Slope: 0.01342 Intercept: -0.00017

Sequence No.: 5

Sample ID: S5.0

Analyst:

Autosampler Location: 5

Date Collected: 2/22/2010 09:17:34

Data Type: Original

Replicate Data: S5.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0658	0.2999	0.0661	09:18:25	Yes
2		[5.0]	0.0654	0.2990	0.0657	09:18:55	Yes
Mean:		[5.0]	0.0656				
SD:		0.0	0.0003				
%RSD:		0.0	0.39				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999956 Slope: 0.01315 Intercept: -0.00003

Sequence No.: 6

Sample ID: S10.0

Analyst:

Autosampler Location: 6

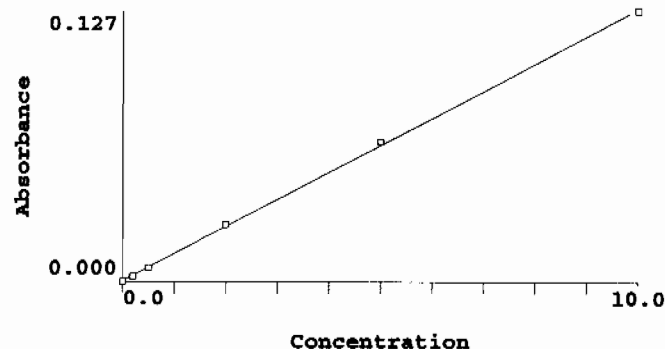
Date Collected: 2/22/2010 09:19:16

Data Type: Original

Replicate Data: S10.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1267	0.5827	0.1270	09:20:06	Yes
2		[10.0]	0.1264	0.5788	0.1267	09:20:36	Yes
Mean:		[10.0]	0.1266				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

-----
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	-0.038	0.00	53.6
S0.2	0.0025	0.2	0.155	0.00	2.9
S0.5	0.0064	0.5	0.465	0.00	0.8
S2.0	0.0267	2.0	2.066	0.00	0.4

S5.0 0.0656 5.0 5.126 0.00 0.4
S10.0 0.1266 10.0 9.926 0.00 0.2
Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

Sequence No.: 7

Sample ID: ICV

Analyst:

Autosampler Location: 9

Date Collected: 2/22/2010 09:20:55

Data Type: Original

Replicate Data: ICV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.163	5.163	0.0661	0.3028	0.0664	09:21:46	Yes
2	5.137	5.137	0.0657	0.3006	0.0660	09:22:15	Yes
Mean:	5.150	5.150	0.0659				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.36				

QC value within limits for Hg 253.7 Recovery = 103.00%
All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB

Analyst:

Autosampler Location: 10

Date Collected: 2/22/2010 09:22:35

Data Type: Original

Replicate Data: ICB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.059	-0.059	-0.0003	-0.0018	0.0001	09:23:26	Yes
2	-0.054	-0.054	-0.0002	-0.0015	0.0001	09:23:56	Yes
Mean:	-0.056	-0.056	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	6.211	6.211	19.49				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CRDL

Analyst:

Autosampler Location: 11

Date Collected: 2/22/2010 09:24:16

Data Type: Original

Replicate Data: CRDL

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.155	0.155	0.0025	0.0117	0.0028	09:25:07	Yes
2	0.147	0.147	0.0024	0.0106	0.0027	09:25:37	Yes
Mean:	0.151	0.151	0.0024				
SD:	0.006	0.006	0.0001				
%RSD:	3.846	3.846	3.07				

QC value within limits for Hg 253.7 Recovery = 75.56%
All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 09:25:57

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.065	5.065	0.0648	0.2977	0.0651	09:26:47	Yes
2	5.044	5.044	0.0645	0.2946	0.0649	09:27:17	Yes
Mean:	5.055	5.055	0.0647				
SD:	0.015	0.015	0.0002				
%RSD:	0.296	0.296	0.29				

QC value within limits for Hg 253.7 Recovery = 101.09%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 2/22/2010 09:27:36
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.057	-0.057	-0.0002	-0.0011	0.0001	09:28:26	Yes
2	-0.063	-0.063	-0.0003	-0.0019	0.0000	09:28:56	Yes
Mean:	-0.060	-0.060	-0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	6.512	6.512	17.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202039119|951482|1
Analyst: JXL

Autosampler Location: 12
Date Collected: 2/22/2010 09:29:16
Data Type: Original

Replicate Data: 1202039119|951482|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0003	-0.0016	0.0000	09:30:08	Yes
2	-0.057	-0.057	-0.0002	-0.0007	0.0001	09:30:37	Yes
Mean:	-0.058	-0.058	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	4.517	4.517	13.10				

Sequence No.: 13
Sample ID: 1202039120|951482|10
Analyst: JXL

Autosampler Location: 13
Date Collected: 2/22/2010 09:30:58
Data Type: Original

Replicate Data: 1202039120|951482|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.981	3.981	0.0510	0.2348	0.0514	09:31:50	Yes
2	3.964	3.964	0.0508	0.2328	0.0511	09:32:20	Yes
Mean:	3.972	3.972	0.0509				
SD:	0.012	0.012	0.0002				
%RSD:	0.302	0.302	0.30				

Sequence No.: 14
Sample ID: 246354001|951482|1
Analyst: JXL

Autosampler Location: 14
Date Collected: 2/22/2010 09:32:40
Data Type: Original

Replicate Data: 246354001|951482|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0032	0.0151	0.0035	09:33:31	Yes
2	0.210	0.210	0.0031	0.0144	0.0035	09:34:01	Yes
Mean:	0.211	0.211	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.81				

Sequence No.: 15
Sample ID: 246354002|951482|1
Analyst: JXL

Autosampler Location: 15
Date Collected: 2/22/2010 09:34:20
Data Type: Original

Replicate Data: 246354002|951482|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
--------	-----------------	--------------	----------------	-----------	-------------	------	-------------

Replicate Data: 246354007|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.215	0.215	0.0032	0.0155	0.0035	09:43:28	Yes
2	0.217	0.217	0.0032	0.0156	0.0036	09:43:58	Yes
Mean:	0.216	0.216	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.955	0.955	0.81				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 246354008|951482|1

Date Collected: 2/22/2010 09:44:17

Analyst: JXL

Data Type: Original

Replicate Data: 246354008|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.193	0.193	0.0029	0.0149	0.0032	09:45:08	Yes
2	0.196	0.196	0.0030	0.0157	0.0033	09:45:38	Yes
Mean:	0.195	0.195	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.377	1.377	1.15				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 09:45:58

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.013	5.013	0.0641	0.2931	0.0645	09:46:48	Yes
2	4.982	4.982	0.0638	0.2911	0.0641	09:47:18	Yes
Mean:	4.997	4.997	0.0639				
SD:	0.022	0.022	0.0003				
%RSD:	0.441	0.441	0.44				

QC value within limits for Hg 253.7 Recovery = 99.94%

All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 09:47:37

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0008	0.0002	09:48:28	Yes
2	-0.048	-0.048	-0.0001	0.0011	0.0002	09:48:58	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.111	2.111	9.57				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 246354009|951482|1

Date Collected: 2/22/2010 09:49:17

Analyst: JXL

Data Type: Original

Replicate Data: 246354009|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0029	0.0145	0.0032	09:50:09	Yes
2	0.189	0.189	0.0029	0.0142	0.0032	09:50:39	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0283	0.1317	0.0286	09:58:34	Yes
2	2.176	2.176	0.0281	0.1305	0.0284	09:59:04	Yes
Mean:	2.181	2.181	0.0282				
SD:	0.008	0.008	0.0001				
%RSD:	0.344	0.344	0.34				

Sequence No.: 30

Sample ID: 1202039129|951482|1

Analyst: JXL

Autosampler Location: 28

Date Collected: 2/22/2010 09:59:23

Data Type: Original

Replicate Data: 1202039129|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.225	2.225	0.0287	0.1337	0.0291	10:00:14	Yes
2	2.228	2.228	0.0288	0.1333	0.0291	10:00:44	Yes
Mean:	2.227	2.227	0.0288				
SD:	0.002	0.002	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 31

Sample ID: 1202039128|951482|5

Analyst: JXL

Autosampler Location: 29

Date Collected: 2/22/2010 10:01:03

Data Type: Original

Replicate Data: 1202039128|951482|5

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0003	0.0020	0.0006	10:01:54	Yes
2	-0.008	-0.008	0.0004	0.0029	0.0007	10:02:23	Yes
Mean:	-0.011	-0.011	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	30.67	30.67	12.01				

Sequence No.: 32

Sample ID: 246452002|951482|1

Analyst: JXL

Autosampler Location: 30

Date Collected: 2/22/2010 10:02:43

Data Type: Original

Replicate Data: 246452002|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.266	0.266	0.0039	0.0191	0.0042	10:03:33	Yes
2	0.265	0.265	0.0038	0.0189	0.0042	10:04:03	Yes
Mean:	0.266	0.266	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.492	0.492	0.43				

Sequence No.: 33

Sample ID: 246452003|951482|1

Analyst: JXL

Autosampler Location: 31

Date Collected: 2/22/2010 10:04:22

Data Type: Original

Replicate Data: 246452003|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.614	0.614	0.0083	0.0391	0.0086	10:05:13	Yes
2	0.615	0.615	0.0083	0.0390	0.0086	10:05:43	Yes
Mean:	0.615	0.615	0.0083				
SD:	0.001	0.001	0.0000				
%RSD:	0.120	0.120	0.11				

Sequence No.: 34

Sample ID: CCV

Autosampler Location: 7

Date Collected: 2/22/2010 10:06:02

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.056	5.056	0.0647	0.2940	0.0650	10:06:53	Yes
2	5.026	5.026	0.0643	0.2919	0.0646	10:07:23	Yes
Mean:	5.041	5.041	0.0645				
SD:	0.021	0.021	0.0003				
%RSD:	0.413	0.413	0.41				

QC value within limits for Hg 253.7 Recovery = 100.82%
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 10:07:42

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.045	-0.045	-0.0001	0.0014	0.0002	10:08:32	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:09:02	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	10.34	10.34	49.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 246452004|951482|1

Date Collected: 2/22/2010 10:09:21

Analyst: JXL

Data Type: Original

Replicate Data: 246452004|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.312	0.312	0.0044	0.0217	0.0048	10:10:13	Yes
2	0.306	0.306	0.0044	0.0208	0.0047	10:10:43	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.188	1.188	1.06				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 246452005|951482|1

Date Collected: 2/22/2010 10:11:02

Analyst: JXL

Data Type: Original

Replicate Data: 246452005|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.291	0.291	0.0042	0.0201	0.0045	10:11:53	Yes
2	0.292	0.292	0.0042	0.0201	0.0045	10:12:23	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.301	0.301	0.27				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 246452006|951482|1

Date Collected: 2/22/2010 10:12:43

Analyst: JXL

Data Type: Original

Replicate Data: 246452006|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.195	0.195	0.0030	0.0152	0.0033	10:13:34	Yes

Replicate Data: 1202039279|951546|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.679	3.679	0.0472	0.2153	0.0475	10:21:59	Yes
2	3.681	3.681	0.0472	0.2140	0.0476	10:22:29	Yes
Mean:	3.680	3.680	0.0472				
SD:	0.002	0.002	0.0000				
%RSD:	0.043	0.043	0.04				

Sequence No.: 44

Autosampler Location: 40

Sample ID: 246055001|951546|1

Date Collected: 2/22/2010 10:22:49

Analyst: JXL

Data Type: Original

Replicate Data: 246055001|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.235	0.235	0.0035	0.0168	0.0038	10:23:39	Yes
2	0.234	0.234	0.0035	0.0169	0.0038	10:24:09	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

Sequence No.: 45

Autosampler Location: 41

Sample ID: 1202039280|951546|1

Date Collected: 2/22/2010 10:24:29

Analyst: JXL

Data Type: Original

Replicate Data: 1202039280|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.078	0.078	0.0015	0.0080	0.0018	10:25:20	Yes
2	0.078	0.078	0.0015	0.0078	0.0018	10:25:50	Yes
Mean:	0.078	0.078	0.0015				
SD:	0.000	0.000	0.0000				
%RSD:	0.484	0.484	0.33				

Sequence No.: 46

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 10:26:09

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.123	5.123	0.0656	0.2977	0.0659	10:27:00	Yes
2	5.104	5.104	0.0653	0.2968	0.0656	10:27:30	Yes
Mean:	5.114	5.114	0.0654				
SD:	0.014	0.014	0.0002				
%RSD:	0.275	0.275	0.27				

QC value within limits for Hg 253.7 Recovery = 102.27%
All analyte(s) passed QC.

Sequence No.: 47

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 10:27:49

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0002	0.0007	0.0002	10:28:39	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:29:09	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.698	1.698	6.85				

QC value within limits for Hg 253.7 Recovery = Not calculated

Replicate Data: 246055008|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.143	0.143	0.0023	0.0118	0.0026	10:45:29	Yes
2	0.146	0.146	0.0023	0.0124	0.0027	10:45:59	Yes
Mean:	0.144	0.144	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.723	1.723	1.36				

Sequence No.: 58

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 10:46:18

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.173	5.173	0.0662	0.2986	0.0665	10:47:08	Yes
2	5.219	5.219	0.0668	0.2990	0.0671	10:47:38	Yes
Mean:	5.196	5.196	0.0665				
SD:	0.033	0.033	0.0004				
%RSD:	0.630	0.630	0.63				

QC value within limits for Hg 253.7 Recovery = 103.92%
All analyte(s) passed QC.

Sequence No.: 59

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 10:47:57

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0001	0.0014	0.0002	10:48:48	Yes
2	-0.049	-0.049	-0.0001	0.0010	0.0002	10:49:18	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.335	3.335	16.87				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60

Sample ID: 246055009|951546|1

Analyst: JXL

Autosampler Location: 52

Date Collected: 2/22/2010 10:49:37

Data Type: Original

Replicate Data: 246055009|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.293	0.293	0.0042	0.0202	0.0045	10:50:28	Yes
2	0.291	0.291	0.0042	0.0196	0.0045	10:50:58	Yes
Mean:	0.292	0.292	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.666	0.666	0.59				

Sequence No.: 61

Sample ID: 1202039295|951551|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 2/22/2010 10:51:17

Data Type: Original

Replicate Data: 1202039295|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0009	0.0002	10:52:08	Yes
2	-0.047	-0.047	-0.0001	0.0014	0.0002	10:52:38	Yes
Mean:	-0.049	-0.049	-0.0001				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.421	2.421	0.0312	0.1398	0.0315	11:00:33	Yes
2	2.409	2.409	0.0311	0.1392	0.0314	11:01:03	Yes
Mean:	2.415	2.415	0.0312				
SD:	0.008	0.008	0.0001				
%RSD:	0.333	0.333	0.33				

Sequence No.: 67

Autosampler Location: 59

Sample ID: 1202039299|951551|5

Date Collected: 2/22/2010 11:01:22

Analyst: JXL

Data Type: Original

Replicate Data: 1202039299|951551|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.000	0.000	0.0005	0.0034	0.0008	11:02:14	Yes
2	0.003	0.003	0.0005	0.0034	0.0008	11:02:44	Yes
Mean:	0.001	0.001	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	149.8	149.8	5.53				

Sequence No.: 68

Autosampler Location: 60

Sample ID: 246066002|951551|1

Date Collected: 2/22/2010 11:03:04

Analyst: JXL

Data Type: Original

Replicate Data: 246066002|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.208	0.208	0.0031	0.0155	0.0034	11:03:56	Yes
2	0.208	0.208	0.0031	0.0152	0.0034	11:04:26	Yes
Mean:	0.208	0.208	0.0031				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

Sequence No.: 69

Autosampler Location: 61

Sample ID: 246066003|951551|1

Date Collected: 2/22/2010 11:04:46

Analyst: JXL

Data Type: Original

Replicate Data: 246066003|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.196	0.196	0.0030	0.0147	0.0033	11:05:38	Yes
2	0.189	0.189	0.0029	0.0144	0.0032	11:06:08	Yes
Mean:	0.193	0.193	0.0029				
SD:	0.005	0.005	0.0001				
%RSD:	2.670	2.670	2.23				

Sequence No.: 70

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 11:06:28

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.198	5.198	0.0665	0.2949	0.0668	11:07:18	Yes
2	5.157	5.157	0.0660	0.2914	0.0663	11:07:48	Yes
Mean:	5.177	5.177	0.0662				
SD:	0.029	0.029	0.0004				
%RSD:	0.555	0.555	0.55				

QC value within limits for Hg 253.7 Recovery = 103.54%
All analyte(s) passed QC.

Sequence No.: 71

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 11:08:07

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.051	-0.051	-0.0002	0.0008	0.0002	11:08:58	Yes
2	-0.059	-0.059	-0.0003	-0.0005	0.0001	11:09:28	Yes
Mean:	-0.055	-0.055	-0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	10.73	10.73	35.82				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 72
Sample ID: 246066004|951551|1
Analyst: JXLAutosampler Location: 62
Date Collected: 2/22/2010 11:09:47
Data Type: Original-----
Replicate Data: 246066004|951551|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.397	0.397	0.0055	0.0260	0.0058	11:10:38	Yes
2	0.396	0.396	0.0055	0.0259	0.0058	11:11:08	Yes
Mean:	0.397	0.397	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.217	0.217	0.20				

=====

Sequence No.: 73
Sample ID: 246066005|951551|1
Analyst: JXLAutosampler Location: 63
Date Collected: 2/22/2010 11:11:28
Data Type: Original-----
Replicate Data: 246066005|951551|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.055	0.055	0.0012	0.0065	0.0015	11:12:19	Yes
2	0.058	0.058	0.0012	0.0067	0.0015	11:12:49	Yes
Mean:	0.056	0.056	0.0012				
SD:	0.002	0.002	0.0000				
%RSD:	3.337	3.337	1.99				

=====

Sequence No.: 74
Sample ID: 246066006|951551|1
Analyst: JXLAutosampler Location: 64
Date Collected: 2/22/2010 11:13:09
Data Type: Original-----
Replicate Data: 246066006|951551|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.544	0.544	0.0074	0.0341	0.0077	11:14:00	Yes
2	0.536	0.536	0.0073	0.0334	0.0076	11:14:29	Yes
Mean:	0.540	0.540	0.0073				
SD:	0.005	0.005	0.0001				
%RSD:	0.997	0.997	0.93				

=====

Sequence No.: 75
Sample ID: 246066007|951551|1
Analyst: JXLAutosampler Location: 65
Date Collected: 2/22/2010 11:14:49
Data Type: Original-----
Replicate Data: 246066007|951551|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.002	-0.002	0.0005	0.0037	0.0008	11:15:40	Yes
2	-0.006	-0.006	0.0004	0.0030	0.0007	11:16:10	Yes

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.221	0.221	0.0033	0.0163	0.0036	11:24:05	Yes
2	0.222	0.222	0.0033	0.0160	0.0036	11:24:35	Yes
Mean:	0.222	0.222	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.315	0.315	0.27				

Sequence No.: 81

Autosampler Location: 71

Sample ID: 246066013|951551|1

Date Collected: 2/22/2010 11:24:55

Analyst: JXL

Data Type: Original

Replicate Data: 246066013|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.231	0.231	0.0034	0.0169	0.0037	11:25:46	Yes
2	0.231	0.231	0.0034	0.0169	0.0037	11:26:16	Yes
Mean:	0.231	0.231	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.178	0.178	0.15				

Sequence No.: 82

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 11:26:36

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.134	5.134	0.0657	0.2970	0.0660	11:27:26	Yes
2	5.183	5.183	0.0663	0.2978	0.0666	11:27:56	Yes
Mean:	5.158	5.158	0.0660				
SD:	0.035	0.035	0.0004				
%RSD:	0.675	0.675	0.67				

QC value within limits for Hg 253.7 Recovery = 103.17%
All analyte(s) passed QC.

Sequence No.: 83

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 11:28:15

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.051	-0.051	-0.0002	0.0004	0.0002	11:29:06	Yes
2	-0.051	-0.051	-0.0002	0.0006	0.0001	11:29:36	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	0.992	0.992	3.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84

Autosampler Location: 72

Sample ID: 246066014|951551|1

Date Collected: 2/22/2010 11:29:55

Analyst: JXL

Data Type: Original

Replicate Data: 246066014|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.276	0.276	0.0040	0.0192	0.0043	11:30:47	Yes
2	0.275	0.275	0.0040	0.0193	0.0043	11:31:17	Yes
Mean:	0.275	0.275	0.0040				
SD:	0.001	0.001	0.0000				
%RSD:	0.223	0.223	0.20				

2	0.359	0.359	0.0050	0.0246	0.0054	11:39:44	Yes
Mean:	0.358	0.358	0.0050				
SD:	0.001	0.001	0.0000				
%RSD:	0.399	0.399	0.36				

Sequence No.: 90

Autosampler Location: 78

Sample ID: 246066020|951551|1

Date Collected: 2/22/2010 11:40:04

Analyst: JXL

Data Type: Original

Replicate Data: 246066020|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.204	0.204	0.0031	0.0155	0.0034	11:40:56	Yes
2	0.203	0.203	0.0031	0.0153	0.0034	11:41:26	Yes
Mean:	0.203	0.203	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.295	0.295	0.25				

Sequence No.: 91

Autosampler Location: 79

Sample ID: 1202039372|951590|1

Date Collected: 2/22/2010 11:41:46

Analyst: JXL

Data Type: Original

Replicate Data: 1202039372|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.049	-0.049	-0.0001	0.0008	0.0002	11:42:37	Yes
2	-0.050	-0.050	-0.0001	0.0008	0.0002	11:43:07	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.906	1.906	8.54				

Sequence No.: 92

Autosampler Location: 80

Sample ID: 1202039373|951590|10

Date Collected: 2/22/2010 11:43:27

Analyst: JXL

Data Type: Original

Replicate Data: 1202039373|951590|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.482	3.482	0.0447	0.2028	0.0450	11:44:18	Yes
2	3.463	3.463	0.0445	0.2014	0.0448	11:44:48	Yes
Mean:	3.472	3.472	0.0446				
SD:	0.013	0.013	0.0002				
%RSD:	0.380	0.380	0.38				

Sequence No.: 93

Autosampler Location: 81

Sample ID: 246315001|951590|1

Date Collected: 2/22/2010 11:45:08

Analyst: JXL

Data Type: Original

Replicate Data: 246315001|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.268	0.268	0.0039	0.0189	0.0042	11:45:59	Yes
2	0.268	0.268	0.0039	0.0192	0.0042	11:46:29	Yes
Mean:	0.268	0.268	0.0039				
SD:	0.000	0.000	0.0000				
%RSD:	0.025	0.025	0.02				

Sequence No.: 94

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 11:46:49

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.179	5.179	0.0663	0.2999	0.0666	11:47:39	Yes
2	5.174	5.174	0.0662	0.2995	0.0665	11:48:09	Yes
Mean:	5.176	5.176	0.0662				
SD:	0.004	0.004	0.0000				
%RSD:	0.068	0.068	0.07				

QC value within limits for Hg 253.7 Recovery = 103.53%

All analyte(s) passed QC.

Sequence No.: 95

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 11:48:28

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0001	0.0010	0.0002	11:49:18	Yes
2	-0.050	-0.050	-0.0001	0.0011	0.0002	11:49:48	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.622	4.622	22.49				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 96

Autosampler Location: 82

Sample ID: 246315002|951590|1

Date Collected: 2/22/2010 11:50:07

Analyst: JXL

Data Type: Original

Replicate Data: 246315002|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.392	0.392	0.0055	0.0259	0.0058	11:50:59	Yes
2	0.393	0.393	0.0055	0.0259	0.0058	11:51:29	Yes
Mean:	0.392	0.392	0.0055				
SD:	0.000	0.000	0.0000				
%RSD:	0.024	0.024	0.02				

Sequence No.: 97

Autosampler Location: 83

Sample ID: 246315003|951590|1

Date Collected: 2/22/2010 11:51:49

Analyst: JXL

Data Type: Original

Replicate Data: 246315003|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.153	1.153	0.0151	0.0705	0.0154	11:52:41	Yes
2	1.142	1.142	0.0150	0.0688	0.0153	11:53:11	Yes
Mean:	1.147	1.147	0.0151				
SD:	0.008	0.008	0.0001				
%RSD:	0.668	0.668	0.65				

Sequence No.: 98

Autosampler Location: 84

Sample ID: 246322001|951590|1

Date Collected: 2/22/2010 11:53:31

Analyst: JXL

Data Type: Original

Replicate Data: 246322001|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:23	Yes
2	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:52	Yes
Mean:	-0.027	-0.027	0.0001				
SD:	0.001	0.001	0.0000				

1	0.125	0.125	0.0021	0.0107	0.0024	12:02:50	Yes
2	0.123	0.123	0.0020	0.0102	0.0024	12:03:20	Yes
Mean:	0.124	0.124	0.0021				
SD:	0.002	0.002	0.0000				
%RSD:	1.423	1.423	1.09				

Sequence No.: 104

Autosampler Location: 90

Sample ID: 246322007|951590|1

Date Collected: 2/22/2010 12:03:40

Analyst: JXL

Data Type: Original

Replicate Data: 246322007|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0005	0.0040	0.0008	12:04:31	Yes
2	0.001	0.001	0.0005	0.0036	0.0008	12:05:01	Yes
Mean:	0.002	0.002	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	67.73	67.73	3.83				

Sequence No.: 105

Autosampler Location: 91

Sample ID: 246322008|951590|1

Date Collected: 2/22/2010 12:05:22

Analyst: JXL

Data Type: Original

Replicate Data: 246322008|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.053	0.053	0.0012	0.0071	0.0015	12:06:14	Yes
2	0.053	0.053	0.0012	0.0069	0.0015	12:06:43	Yes
Mean:	0.053	0.053	0.0012				
SD:	0.000	0.000	0.0000				
%RSD:	0.089	0.089	0.05				

Sequence No.: 106

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 12:07:04

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.198	5.198	0.0665	0.3022	0.0668	12:07:54	Yes
2	5.174	5.174	0.0662	0.3001	0.0665	12:08:24	Yes
Mean:	5.186	5.186	0.0663				
SD:	0.018	0.018	0.0002				
%RSD:	0.339	0.339	0.34				

QC value within limits for Hg 253.7 Recovery = 103.72%

All analyte(s) passed QC.

Sequence No.: 107

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 12:08:43

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.052	-0.052	-0.0002	0.0005	0.0001	12:09:33	Yes
2	-0.051	-0.051	-0.0002	0.0008	0.0002	12:10:03	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.688	1.688	6.65				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.120	2.120	0.0274	0.1247	0.0277	12:26:31	Yes
2	2.114	2.114	0.0273	0.1239	0.0276	12:27:01	Yes
Mean:	2.117	2.117	0.0274				
SD:	0.005	0.005	0.0001				
%RSD:	0.226	0.226	0.22				

Sequence No.: 118

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 12:27:21

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.178	5.178	0.0662	0.3008	0.0666	12:28:12	Yes
2	5.147	5.147	0.0658	0.2988	0.0662	12:28:42	Yes
Mean:	5.162	5.162	0.0660				
SD:	0.022	0.022	0.0003				
%RSD:	0.427	0.427	0.42				

QC value within limits for Hg 253.7 Recovery = 103.25%
All analyte(s) passed QC.

Sequence No.: 119

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 12:29:01

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.051	-0.051	-0.0002	0.0004	0.0001	12:29:52	Yes
2	-0.051	-0.051	-0.0002	0.0005	0.0002	12:30:22	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.586	0.586	2.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 120

Autosampler Location: 102

Sample ID: 1202039377|951590|1

Date Collected: 2/22/2010 12:30:41

Analyst: JXL

Data Type: Original

Replicate Data: 1202039377|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.109	2.109	0.0273	0.1243	0.0276	12:31:33	Yes
2	2.116	2.116	0.0274	0.1251	0.0277	12:32:03	Yes
Mean:	2.112	2.112	0.0273				
SD:	0.005	0.005	0.0001				
%RSD:	0.216	0.216	0.21				

Sequence No.: 121

Autosampler Location: 103

Sample ID: 1202039376|951590|5

Date Collected: 2/22/2010 12:32:24

Analyst: JXL

Data Type: Original

Replicate Data: 1202039376|951590|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.039	-0.039	-0.0000	0.0016	0.0003	12:33:15	Yes
2	-0.045	-0.045	-0.0001	0.0009	0.0002	12:33:45	Yes
Mean:	-0.042	-0.042	-0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	9.835	9.835	108.28				

Sequence No.: 122
Sample ID: 246338002|951590|1
Analyst: JXL

Autosampler Location: 104
Date Collected: 2/22/2010 12:34:05
Data Type: Original

Replicate Data: 246338002|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.232	0.232	0.0034	0.0168	0.0037	12:34:58	Yes
2	0.235	0.235	0.0035	0.0171	0.0038	12:35:28	Yes
Mean:	0.234	0.234	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.829	0.829	0.71				

Sequence No.: 123
Sample ID: 1202039383|951598|1
Analyst: JXL

Autosampler Location: 105
Date Collected: 2/22/2010 12:35:48
Data Type: Original

Replicate Data: 1202039383|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0007	0.0002	12:36:40	Yes
2	-0.050	-0.050	-0.0002	0.0009	0.0002	12:37:10	Yes
Mean:	-0.050	-0.050	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.262	0.262	1.11				

Sequence No.: 124
Sample ID: 1202039384|951598|10
Analyst: JXL

Autosampler Location: 106
Date Collected: 2/22/2010 12:37:30
Data Type: Original

Replicate Data: 1202039384|951598|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.669	3.669	0.0471	0.2150	0.0474	12:38:22	Yes
2	3.651	3.651	0.0469	0.2135	0.0472	12:38:52	Yes
Mean:	3.660	3.660	0.0470				
SD:	0.013	0.013	0.0002				
%RSD:	0.353	0.353	0.35				

Sequence No.: 125
Sample ID: 246336001|951598|1
Analyst: JXL

Autosampler Location: 107
Date Collected: 2/22/2010 12:39:12
Data Type: Original

Replicate Data: 246336001|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.180	0.180	0.0028	0.0137	0.0031	12:40:04	Yes
2	0.176	0.176	0.0027	0.0135	0.0030	12:40:34	Yes
Mean:	0.178	0.178	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.719	1.719	1.42				

Sequence No.: 126
Sample ID: 246336002|951598|1
Analyst: JXL

Autosampler Location: 108
Date Collected: 2/22/2010 12:40:54
Data Type: Original

Replicate Data: 246336002|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0029	0.0146	0.0032	12:41:47	Yes
2	0.192	0.192	0.0029	0.0151	0.0032	12:42:16	Yes

Mean: 0.192 0.192 0.0029
SD: 0.000 0.000 0.0000
%RSD: 0.083 0.083 0.07

Sequence No.: 127

Sample ID: 246336003|951598|1

Analyst: JXL

Autosampler Location: 109

Date Collected: 2/22/2010 12:42:37

Data Type: Original

Replicate Data: 246336003|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.183	0.183	0.0028	0.0143	0.0031	12:43:29	Yes
2	0.183	0.183	0.0028	0.0139	0.0031	12:43:59	Yes
Mean:	0.183	0.183	0.0028				
SD:	0.000	0.000	0.0000				
%RSD:	0.080	0.080	0.07				

Sequence No.: 128

Sample ID: 246336004|951598|1

Analyst: JXL

Autosampler Location: 110

Date Collected: 2/22/2010 12:44:20

Data Type: Original

Replicate Data: 246336004|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0027	0.0135	0.0030	12:45:11	Yes
2	0.172	0.172	0.0027	0.0133	0.0030	12:45:41	Yes
Mean:	0.174	0.174	0.0027				
SD:	0.002	0.002	0.0000				
%RSD:	1.074	1.074	0.88				

Sequence No.: 129

Sample ID: 246336005|951598|1

Analyst: JXL

Autosampler Location: 111

Date Collected: 2/22/2010 12:46:02

Data Type: Original

Replicate Data: 246336005|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.116	0.116	0.0020	0.0105	0.0023	12:46:54	Yes
2	0.110	0.110	0.0019	0.0092	0.0022	12:47:24	Yes
Mean:	0.113	0.113	0.0019				
SD:	0.004	0.004	0.0001				
%RSD:	3.562	3.562	2.66				

Sequence No.: 130

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 12:47:45

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.237	5.237	0.0670	0.3056	0.0673	12:48:35	Yes
2	5.224	5.224	0.0668	0.3039	0.0671	12:49:05	Yes
Mean:	5.231	5.231	0.0669				
SD:	0.009	0.009	0.0001				
%RSD:	0.172	0.172	0.17				

QC value within limits for Hg 253.7 Recovery = 104.62%
All analyte(s) passed QC.

Sequence No.: 131

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 12:49:24

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.056	-0.056	-0.0002	-0.0003	0.0001	12:50:15	Yes
2	-0.052	-0.052	-0.0002	0.0005	0.0001	12:50:45	Yes
Mean:	-0.054	-0.054	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	5.414	5.414	18.81				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 132
Sample ID: 246336006|951598|1
Analyst: JXL

Autosampler Location: 112
Date Collected: 2/22/2010 12:51:04
Data Type: Original

Replicate Data: 246336006|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.115	0.115	0.0019	0.0104	0.0023	12:51:56	Yes
2	0.113	0.113	0.0019	0.0097	0.0022	12:52:26	Yes
Mean:	0.114	0.114	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.825	0.825	0.62				

=====

Sequence No.: 133
Sample ID: 246336007|951598|1
Analyst: JXL

Autosampler Location: 113
Date Collected: 2/22/2010 12:52:47
Data Type: Original

Replicate Data: 246336007|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.140	0.140	0.0023	0.0120	0.0026	12:53:39	Yes
2	0.134	0.134	0.0022	0.0114	0.0025	12:54:09	Yes
Mean:	0.137	0.137	0.0022				
SD:	0.004	0.004	0.0001				
%RSD:	3.085	3.085	2.41				

=====

Sequence No.: 134
Sample ID: 246336008|951598|1
Analyst: JXL

Autosampler Location: 114
Date Collected: 2/22/2010 12:54:29
Data Type: Original

Replicate Data: 246336008|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.038	0.038	0.0010	0.0060	0.0013	12:55:22	Yes
2	0.037	0.037	0.0010	0.0057	0.0013	12:55:52	Yes
Mean:	0.038	0.038	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	2.468	2.468	1.22				

=====

Sequence No.: 135
Sample ID: 246336009|951598|1
Analyst: JXL

Autosampler Location: 115
Date Collected: 2/22/2010 12:56:12
Data Type: Original

Replicate Data: 246336009|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.193	0.193	0.0029	0.0143	0.0032	12:57:05	Yes
2	0.196	0.196	0.0030	0.0148	0.0033	12:57:34	Yes
Mean:	0.194	0.194	0.0030				
SD:	0.002	0.002	0.0000				
%RSD:	1.158	1.158	0.97				

Sequence No.: 136

Sample ID: 246344001|951598|1

Analyst: JXL

Autosampler Location: 116

Date Collected: 2/22/2010 12:57:55

Data Type: Original

Replicate Data: 246344001|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.136	0.136	0.0022	0.0115	0.0025	12:58:47	Yes
2	0.132	0.132	0.0022	0.0109	0.0025	12:59:17	Yes
Mean:	0.134	0.134	0.0022				
SD:	0.003	0.003	0.0000				
%RSD:	2.496	2.496	1.94				

Sequence No.: 137

Sample ID: 1202039385|951598|1

Analyst: JXL

Autosampler Location: 117

Date Collected: 2/22/2010 12:59:37

Data Type: Original

Replicate Data: 1202039385|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.118	0.118	0.0020	0.0098	0.0023	13:00:30	Yes
2	0.124	0.124	0.0021	0.0105	0.0024	13:01:00	Yes
Mean:	0.121	0.121	0.0020				
SD:	0.004	0.004	0.0001				
%RSD:	3.520	3.520	2.67				

Sequence No.: 138

Sample ID: 1202039386|951598|1

Analyst: JXL

Autosampler Location: 118

Date Collected: 2/22/2010 13:01:20

Data Type: Original

Replicate Data: 1202039386|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.271	2.271	0.0293	0.1352	0.0296	13:02:13	Yes
2	2.268	2.268	0.0293	0.1344	0.0296	13:02:42	Yes
Mean:	2.270	2.270	0.0293				
SD:	0.002	0.002	0.0000				
%RSD:	0.106	0.106	0.10				

Sequence No.: 139

Sample ID: 1202039388|951598|1

Analyst: JXL

Autosampler Location: 119

Date Collected: 2/22/2010 13:03:03

Data Type: Original

Replicate Data: 1202039388|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.365	2.365	0.0305	0.1412	0.0308	13:03:55	Yes
2	2.366	2.366	0.0305	0.1404	0.0308	13:04:25	Yes
Mean:	2.365	2.365	0.0305				
SD:	0.001	0.001	0.0000				
%RSD:	0.031	0.031	0.03				

Sequence No.: 140

Sample ID: 1202039387|951598|5

Analyst: JXL

Autosampler Location: 120

Date Collected: 2/22/2010 13:04:45

Data Type: Original

Replicate Data: 1202039387|951598|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	0.0003	0.0022	0.0006	13:05:37	Yes

2	-0.015	-0.015	0.0003	0.0023	0.0006	13:06:07	Yes
Mean:	-0.016	-0.016	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	11.88	11.88	8.57				

Sequence No.: 141

Sample ID: 246344002|951598|1

Analyst: JXL

Autosampler Location: 121

Date Collected: 2/22/2010 13:06:27

Data Type: Original

Replicate Data: 246344002|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.120	0.120	0.0020	0.0104	0.0023	13:07:20	Yes
2	0.119	0.119	0.0020	0.0102	0.0023	13:07:50	Yes
Mean:	0.120	0.120	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.877	0.877	0.66				

Sequence No.: 142

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 13:08:10

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.299	5.299	0.0678	0.3099	0.0681	13:09:00	Yes
2	5.304	5.304	0.0678	0.3088	0.0682	13:09:30	Yes
Mean:	5.301	5.301	0.0678				
SD:	0.004	0.004	0.0000				
%RSD:	0.072	0.072	0.07				

QC value within limits for Hg 253.7 Recovery = 106.03%
All analyte(s) passed QC.

Sequence No.: 143

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 13:09:49

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.053	-0.053	-0.0002	0.0001	0.0001	13:10:40	Yes
2	-0.053	-0.053	-0.0002	0.0003	0.0001	13:11:10	Yes
Mean:	-0.053	-0.053	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.007	0.007	0.03				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 144

Sample ID: 246344003|951598|1

Analyst: JXL

Autosampler Location: 122

Date Collected: 2/22/2010 13:11:30

Data Type: Original

Replicate Data: 246344003|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	0.0008	0.0048	0.0011	13:12:22	Yes
2	0.022	0.022	0.0008	0.0044	0.0011	13:12:52	Yes
Mean:	0.024	0.024	0.0008				
SD:	0.003	0.003	0.0000				
%RSD:	11.40	11.40	4.40				

Sequence No.: 145

Autosampler Location: 123

Sample ID: 246344004|951598|1
Analyst: JXL

Date Collected: 2/22/2010 13:13:13
Data Type: Original

Replicate Data: 246344004|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.791	0.791	0.0105	0.0494	0.0108	13:14:05	Yes
2	0.795	0.795	0.0106	0.0491	0.0109	13:14:35	Yes
Mean:	0.793	0.793	0.0106				
SD:	0.003	0.003	0.0000				
%RSD:	0.412	0.412	0.39				

Sequence No.: 146

Autosampler Location: 124

Sample ID: 246344005|951598|1
Analyst: JXL

Date Collected: 2/22/2010 13:14:55
Data Type: Original

Replicate Data: 246344005|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.375	0.375	0.0052	0.0251	0.0056	13:15:48	Yes
2	0.371	0.371	0.0052	0.0248	0.0055	13:16:18	Yes
Mean:	0.373	0.373	0.0052				
SD:	0.003	0.003	0.0000				
%RSD:	0.694	0.694	0.63				

Sequence No.: 147

Autosampler Location: 125

Sample ID: 1202039222|951526|1
Analyst: JXL

Date Collected: 2/22/2010 13:16:38
Data Type: Original

Replicate Data: 1202039222|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.052	-0.052	-0.0002	0.0004	0.0001	13:17:30	Yes
2	-0.058	-0.058	-0.0003	-0.0004	0.0001	13:18:00	Yes
Mean:	-0.055	-0.055	-0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	8.229	8.229	26.99				

Sequence No.: 148

Autosampler Location: 126

Sample ID: 1202039223|951526|10
Analyst: JXL

Date Collected: 2/22/2010 13:18:21
Data Type: Original

Replicate Data: 1202039223|951526|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.536	3.536	0.0454	0.2065	0.0457	13:19:13	Yes
2	3.535	3.535	0.0454	0.2056	0.0457	13:19:43	Yes
Mean:	3.535	3.535	0.0454				
SD:	0.001	0.001	0.0000				
%RSD:	0.021	0.021	0.02				

Sequence No.: 149

Autosampler Location: 127

Sample ID: 246562001|951526|1
Analyst: JXL

Date Collected: 2/22/2010 13:20:04
Data Type: Original

Replicate Data: 246562001|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.003	-0.003	0.0004	0.0037	0.0008	13:20:56	Yes
2	-0.007	-0.007	0.0004	0.0027	0.0007	13:21:26	Yes
Mean:	-0.005	-0.005	0.0004				
SD:	0.003	0.003	0.0000				

%RSD: 54.42 54.42 8.37

Sequence No.: 150

Autosampler Location: 128

Sample ID: 246592001|951526|1

Date Collected: 2/22/2010 13:21:47

Analyst: JXL

Data Type: Original

Replicate Data: 246592001|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.746	0.746	0.0100	0.0464	0.0103	13:22:39	Yes
2	0.743	0.743	0.0099	0.0459	0.0102	13:23:08	Yes
Mean:	0.744	0.744	0.0099				
SD:	0.002	0.002	0.0000				
%RSD:	0.289	0.289	0.27				

Sequence No.: 151

Autosampler Location: 129

Sample ID: 1202039224|951526|1

Date Collected: 2/22/2010 13:23:29

Analyst: JXL

Data Type: Original

Replicate Data: 1202039224|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.346	0.346	0.0049	0.0233	0.0052	13:24:21	Yes
2	0.343	0.343	0.0048	0.0232	0.0052	13:24:51	Yes
Mean:	0.344	0.344	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.543	0.543	0.49				

Sequence No.: 152

Autosampler Location: 130

Sample ID: 1202039225|951526|1

Date Collected: 2/22/2010 13:25:12

Analyst: JXL

Data Type: Original

Replicate Data: 1202039225|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.463	2.463	0.0318	0.1465	0.0321	13:26:04	Yes
2	2.455	2.455	0.0317	0.1455	0.0320	13:26:34	Yes
Mean:	2.459	2.459	0.0317				
SD:	0.005	0.005	0.0001				
%RSD:	0.215	0.215	0.21				

Sequence No.: 153

Autosampler Location: 131

Sample ID: 1202039227|951526|1

Date Collected: 2/22/2010 13:26:55

Analyst: JXL

Data Type: Original

Replicate Data: 1202039227|951526|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.501	2.501	0.0322	0.1486	0.0326	13:27:47	Yes
2	2.494	2.494	0.0322	0.1477	0.0325	13:28:17	Yes
Mean:	2.497	2.497	0.0322				
SD:	0.005	0.005	0.0001				
%RSD:	0.191	0.191	0.19				

Sequence No.: 154

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 13:28:38

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored

1	5.306	5.306	0.0679	0.3096	0.0682	13:29:29	Yes
2	5.321	5.321	0.0681	0.3094	0.0684	13:29:59	Yes
Mean:	5.314	5.314	0.0680				
SD:	0.010	0.010	0.0001				
%RSD:	0.197	0.197	0.20				

QC value within limits for Hg 253.7 Recovery = 106.27%
All analyte(s) passed QC.

Sequence No.: 155

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 13:30:18

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0001	0.0005	0.0002	13:31:08	Yes
2	-0.049	-0.049	-0.0001	0.0006	0.0002	13:31:38	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.446	1.446	6.62				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 156

Sample ID: 1202039226|951526|5

Analyst: JXL

Autosampler Location: 132

Date Collected: 2/22/2010 13:31:57

Data Type: Original

Replicate Data: 1202039226|951526|5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.119	0.119	0.0020	0.0103	0.0023	13:32:50	Yes
2	0.118	0.118	0.0020	0.0099	0.0023	13:33:19	Yes
Mean:	0.119	0.119	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	1.166	1.166	0.88				

Sequence No.: 157

Sample ID: 246592002|951526|1

Analyst: JXL

Autosampler Location: 133

Date Collected: 2/22/2010 13:33:40

Data Type: Original

Replicate Data: 246592002|951526|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.270	0.270	0.0039	0.0192	0.0042	13:34:32	Yes
2	0.273	0.273	0.0040	0.0192	0.0043	13:35:02	Yes
Mean:	0.272	0.272	0.0039				
SD:	0.002	0.002	0.0000				
%RSD:	0.917	0.917	0.80				

Sequence No.: 158

Sample ID: 246592003|951526|1

Analyst: JXL

Autosampler Location: 134

Date Collected: 2/22/2010 13:35:23

Data Type: Original

Replicate Data: 246592003|951526|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.399	0.399	0.0056	0.0268	0.0059	13:36:16	Yes
2	0.388	0.388	0.0054	0.0260	0.0057	13:36:45	Yes
Mean:	0.394	0.394	0.0055				
SD:	0.008	0.008	0.0001				
%RSD:	1.960	1.960	1.79				

Miscellaneous

Prep LogBook

Analyst: FGA Verified by: _____

Batch: 951148

Lab SOP: GL-MA-E-009 REV# 19

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202038311		SW846 3050B	17-FEB-2010 13:00	0.501 g	50 mL	99.8004	.5	g
LCS	1202038316		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.25	mL
SAMPLE	246344001		SW846 3050B	17-FEB-2010 13:00	0.531 g	50 mL	94.16196	.25	mL
DUP	1202038312	246344001	SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	95.2381	.25	mL
SDILT	1202038313	246344001	SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	95.2381	.25	mL
MS	1202038314	246344001	SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	95.2381	.25	mL
MSD	1202038315	246344001	SW846 3050B	17-FEB-2010 13:00	0.517 g	50 mL	96.7118	.25	mL
SAMPLE	246344002		SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	95.2381	.25	mL
SAMPLE	246344003		SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	95.2381	.25	mL
SAMPLE	246344004		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.25	mL
SAMPLE	246344005		SW846 3050B	17-FEB-2010 13:00	0.557 g	50 mL	89.76661	.25	mL

Reagent/Solvent Lot ID Amount Description Comments Brown,clumpy soil.

1265209 10 mL HYDROCHLORIC ACID
1268732 1.25 mL Nitric Acid CONC.

Prep LogBook

Analyst: FGA
 Batch: 951155
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: _____

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202038327		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.507	g
LCS	1202038332		SW846 3050B	17-FEB-2010 13:00	0.507 g	50 mL	98.61933	.5	mL
SAMPLE	246344001		SW846 3050B	17-FEB-2010 13:00	0.501 g	50 mL	99.8004	.5	mL
DUP	1202038328	246344001	SW846 3050B	17-FEB-2010 13:00	0.553 g	50 mL	90.41591	.5	mL
SDILT	1202038329	246344001	SW846 3050B	17-FEB-2010 13:00	0.501 g	50 mL	99.8004	.5	mL
MS	1202038330	246344001	SW846 3050B	17-FEB-2010 13:00	0.553 g	50 mL	90.41591	.5	mL
MSD	1202038331	246344001	SW846 3050B	17-FEB-2010 13:00	0.533 g	50 mL	93.80863	.5	mL
SAMPLE	246344002		SW846 3050B	17-FEB-2010 13:00	0.533 g	50 mL	93.80863	.5	mL
SAMPLE	246344003		SW846 3050B	17-FEB-2010 13:00	0.533 g	50 mL	95.2381	.5	mL
SAMPLE	246344004		SW846 3050B	17-FEB-2010 13:00	0.525 g	50 mL	100	.5	mL
SAMPLE	246344005		SW846 3050B	17-FEB-2010 13:00	0.515 g	50 mL	97.08738	.5	mL

Comments: Brown,clumpy,soil.

Reagent/Solvent Lot ID	Amount	Description
1250038-02	1.5 mL	Hydrogen Peroxide 30%
1268732	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: TXB3
 Batch: 951597
 Lab SOP: GL-MA-E-010 REV# 23

Verified by: _____

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Type	Sample Id	Lot. Id	Spike Amount	Spike Units
NB	1202039383		SW846 7471A Prep	19-FEB-2010 14:00	LCS	1202039384	UJ031809A	2	g
LCS	1202039384		SW846 7471A Prep	19-FEB-2010 14:00	MS	1202039386	WHG100219-14	3	mL
SAMPLE	246336001		SW846 7471A Prep	19-FEB-2010 14:00	MSD	1202039388	WHG100219-14	3	mL
SAMPLE	246336002		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336003		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336004		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336005		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336006		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336007		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336008		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336009		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344001		SW846 7471A Prep	19-FEB-2010 14:00					
DUP	1202039385	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
MS	1202039386	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
MSD	1202039388	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
SDILT	1202039387	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344002		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344003		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344004		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344005		SW846 7471A Prep	19-FEB-2010 14:00					

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100219-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100219-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100219-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100219-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100219-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100219-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 246344001 is a muddy brown soil.
 Digestion Start Date: 19-FEB-10 14:00
 Digestion End Date: 19-FEB-10 14:30

DATA EXCEPTION REPORT

Mo.Day Yr.
01-MAR-10

Division:
Industrial

Quality Criteria:
Specifications

Type:
Process

Instrument Type:
ICP

Test / Method:
SW846 3050B/6010B

Matrix Type:
Solid

Client Code:
LANL

Batch ID:
951151

Sample Numbers:
See Below

Potentially affected work order(s)(SDG): 246344(10-1570)

Application Issues:

Failed Recovery for MS/PS
Failed RPD for MS/MSD, or PS/PSD
Failed RPD for DUP
Failed Recovery for MSD/PSD

**Specification and Requirements
Exception Description:**

DER Disposition:

1. Failed Recovery for MS/PS:

QC 1202038314MS

2. Failed RPD for DUP:

QC 1202038312DUP

3. Failed RPD for MS/MSD, or PS/PSD:

QC 1202038315MSD

4. Failed Recovery for MSD/PSD:

QC 1202038315MSD

1. The matrix spike recovery failed outside of the control limits for antimony and magnesium 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 copper 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,iron,magnesium,manganese and potassium. 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. The matrix spike duplicate recovery failed outside of the control limits for antimony,barium,calcium,copper,lead,magnesium,potassium, vanadium 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.

Originator's Name:

Helen Camello 02-MAR-10

Data Validator/Group Leader:

Eric Lawson 04-MAR-10

DATA EXCEPTION REPORT

Mo. Day Yr.
04-MAR-10

Division:
Industrial

Quality Criteria:
Specifications

Type:
Process

Instrument Type:
ICP/MS

Test / Method:
SW846 3050B/6020

Matrix Type:
Solid

Client Code:
LANL

Batch ID:
951157

Sample Numbers:
See Below

Potentially affected work order(s)(SDG): 246344(10-1570)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

**Specification and Requirements
Exception Description:**

1. Failed Recovery for MS/PS:

QC 1202038330MS

2. Failed Recovery for MSD/PSD:

QC 1202038331MSD

DER Disposition:

The matrix spike and matrix spike duplicate recovery failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 04-MAR-10

Data Validator/Group Leader:

Paul Boyd 04-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% 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 **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: O2SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

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 St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

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
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: Q2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: Q2SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.6 **Opened:** 24-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 25-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCaSPIKEA **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: ICPMSCaSPIKEA **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: IHG100219-01 **Opened:** 19-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-FEB-10 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100219-02 Opened: 19-FEB-10 Pipet Id : Minou1
 Name: MHGINTER2 Received: 19-FEB-10 Solvent : 2% HNO3-1257474
 Type: Intermediate Expires: 20-FEB-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Intermediate 2nd Source 200 ug/L
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100219-07 Opened: 19-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.2CRA Received: 19-FEB-10 Solvent : 2% HNO3-1257474
 Type: Working Expires: 26-FEB-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100219-08 Opened: 19-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.5 Received: 19-FEB-10 Solvent : 2% HNO3-1257474
 Type: Working Expires: 26-FEB-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working Standard 1st Source CAL S 0.5
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100219-09 Opened: 19-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS2.0 Received: 19-FEB-10 Solvent : 2% HNO3-1257474
 Type: Working Expires: 26-FEB-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 2.0
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100219-10 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100219-11 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100219-12 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100219-14 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100224-42 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100224-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100224-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100224-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: W100224-43 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100224-44 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: W1100224-45 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: W1100224-46 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100224-47 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Camello
Supplier: Q2si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100303-04 **Opened:** 03-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 03-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 04-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100303-04A **Opened:** 03-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 03-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 04-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100303-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100303-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: <u>WMS100303-05</u>	Opened: <u>03-MAR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>03-MAR-10</u>	Pipet Id : <u>3541598</u>
Type: <u>Working</u>	Expires: <u>04-MAR-10</u>	Solvent : <u>2%HNO3/1%HCl - 1276824</u>
Employee: <u>Paul Boyd</u>		
Supplier: <u>GEL</u>		
Description: <u>ICPMS ICV</u>		
Comments: <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100303-06 **Opened:** 03-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 03-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 04-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100303-07 **Opened:** 03-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 03-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 04-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100303-08 **Opened:** 03-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 03-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 04-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100303-70 **Opened:** 03-MAR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 03-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 04-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 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: Hydroxylamine 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

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry

Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1570**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 950196 and 950198 **Method:** SW9012A Cyanide and Total

Prep Batch : 950195 and 950197 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202036020	Method Blank (MB)
1202036021	246262002(RE16-10-1151) Sample Duplicate (DUP)
1202036022	246322001(RE15-10-7332) Sample Duplicate (DUP)
1202036023	246262002(RE16-10-1151) Matrix Spike (MS)
1202036024	246322001(RE15-10-7332) Matrix Spike (MS)
1202036025	246262002(RE16-10-1151) Matrix Spike Duplicate (MSD)
1202036026	246322001(RE15-10-7332) Matrix Spike Duplicate (MSD)
1202036027	Laboratory Control Sample (LCS)
1202036028	Method Blank (MB)
1202036029	246344002(RE15-10-7983) Sample Duplicate (DUP)
1202036030	246344003(RE15-10-7984) Sample Duplicate (DUP)
1202036031	246344002(RE15-10-7983) Matrix Spike (MS)
1202036032	246344003(RE15-10-7984) Matrix Spike (MS)
1202036033	246344002(RE15-10-7983) Matrix Spike Duplicate (MSD)
1202036034	246344003(RE15-10-7984) Matrix Spike Duplicate (MSD)
1202036035	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 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) Designation

The following samples were selected for QC analysis: 246262002 (RE16-10-1151), 246322001 (RE15-10-7332)- Batch 950196, 246344002 (RE15-10-7983) and 246344003 (RE15-10-7984)- Batch 950198.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The matrix spike falls outside of the client specified acceptance limits due to matrix interference. 1202036024 (RE15-10-7332)- Batch 950196.

Matrix Spike Duplicate (MSD) Recovery Statement

The matrix spike duplicate falls outside of the client specified acceptance limits due to matrix interference. 1202036026 (RE15-10-7332)- Batch 950196.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202036021 (RE16-10-1151)- Batch 950196, 1202036029 (RE15-10-7983), 1202036030 (RE15-10-7984), 246344002 (RE15-10-7983) and 246344003 (RE15-10-7984)- Batch 950198.

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 samples in this sample group were diluted due to high concentration: 1202036027 (LCS)- Batch 950196 and 1202036035 (LCS)- Batch 950198.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

The following DER was generated for this SDG: 791360 1202036024 (RE15-10-7332) and 1202036026 (RE15-10-7332)- Batch 950196.

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

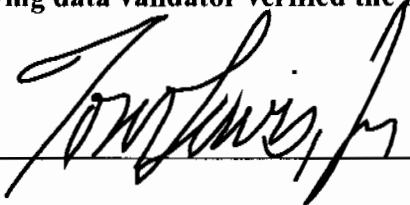
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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:



Date:

04March10

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: 10-1570 GEL Work Order: 246344

The Qualifiers in this report are defined as follows:

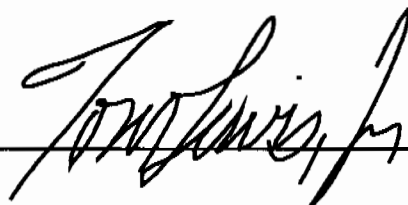
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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

A handwritten signature in black ink, appearing to read 'Valerie Davis', is written over a horizontal line.

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7981
Sample ID: 246344001
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	91.2	335	ug/kg	1	AXC2	02/15/10	1331	950196	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	SW846 9012A		

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7983
Sample ID: 246344002
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	85.6	315	ug/kg	1	AXC2	02/15/10	1346	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7984
Sample ID: 246344003
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 5.24%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.1	236	ug/kg	1	AXC2	02/15/10	1353	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7982
Sample ID: 246344004
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 15.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	77.5	285	ug/kg	1	AXC2	02/15/10	1356	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1570

Client Sample ID: RE15-10-7985
Sample ID: 246344005
Matrix: R
Collect Date: 01-FEB-10 12:00
Receive Date: 05-FEB-10
Collector: Client
Moisture: 47.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		555	118	435	ug/kg	1	AXC2	02/15/10	1357	950198	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/15/10	1213	950197

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: February 23, 2010

Page 1 of 2

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

Contact:

Workorder: 246344

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	950196										
QC1202036021	246262002	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/15/10	13:03
QC1202036022	246322001	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/15/10	13:07
QC1202036027	LCS										
Cyanide, Total	67900				32500	ug/kg	47.9	(32%-157%)		02/15/10	13:01
QC1202036020	MB										
Cyanide, Total			U		250	ug/kg				02/15/10	13:00
QC1202036023	246262002	MS									
Cyanide, Total	5590	U	ND		5380	ug/kg	96.3	(26%-158%)		02/15/10	13:04
QC1202036024	246322001	MS									
Cyanide, Total	4610	U	ND		3350	ug/kg	72.7	(26%-158%)		02/15/10	13:07
QC1202036025	246262002	MSD									
Cyanide, Total	5700	U	ND		5680	ug/kg	5.51	99.8	(0%-30%)	02/15/10	13:05
QC1202036026	246322001	MSD									
Cyanide, Total	4950	U	ND		3510	ug/kg	4.78	71	(0%-30%)	02/15/10	13:08
Batch	950198										
QC1202036029	246344002	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/15/10	13:50
QC1202036030	246344003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/15/10	13:54
QC1202036035	LCS										
Cyanide, Total	67900				75300	ug/kg	111	(32%-157%)		02/15/10	13:33
QC1202036028	MB										
Cyanide, Total			U		250	ug/kg				02/15/10	13:32
QC1202036031	246344002	MS									
Cyanide, Total	5750	U	ND		5280	ug/kg	91.8	(26%-158%)		02/15/10	13:51
QC1202036032	246344003	MS									
Cyanide, Total	4980	U	ND		5180	ug/kg	104	(26%-158%)		02/15/10	13:55
QC1202036033	246344002	MSD									
Cyanide, Total	6290	U	ND		6480	ug/kg	20.5	103	(0%-30%)	02/15/10	13:52
QC1202036034	246344003	MSD									
Cyanide, Total	5170	U	ND		5170	ug/kg	0.0754	100	(0%-30%)	02/15/10	13:56

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

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B		For General Chemistry and Organic analysis the target analyte was detected in the associated blank.									
BD		Results are either below the MDC or tracer recovery is low									
C		Analyte has been confirmed by GC/MS analysis									
D		Results are reported from a diluted aliquot of the sample									
E		General Chemistry--Concentration of the target analyte exceeds the instrument calibration range									
E		Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria									
E		Organics--Concentration of the target analyte exceeds the instrument calibration range									
F		Estimated Value									
H		Analytical holding time was exceeded									
J		Value is estimated									
M		M if above MDC and less than LLD									
M		Matrix Related Failure									
N		Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor									
N/A		RPD or %Recovery limits do not apply.									
ND		Analyte concentration is not detected above the detection limit									
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
P		Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%									
R		Sample results are rejected									
U		Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.									
UI		Gamma Spectroscopy--Uncertain identification									
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y		QC Samples were not spiked with this compound									
Z		Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.									
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
d		5-day BOD--The 2:1 depletion requirement was not met for this sample									
h		Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-FEB-2010 18:48

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1570

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	15-FEB-2010 12:55:26	OM_2-15-2010_12-44-53	156	150	104	(90%-110%)	Yes
CCV	15-FEB-2010 13:09:44	OM_2-15-2010_12-44-53	104	100	104	(90%-110%)	Yes
CCV	15-FEB-2010 13:22:09	OM_2-15-2010_12-44-53	105	100	105	(90%-110%)	Yes
CCV	15-FEB-2010 13:34:32	OM_2-15-2010_12-44-53	106	100	106	(90%-110%)	Yes
CCV	15-FEB-2010 13:47:03	OM_2-15-2010_12-44-53	106	100	106	(90%-110%)	Yes
CCV	15-FEB-2010 13:59:33	OM_2-15-2010_12-44-53	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	15-FEB-2010 12:57:16	OM_2-15-2010_12-44-53	-1.47	10	Yes
CCB	15-FEB-2010 13:11:34	OM_2-15-2010_12-44-53	-1.5	10	Yes
CCB	15-FEB-2010 13:23:59	OM_2-15-2010_12-44-53	-1.72	10	Yes
CCB	15-FEB-2010 13:36:22	OM_2-15-2010_12-44-53	-1.5	10	Yes
CCB	15-FEB-2010 13:48:54	OM_2-15-2010_12-44-53	-1.7	10	Yes
CCB	15-FEB-2010 14:01:23	OM_2-15-2010_12-44-53	-1.66	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5
 Batch: 950197
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: _____

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202036028		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	
LCS	1202036035		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.25 g	25 mL	100	SOIL	
SAMPLE	246315001		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.56 g	25 mL	44.64286	SOIL	
SAMPLE	246315002		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.56 g	25 mL	44.64286	SOIL	
SAMPLE	246315003		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246325001		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246325002		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.51 g	25 mL	49.01961	SOIL	
SAMPLE	246325003		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246325004		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.55 g	25 mL	45.45455	SOIL	
SAMPLE	246325005		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246325006		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246344002		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
DUP	1202036029	246344002	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
MS	1202036031	246344002	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.58 g	25 mL	43.10345	SOIL	
MSD	1202036033	246344002	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246344003		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.56 g	25 mL	44.64286	SOIL	
DUP	1202036030	246344003	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	
MS	1202036032	246344003	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
MSD	1202036034	246344003	SW846 9010B Prep	15-FEB-2010 12:13	>12	0.51 g	25 mL	49.01961	SOIL	
SAMPLE	246344004		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.52 g	25 mL	48.07692	SOIL	
SAMPLE	246344005		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.55 g	25 mL	45.45455	SOIL	
SAMPLE	246447001		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246447002		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246447003		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246466001		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.51 g	25 mL	49.01961	SOIL	
SAMPLE	246466002		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246466003		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.57 g	25 mL	43.85965	SOIL	
SAMPLE	246466004		SW846 9010B Prep	15-FEB-2010 12:13	>12	0.5 g	25 mL	50	SOIL	

Prep Data Logbook Version 1.1

GEL Laboratories LLC

Page#

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100215-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: AXS5
 Batch: 950195
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: _____

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202036027	URF1200957-01	.25	g
MS	1202036023	URF1269274-02	.025	mL
MS	1202036024	URF1269274-02	.025	mL
MSD	1202036025	URF1269274-02	.025	mL
MSD	1202036026	URF1269274-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202036020		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
LCS	1202036027		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246262002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202036021	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202036023	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202036025	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246322001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202036022	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
MS	1202036024	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202036026	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246322002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246322003		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246322004		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246322005		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246322006		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246322007		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246322008		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246322009		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246336001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246336002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246336003		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246336004		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246336005		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246336006		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246336007		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246336008		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246336009		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246344001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100212-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/15/2010 12:48:16	OM_2-15-2010_12-44-53
150 ppb		1	axc2	2/15/2010 12:49:08	OM_2-15-2010_12-44-53
100 ppb		1	axc2	2/15/2010 12:50:01	OM_2-15-2010_12-44-53
50 ppb		1	axc2	2/15/2010 12:50:53	OM_2-15-2010_12-44-53
10 ppb		1	axc2	2/15/2010 12:51:47	OM_2-15-2010_12-44-53
CRDL 5.0 ppb		1	axc2	2/15/2010 12:52:40	OM_2-15-2010_12-44-53
ICAL-00		1	axc2	2/15/2010 12:53:35	OM_2-15-2010_12-44-53
ICV		1	axc2	2/15/2010 12:55:26	OM_2-15-2010_12-44-53
ICB		1	axc2	2/15/2010 12:57:16	OM_2-15-2010_12-44-53
		1	axc2	2/15/2010 12:59:06	OM_2-15-2010_12-44-53
1202036020	950196	1	axc2	2/15/2010 13:00:56	OM_2-15-2010_12-44-53
1202036027	950196	25	axc2	2/15/2010 13:01:49	OM_2-15-2010_12-44-53
246262002	950196	1	axc2	2/15/2010 13:02:43	OM_2-15-2010_12-44-53
1202036021	950196	1	axc2	2/15/2010 13:03:35	OM_2-15-2010_12-44-53
1202036023	950196	1	axc2	2/15/2010 13:04:29	OM_2-15-2010_12-44-53
1202036025	950196	1	axc2	2/15/2010 13:05:21	OM_2-15-2010_12-44-53
246322001	950196	1	axc2	2/15/2010 13:06:14	OM_2-15-2010_12-44-53
1202036022	950196	1	axc2	2/15/2010 13:07:06	OM_2-15-2010_12-44-53
1202036024	950196	1	axc2	2/15/2010 13:07:59	OM_2-15-2010_12-44-53
1202036026	950196	1	axc2	2/15/2010 13:08:51	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:09:44	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:11:34	OM_2-15-2010_12-44-53
246322002	950196	1	axc2	2/15/2010 13:13:22	OM_2-15-2010_12-44-53
246322003	950196	1	axc2	2/15/2010 13:14:14	OM_2-15-2010_12-44-53
246322004	950196	1	axc2	2/15/2010 13:15:06	OM_2-15-2010_12-44-53
246322005	950196	1	axc2	2/15/2010 13:15:58	OM_2-15-2010_12-44-53
246322006	950196	1	axc2	2/15/2010 13:16:49	OM_2-15-2010_12-44-53
246322007	950196	1	axc2	2/15/2010 13:17:43	OM_2-15-2010_12-44-53
246322008	950196	1	axc2	2/15/2010 13:18:37	OM_2-15-2010_12-44-53
246322009	950196	1	axc2	2/15/2010 13:19:30	OM_2-15-2010_12-44-53
246336001	950196	1	axc2	2/15/2010 13:20:23	OM_2-15-2010_12-44-53
246336002	950196	1	axc2	2/15/2010 13:21:17	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:22:09	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:23:59	OM_2-15-2010_12-44-53
246336003	950196	1	axc2	2/15/2010 13:25:48	OM_2-15-2010_12-44-53
246336004	950196	1	axc2	2/15/2010 13:26:42	OM_2-15-2010_12-44-53
246336005	950196	1	axc2	2/15/2010 13:27:34	OM_2-15-2010_12-44-53
246336006	950196	1	axc2	2/15/2010 13:28:27	OM_2-15-2010_12-44-53
246336007	950196	1	axc2	2/15/2010 13:29:19	OM_2-15-2010_12-44-53
246336008	950196	1	axc2	2/15/2010 13:30:12	OM_2-15-2010_12-44-53
246336009	950196	1	axc2	2/15/2010 13:31:05	OM_2-15-2010_12-44-53
246344001	950196	1	axc2	2/15/2010 13:31:56	OM_2-15-2010_12-44-53
1202036028	950198	1	axc2	2/15/2010 13:32:48	OM_2-15-2010_12-44-53
1202036035	950198	25	axc2	2/15/2010 13:33:40	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:34:32	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:36:22	OM_2-15-2010_12-44-53
246315001	950198	1	axc2	2/15/2010 13:38:12	OM_2-15-2010_12-44-53
246315002	950198	1	axc2	2/15/2010 13:39:06	OM_2-15-2010_12-44-53
246315003	950198	1	axc2	2/15/2010 13:40:00	OM_2-15-2010_12-44-53
246325001	950198	1	axc2	2/15/2010 13:40:53	OM_2-15-2010_12-44-53
246325002	950198	1	axc2	2/15/2010 13:41:47	OM_2-15-2010_12-44-53
246325003	950198	1	axc2	2/15/2010 13:42:40	OM_2-15-2010_12-44-53
246325004	950198	1	axc2	2/15/2010 13:43:33	OM_2-15-2010_12-44-53
246325005	950198	1	axc2	2/15/2010 13:44:25	OM_2-15-2010_12-44-53
246325006	950198	1	axc2	2/15/2010 13:45:18	OM_2-15-2010_12-44-53
246344002	950198	1	axc2	2/15/2010 13:46:12	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:47:03	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:48:54	OM_2-15-2010_12-44-53

1202036029	950198	1	axc2	2/15/2010	13:50:43	OM_2-15-2010_12-44-53
1202036031	950198	1	axc2	2/15/2010	13:51:35	OM_2-15-2010_12-44-53
1202036033	950198	1	axc2	2/15/2010	13:52:27	OM_2-15-2010_12-44-53
246344003	950198	1	axc2	2/15/2010	13:53:19	OM_2-15-2010_12-44-53
1202036030	950198	1	axc2	2/15/2010	13:54:12	OM_2-15-2010_12-44-53
1202036032	950198	1	axc2	2/15/2010	13:55:05	OM_2-15-2010_12-44-53
1202036034	950198	1	axc2	2/15/2010	13:56:00	OM_2-15-2010_12-44-53
246344004	950198	1	axc2	2/15/2010	13:56:54	OM_2-15-2010_12-44-53
246344005	950198	1	axc2	2/15/2010	13:57:47	OM_2-15-2010_12-44-53
246447001	950198	1	axc2	2/15/2010	13:58:41	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010	13:59:33	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010	14:01:23	OM_2-15-2010_12-44-53
246447002	950198	1	axc2	2/15/2010	14:03:13	OM_2-15-2010_12-44-53
246447003	950198	1	axc2	2/15/2010	14:04:06	OM_2-15-2010_12-44-53
246466001	950198	1	axc2	2/15/2010	14:05:00	OM_2-15-2010_12-44-53
246466002	950198	1	axc2	2/15/2010	14:05:53	OM_2-15-2010_12-44-53
246466003	950198	1	axc2	2/15/2010	14:06:45	OM_2-15-2010_12-44-53
246466004	950198	1	axc2	2/15/2010	14:07:38	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010	14:08:30	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010	14:10:21	OM_2-15-2010_12-44-53

Original Run Filename: OM_2-15-2010_12-44-53.OMN created 2/15/2010 12:44:53
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_2-15-2010_12-44-53.OMN last modified 2/15/2010 14:11:25
 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		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100215-01	1	S1	200	10.4	2/15/2010@12:48:16			200 ppb
WCN100215-02	1	S2	150	7.79	2/15/2010@12:49:08			150 ppb
WCN100215-03	1	S3	100	5.26	2/15/2010@12:50:01			100 ppb
WCN100215-04	1	S4	50.0	2.78	2/15/2010@12:50:53			50 ppb
WCN100215-05	1	S5	10.0	0.645	2/15/2010@12:51:47			10 ppb
WCN100215-06	1	S6	5.00	0.365	2/15/2010@12:52:40			CRDL 5.0 ppb
WCN100215-08	1	S7	0.00	0.0118	2/15/2010@12:53:35			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99990 > 0.99500					
Message			Pass					
Action			Continue					
WCN100215-07	1	S8	156	8.13	2/15/2010@12:55:26			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			3.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100215-08	1	S7	-1.47	0.0264	2/15/2010@12:57:16			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.47 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.47 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100215-06	1	S6	4.83	0.352	2/15/2010@12:59:06			
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			4.83 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			4.83 > 2.50					
Message			Pass					
Action			None					
1202036020|950196|MB	1	1	-2.01	-0.00105	2/15/2010@13:00:56			
1202036027|LCS	1	2	13.0	0.772	2/15/2010@13:01:49		25.00	
246262002	1	3	-1.29	0.0358	2/15/2010@13:02:43			
1202036021|DUP	1	4	-2.14	-0.00794	2/15/2010@13:03:35			
1202036023|MS	1	5	96.3	5.07	2/15/2010@13:04:29			
1202036025|MSD	1	6	99.8	5.25	2/15/2010@13:05:21			
246322001	1	7	-0.994	0.0512	2/15/2010@13:06:14			
1202036022|DUP	1	8	-1.21	0.0399	2/15/2010@13:07:06			
1202036024|MS	1	9	72.7	3.85	2/15/2010@13:07:59			
1202036026|MSD	1	10	71.0	3.77	2/15/2010@13:08:51			
WCN100215-03	1	S3	104	5.49	2/15/2010@13:09:44			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.5 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100215-08	1	S7	-1.50	0.0251	2/15/2010@13:11:34			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.50 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.50 > -5.00					
Message			CCB Passed					
Action			Continue					
246322002	1	11	-1.41	0.0299	2/15/2010@13:13:22			
246322003	1	12	-1.57	0.0213	2/15/2010@13:14:14			
246322004	1	13	-1.44	0.0280	2/15/2010@13:15:06			
246322005	1	14	-1.16	0.0424	2/15/2010@13:15:58			
246322006	1	15	-1.49	0.0255	2/15/2010@13:16:49			
246322007	1	16	-0.265	0.0888	2/15/2010@13:17:43			
246322008	1	17	-1.33	0.0341	2/15/2010@13:18:37			
246322009	1	18	-1.33	0.0340	2/15/2010@13:19:30			
246336001	1	19	0.626	0.135	2/15/2010@13:20:23			
246336002	1	20	16.5	0.952	2/15/2010@13:21:17			
WCN100215-03	1	S3	105	5.53	2/15/2010@13:22:09			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.3 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100215-08	1	S7	-1.72	0.0139	2/15/2010@13:23:59			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					
246336003	1	21	-0.0779	0.0984	2/15/2010@13:25:48			
246336004	1	22	1.02	0.155	2/15/2010@13:26:42			
246336005	1	23	-1.32	0.0345	2/15/2010@13:27:34			
246336006	1	24	-1.08	0.0469	2/15/2010@13:28:27			
246336007	1	25	-1.29	0.0360	2/15/2010@13:29:19			
246336008	1	26	-0.178	0.0932	2/15/2010@13:30:12			
246336009	1	27	-0.449	0.0793	2/15/2010@13:31:05			
246344001	1	28	-1.02	0.0498	2/15/2010@13:31:56			
1202036028|950198|MB	1	29	-1.43	0.0287	2/15/2010@13:32:48			
1202036035||LCS	1	30	30.1	1.66	2/15/2010@13:33:40		25.00	
WCN100215-03	1	S3	106	5.57	2/15/2010@13:34:32			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100215-08	1	S7	-1.50	0.0250	2/15/2010@13:36:22			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit						
Result:		-1.50 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.50 > -5.00				
Message		CCB Passed				
Action		Continue				
246315001	1	31	-1.12	0.0448	2/15/2010@13:38:12	
246315002	1	32	-1.43	0.0288	2/15/2010@13:39:06	
246315003	1	33	0.565	0.132	2/15/2010@13:40:00	
246325001	1	34	-1.99	-1.99e-4	2/15/2010@13:40:53	
246325002	1	35	-1.44	0.0280	2/15/2010@13:41:47	
246325003	1	36	-2.17	-0.00943	2/15/2010@13:42:40	
246325004	1	37	-1.47	0.0264	2/15/2010@13:43:33	
246325005	1	38	-1.91	0.00401	2/15/2010@13:44:25	
246325006	1	39	-2.00	-7.90e-4	2/15/2010@13:45:18	
246344002	1	40	-0.652	0.0688	2/15/2010@13:46:12	
WCN100215-03	1	S3	106	5.59	2/15/2010@13:47:03	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				
WCN100215-08	1	S7	-1.70	0.0149	2/15/2010@13:48:54	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.70 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.70 > -5.00				
Message		CCB Passed				
Action		Continue				
1202036029||DUP	1	41	-0.396	0.0820	2/15/2010@13:50:43	
1202036031||MS	1	42	91.8	4.84	2/15/2010@13:51:35	
1202036033||MSD	1	43	103	5.39	2/15/2010@13:52:27	
246344003	1	44	-0.871	0.0575	2/15/2010@13:53:19	
1202036030||DUP	1	45	-1.24	0.0383	2/15/2010@13:54:12	
1202036032||MS	1	46	104	5.48	2/15/2010@13:55:05	
1202036034||MSD	1	47	100	5.26	2/15/2010@13:56:00	
246344004	1	48	-0.460	0.0787	2/15/2010@13:56:54	
246344005	1	49	6.38	0.431	2/15/2010@13:57:47	
246447001	1	50	-2.24	-0.0131	2/15/2010@13:58:41	
WCN100215-03	1	S3	106	5.59	2/15/2010@13:59:33	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				
WCN100215-08	1	S7	-1.66	0.0170	2/15/2010@14:01:23	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.66 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.66 > -5.00				
Message		CCB Passed				
Action		Continue				

246447002	1	51	-1.48	0.0262	2/15/2010@14:03:13		
246447003	1	52	-1.46	0.0273	2/15/2010@14:04:06		
246466001	1	53	-1.20	0.0407	2/15/2010@14:05:00		
246466002	1	54	-1.31	0.0347	2/15/2010@14:05:53		
246466003	1	55	-1.68	0.0158	2/15/2010@14:06:45		
246466004	1	56	-1.02	0.0498	2/15/2010@14:07:38		
WCN100215-03	1	S3	107	5.60	2/15/2010@14:08:30		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				
WCN100215-08	1	S7	-1.66	0.0166	2/15/2010@14:10:21		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.66 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.66 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM_2-15-2010_12-44-53.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration 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

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.
16-FEB-10

Division:
Federal

Quality Criteria:

Type:

Instrument Type:

Test / Method:
SW846 9012A

Matrix Type:
Solid

Client Code:
LANL

Batch ID:
950196

Sample Numbers:
See Below

Potentially affected work order(s)(SDG): 246262(10-1573),246322(10-1565),246336(10-1568-1),246344(10-1570)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

**Specification and Requirements
Exception Description:**

DER Disposition:

1. Failed recovery for MS/MSD:

QC 1202036024MS
1202036026MSD

1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Ashley Earl

16-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc

22-FEB-10

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1570**

Method/Analysis Information

Product: Dry Weight-Percent Moisture
Analytical Method: Dry Soil Prep
Analytical Batch Number: 950431

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202036766	246344001(RE15-10-7981) 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.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 246344001 (RE15-10-7981). The QC was from LANL work order 246344.

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:	956056
Prep Batch Number:	950431

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202049947	Method Blank (MB)
1202049948	246344001(RE15-10-7981) Sample Duplicate (DUP)
1202049949	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 solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202049947 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 246344001 (RE15-10-7981). The QC was from LANL work order 246344.

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

Samples were repped due to low carrier/tracer yield.

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

Manual integration of alpha spectroscopy spectra 1202049949 (LCS) was performed to fully separate counts in Regions of Interest which would have been biased.

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:	950610
Prep Batch Number:	950431

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202037197	Method Blank (MB)
1202037198	246344001(RE15-10-7981) Sample Duplicate (DUP)
1202037199	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 solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

Aliquot for sample 1202037197 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 246344001 (RE15-10-7981). The QC was from LANL work order 246344.

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:	ISOU
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950611
Prep Batch Number:	950431

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202037200	Method Blank (MB)
1202037201	246344001(RE15-10-7981) Sample Duplicate (DUP)
1202037202	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 solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

Aliquot for sample 1202037200 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 246344001 (RE15-10-7981). The QC was from LANL work order 246344.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The U238 blank result is 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. Sample, 246344002 (RE15-10-7983), 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:	GAMMA SPEC
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950787
Prep Batch Number:	950431

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202037549	Method Blank (MB)
1202037550	246325001(RE46-10-11906) Sample Duplicate (DUP)
1202037551	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# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, November 2009, December 2009 and February 2010.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 246325001 (RE46-10-11906). The QC was from LANL work order 246325.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The method blank 1202037549 (MB) result is greater than 1.65 times the CSU but less than the MDC for Cd-109.

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 1202037549 (MB) is greater than the decision level but less than the MDC for Cd-109.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	246344001	RE15-10-7981
			246344002	RE15-10-7983
			246344003	RE15-10-7984
			246344004	RE15-10-7982
			246344005	RE15-10-7985
		Cadmium-109	1202037550	RE46-10-11906(246325001DUP)
			246344001	RE15-10-7981
			246344002	RE15-10-7983
			246344003	RE15-10-7984
			246344004	RE15-10-7982
		Mercury-203	246344005	RE15-10-7985
			1202037550	RE46-10-11906(246325001DUP)
			246344001	RE15-10-7981
		Radium-224	246344001	RE15-10-7981
			246344002	RE15-10-7983
			246344003	RE15-10-7984
			246344004	RE15-10-7982
			246344005	RE15-10-7985
			1202037550	RE46-10-11906(246325001DUP)
UI	Data rejected due to low abundance.	Cesium-134	246344001	RE15-10-7981
			246344002	RE15-10-7983
			1202037550	RE46-10-11906(246325001DUP)
		Strontium-85	246344002	RE15-10-7983
			246344005	RE15-10-7985
			1202037549	MB for batch 950787

Method/Analysis Information

Product: H3
Analytical Method: GL-RAD-A-002
Analytical Batch Number: 953095

Sample ID	Client ID
246344001	RE15-10-7981
246344002	RE15-10-7983
246344003	RE15-10-7984
246344004	RE15-10-7982
246344005	RE15-10-7985
1202042910	Method Blank (MB)
1202042911	246341001(RE15-10-8304) Sample Duplicate (DUP)
1202042912	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.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 246341001 (RE15-10-8304). The QC was from LANL work order 246341.

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:

John D. Austin 2/25/2010
Reviewer/Date: _____

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: 10-1570 GEL Work Order: 246344

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



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: February 25, 2010

Client Sample ID: RE15-10-7981
Sample ID: 246344001
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00232	0.0206	+/-0.00245	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00276	0.0212	+/-0.00196	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00138	0.016	+/-0.00138	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		2.41	0.0912	+/-0.194	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.134	0.0581	+/-0.027	0.100	pCi/g						
Uranium-238		3.75	0.0622	+/-0.289	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0654	0.361	+/-0.108	0.200	pCi/g		MXR1	02/18/10	1559	950787	6
Bismuth-211	UI	3.41	0.303	+/-0.214		pCi/g						
Bismuth-214		0.926	0.0942	+/-0.0742	0.200	pCi/g						
Cadmium-109	UI	2.65	1.18	+/-0.567		pCi/g						
Cerium-139	U	-0.0308	0.0416	+/-0.013	0.050	pCi/g						
Cesium-134	UI	0.119	0.0918	+/-0.0302	0.100	pCi/g						
Cesium-137		0.0737	0.0605	+/-0.0305	0.100	pCi/g						
Cobalt-60	U	-0.00927	0.0579	+/-0.0178	0.100	pCi/g						
Europium-152	U	-0.0533	0.141	+/-0.0442	0.200	pCi/g						
Lanthanum-140	U	0.00129	0.123	+/-0.0372		pCi/g						
Lead-212		1.39	0.0843	+/-0.0743	0.100	pCi/g						
Lead-214		1.19	0.0979	+/-0.0807	0.100	pCi/g						
Mercury-203	UI	0.0648	0.0593	+/-0.023	0.100	pCi/g						
Potassium-40		25.2	0.521	+/-1.20	1.00	pCi/g						
Radium-223	U	0.188	0.932	+/-0.297		pCi/g						
Radium-224	UI	4.28	0.959	+/-0.500		pCi/g						
Radium-226		0.926	0.0942	+/-0.0742		pCi/g						
Radium-228		1.29	0.187	+/-0.161	0.500	pCi/g						
Ruthenium-106	U	0.0663	0.514	+/-0.154	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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7981
246344001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Sodium-22	U	0.0169	0.0704	+/-0.020	0.080	pCi/g						
Strontium-85	U	0.0165	0.0572	+/-0.0188		pCi/g						
Thallium-208		0.393	0.0494	+/-0.0421	0.080	pCi/g						
Thorium-227	U	-0.0359	0.555	+/-0.158		pCi/g						
Thorium-231	U	0.188	0.932	+/-0.297		pCi/g						
Thorium-234		5.03	2.67	+/-1.46	2.00	pCi/g						
Tin-113	U	0.0043	0.0665	+/-0.0193	0.100	pCi/g						
Uranium-235	U	0.119	0.335	+/-0.096	0.500	pCi/g						
Yttrium-88	U	0.00917	0.062	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		336	174	+/-61.9	250	pCi/L		KXK2	02/19/10	2338	953095	7

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.5	(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

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: February 25, 2010

Client Sample ID: RE15-10-7981 Project: LANL01004
Sample ID: 246344001 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------	-------	------

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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: February 25, 2010

Client Sample ID: RE15-10-7983
Sample ID: 246344002
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 25%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00793	0.0216	+/-0.00336	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	-0.00097	0.0207	+/-0.00166	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00172	0.0156	+/-0.00214	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.22	0.0806	+/-0.106	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.107	0.0514	+/-0.0232	0.100	pCi/g						
Uranium-238		2.08	0.055	+/-0.167	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0392	0.279	+/-0.0867	0.200	pCi/g		MXR1	02/18/10	1657	950787	6
Bismuth-211	UI	3.68	0.254	+/-0.203		pCi/g						
Bismuth-214		1.16	0.082	+/-0.0775	0.200	pCi/g						
Cadmium-109	UI	2.90	1.46	+/-0.492		pCi/g						
Cerium-139	U	-0.00418	0.0417	+/-0.0119	0.050	pCi/g						
Cesium-134	UI	0.0911	0.0705	+/-0.0223	0.100	pCi/g						
Cesium-137		0.0768	0.0451	+/-0.0247	0.100	pCi/g						
Cobalt-60	U	0.000172	0.0523	+/-0.0157	0.100	pCi/g						
Europium-152	U	0.0107	0.129	+/-0.0445	0.200	pCi/g						
Lanthanum-140	U	-0.0472	0.111	+/-0.0362		pCi/g						
Lead-212		1.57	0.0734	+/-0.072	0.100	pCi/g						
Lead-214		1.28	0.0885	+/-0.078	0.100	pCi/g						
Mercury-203	U	0.0348	0.0614	+/-0.0175	0.100	pCi/g						
Potassium-40		23.8	0.419	+/-1.10	1.00	pCi/g						
Radium-223	U	0.0635	0.832	+/-0.285		pCi/g						
Radium-224	UI	4.51	0.834	+/-0.379		pCi/g						
Radium-226		1.16	0.082	+/-0.0775		pCi/g						
Radium-228		1.68	0.171	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.135	0.382	+/-0.121	0.800	pCi/g						
Sodium-22	U	-0.00597	0.0617	+/-0.0189	0.080	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: February 25, 2010

Client Sample ID: RE15-10-7983
Sample ID: 246344002

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"

Strontium-85	UI	0.0687	0.0558	+/-0.0169		pCi/g						
Thallium-208		0.483	0.0455	+/-0.0359	0.080	pCi/g						
Thorium-227	U	0.0179	0.522	+/-0.154		pCi/g						
Thorium-231	U	0.0635	0.832	+/-0.285		pCi/g						
Thorium-234	U	1.85	2.27	+/-1.08	2.00	pCi/g						
Tin-113	U	0.0158	0.0596	+/-0.0169	0.100	pCi/g						
Uranium-235	U	0.0119	0.311	+/-0.0955	0.500	pCi/g						
Yttrium-88	U	0.00964	0.0423	+/-0.0122	0.100	pCi/g						

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		199	174	+/-56.4	250	pCi/L	KXK2	02/20/10	0116	953095	7	
---------	--	-----	-----	---------	-----	-------	------	----------	------	--------	---	--

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109 *	(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: February 25, 2010

Client Sample ID: RE15-10-7983
Sample ID: 246344002

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
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
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.

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: February 25, 2010

Client Sample ID: RE15-10-7984
Sample ID: 246344003
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 5.24%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	-0.00167	0.0201	+/-0.00173	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.000372	0.0204	+/-0.00164	0.050	pCi/g		KXM4	02/22/10	0924	950610	4
Plutonium-239/240	U	0.00	0.0154	+/-0.00133	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.591	0.0838	+/-0.0616	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236	U	0.0534	0.0535	+/-0.0153	0.100	pCi/g						
Uranium-238		0.701	0.0572	+/-0.0698	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0412	0.245	+/-0.0775	0.200	pCi/g		MXR1	02/18/10	1658	950787	6
Bismuth-211	UI	3.29	0.348	+/-0.228		pCi/g						
Bismuth-214		1.04	0.109	+/-0.0876	0.200	pCi/g						
Cadmium-109	UI	2.05	1.34	+/-0.540		pCi/g						
Cerium-139	U	-0.023	0.0496	+/-0.0151	0.050	pCi/g						
Cesium-134	U	0.0733	0.0835	+/-0.0226	0.100	pCi/g						
Cesium-137	U	-0.0129	0.0611	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.0069	0.0678	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.115	0.162	+/-0.0747	0.200	pCi/g						
Lanthanum-140	U	-0.0689	0.127	+/-0.044		pCi/g						
Lead-212		1.45	0.0958	+/-0.0747	0.100	pCi/g						
Lead-214		1.15	0.112	+/-0.0847	0.100	pCi/g						
Mercury-203	U	0.0224	0.0714	+/-0.0199	0.100	pCi/g						
Potassium-40		33.8	0.496	+/-1.54	1.00	pCi/g						
Radium-223	U	0.0503	1.01	+/-0.331		pCi/g						
Radium-224	UI	3.55	1.09	+/-0.706		pCi/g						
Radium-226		1.04	0.109	+/-0.0876		pCi/g						
Radium-228		1.70	0.195	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.12	0.486	+/-0.149	0.800	pCi/g						
Sodium-22	U	-0.00743	0.0759	+/-0.023	0.080	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: February 25, 2010

Client Sample ID: RE15-10-7984
Sample ID: 246344003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Strontium-85	U	0.0439	0.0627	+/-0.0194		pCi/g						
Thallium-208		0.480	0.0591	+/-0.0404	0.080	pCi/g						
Thorium-227	U	-0.0342	0.629	+/-0.190		pCi/g						
Thorium-231	U	0.0503	1.01	+/-0.331		pCi/g						
Thorium-234	U	1.41	2.15	+/-0.808	2.00	pCi/g						
Tin-113	U	0.000865	0.0737	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0166	0.367	+/-0.108	0.500	pCi/g						
Yttrium-88	U	-0.00171	0.0467	+/-0.0145	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium	U	114	173	+/-53.6	250	pCi/L		KXK2	02/20/10	0408	953095	7

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(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: February 25, 2010

Client Sample ID: RE15-10-7984
Sample ID: 246344003

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

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

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.

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: February 25, 2010

Client Sample ID: RE15-10-7982
Sample ID: 246344004
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 15.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00247	0.0222	+/-0.00188	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00169	0.026	+/-0.0017	0.050	pCi/g		KXM4	02/20/10	1431	950610	4
Plutonium-239/240	U	0.00508	0.0196	+/-0.00294	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.06	0.0915	+/-0.0971	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236	U	0.0538	0.0583	+/-0.016	0.100	pCi/g						
Uranium-238		1.23	0.0625	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.214	0.377	+/-0.118	0.200	pCi/g		MXR1	02/18/10	1659	950787	6
Bismuth-211	UI	4.42	0.365	+/-0.306		pCi/g						
Bismuth-214		1.20	0.137	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.23	1.65	+/-0.546		pCi/g						
Cerium-139	U	-0.0079	0.0594	+/-0.018	0.050	pCi/g						
Cesium-134	U	0.0961	0.110	+/-0.0401	0.100	pCi/g						
Cesium-137	U	0.0256	0.0836	+/-0.0247	0.100	pCi/g						
Cobalt-60	U	0.0124	0.0744	+/-0.0221	0.100	pCi/g						
Europium-152	U	-0.103	0.186	+/-0.0717	0.200	pCi/g						
Lanthanum-140	U	-0.0111	0.194	+/-0.0592		pCi/g						
Lead-212		1.76	0.102	+/-0.0891	0.100	pCi/g						
Lead-214		1.54	0.127	+/-0.114	0.100	pCi/g						
Mercury-203	U	-0.0598	0.0803	+/-0.0249	0.100	pCi/g						
Potassium-40		25.8	0.783	+/-1.37	1.00	pCi/g						
Radium-223	U	-0.865	1.30	+/-0.410		pCi/g						
Radium-224	UI	4.91	1.16	+/-0.806		pCi/g						
Radium-226		1.20	0.137	+/-0.104		pCi/g						
Radium-228		1.87	0.264	+/-0.201	0.500	pCi/g						
Ruthenium-106	U	0.163	0.668	+/-0.198	0.800	pCi/g						
Sodium-22	U	-0.0149	0.0878	+/-0.0278	0.080	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: February 25, 2010

Client Sample ID: RE15-10-7982
Sample ID: 246344004

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"

Strontium-85	U	0.0468	0.075	+/-0.0238		pCi/g						
Thallium-208		0.500	0.074	+/-0.0467	0.080	pCi/g						
Thorium-227	U	0.299	0.792	+/-0.237		pCi/g						
Thorium-231	U	-0.865	1.30	+/-0.410		pCi/g						
Thorium-234	U	2.43	2.99	+/-1.06	2.00	pCi/g						
Tin-113	U	-0.00663	0.0856	+/-0.0257	0.100	pCi/g						
Uranium-235	U	0.257	0.435	+/-0.129	0.500	pCi/g						
Yttrium-88	U	0.00382	0.063	+/-0.0188	0.100	pCi/g						

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		204	173	+/-56.4	250	pCi/L		KXK2	02/20/10	0546	953095	7
---------	--	-----	-----	---------	-----	-------	--	------	----------	------	--------	---

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7982
246344004

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

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

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.

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: February 25, 2010

Client Sample ID: RE15-10-7985
Sample ID: 246344005
Matrix: R
Collect Date: 01-FEB-10
Receive Date: 05-FEB-10
Collector: Client
Moisture: 47.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241		0.0271	0.0204	+/-0.00618	0.050	pCi/g		KXM4	02/23/10	2116	956056	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0109	0.024	+/-0.00417	0.050	pCi/g		KXM4	02/20/10	1431	950610	4
Plutonium-239/240		0.0789	0.0181	+/-0.0121	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		6.18	0.142	+/-0.501	0.100	pCi/g		KXM4	02/19/10	1649	950611	5
Uranium-235/236		0.591	0.0905	+/-0.078	0.100	pCi/g						
Uranium-238		22.6	0.0969	+/-1.74	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.313	0.588	+/-0.200	0.200	pCi/g		MXR1	02/18/10	1702	950787	6
Bismuth-211	UI	3.93	0.471	+/-0.341		pCi/g						
Bismuth-214		1.34	0.146	+/-0.124	0.200	pCi/g						
Cadmium-109	UI	4.58	1.90	+/-0.957		pCi/g						
Cerium-139	U	0.00753	0.0689	+/-0.0216	0.050	pCi/g						
Cesium-134	U	0.0548	0.0965	+/-0.0275	0.100	pCi/g						
Cesium-137		1.96	0.0732	+/-0.109	0.100	pCi/g						
Cobalt-60	U	-0.0014	0.0744	+/-0.0235	0.100	pCi/g						
Europium-152	U	-0.0752	0.210	+/-0.077	0.200	pCi/g						
Lanthanum-140	U	-0.0245	0.183	+/-0.0575		pCi/g						
Lead-212		1.57	0.120	+/-0.117	0.100	pCi/g						
Lead-214		1.37	0.156	+/-0.124	0.100	pCi/g						
Mercury-203	U	0.0326	0.103	+/-0.0307	0.100	pCi/g						
Potassium-40		22.0	0.747	+/-1.37	1.00	pCi/g						
Radium-223	U	-0.464	1.59	+/-0.499		pCi/g						
Radium-224	UI	4.62	1.37	+/-0.978		pCi/g						
Radium-226		1.34	0.146	+/-0.124		pCi/g						
Radium-228		1.63	0.242	+/-0.198	0.500	pCi/g						
Ruthenium-106	U	-0.102	0.624	+/-0.201	0.800	pCi/g						
Sodium-22	U	-0.0064	0.0789	+/-0.0251	0.080	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: February 25, 2010

Client Sample ID:
Sample ID:

RE15-10-7985
246344005

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"

Strontium-85	UJ	0.214	0.106	+/-0.0295		pCi/g						
Thallium-208		0.438	0.0771	+/-0.0511	0.080	pCi/g						
Thorium-227	U	0.220	0.891	+/-0.267		pCi/g						
Thorium-231	U	-0.464	1.59	+/-0.499		pCi/g						
Thorium-234		17.6	4.30	+/-2.82	2.00	pCi/g						
Tin-113	U	-0.0127	0.105	+/-0.0328	0.100	pCi/g						
Uranium-235		0.531	0.460	+/-0.198	0.500	pCi/g						
Yttrium-88	U	-0.00743	0.0573	+/-0.0184	0.100	pCi/g						

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		238	173	+/-57.7	250	pCi/L	KXK2	02/20/10	0724	953095	7	
---------	--	-----	-----	---------	-----	-------	------	----------	------	--------	---	--

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, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.9	(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: February 25, 2010

Client Sample ID: RE15-10-7985
Sample ID: 246344005

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

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

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: February 25, 2010

Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246344

Parmname		NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec												
Batch	950610											
QC1202037198	246344001	DUP										
Plutonium-238			U	0.00276	U	0.00669	pCi/g	0.369	(0-1)	KXM4	02/20/10	14:31
			TPU:	+/-0.00196		+/-0.00337						
			Yield:	97.6		91.5						
Plutonium-239/240			U	0.00138	U	0.00308	pCi/g	0.159	(0-1)			
			TPU:	+/-0.00138		+/-0.00395						
			Yield:	97.6		91.5						
QC1202037199	LCS											
Plutonium-238						7.76	pCi/g		(75%-125%)			
			TPU:			+/-0.599						
			Yield:			98.4						
Plutonium-239/240		41.8				39.4	pCi/g	94.3	(75%-125%)			
			TPU:			+/-2.54						
			Yield:			98.4						
QC1202037197	MB											
Plutonium-238					U	0.000583	pCi/g					
			TPU:			+/-0.00257						
			Yield:			93.1						
Plutonium-239/240					U	0.000583	pCi/g					
			TPU:			+/-0.00257						
			Yield:			93.1						
Batch	950611											
QC1202037201	246344001	DUP										
Uranium-233/234				2.41		2.35	pCi/g	0.0817	(0-1)	KXM4	02/19/10	16:49
			TPU:	+/-0.194		+/-0.187						
			Yield:	98.5		103						
Uranium-235/236				0.134		0.141	pCi/g	0.0696	(0-1)			
			TPU:	+/-0.027		+/-0.0262						
			Yield:	98.5		103						
Uranium-238				3.75		3.97	pCi/g	0.185	(0-1)			
			TPU:	+/-0.289		+/-0.302						
			Yield:	98.5		103						
QC1202037202	LCS											
Uranium-233/234						5.34	pCi/g		(75%-125%)		02/19/10	16:49
			TPU:			+/-0.506						
			Yield:			103						
Uranium-235/236						0.321	pCi/g		(75%-125%)			
			TPU:			+/-0.0887						
			Yield:			103						
Uranium-238		5.75				5.03	pCi/g	87.5	(75%-125%)			
			TPU:			+/-0.482						
			Yield:			103						
QC1202037200	MB											
Uranium-233/234					U	0.00496	pCi/g				02/19/10	12:54

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	950611										
		TPU:		+/-0.00386							
		Yield:		103							
Uranium-235/236			U	0.00173	pCi/g						
		TPU:		+/-0.00174							
		Yield:		103							
Uranium-238			U	0.00841	pCi/g						
		TPU:		+/-0.00401							
		Yield:		103							
Batch	956056										
QC1202049948	246344001	DUP									
Americium-241		U	0.00232	U	0.00534	pCi/g	0.289	(0-1)	KXM4	02/23/10	21:16
		TPU:	+/-0.00245		+/-0.00279						
		Yield:	79.7		75.7						
QC1202049949	LCS										
Americium-241	33.2				30.2	pCi/g		91 (75%-125%)		02/23/10	21:16
		TPU:			+/-1.99						
		Yield:			100						
QC1202049947	MB										
Americium-241			U	-0.00228	pCi/g					02/23/10	21:16
		TPU:		+/-0.00142							
		Yield:		96.5							
Rad Gamma Spec											
Batch	950787										
QC1202037550	246325001	DUP									
Americium-241		U	-0.124	U	0.0682	pCi/g	0.431	(0-1)	MXR1	02/18/10	17:29
		TPU:	+/-0.135		+/-0.0878						
Bismuth-211		UI	4.53	UI	4.37	pCi/g	0.144	(0-1)			
		TPU:	+/-0.289		+/-0.279						
Bismuth-214			1.29		1.34	pCi/g	0.140	(0-1)			
		TPU:	+/-0.0861		+/-0.107						
Cadmium-109		UI	4.61	UI	2.94	pCi/g	0.602	(0-1)			
		TPU:	+/-0.790		+/-0.598						
Cerium-139		U	-0.0355	U	0.00882	pCi/g	0.695	(0-1)			
		TPU:	+/-0.0159		+/-0.016						
Cesium-134		U	0.0703	UI	0.127	pCi/g	0.463	(0-1)			
		TPU:	+/-0.0275		+/-0.0332						
Cesium-137		U	0.0122	U	0.0414	pCi/g	0.316	(0-1)			
		TPU:	+/-0.0199		+/-0.0263						
Cobalt-60		U	0.00806	U	-0.0183	pCi/g	0.309	(0-1)			
		TPU:	+/-0.0186		+/-0.024						
Europium-152		U	-0.0728	U	0.00138	pCi/g	0.348	(0-1)			
		TPU:	+/-0.0497		+/-0.0569						
Lanthanum-140		U	-0.0174	U	-0.0542	pCi/g	0.182	(0-1)			
		TPU:	+/-0.0553		+/-0.0457						
Lead-212			1.95		1.86	pCi/g	0.237	(0-1)			
		TPU:	+/-0.0953		+/-0.0903						
Lead-214			1.58		1.52	pCi/g	0.136	(0-1)			
		TPU:	+/-0.109		+/-0.105						
Mercury-203		U	-0.00172	U	0.0299	pCi/g	0.351	(0-1)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch										
Potassium-40		TPU:	+/-0.0216	+/-0.0235						
			39.5	37.2	pCi/g	0.317		(0-1)		
Radium-223		TPU:	+/-1.99	+/-1.70						
		U	0.0835	0.268	pCi/g	0.118		(0-1)		
Radium-224		TPU:	+/-0.388	+/-0.393						
		UI	4.81	5.44	pCi/g	0.284		(0-1)		
Radium-226		TPU:	+/-0.587	+/-0.523						
			1.29	1.34	pCi/g	0.140		(0-1)		
Radium-228		TPU:	+/-0.0861	+/-0.107						
			1.78	2.04	pCi/g	0.330		(0-1)		
Ruthenium-106		TPU:	+/-0.207	+/-0.181						
		U	-0.213	0.203	pCi/g	0.633		(0-1)		
Sodium-22		TPU:	+/-0.155	+/-0.173						
		U	0.00296	0.00566	pCi/g	0.0254		(0-1)		
Strontium-85		TPU:	+/-0.0262	+/-0.0268						
		U	0.0595	0.0678	pCi/g	0.103		(0-1)		
Thallium-208		TPU:	+/-0.0186	+/-0.0217						
			0.585	0.670	pCi/g	0.429		(0-1)		
Thorium-227		TPU:	+/-0.0504	+/-0.0486						
		U	-0.116	0.115	pCi/g	0.303		(0-1)		
Thorium-231		TPU:	+/-0.190	+/-0.191						
		U	0.0835	0.268	pCi/g	0.118		(0-1)		
Thorium-234		TPU:	+/-0.388	+/-0.393						
			4.35	2.64	pCi/g	0.331		(0-1)		
Tin-113		TPU:	+/-1.52	+/-1.06						
		U	-0.0239	0.0023	pCi/g	0.278		(0-1)		
Uranium-235		TPU:	+/-0.0244	+/-0.0227						
		U	0.142	0.0598	pCi/g	0.181		(0-1)		
Yttrium-88		TPU:	+/-0.113	+/-0.113						
		U	0.00247	0.0198	pCi/g	0.231		(0-1)		
		TPU:	+/-0.0175	+/-0.0201						
QC1202037551	LCS									
Americium-241		15.9		13.4	pCi/g		84.4	(75%-125%)		02/18/1017:29
		TPU:		+/-0.635						
Bismuth-211				2.94	pCi/g					
		TPU:		+/-0.356						
Bismuth-214				0.722	pCi/g					
		TPU:		+/-0.120						
Cadmium-109				30.1	pCi/g					
		TPU:		+/-1.91						
Cerium-139			U	0.0126	pCi/g					
		TPU:		+/-0.0197						
Cesium-134			U	-0.0352	pCi/g					
		TPU:		+/-0.0397						
Cesium-137		5.56		6.02	pCi/g		108	(75%-125%)		
		TPU:		+/-0.298						
Cobalt-60		6.39		6.67	pCi/g		104	(75%-125%)		
		TPU:		+/-0.324						
Europium-152			U	-0.0956	pCi/g					
		TPU:		+/-0.0781						
Lanthanum-140			U	-0.0212	pCi/g					

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	950787										
Lead-212	TPU:			+/-0.0364							
				0.955	pCi/g						
Lead-214	TPU:			+/-0.0993							
				1.02	pCi/g						
Mercury-203	TPU:		U	+/-0.127							
				-0.037	pCi/g						
Potassium-40	TPU:			+/-0.0283							
				0.726	pCi/g						
Radium-223	TPU:		U	+/-0.293							
				0.170	pCi/g						
Radium-224	TPU:		U	+/-0.556							
				1.56	pCi/g						
Radium-226	TPU:			+/-0.649							
				0.722	pCi/g						
Radium-228	TPU:			+/-0.120							
				1.03	pCi/g						
Ruthenium-106	TPU:		U	+/-0.231							
				0.085	pCi/g						
Sodium-22	TPU:		U	+/-0.259							
				-0.00713	pCi/g						
Strontium-85	TPU:		U	+/-0.0249							
				0.0576	pCi/g						
Thallium-208	TPU:			+/-0.0293							
				0.350	pCi/g						
Thorium-227	TPU:		U	+/-0.0563							
				-0.0277	pCi/g						
Thorium-231	TPU:		U	+/-0.297							
				0.170	pCi/g						
Thorium-234	TPU:		U	+/-0.556							
				1.21	pCi/g						
Tin-113	TPU:		U	+/-0.933							
				-0.00313	pCi/g						
Uranium-235	TPU:		U	+/-0.0372							
				0.0299	pCi/g						
Yttrium-88	TPU:		U	+/-0.136							
				0.051	pCi/g						
QC1202037549 MB	TPU:			+/-0.0224							
Americium-241			U	-0.00411	pCi/g					02/18/10	17:03
	TPU:			+/-0.0237							
Bismuth-211			U	-0.0768	pCi/g						
	TPU:			+/-0.0525							
Bismuth-214			U	0.00185	pCi/g						
	TPU:			+/-0.0236							
Cadmium-109			U	0.308	pCi/g						
	TPU:			+/-0.142							
Cerium-139			U	-0.0127	pCi/g						
	TPU:			+/-0.00632							
Cesium-134			U	-0.00872	pCi/g						
	TPU:			+/-0.00975							
Cesium-137			U	0.00159	pCi/g						

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	950787										
Cobalt-60	TPU:			+/-0.00827							
		U		0.000526	pCi/g						
Europium-152	TPU:			+/-0.00751							
		U		-0.0055	pCi/g						
Lanthanum-140	TPU:			+/-0.0215							
		U		-0.00398	pCi/g						
Lead-212	TPU:			+/-0.0118							
		U		-0.013	pCi/g						
Lead-214	TPU:			+/-0.0163							
		U		-0.00965	pCi/g						
Mercury-203	TPU:			+/-0.0182							
		U		0.00932	pCi/g						
Potassium-40	TPU:			+/-0.00824							
		U		0.0206	pCi/g						
Radium-223	TPU:			+/-0.111							
		U		0.109	pCi/g						
Radium-224	TPU:			+/-0.155							
		U		0.118	pCi/g						
Radium-226	TPU:			+/-0.162							
		U		0.00185	pCi/g						
Radium-228	TPU:			+/-0.0236							
		U		-0.0594	pCi/g						
Ruthenium-106	TPU:			+/-0.0334							
		U		0.000695	pCi/g						
Sodium-22	TPU:			+/-0.0727							
		U		0.0118	pCi/g						
Strontium-85	TPU:			+/-0.00728							
		U1		0.0749	pCi/g						
Thallium-208	TPU:			+/-0.0102							
		U		0.00923	pCi/g						
Thorium-227	TPU:			+/-0.00956							
		U		-0.014	pCi/g						
Thorium-231	TPU:			+/-0.0927							
		U		0.109	pCi/g						
Thorium-234	TPU:			+/-0.155							
		U		-0.147	pCi/g						
Tin-113	TPU:			+/-0.265							
		U		-0.0198	pCi/g						
Uranium-235	TPU:			+/-0.0102							
		U		-0.085	pCi/g						
Yttrium-88	TPU:			+/-0.0508							
		U		0.00532	pCi/g						
	TPU:			+/-0.00747							
Rad Liquid Scintillation											
Batch	953095										
QC1202042911	246341001	DUP									
Tritium		U	53.4	U	15.2	pCi/L	0.185	(0-1)	KXXK2	02/20/1018:50	
		TPU:	+/-52.0		+/-51.0						
QC1202042912	LCS										
Tritium		5550			5090	pCi/L		91.7 (75%-125%)		02/20/1020:27	

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 6 of 7

Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation									
Batch	953095								
QC1202042910	MB								
Tritium		U	15.2	pCi/L					02/20/1017:12
		TPU:	+/-447						
		TPU:	+/-50.9						

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
- 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
- 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

GEL LABORATORIES LLC

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

QC Summary

Workorder: 246344

Page 7 of 7

Paramname	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 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.

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# 950610 Product: Pu Date: 2/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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 stated.	✓		
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: JPLM - 2/23/10Secondary Review Performed By: kg Stanc 2/23/10

2/16 2/26

LANL

Plutonium Que Sheet

08-FEB-10

Batch #: 950610 Analyst: KXM4 First Client Due Date: 26-FEB-10 Internal Due Date: 16-FEB-10
 Tracer Isotope(s): Pu-242 Pu-238 Tracer Code: 1375 A Expiration Date: 1-8-11 Vol: 0.1mL
 LCS Isotope(s): Pu-239 Pu-238 LCS Code: SRM 0144-B Expiration Date: 4-30-20 Vol: 0.12
 Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA
 Prep Date: 2-17-10 Initials: VM Pipet ID: 7971058 Balance ID: 50410272
 Witness: MDA 2/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry	Aliquot g	Pu Det #
246262001-1	RE16-10-1150	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	1	1	Wet	1.252	209
246262002-1	RE16-10-1151	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	2	2	Wet	1.254	211
246315001-1	RE46-10-12039	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	3	3	Wet	1.255	213
246315002-1	RE46-10-12040	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	4	4	Wet	1.251	215
246315003-1	RE46-10-12043	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	5	5	Wet	1.255	217
246325002-1	RE46-10-12047	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	6	6	Wet	1.252	219
246325003-1	RE46-10-12048	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	7	7	Wet	1.251	210
246325004-1	RE46-10-12049	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	8	8	Wet	1.258	212
246325005-1	RE46-10-12050	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	9	9	Wet	1.253	214
246325006-1	RE46-10-12051	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	10	10	Wet	1.253	216
246331001-1	RE16-10-1132	SAMPLE	.05 pCi/g		SOIL	LANL010	30-JAN-10	11	11	Wet	1.258	218
246331002-1	RE16-10-1145	SAMPLE	.05 pCi/g		SOIL	LANL010	30-JAN-10	12	12	Wet	1.253	220
246338001-1	RE46-10-11592	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	13	13	Wet	1.256	221
246338002-1	RE46-10-11593	SAMPLE	.05 pCi/g		SOIL	LANL010	02-FEB-10	14	14	Wet	1.251	222
246344001-1	RE15-10-7981	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	15	15	Wet	1.251	223
246344002-1	RE15-10-7983	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	16	16	Wet	1.259	224
246344003-1	RE15-10-7984	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	17	17	Wet	1.258	225
246344004-1	RE15-10-7982	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	18	18	Wet	1.257	101
246344005-1	RE15-10-7985	SAMPLE	.05 pCi/g		SOIL	LANL010	01-FEB-10	19	19	Wet	1.254	102
1202837197-1	MB for batch 950610	MB	.05 pCi/g		SOIL	QC ACCOUNT	01-FEB-10	20	20	Wet	1.259	106
1202837198-1	RE15-10-7981 (246344001 DUP)	DUP	.05 pCi/g		SOIL	QC ACCOUNT	01-FEB-10	21	21	Wet	1.253	103
1202837199-1	LCS for batch 950610	LCS	.05 pCi/g		SOIL	QC ACCOUNT	01-FEB-10	22	22	Wet	0.114	105

Data Reviewed By: S. M. L. - 2/23/10

Solid Sample Dissolution by LEACH or DIGESTION
 Circle One

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

GEL Laboratories LLC., Radiochemistry Division

Blank Correction Report

Batch ID 950610

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Allquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202037198	DUP	Plutonium-238	1.25 g	0.00669	0.00337	0.0257	.0004664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00308	0.00395	0.0194	.0004664	pCi/g	NO
1202037199	LCS	Plutonium-238	0.114 g	7.76	0.599	0.270	.005114035	pCi/g	NO
		Plutonium-239/240	0.114 g	39.4	2.54	0.204	.005114035	pCi/g	NO
1202037197	MB	Plutonium-238	1.00 g	0.000583	0.00257	0.032	.000583	pCi/g	YES
		Plutonium-239/240	1.00 g	0.000583	0.00257	0.0242	.000583	pCi/g	YES
246262001	RE16-10-1150	Plutonium-238	1.25 g	0.00	0.00146	0.0223	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00	0.00146	0.0169	.0004664	pCi/g	YES
246262002	RE16-10-1151	Plutonium-238	1.25 g	-0.000982	0.00168	0.0209	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00409	0.00237	0.0158	.0004664	pCi/g	NO
246315001	RE46-10-12039	Plutonium-238	1.26 g	0.00	0.00148	0.0227	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00083	0.00258	0.0172	.000462698	pCi/g	YES
246315002	RE46-10-12040	Plutonium-238	1.25 g	0.00	0.00146	0.0224	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00146	0.00146	0.0169	.0004664	pCi/g	YES
246315003	RE46-10-12043	Plutonium-238	1.26 g	0.00193	0.00239	0.0231	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0105	0.00402	0.0175	.000462698	pCi/g	NO
246325002	RE46-10-12047	Plutonium-238	1.25 g	0.00	0.00155	0.0237	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00308	0.00219	0.0179	.0004664	pCi/g	NO
246325003	RE46-10-12048	Plutonium-238	1.25 g	0.000381	0.00168	0.0209	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00136	0.00136	0.0158	.0004664	pCi/g	YES
246325004	RE46-10-12049	Plutonium-238	1.26 g	0.00133	0.00133	0.0204	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00	0.00133	0.0154	.000462698	pCi/g	YES
246325005	RE46-10-12050	Plutonium-238	1.25 g	0.00	0.00146	0.0223	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00064	0.00208	0.0169	.0004664	pCi/g	YES
246325006	RE46-10-12051	Plutonium-238	1.25 g	0.000351	0.00155	0.0193	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.000201	0.00237	0.0145	.0004664	pCi/g	YES
246331001	RE16-10-1132	Plutonium-238	1.26 g	0.00146	0.00321	0.020	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00391	0.00226	0.0151	.000462698	pCi/g	NO
246331002	RE16-10-1145	Plutonium-238	1.25 g	0.00	0.00139	0.0212	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.000609	0.00198	0.0161	.0004664	pCi/g	YES
246338001	RE46-10-11592	Plutonium-238	1.26 g	-0.00304	0.00225	0.0216	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0032	0.00264	0.0163	.000462698	pCi/g	NO
246338002	RE46-10-11593	Plutonium-238	1.25 g	-0.00097	0.00166	0.0207	.0004664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00269	0.00191	0.0156	.0004664	pCi/g	NO
246344001	RE15-10-7981	Plutonium-238	1.25 g	0.00276	0.00196	0.0212	.0004664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00138	0.00138	0.016	.0004664	pCi/g	YES
246344002	RE15-10-7983	Plutonium-238	1.26 g	-0.00097	0.00166	0.0207	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00172	0.00214	0.0156	.000462698	pCi/g	YES
246344003	RE15-10-7984	Plutonium-238	1.26 g	0.000372	0.00164	0.0204	.000462698	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246344003	RE15-10-7984	Plutonium-239/240	1.26 g	0.00	0.00133	0.0154	.000462698	pCi/g	YES
246344004	RE15-10-7982	Plutonium-238	1.26 g	0.00169	0.0017	0.026	.000462698	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00508	0.00294	0.0196	.000462698	pCi/g	NO
246344005	RE15-10-7985	Plutonium-238	1.25 g	0.0109	0.00417	0.024	.0004664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0789	0.0121	0.0181	.0004664	pCi/g	NO

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 950610
SAMPLE ID	: S0246344001_PU
SAMPLE QTY	: 1.251 G
SAMPLE DATE	: 1-FEB-2010 00:00
ANALYST	: KXM4
% YIELD	: 97.600

CHAMBER	:	223
DETECTOR S/N	:	79416
AVERAGE %EFFICIENCY	:	37.1371
COUNT DATE	:	22-FEB-2010 09:24:11
ELAPSED LIVE TIME(SEC)	:	43200.00

LIB FILE	ENV_ALPHA_PU
BKG FILE	B223.CNF:85
BKG DATE	21-FEB-2010
BKG LIVE TIME(SEC)	60000.00
EFF FILE	W223.CNF:28
CAL DATE	29-JAN-2010

TRACER

ID	:	1375-A
NUCLIDE	:	PU242
NOMINAL	:	3.3808E+00 dpm
RESULTS	:	3.2996E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

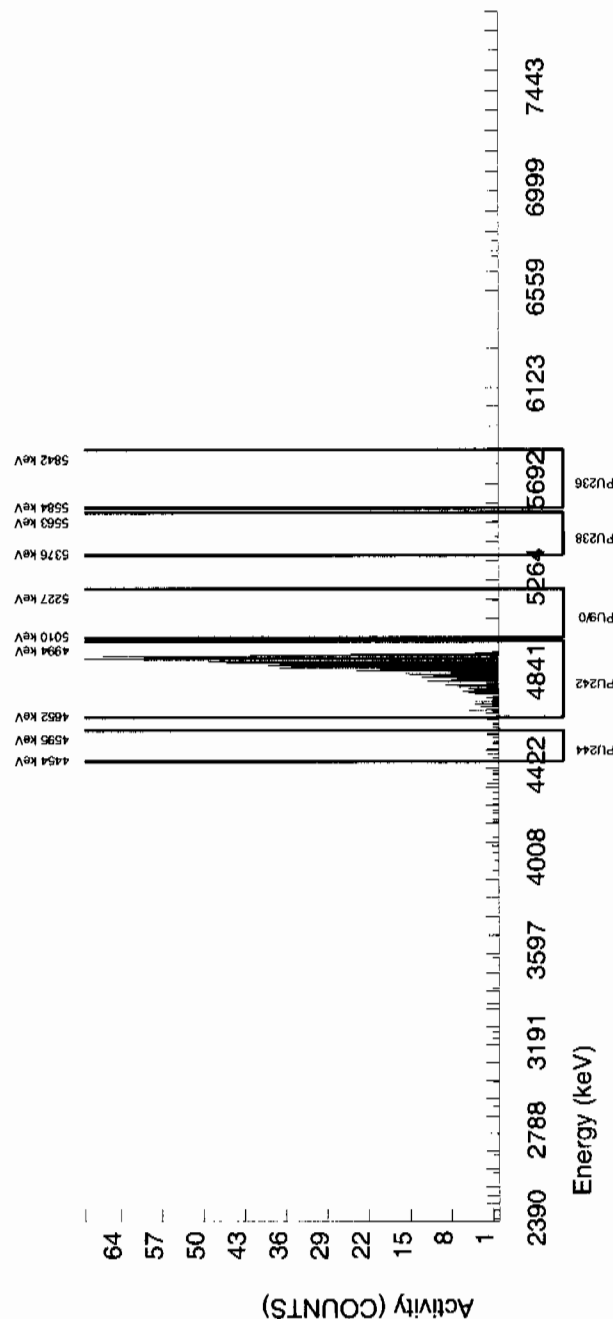
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/g	TPU 1-SIGMA	DLC pCi/g	MDC pCi/g	UNC pCi/g
PU-236	5749.000	5713.184	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.40E-03	8.01E-03	1.98E-02	1.40E-03
PU-238	5499.000	5496.214	69.272	2.000	2.000	0.000	2.9312	99.90000	2.76E-03	1.96E-03	8.73E-03	2.12E-02	1.95E-03
PU-9/0	5155.000	5179.405	4.948	1.000	1.000	0.000	2.0604	99.90000	1.38E-03	1.38E-03	6.14E-03	1.60E-02	1.38E-03
PU242	4890.000	4884.508	57.011	883.000	882.280	0.720	0.8485	100.0000	1.22E+00	7.54E-02	2.53E-03	8.79E-03	4.10E-02
PU244	4589.000	4544.905	0.000	16.000	15.280	0.720	3.7241	99.90000	2.11E-02	5.72E-03	1.11E-02	2.59E-02	5.61E-03

NOTES:

* Sq calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as $\sqrt{\text{BKG AREA}}$.



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950610	CHAMBER : 224	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246344002_PU	DETECTOR SIN : 79417	BKG FILE : B224.CNF;83
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 37.7809	BKG DATE : 21-FEB-2010
SAMPLE DATE : 1-FEB-2010 00:00:00.	COUNT DATE : 22-FEB-2010 09:24:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W224.CNF;28
% YIELD : 97.755		CAL DATE : 29-JAN-2010

TRACER ID : 1375-A	MS/MSD ID : 0244-B	LCS/LCSD ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3049E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

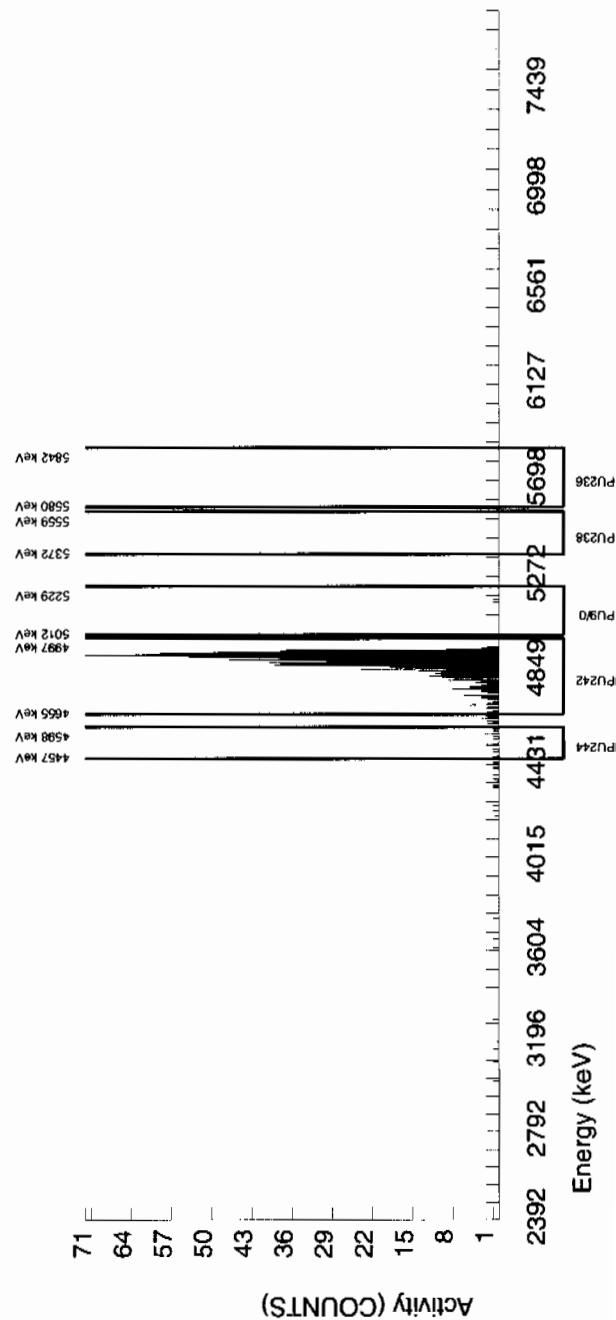
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.040	0.000	0.000	-0.720	0.720	2.6925	100.0000	-9.83E-04	1.68E-03	7.82E-03	1.93E-02	1.68E-03
PU-238	5499.000	5465.544	0.000	0.000	-0.720	0.720	2.9312	99.900000	-9.70E-04	1.66E-03	8.52E-03	2.07E-02	1.66E-03
PU-9/0	5155.000	5170.963	14.944	2.000	1.280	0.720	2.0604	99.900000	1.72E-03	2.14E-03	5.99E-03	1.56E-02	2.14E-03
PU242	4890.000	4891.088	65.552	899.000	899.000	0.000	0.0000	100.0000	1.21E+00	7.45E-02	0.00E+00	3.65E-03	4.03E-02
PU-244	4589.000	4541.558	46.024	14.000	14.000	0.000	3.7241	99.900000	1.89E-02	5.13E-03	1.08E-02	2.53E-02	5.04E-03

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950610	CHAMBER : 225	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246344003_PU	DETECTOR S/N : 79418	BKG FILE : B225.CNF:83
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 38.7926	BKG DATE : 21-FEB-2010
SAMPLE DATE : 1-FEB-2010 00:00:00.	COUNT DATE : 22-FEB-2010 09:24:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W225.CNF:28
% YIELD : 96.642		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2672E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

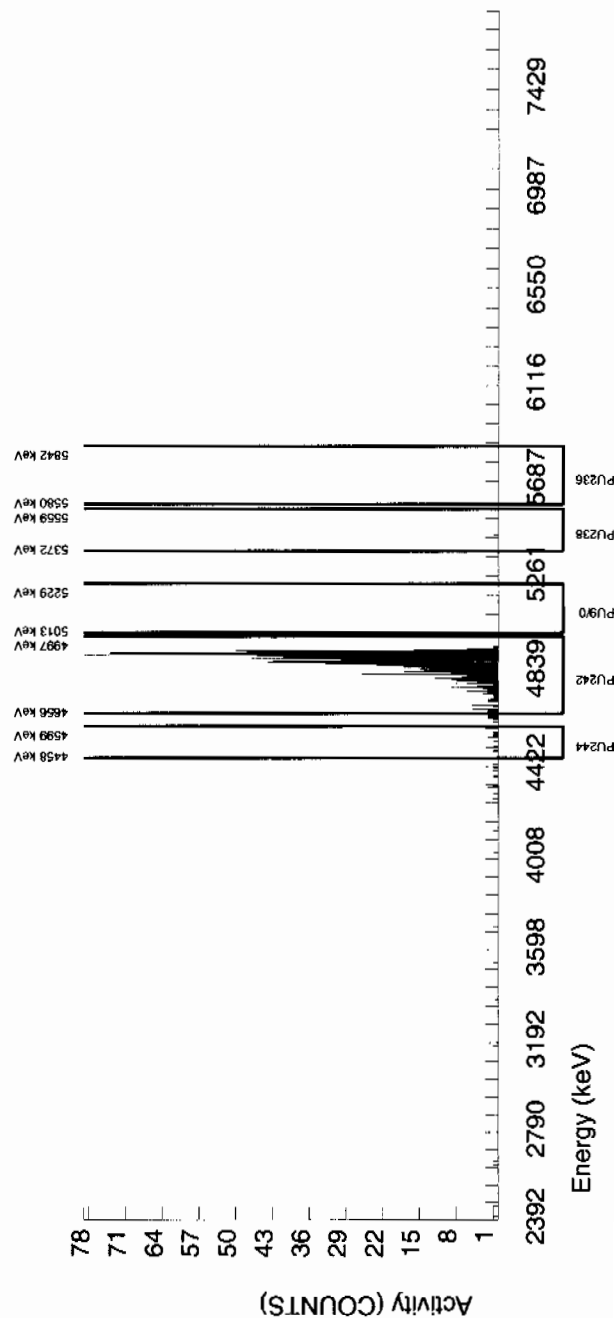
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.877	0.000	0.000	-0.720	0.720	2.6925	100.0000	-9.69E-04	1.66E-03	7.71E-03	1.90E-02	1.66E-03
PU-238	5499.000	5446.887	4.951	1.000	0.280	0.720	2.9312	99.900000	3.72E-04	1.64E-03	8.40E-03	2.04E-02	1.64E-03
PU-9/0	5155.000	5120.998	0.000	0.000	0.000	0.000	2.0604	99.900000	0.00E+00	1.33E-03	5.90E-03	1.54E-02	1.33E-03
PU242	4890.000	4885.533	52.301	914.000	912.560	1.440	1.2000	100.0000	1.21E+00	7.42E-02	3.43E-03	1.05E-02	4.01E-02
PU-244	4589.000	4537.691	7.272	13.000	11.560	1.440	3.7241	99.900000	1.54E-02	5.04E-03	1.07E-02	2.49E-02	4.97E-03

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	:	950610
SAMPLE ID	:	S0246344004_PU
SAMPLE QTY	:	1.257 G
SAMPLE DATE	:	1-FEB-2010 00:00
ANALYST	:	KXM4
% YIELD	:	87.320

CHAMBER	: 101
DETECTOR S/N	: 64253
AVERAGE %EFFICIENCY	: 33.7124
COUNT DATE	: 20-FEB-93
ELAPSED LIVE TIME(SEC)	: 43199.9

LIB FILE :	ENV_ALPHA_PU
BKG FILE :	B101.CNF:682
BKG DATE :	14-FEB-2010
BKG LIVE TIME(SEC)	59999.99
EFF FILE :	W101.CNF:180
CAL DATE :	9-FEB-2010

TRACER

ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.9521E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD ID	NUCLIDE	NOMINAL
1	137Cs	1000
2	137Cs	1000
3	137Cs	1000
4	137Cs	1000
5	137Cs	1000
6	137Cs	1000
7	137Cs	1000
8	137Cs	1000
9	137Cs	1000
10	137Cs	1000
11	137Cs	1000
12	137Cs	1000
13	137Cs	1000
14	137Cs	1000
15	137Cs	1000
16	137Cs	1000
17	137Cs	1000
18	137Cs	1000
19	137Cs	1000
20	137Cs	1000
21	137Cs	1000
22	137Cs	1000
23	137Cs	1000
24	137Cs	1000
25	137Cs	1000
26	137Cs	1000
27	137Cs	1000
28	137Cs	1000
29	137Cs	1000
30	137Cs	1000
31	137Cs	1000
32	137Cs	1000
33	137Cs	1000
34	137Cs	1000
35	137Cs	1000
36	137Cs	1000
37	137Cs	1000
38	137Cs	1000
39	137Cs	1000
40	137Cs	1000
41	137Cs	1000
42	137Cs	1000
43	137Cs	1000
44	137Cs	1000
45	137Cs	1000
46	137Cs	1000
47	137Cs	1000
48	137Cs	1000
49	137Cs	1000
50	137Cs	1000
51	137Cs	1000
52	137Cs	1000
53	137Cs	1000
54	137Cs	1000
55	137Cs	1000
56	137Cs	1000
57	137Cs	1000
58	137Cs	1000
59	137Cs	1000
60	137Cs	1000
61	137Cs	1000
62	137Cs	1000
63	137Cs	1000
64	137Cs	1000
65	137Cs	1000
66	137Cs	1000
67	137Cs	1000
68	137Cs	1000
69	137Cs	1000
70	137Cs	1000
71	137Cs	1000
72	137Cs	1000
73	137Cs	1000
74	137Cs	1000
75	137Cs	1000
76	137Cs	1000
77	137Cs	1000
78	137Cs	1000
79	137Cs	1000
80	137Cs	1000
81	137Cs	1000
82	137Cs	1000
83	137Cs	1000
84	137Cs	1000
85	137Cs	1000
86	137Cs	1000
87	137Cs	1000
88	137Cs	1000
89	137Cs	1000
90	137Cs	1000
91	137Cs	1000
92	137Cs	1000
93	137Cs	1000
94	137Cs	1000
95	137Cs	1000
96	137Cs	1000
97	137Cs	1000
98	137Cs	1000
99	137Cs	1000
100	137Cs	1000

NUCLIDE ACTIVITY SUMMARY

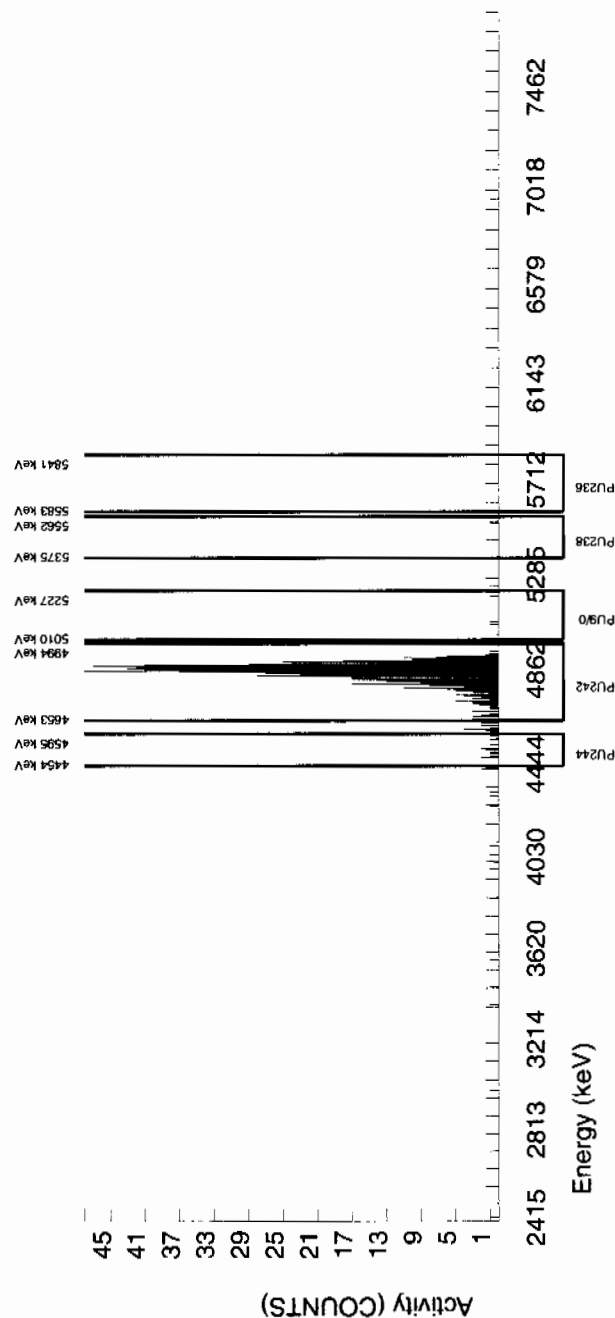
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG	%ABUN	ACTIVITY	TPU	DLC	MDC	UNC
							Sg		pCi/G	1-SIGMA	pCi/G	pCi/G	pCi/G
PU-236	5749.000	5712.007	0.000	0.000	-0.720	0.720	2.6925	100.0000	-1.23E-03	2.11E-03	9.82E-03	2.42E-02	2.11E-03
PU-238	5499.000	5540.714	4.938	1.000	1.000	0.000	2.9312	99.90000	1.69E-03	1.70E-03	1.07E-02	2.60E-02	1.69E-03
PU-9/0	5155.000	5129.566	123.442	3.000	3.000	0.000	2.0604	99.90000	5.08E-03	2.94E-03	7.52E-03	1.96E-02	2.93E-03
PU242	4890.000	4866.901	63.814	718.000	716.560	1.440	1.2000	100.0000	1.21E+00	8.02E-02	4.38E-03	1.33E-02	4.53E-02
PU-244	4589.000	4529.678	44.336	15.000	13.560	1.440	3.7241	99.90000	2.29E-02	6.89E-03	1.36E-02	3.18E-02	6.78E-03

NOTES:

* Sq calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as $\text{sqrt}(\text{BKG AREA})$.



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 950610
SAMPLE ID	: S0246344005_PU
SAMPLE QTY	: 1.254 G
SAMPLE DATE	: 1-FEB-2010 00:00:00.
ANALYST	: KXM4
% YIELD	: 97.775

CHAMBER : 102
DETECTOR S/N : 72525
AVERAGE %EFFICIENCY : 32.7311
COUNT DATE : 20-FEB-2010 14:31:41
ELAPSED LIVE TIME(SEC) : 43199.99

```
LIB FILE : ENV_ALPHA_PU
BKG FILE : B102.CNF:680
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W102.CNF:194
CAL DATE : 9-FEB-2010
```

TRACER	:	1375-A
ID	:	PU242
NUCLIDE	:	3.3808E
NOMINAL	:	3.3056E
RESULTS	:	

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/g

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E

NUCLIDE ACTIVITY SUMMARY

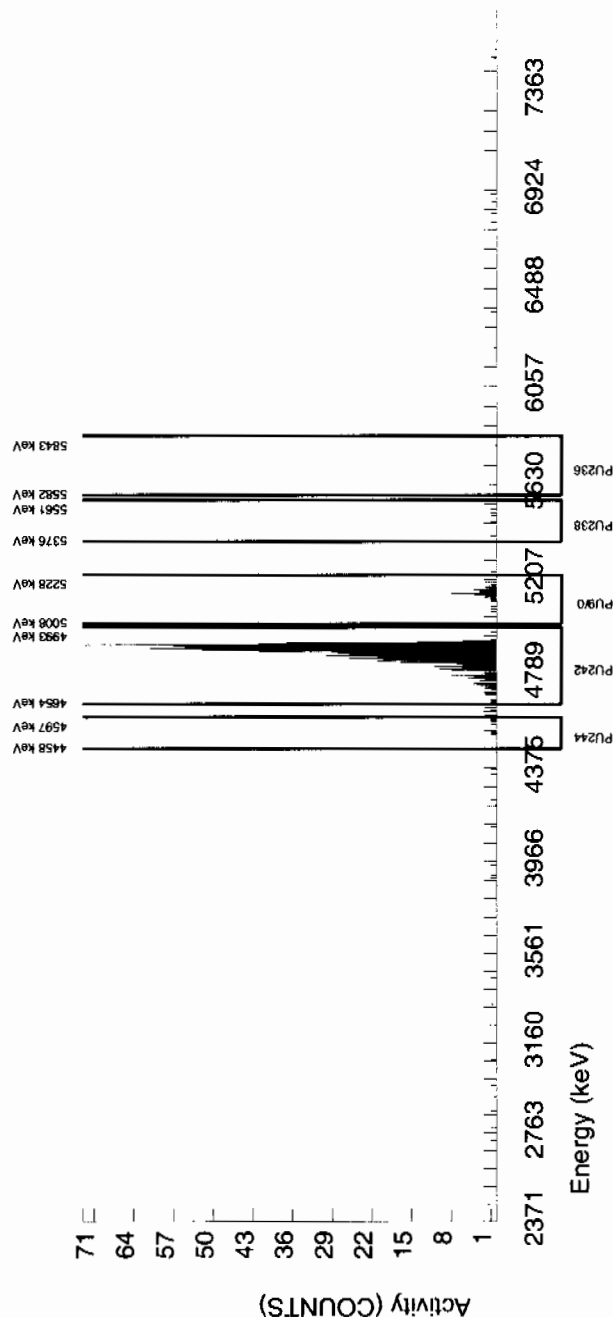
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/g	TPU 1-SIGMA	DLG pCi/g	MDC pCi/g	UNC pCi/g
PU-236	5749.000	5712.323	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.58E-03	9.06E-03	2.23E-02	1.58E-03
PU-238	5499.000	5470.994	112.116	7.000	7.000	0.000	2.9312	99.90000	1.09E-02	4.17E-03	9.87E-03	2.40E-02	4.13E-03
PU-9/0	5155.000	5151.572	36.198	52.000	50.560	1.440	2.0604	99.90000	7.89E-02	1.21E-02	6.94E-03	1.81E-02	1.14E-02
PU242	4890.000	4882.160	36.115	779.000	779.000	0.000	0.0000	100.0000	1.21E+00	7.82E-02	0.00E+00	4.22E-03	4.35E-02
PU-244	4589.000	4539.336	126.131	10.000	10.000	0.000	3.7241	99.90000	1.56E-02	5.00E-03	1.25E-02	2.93E-02	4.93E-03

NOTES:

* Sq calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as $\sqrt{\text{BKG AREA}}$.



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950610	CHAMBER : 106	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202037197_PU	DETECTOR S/N : 64274	BKG FILE : B106.CNF:682
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.3164	BKG DATE : 14-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 14:31:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W106.CNF:186
% YIELD : 93.071		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/g	NOMINAL : 4.1778E+01 pCi/g
RESULTS : 3.1465E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

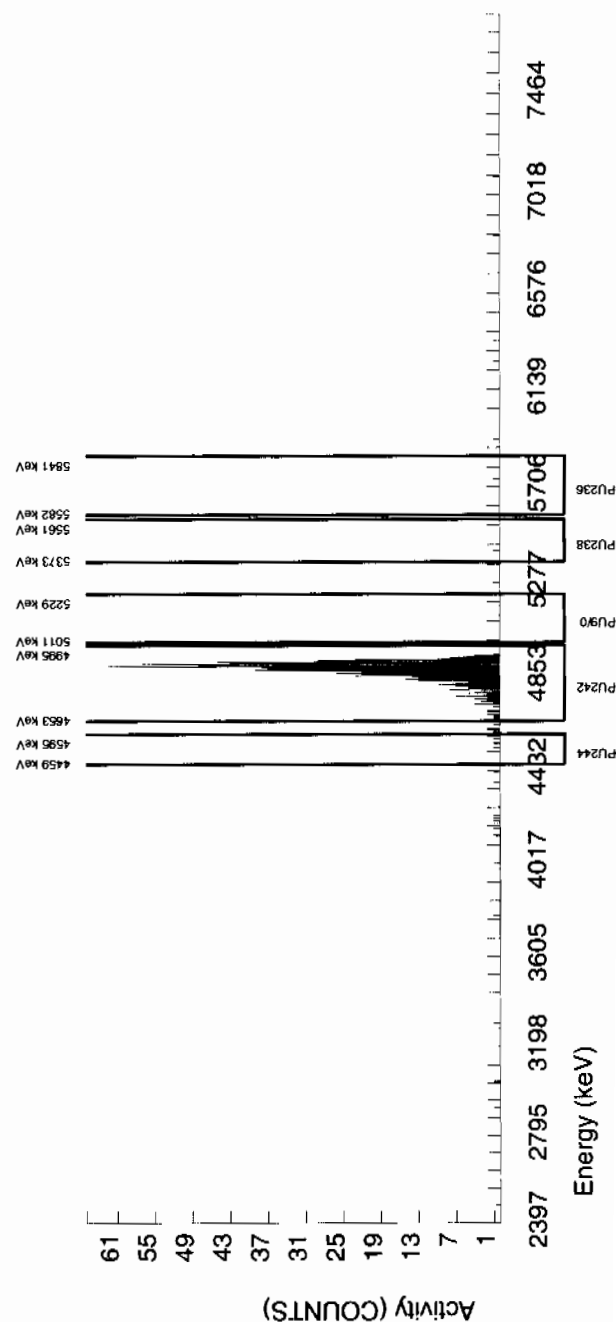
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/g	TPU 1-SIGMA	DLC pCi/g	MDC pCi/g	UNC pCi/g
PU-236	5749.000	5743.566	4.953	1.000	-0.440	1.440	2.6925	100.0000	-9.21E-04	2.99E-03	1.21E-02	2.98E-02	2.99E-03
PU-238	5499.000	5426.642	4.953	1.000	0.280	0.720	2.9312	99.900000	5.83E-04	2.57E-03	1.32E-02	3.20E-02	2.57E-03
PU-9/0	5155.000	5138.641	4.953	1.000	0.280	0.720	2.0604	99.900000	5.83E-04	2.57E-03	9.26E-03	2.42E-02	2.57E-03
PU242	4890.000	4884.138	44.007	735.000	732.120	2.880	1.6971	100.0000	1.52E+00	1.00E-01	7.62E-03	2.09E-02	5.65E-02
PU-244	4589.000	4554.144	4.953	8.000	8.000	0.000	3.7241	99.900000	1.67E-02	5.96E-03	1.67E-02	3.91E-02	5.89E-03

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 950610
SAMPLE ID	: S1202037198_PU
SAMPLE QTY	: 1.253 G
SAMPLE DATE	: 1-FEB-2010 00:00:00.
ANALYST	: KXM4
% YIELD	: 91.490

CHAMBER : 103
DETECTOR S/N : 79461
AVERAGE %EFFICIENCY : 32.6574
COUNT DATE : 20-FEB-2010 14:31:41
ELAPSED LIVE TIME(SEC) : 43199.99

```
LIB FILE : ENV_ALPHA_PU
BKG FILE : B103.CNF:684
3KG DATE : 14-FEB-2010
TIME(SEC) : 59999.99
EFF FILE : W103.CNF:198
CAL DATE : 9-FEB-2010
```

TRACER

ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0931E+00 dpm

MS/MS
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD ID	NUCLIDE	NOMINAL
1	137Cs	1000
2	137Cs	1000
3	137Cs	1000
4	137Cs	1000
5	137Cs	1000
6	137Cs	1000
7	137Cs	1000
8	137Cs	1000
9	137Cs	1000
10	137Cs	1000
11	137Cs	1000
12	137Cs	1000
13	137Cs	1000
14	137Cs	1000
15	137Cs	1000
16	137Cs	1000
17	137Cs	1000
18	137Cs	1000
19	137Cs	1000
20	137Cs	1000
21	137Cs	1000
22	137Cs	1000
23	137Cs	1000
24	137Cs	1000
25	137Cs	1000
26	137Cs	1000
27	137Cs	1000
28	137Cs	1000
29	137Cs	1000
30	137Cs	1000
31	137Cs	1000
32	137Cs	1000
33	137Cs	1000
34	137Cs	1000
35	137Cs	1000
36	137Cs	1000
37	137Cs	1000
38	137Cs	1000
39	137Cs	1000
40	137Cs	1000
41	137Cs	1000
42	137Cs	1000
43	137Cs	1000
44	137Cs	1000
45	137Cs	1000
46	137Cs	1000
47	137Cs	1000
48	137Cs	1000
49	137Cs	1000
50	137Cs	1000
51	137Cs	1000
52	137Cs	1000
53	137Cs	1000
54	137Cs	1000
55	137Cs	1000
56	137Cs	1000
57	137Cs	1000
58	137Cs	1000
59	137Cs	1000
60	137Cs	1000
61	137Cs	1000
62	137Cs	1000
63	137Cs	1000
64	137Cs	1000
65	137Cs	1000
66	137Cs	1000
67	137Cs	1000
68	137Cs	1000
69	137Cs	1000
70	137Cs	1000
71	137Cs	1000
72	137Cs	1000
73	137Cs	1000
74	137Cs	1000
75	137Cs	1000
76	137Cs	1000
77	137Cs	1000
78	137Cs	1000
79	137Cs	1000
80	137Cs	1000
81	137Cs	1000
82	137Cs	1000
83	137Cs	1000
84	137Cs	1000
85	137Cs	1000
86	137Cs	1000
87	137Cs	1000
88	137Cs	1000
89	137Cs	1000
90	137Cs	1000
91	137Cs	1000
92	137Cs	1000
93	137Cs	1000
94	137Cs	1000
95	137Cs	1000
96	137Cs	1000
97	137Cs	1000
98	137Cs	1000
99	137Cs	1000
100	137Cs	1000

NUCLIDE ACTIVITY SUMMARY

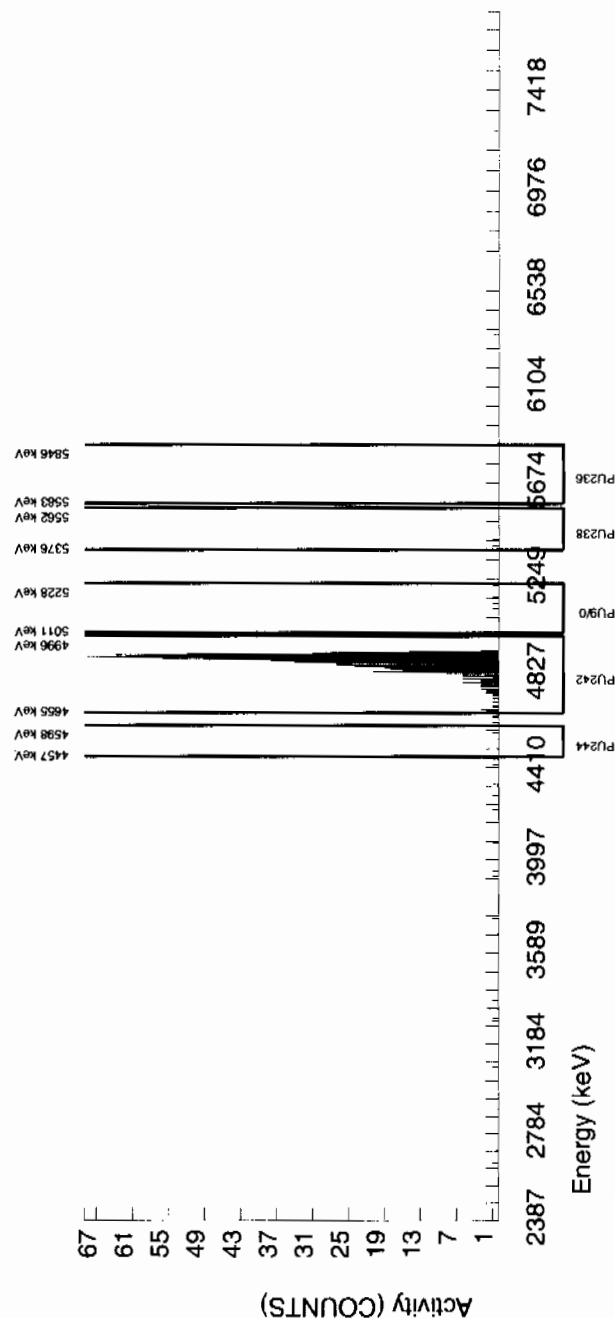
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5714.311	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.70E-03	9.71E-03	2.39E-02	1.69E-03
PU-238	5499.000	5413.134	33.869	4.000	4.000	0.000	2.9312	99.900000	6.69E-03	3.37E-03	1.06E-02	2.57E-02	3.35E-03
PU-9/0	5155.000	5165.502	98.529	4.000	1.840	2.160	2.0604	99.900000	3.08E-03	3.95E-03	7.44E-03	1.94E-02	3.94E-03
PU242	4890.000	4884.324	37.810	728.000	727.280	0.720	0.8485	100.0000	1.22E+00	8.01E-02	3.06E-03	1.06E-02	4.51E-02
PU-244	4589.000	4545.496	0.000	3.000	3.000	0.000	3.7241	99.900000	5.02E-03	2.91E-03	1.34E-02	3.14E-02	2.90E-03

NOTES:

* Sq calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as $\text{sqr}(\text{BKG AREA})$.



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950610 SAMPLE ID : S1202037199_PU SAMPLE QTY : 0.114 G SAMPLE DATE : 12-FEB-2010 00:00:00 ANALYST : KXM4 % YIELD : 98.353	CHAMBER : 105 DETECTOR S/N : 78777 AVERAGE %EFFICIENCY : 31.7688 COUNT DATE : 20-FEB-2010 14:31:41 ELAPSED LIVE TIME(SEC) : 43199.99	LIB FILE : ENV_ALPHA_PU BKG FILE : B105.CNF;682 BKG DATE : 14-FEB-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W105.CNF;175 CAL DATE : 9-FEB-2010
---	--	---

TRACER ID : 1375-A NUCLIDE : PU242 NOMINAL : 3.3808E+00 dpm RESULTS : 3.3251E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G
--	---	---

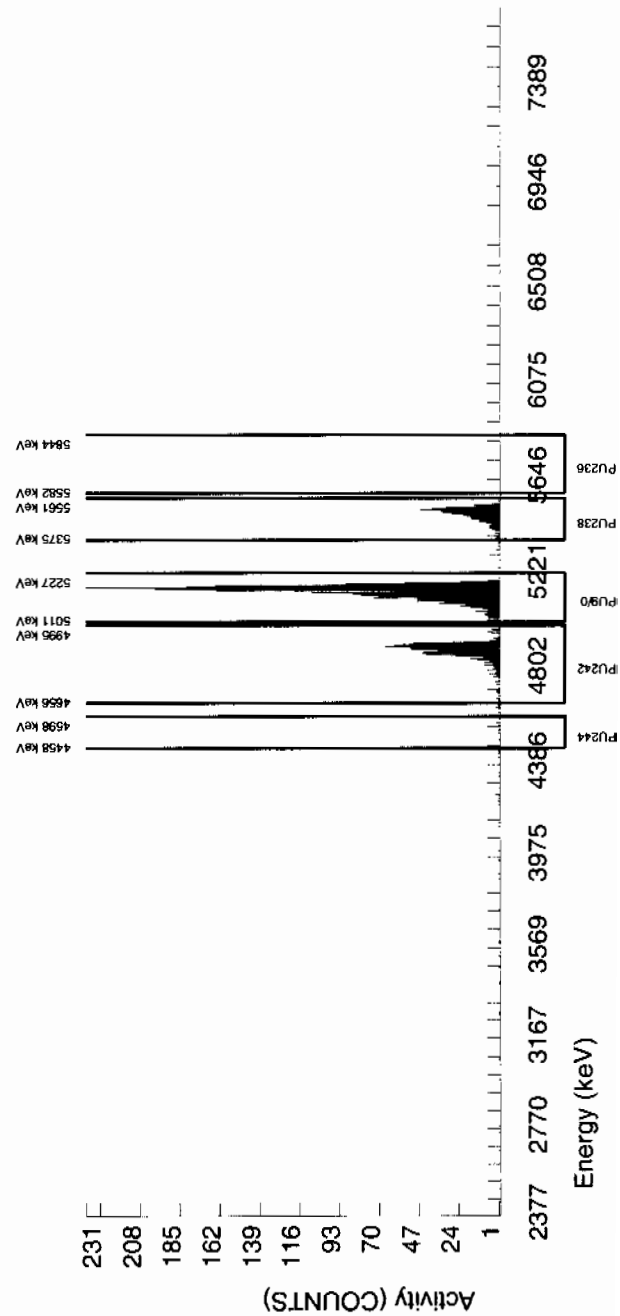
NUCLIDE ACTIVITY SUMMARY									
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G
PU-236	5749.000	5712.688	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00
PU-238	5499.000	5495.509	36.140	441.000	441.000	0.000	2.9312	99.900000	7.75E+00
PU-9/0	5155.000	5147.690	31.968	2240.000	2240.000	0.000	2.0604	99.900000	3.94E+01
PU242	4890.000	4886.039	49.261	762.000	760.560	1.440	1.2000	100.0000	1.34E+01
PU-244	4589.000	4555.386	4.882	10.000	9.280	0.720	3.7241	99.900000	1.63E-01

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Radiochemistry Batch Checklist, Rev10

Batch# 950611 Product: U Date: 2/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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%.	✓		Case narrative
Or meets the client's contract acceptance criteria.			
Method blank is less than the RDL/ LLD.	✓		Case narrative
(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 stated.	✓		
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 REMF, 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: Joplin 2/23/10

Secondary Review Performed By: [Signature] 2/23/10

2/26

LANL

Uranium Que Sheet

Batch #: 950611 Analyst: KXM4 First Client Due Date: 26-FEB-10 Internal Due Date: 16-FEB-10
 Tracer Isotope: U-232 U-236 Tracer Code: 1783-H Expiration Date: 12-9-10 Vol: 0.1m
 LCS Isotope: U-238 LCS Code: SM0244-A Expiration Date: 10-31-20 Vol: 0.1g
 Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA
 Prep Date: 2-17-10 Initials: KMC Pipet ID: 144058 Balance ID: 50442727
 Witness: MDA 2/12/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	U Det #
246262001-1	RE16-10-1150	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	1	1	0.502	113
246262002-1	RE16-10-1151	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	2	2	0.522	114
246315001-1	RE46-10-12039	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	3	3	0.506	115
246315002-1	RE46-10-12040	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	4	4	0.520	119
246315003-1	RE46-10-12043	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	5	5	0.501	120
246325002-1	RE46-10-12047	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	6	6	0.519	121
246325003-1	RE46-10-12048	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	7	7	0.503	122
246325004-1	RE46-10-12049	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	8	8	0.516	123
246325005-1	RE46-10-12050	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	9	9	0.512	124
246325006-1	RE46-10-12051	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	10	10	0.500	125
246331001-1	RE16-10-1132	SAMPLE		.1 pCi/g	SOIL	LANL010	30-JAN-10	11	11	0.511	126
246331002-1	RE16-10-1145	SAMPLE		.1 pCi/g	SOIL	LANL010	30-JAN-10	12	12	0.506	127
246338001-1	RE46-10-11592	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	13	13	0.506	128
246338002-1	RE46-10-11593	SAMPLE		.1 pCi/g	SOIL	LANL010	02-FEB-10	14	14	0.501	129
246344001-1	RE15-10-7981	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	15	15	0.511	130
246344002-1	RE15-10-7983	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	16	16	0.509	138
246344003-1	RE15-10-7984	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	17	17	0.521	139
246344004-1	RE15-10-7982	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	18	18	0.510	140
246344005-1	RE15-10-7985	SAMPLE		.1 pCi/g	SOIL	LANL010	01-FEB-10	19	19	0.501	141
1202037200-1	MB for batch 950611	MB		.1 pCi/g	QC ACCOUNT	QC ACCOUNT		20	20	0.506	142
1202037201-1	RE15-10-7981(246344001DUP)	DUP		.1 pCi/g	QC ACCOUNT	QC ACCOUNT	01-FEB-10	21	21	0.506	142
1202037202-1	LCS for batch 950611	LCS		.1 pCi/g	QC ACCOUNT	QC ACCOUNT	01-FEB-10	22	22	0.111	143

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: JRM - 2/23/10

Blank Correction Report

Batch ID 950611

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202037201	DUP	Uranium-233/234	0.506 g	2.35	0.187	0.0849	.009802372	pCi/g	NO
		Uranium-235/236	0.506 g	0.141	0.0262	0.0541	.003418972	pCi/g	NO
		Uranium-238	0.506 g	3.97	0.302	0.0579	.016620553	pCi/g	NO
1202037202	LCS	Uranium-233/234	0.111 g	5.34	0.506	0.410	.044684685	pCi/g	NO
		Uranium-235/236	0.111 g	0.321	0.0887	0.261	.015585586	pCi/g	NO
		Uranium-238	0.111 g	5.03	0.482	0.280	.075765766	pCi/g	NO
1202037200	MB	Uranium-233/234	1.00 g	0.00496	0.00386	0.0354	.00496	pCi/g	YES
		Uranium-235/236	1.00 g	0.00173	0.00174	0.0226	.00173	pCi/g	YES
		Uranium-238	1.00 g	0.00841	0.00401	0.0242	.00841	pCi/g	YES
246262001	RE16-10-1150	Uranium-233/234	0.502 g	0.961	0.091	0.0951	.009880478	pCi/g	NO
		Uranium-235/236	0.502 g	0.0466	0.0151	0.0607	.003446215	pCi/g	NO
		Uranium-238	0.502 g	0.927	0.0883	0.0649	.016752988	pCi/g	NO
246262002	RE16-10-1151	Uranium-233/234	0.522 g	0.855	0.0806	0.0857	.009501916	pCi/g	NO
		Uranium-235/236	0.522 g	0.0587	0.0162	0.0546	.003314176	pCi/g	NO
		Uranium-238	0.522 g	0.899	0.084	0.0585	.016111111	pCi/g	NO
246315001	RE46-10-12039	Uranium-233/234	0.506 g	1.09	0.100	0.0932	.009802372	pCi/g	NO
		Uranium-235/236	0.506 g	0.100	0.0235	0.0594	.003418972	pCi/g	NO
		Uranium-238	0.506 g	1.27	0.113	0.0636	.016620553	pCi/g	NO
246315002	RE46-10-12040	Uranium-233/234	0.520 g	1.20	0.106	0.0891	.009538462	pCi/g	NO
		Uranium-235/236	0.520 g	0.0785	0.0193	0.0568	.003326923	pCi/g	NO
		Uranium-238	0.520 g	1.17	0.104	0.0608	.016173077	pCi/g	NO
246315003	RE46-10-12043	Uranium-233/234	0.501 g	1.01	0.0924	0.088	.009900200	pCi/g	NO
		Uranium-235/236	0.501 g	0.0431	0.0152	0.0561	.003453094	pCi/g	NO
		Uranium-238	0.501 g	1.04	0.0946	0.0601	.016786427	pCi/g	NO
246325002	RE46-10-12047	Uranium-233/234	0.519 g	1.05	0.0958	0.0873	.009556840	pCi/g	NO
		Uranium-235/236	0.519 g	0.0599	0.0186	0.0557	.003333333	pCi/g	NO
		Uranium-238	0.519 g	1.05	0.0953	0.0596	.016204239	pCi/g	NO
246325003	RE46-10-12048	Uranium-233/234	0.503 g	0.909	0.0889	0.103	.009860835	pCi/g	NO
		Uranium-235/236	0.503 g	0.0857	0.0228	0.0656	.003438364	pCi/g	NO
		Uranium-238	0.503 g	0.742	0.0763	0.0703	.016719682	pCi/g	NO
246325004	RE46-10-12049	Uranium-233/234	0.516 g	0.743	0.0718	0.083	.009612403	pCi/g	NO
		Uranium-235/236	0.516 g	0.0447	0.0138	0.0529	.003352713	pCi/g	NO
		Uranium-238	0.516 g	0.724	0.0704	0.0567	.016298450	pCi/g	NO
246325005	RE46-10-12050	Uranium-233/234	0.512 g	0.758	0.0738	0.0858	.0096875	pCi/g	NO
		Uranium-235/236	0.512 g	0.0462	0.0143	0.0547	.003378906	pCi/g	NO
		Uranium-238	0.512 g	0.775	0.0748	0.0586	.016425781	pCi/g	NO
246325006	RE46-10-12051	Uranium-233/234	0.500 g	0.706	0.0698	0.0866	.00992	pCi/g	NO
		Uranium-235/236	0.500 g	0.0255	0.0105	0.0552	.00346	pCi/g	NO
		Uranium-238	0.500 g	0.803	0.077	0.0591	.01682	pCi/g	NO
246331001	RE16-10-1132	Uranium-233/234	0.511 g	0.739	0.0709	0.0801	.009706458	pCi/g	NO
		Uranium-235/236	0.511 g	0.0471	0.014	0.0511	.003385519	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
246331001	RE16-10-1132	Uranium-238	0.511 g	0.765	0.0727	0.0547	.016457926	pCi/g	NO
246331002	RE16-10-1145	Uranium-233/234	0.506 g	0.788	0.0812	0.109	.009802372	pCi/g	NO
		Uranium-235/236	0.506 g	0.0852	0.0222	0.0693	.003418972	pCi/g	NO
		Uranium-238	0.506 g	0.784	0.0811	0.0742	.016620553	pCi/g	NO
246338001	RE46-10-11592	Uranium-233/234	0.506 g	0.509	0.0547	0.0852	.009802372	pCi/g	NO
		Uranium-235/236	0.506 g	0.0376	0.0141	0.0543	.003418972	pCi/g	NO
		Uranium-238	0.506 g	0.594	0.0614	0.0582	.016620553	pCi/g	NO
246338002	RE46-10-11593	Uranium-233/234	0.501 g	0.747	0.0717	0.081	.009900200	pCi/g	NO
		Uranium-235/236	0.501 g	0.0635	0.0165	0.0516	.003453094	pCi/g	NO
		Uranium-238	0.501 g	0.786	0.0747	0.0553	.016786427	pCi/g	NO
246344001	RE15-10-7981	Uranium-233/234	0.511 g	2.41	0.194	0.0912	.009706458	pCi/g	NO
		Uranium-235/236	0.511 g	0.134	0.027	0.0581	.003385519	pCi/g	NO
		Uranium-238	0.511 g	3.75	0.289	0.0622	.016457926	pCi/g	NO
246344002	RE15-10-7983	Uranium-233/234	0.509 g	1.22	0.106	0.0806	.009744597	pCi/g	NO
		Uranium-235/236	0.509 g	0.107	0.0232	0.0514	.003398821	pCi/g	NO
		Uranium-238	0.509 g	2.08	0.167	0.055	.016522593	pCi/g	NO
246344003	RE15-10-7984	Uranium-233/234	0.521 g	0.591	0.0616	0.0838	.009520154	pCi/g	NO
		Uranium-235/236	0.521 g	0.0534	0.0153	0.0535	.003320537	pCi/g	NO
		Uranium-238	0.521 g	0.701	0.0698	0.0572	.016142035	pCi/g	NO
246344004	RE15-10-7982	Uranium-233/234	0.510 g	1.06	0.0971	0.0915	.009725490	pCi/g	NO
		Uranium-235/236	0.510 g	0.0538	0.016	0.0583	.003392157	pCi/g	NO
		Uranium-238	0.510 g	1.23	0.110	0.0625	.016490196	pCi/g	NO
246344005	RE15-10-7985	Uranium-233/234	0.501 g	6.18	0.501	0.142	.009900200	pCi/g	NO
		Uranium-235/236	0.501 g	0.591	0.078	0.0905	.003453094	pCi/g	NO
		Uranium-238	0.501 g	22.6	1.74	0.0969	.016786427	pCi/g	NO

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950611 SAMPLE ID : S0246344001_UU SAMPLE QTY : 0.511 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 98.452	CHAMBER : 130 DETECTOR S/N : 76228 AVERAGE %EFFICIENCY : 24.7879 COUNT DATE : 19-FEB-2010 16:49:39 ELAPSED LIVE TIME(SEC) : 60000.00	LIB FILE : ENV_ALPHA_UU BKG FILE : B130.CNF;450 BKG DATE : 14-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W130.CNF;132 CAL DATE : 18-FEB-2010
---	--	--

TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5057E+00 dpm RESULTS : 4.4359E+00 dpm	MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G	LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G
---	--	--

NUCLIDE ACTIVITY SUMMARY

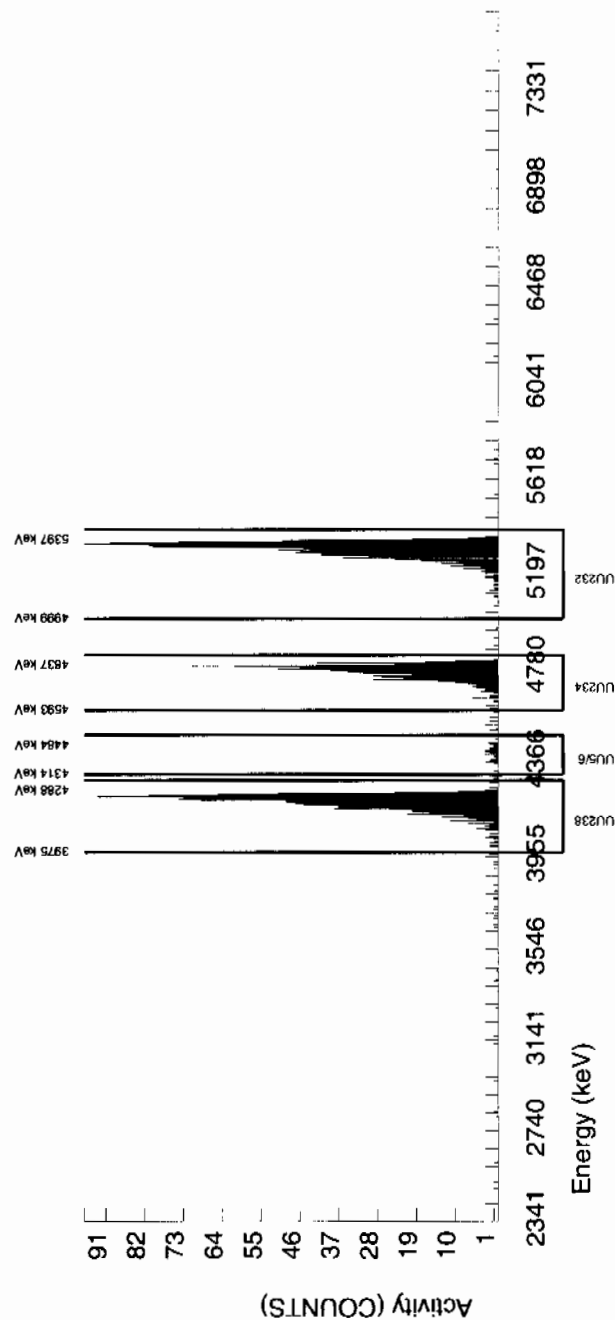
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.303	41.617	1104.000	1099.000	5.000	2.2361	100.0000	3.97E+00	3.05E-01	1.88E-02	4.74E-02	1.20E-01
U-3/4	4763.020	4767.326	33.263	669.000	667.888	0.000	4.8416	100.0000	2.41E+00	1.94E-01	4.07E-02	9.12E-02	9.33E-02
U-235	4391.000	4416.315	81.611	31.000	30.000	1.000	2.2152	80.90000	1.34E-01	2.70E-02	2.30E-02	5.81E-02	2.53E-02
U-238	4184.730	4194.983	46.420	1039.000	1039.000	0.000	3.1208	100.0000	3.75E+00	2.89E-01	2.62E-02	6.22E-02	1.16E-01

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950611	CHAMBER : 138	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246344002_UU	DETECTOR S/N : 65877	BKG FILE : B138.CNF;399
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.4229	BKG DATE : 14-FEB-2010
SAMPLE DATE : 1-FEB-2010 00:00:00.	COUNT DATE : 19-FEB-2010 16:49:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W138.CNF;104
% YIELD : 109.008		CAL DATE : 19-FEB-2010

TRACER ID : 1283-H	MS/MSD ID : 0244-A	LCS/LCSD ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5057E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.9115E+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	5302.285	67.624	1257.000	1248.000	9.000	3.0000	100.0000	3.99E+00	3.01E-01	2.23E-02	5.32E-02	1.14E-01
U-3/4	4763.020	4757.499	50.808	386.000	381.737	3.000	4.8416	100.0000	1.22E+00	1.06E-01	3.60E-02	8.06E-02	6.29E-02
U-235	4391.000	4407.330	102.969	29.000	27.000	2.000	2.2152	80.90000	1.07E-01	2.32E-02	2.03E-02	5.14E-02	2.20E-02
U-238	4184.730	4189.059	66.652	652.000	651.000	1.000	3.1208	100.0000	2.08E+00	1.67E-01	2.32E-02	5.50E-02	8.16E-02

NOTES:

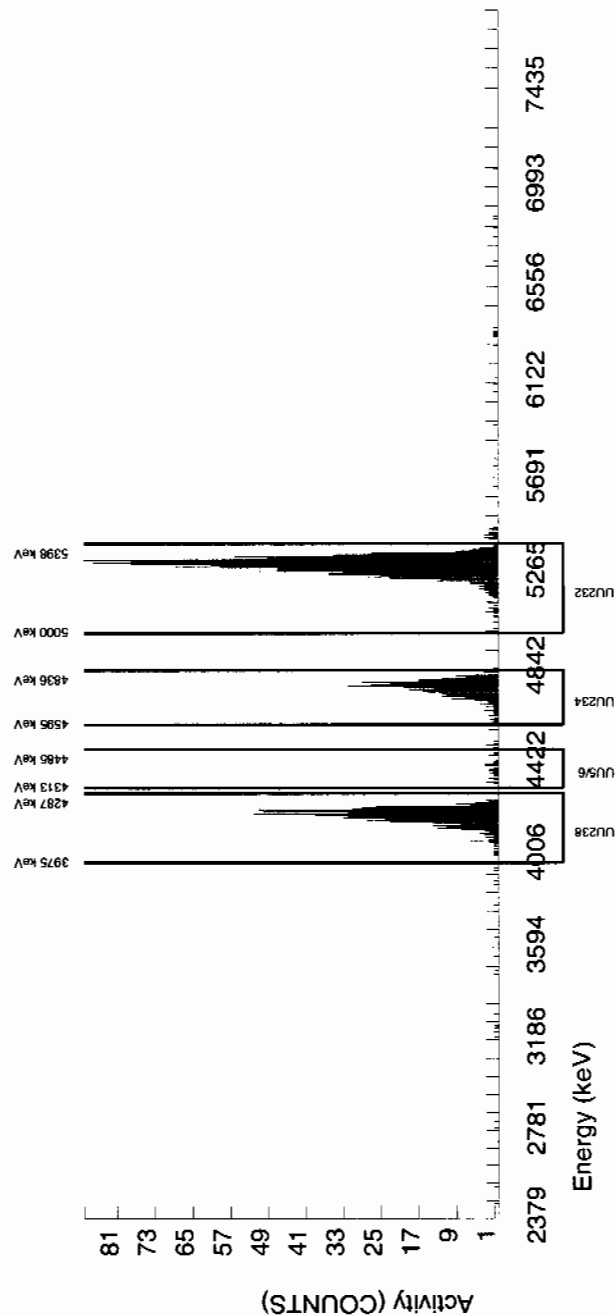
* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

U-3/4



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950611 SAMPLE ID : S0246344003_UU SAMPLE QTY : 0.521 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 104.802		CHAMBER : 139 DETECTOR S/N : 76231 AVERAGE %EFFICIENCY : 24.8328 COUNT DATE : 19-FEB-2010 16:49:44 ELAPSED LIVE TIME(SEC) : 60000.00	LIB FILE : ENV_ALPHA_UU BKG FILE : B139.CNF:396 BKG DATE : 14-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W139.CNF:104 CAL DATE : 19-FEB-2010
--	--	---	--

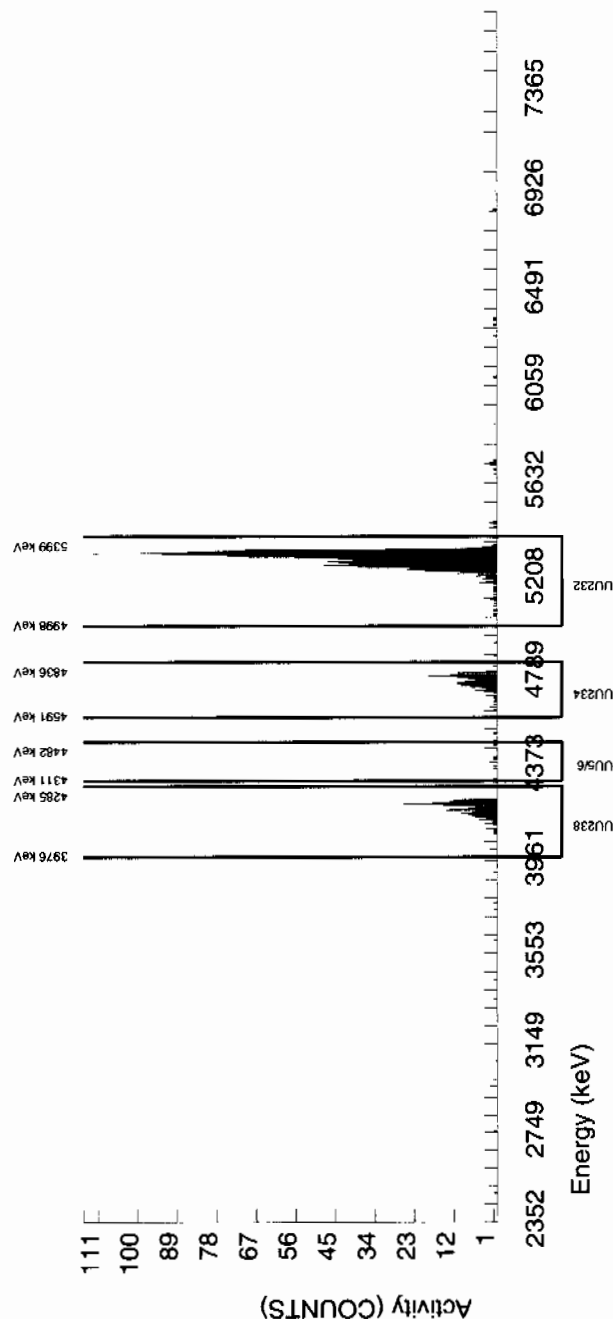
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5057E+00 dpm RESULTS : 4.7220E+00 dpm	MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G	LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G
--	--	--

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	5304.411	35.483	1176.000	1172.000	4.000	2.0000	100.0000	3.90E+00	3.01E-01	1.55E-02	3.99E-02	1.14E-01
U-3/4	4763.020	4755.857	57.445	181.000	177.814	2.000	4.8416	100.0000	5.91E-01	6.16E-02	3.74E-02	8.38E-02	4.48E-02
U-235	4391.000	4411.521	4.929	13.000	13.000	0.000	2.2152	80.90000	5.34E-02	1.53E-02	2.12E-02	5.35E-02	1.48E-02
U-238	4184.730	4190.761	43.689	212.000	211.000	1.000	3.1208	100.0000	7.01E-01	6.98E-02	2.41E-02	5.72E-02	4.85E-02

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

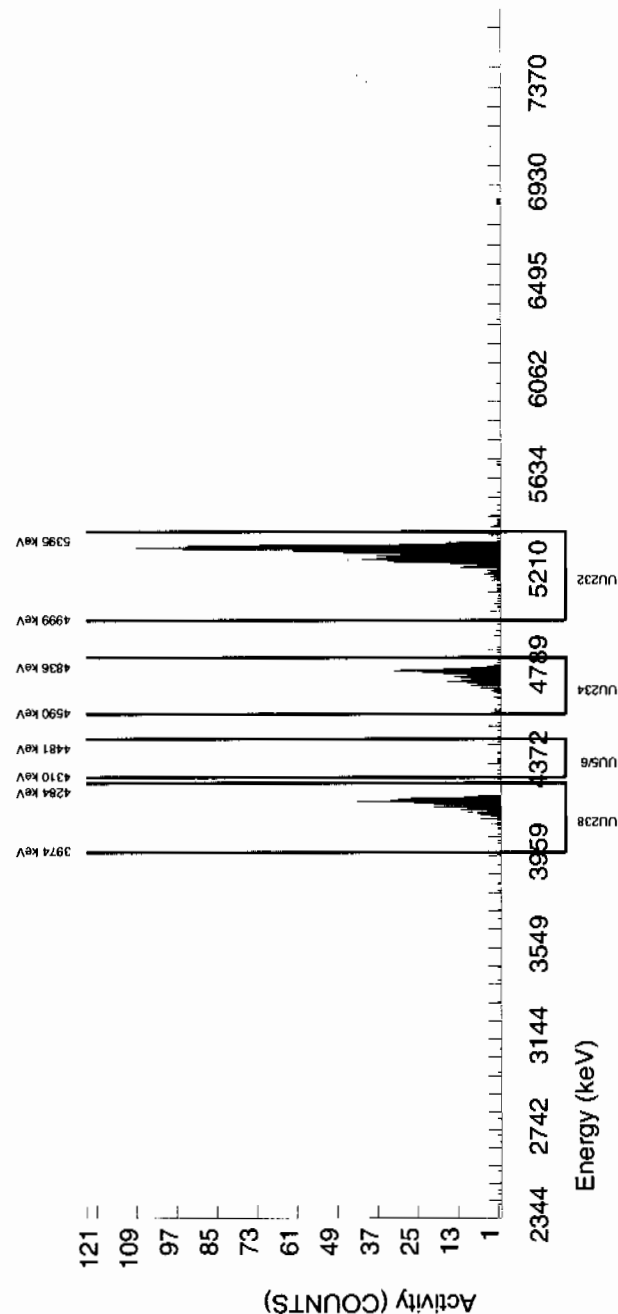
BATCH NUMBER : 950611			CHAMBER : 140			LIB FILE : ENV_ALPHA_UU							
SAMPLE ID : S0246344004_UU			DETECTOR S/N : 78771			BKG FILE : B140.CNF:396							
SAMPLE QTY : 0.510 G			AVERAGE %EFFICIENCY : 25.6501			BKG DATE : 14-FEB-2010							
SAMPLE DATE : 1-FEB-2010 00:00:00.			COUNT DATE : 19-FEB-2010 16:49:46			BKG LIVE TIME(SEC) : 60000.00							
ANALYST : KXM4			ELAPSED LIVE TIME(SEC) : 60000.00			EFF FILE : W140.CNF:109							
% YIELD : 94.970						CAL DATE : 19-FEB-2010							
TRACER ID : 1283-H			MS/MSD ID : 0244-A			LCS/LCSD ID : 0244-A							
NUCLIDE : U232			NUCLIDE : U-238			NUCLIDE : U-238							
NOMINAL : 4.5057E+00 dpm			NOMINAL : 5.7500E+00 pCi/G			NOMINAL : 5.7500E+00 pCi/G							
RESULTS : 4.2790E+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	5304.734	25.861	1105.000	1097.000	8.000	2.8284	100.0000	3.98E+00	3.06E-01	2.39E-02	5.75E-02	1.21E-01
U-3/4	4763.020	4758.986	25.793	293.000	291.890	0.000	4.8416	100.0000	1.06E+00	9.71E-02	4.08E-02	9.15E-02	6.19E-02
U-235	4391.000	4383.676	0.000	12.000	12.000	0.000	2.2152	80.90000	5.38E-02	1.60E-02	2.31E-02	5.83E-02	1.55E-02
U-238	4184.730	4190.374	27.390	340.000	339.000	1.000	3.1208	100.0000	1.23E+00	1.10E-01	2.63E-02	6.25E-02	6.70E-02

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

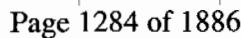
NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of U232 calculated as $\sqrt{\text{BKG AREA}}$.

* Corrections made to the following net area due to tracer impurity:



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	950611
SAMPLE ID	S1202037200_UU
SAMPLE QTY	1.000 G
SAMPLE DATE	12-FEB-2010 00:00
ANALYST	KXM4
% YIELD	103.337

CHAMBER : 003
DETECTOR S/N : 79453
AVERAGE %EFFICIENCY : 31.0941
COUNT DATE : 19-FEB-2010 12:54:54
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE	:	ENV_ALPHA_UU
BKG FILE	:	B003.CNF:1110
BKG DATE	:	14-FEB-2010
BKG LIVE TIME(SEC)	:	59999.99
EFF FILE	:	W003.CNF:341
CAL DATE	:	3-FEB-2010

TRACER

ID	: 1283-H
NUCLIDE	: U232
NOMINAL	: 4.5043E+00 dpm
RESULTS	: 4.6546E+00 dpm

MS/MSD

ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD

ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

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	5317.695	32.344	1449.000	1447.000	2.000	1.4142	100.0000	2.03E+00	1.49E-01	4.61E-03	1.30E-02	5.34E-02
U-3/4	4763.020	4724.250	223.528	7.000	3.535	2.000	4.8416	100.0000	4.96E-03	3.86E-03	1.58E-02	3.54E-02	3.85E-03
U-235	4391.000	4370.523	4.967	1.000	1.000	0.000	2.2152	80.90000	1.73E-03	1.74E-03	8.93E-03	2.26E-02	1.73E-03
U-238	4184.730	4161.413	183.790	7.000	6.000	1.000	3.1208	100.0000	8.41E-03	4.01E-03	1.02E-02	2.42E-02	3.97E-03

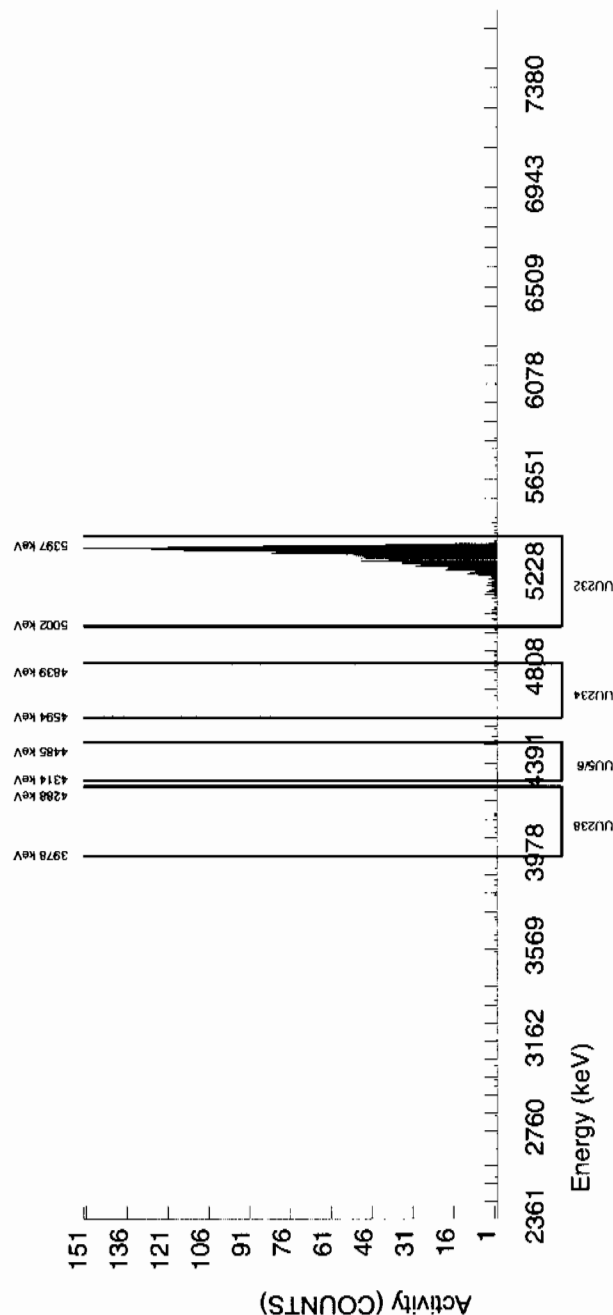
NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sq of U232 calculated as $\sqrt{\text{BKG AREA}}$.

* Corrections made to the following net area due to tracer impurity:
U-3/4



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950611	CHAMBER : 142	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202037201_UU	DETECTOR S/N : 64261	BKG FILE : B142.CNF:394
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 25.7599	BKG DATE : 14-FEB-2010
SAMPLE DATE : 1-FEB-2010 00:00:00.	COUNT DATE : 19-FEB-2010 16:49:51	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W142.CNF:111
% YIELD : 102.755		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5057E+00 dpm	NOMINAL : 5.7500E+00 pCi/g	NOMINAL : 5.7500E+00 pCi/g
RESULTS : 4.6298E+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	5306.733	33.938	1200.000	1192.000	8.000	2.8284	100.0000	4.01E+00	3.05E-01	2.21E-02	5.34E-02	1.17E-01
U-3/4	4763.020	4757.683	48.496	700.000	698.794	0.000	4.8416	100.0000	2.35E+00	1.87E-01	3.79E-02	8.49E-02	8.89E-02
U-235	4391.000	4413.245	21.334	34.000	34.000	0.000	2.2152	80.90000	1.41E-01	2.62E-02	2.14E-02	5.41E-02	2.42E-02
U-238	4184.730	4187.539	56.933	1182.000	1181.000	1.000	3.1208	100.0000	3.97E+00	3.02E-01	2.44E-02	5.79E-02	1.16E-01

NOTES:

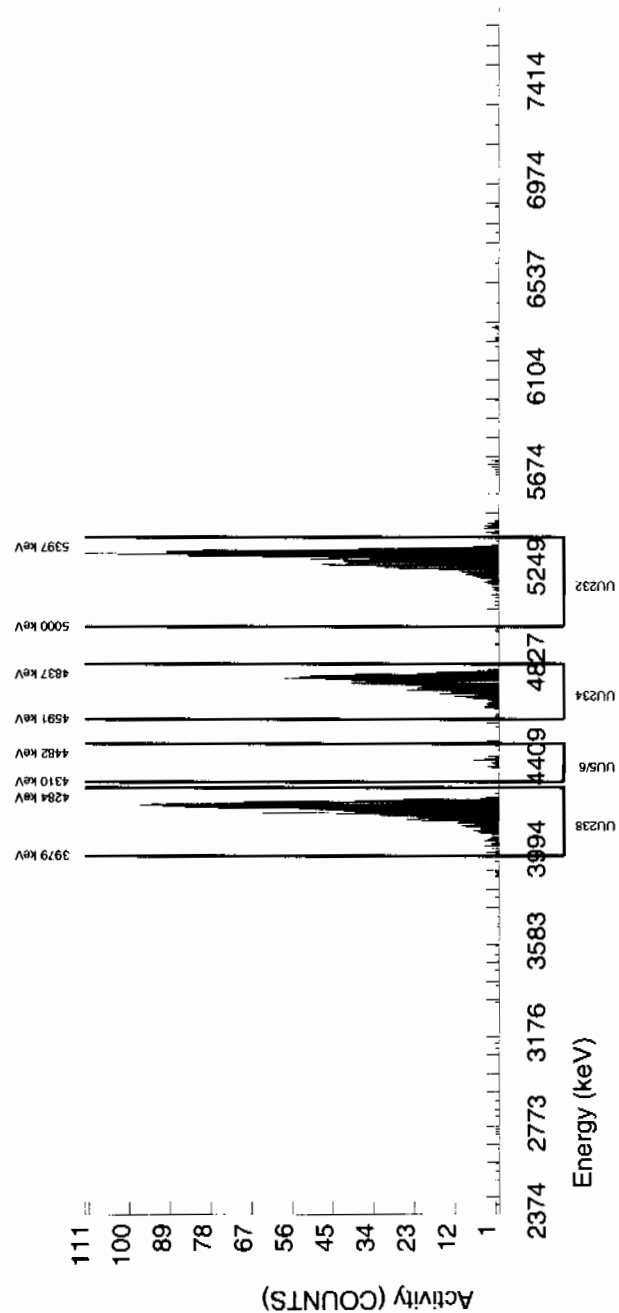
* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

U-3/4



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950611 SAMPLE ID : S1202037202_UU SAMPLE QTY : 0.111 G SAMPLE DATE : 12-FEB-2010 00:00:00 ANALYST : KXM4 % YIELD : 102.952	CHAMBER : 143 DETECTOR S/N : 65882 AVERAGE %EFFICIENCY : 24.2868 COUNT DATE : 19-FEB-2010 16:49:53 ELAPSED LIVE TIME(SEC) : 60000.00	LIB FILE : ENV_ALPHA_UU BKG FILE : B143.CNF:396 BKG DATE : 14-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W143.CNF:114 CAL DATE : 19-FEB-2010
--	--	--

TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5043E+00 dpm RESULTS : 4.6373E+00 dpm	MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G	LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G
---	--	--

NUCLIDE ACTIVITY SUMMARY

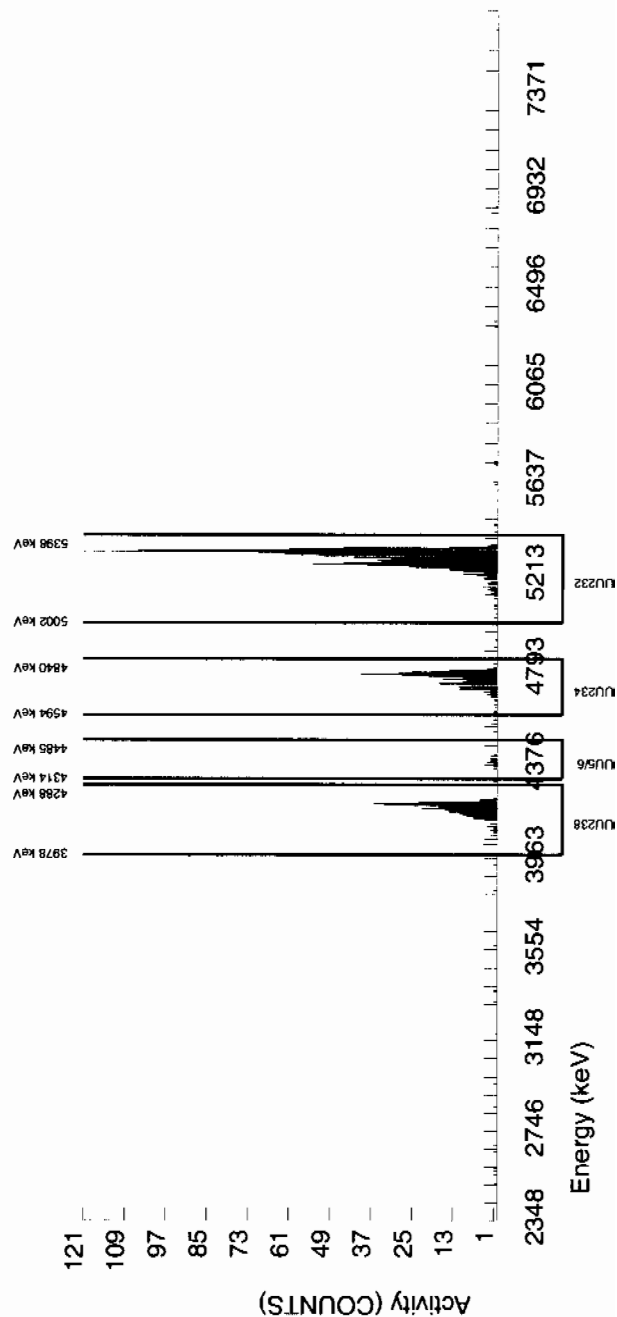
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.275	25.496	1128.000	1126.000	2.000	1.4142	100.0000	1.83E+01	1.51E+00	5.34E-02	1.51E-01	5.46E-01
U-3/4	4763.020	4756.648	23.934	330.000	328.860	0.000	4.8416	100.0000	5.34E+00	5.06E-01	1.83E-01	4.10E-01	2.94E-01
U-235	4391.000	4392.062	29.613	17.000	16.000	1.000	2.2152	80.90000	3.21E-01	8.87E-02	1.03E-01	2.61E-01	8.51E-02
U-238	4184.730	4183.783	31.004	310.000	310.000	0.000	3.1208	100.0000	5.03E+00	4.82E-01	1.18E-01	2.80E-01	2.86E-01

NOTES:

* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* 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

956056

Batch#

Product: Am

Date: 2/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
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.	X		
Instrument source check is within limits.	X		
Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
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%.	X		
Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%.	X		
Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD.	X		
(If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms.	X		
All line cuts Initialed and dated.	X		
No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly stashed.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
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
Allquot Correction completed if required.			N/A
Review sample historical results if available (If REMF, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADcheckdistrev10, revised 1/13/2010

Primary Review Performed By: *h. j. [signature]* 2/24/10

Secondary Review Performed By: *[signature]* 2/24/10

2/24/10
2/26/10
CSL

Am/Cm Que Sheet

22-FEB-10

Batch #: 956056
 Tracer Code: 445-96-2-55
 LCS Isotope(s): Am241/Cm244
 Spike Isotope(s): Am241/Cm244
 Prep Date: 2-24-10 Initials: KAM
 Analyst: KXM4 First Client Due Date: 26-FEB-10 Internal Due Date: 21-FEB-10
 Expiration Date: 5-1-10
 Expiration Date: 4-30-10
 Expiration Date: NA
 Balance ID: 19350208
 Pipet ID: 29405B
 Vol: 0.1ml
 Vol(s): 0.1g / NA
 Vol(s): NA / NA
 Witness: WV 2/22/10
2/23/10

Sample ID	Client Description	Type	Hazard	Min	Code	CRDL	Matrix	Client	Collection Date	Pos.	Label #	Aliquot	Am/Cm	Det #
24632001-2	RE16-16-1150	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	1	1	1.253		209
24632002-2	RE16-16-1151	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	2	2	1.255		210
24631901-2	RE46-16-12039	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	3	3	1.254		211
24631902-2	RE46-16-12040	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	4	4	1.254		212
24631903-2	RE46-16-12043	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	5	5	1.255		213
24631902-2	RE46-16-12047	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	6	6	1.251		214
24631903-2	RE46-16-12048	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	7	7	1.269		215
24631904-2	RE46-16-12049	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	8	8	1.257		216
24631905-2	RE46-16-12050	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	9	9	1.256		217
24631906-2	RE46-16-12051	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	10	10	1.259		218
24631901-2	RE16-16-1132	SAMPLE	.05	pCi/g			SOIL	LANL010	30-JAN-10	11	11	1.250		219
24631902-2	RE16-16-1145	SAMPLE	.05	pCi/g			SOIL	LANL010	30-JAN-10	12	12	1.252		220
24631901-2	RE46-16-11592	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	13	13	1.254		221
24631902-2	RE46-16-11593	SAMPLE	.05	pCi/g			SOIL	LANL010	02-FEB-10	14	14	1.253		222
246344001-2	RE15-16-7981	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	15	15	1.253		223
246344002-2	RE15-16-7983	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	16	16	1.256		224
246344003-2	RE15-16-7984	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	17	17	1.250		225
246344004-2	RE15-16-7982	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	18	18	1.252		226
246344005-2	RE15-16-7985	SAMPLE	.05	pCi/g			SOIL	LANL010	01-FEB-10	19	19	1.252		227
1203049947-1	MB for batch 956056	MB	UCF	pCi/g to pCi/soil			SOIL	QC ACCOUNT	01-FEB-10	20	20	1.254	1.0	228
1203049948-2	RE15-16-7981(246344001DUP)	DUP	.05	pCi/g			SOIL	QC ACCOUNT	01-FEB-10	21	21	1.257	0.001%	229
1203049949-1	LCS for batch 956056	LCS	UCF	pCi/g to pCi/soil			SOIL	QC ACCOUNT	01-FEB-10	22	22	0.133		230

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
 Circle One

Date Reviewed By: Postbox 2/24/10

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1

Blank Correction Report

Batch ID 956056

GEL Sample ID	Client sample ID	Parameter	Allquot	Result	TPU	MDA	Allquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202049948	DUP	Americium-241	1.26 g	0.00534	0.00279	0.0222	-.00180952	pCi/g	NO
1202049949	LCS	Americium-241	0.133 g	30.2	1.99	0.155	-.01714286	pCi/g	NO
1202049947	MB	Americium-241	1.00 g	-0.00228	0.00142	0.022	-.00228	pCi/g	NO
246262001	RE16-10-1150	Americium-241	1.25 g	0.000741	0.00128	0.0199	-.001824	pCi/g	NO
246262002	RE16-10-1151	Americium-241	1.26 g	0.00145	0.00302	0.0226	-.00180952	pCi/g	NO
246315001	RE46-10-12039	Americium-241	1.25 g	-0.000294	0.00181	0.0211	-.001824	pCi/g	NO
246315002	RE46-10-12040	Americium-241	1.25 g	-0.00182	0.00141	0.0218	-.001824	pCi/g	NO
246315003	RE46-10-12043	Americium-241	1.26 g	-0.000114	0.00171	0.0264	-.00180952	pCi/g	NO
246325002	RE46-10-12047	Americium-241	1.25 g	0.00246	0.00188	0.0222	-.001824	pCi/g	NO
246325003	RE46-10-12048	Americium-241	1.26 g	-0.000527	0.00129	0.020	-.00180952	pCi/g	NO
246325004	RE46-10-12049	Americium-241	1.26 g	-0.000353	0.00173	0.0202	-.00180952	pCi/g	NO
246325005	RE46-10-12050	Americium-241	1.26 g	0.00298	0.0019	0.0186	-.00180952	pCi/g	NO
246325006	RE46-10-12051	Americium-241	1.26 g	-0.00039	0.00143	0.0221	-.00180952	pCi/g	NO
246331001	RE16-10-1132	Americium-241	1.25 g	-0.00111	0.00402	0.0299	-.001824	pCi/g	NO
246331002	RE16-10-1145	Americium-241	1.25 g	-0.00157	0.00272	0.0316	-.001824	pCi/g	NO
246338001	RE46-10-11592	Americium-241	1.25 g	0.00235	0.00181	0.0216	-.001824	pCi/g	NO
246338002	RE46-10-11593	Americium-241	1.25 g	0.00121	0.00152	0.0235	-.001824	pCi/g	NO
246344001	RE15-10-7981	Americium-241	1.25 g	0.00232	0.00245	0.0206	-.001824	pCi/g	NO
246344002	RE15-10-7983	Americium-241	1.26 g	0.00793	0.00336	0.0216	-.00180952	pCi/g	NO
246344003	RE15-10-7984	Americium-241	1.25 g	-0.00167	0.00173	0.0201	-.001824	pCi/g	NO
246344004	RE15-10-7982	Americium-241	1.25 g	0.00247	0.00188	0.0222	-.001824	pCi/g	NO
246344005	RE15-10-7985	Americium-241	1.25 g	0.0271	0.00618	0.0204	-.001824	pCi/g	NO

GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

<p>BATCH NUMBER : 956056 SAMPLE ID : S1202049949_AM SAMPLE QTY : 0.133 G SAMPLE DATE : 22-FEB-2010 00:00:00 ANALYST : KXM4 % YIELD : 116.206</p>	<p>CHAMBER : 236 DETECTOR S/N : 79429 AVERAGE %EFFICIENCY : 38.6953 COUNT DATE : 23-FEB-2010 21:16:54 ELAPSED LIVE TIME(SEC) : 52682.92</p>	<p>LIB FILE : ENV_ALPHA_AM BKG FILE : B236.CNF:83 BKG DATE : 21-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W236.CNF:28 CAL DATE : 29-JAN-2010</p>
---	---	---

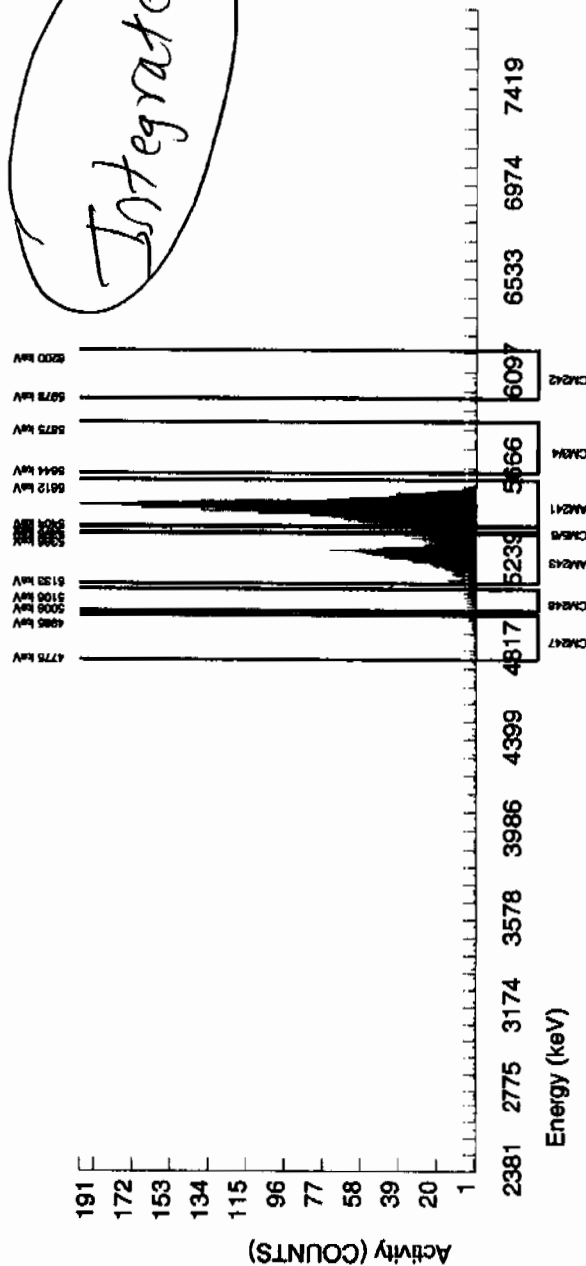
<p>TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 3.3892E+00 dpm</p>	<p>MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G</p>	<p>LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G</p>
--	--	--

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	5480.482	57.208	2788.000	2786.001	0.000	2.8408	99.94000	2.39E+01	1.56E+00	5.50E-02	1.33E-01	4.53E-01
AM243	5270.000	5274.270	54.870	1149.000	1149.000	0.000	0.0000	99.78000	9.88E+00	6.80E-01	0.00E+00	2.33E-02	2.91E-01
CM-242	6102.000	6047.420	4.900	6.000	6.000	0.000	4.3413	100.0000	5.20E-02	2.15E-02	8.40E-02	1.91E-01	2.12E-02
CM-3/4	5795.020	5810.757	97.383	7.000	7.000	0.000	5.1789	100.0000	6.01E-02	2.30E-02	1.00E-01	2.24E-01	2.27E-02
CM-5/6	5386.000	5385.332	0.000	151.000	151.000	0.000	14.2480	86.09000	1.50E+00	1.54E-01	3.20E-01	6.67E-01	1.22E-01
CM-247	4946.000	4913.126	0.000	49.000	47.244	1.756	13.7917	79.30000	5.11E-01	8.32E-02	3.36E-01	7.02E-01	7.89E-02
CM-248	5076.600	5068.045	0.000	56.000	56.000	0.000	18.5080	91.00000	5.28E-01	7.78E-02	4.15E-01	8.55E-01	7.05E-02

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * Sg of AM243 calculated as $\sqrt{\text{BKG AREA}}$.
- * Corrections made to the following net area due to tracer impurity:
AM-241



DO NOT REPORT

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	956056
SAMPLE ID :	S024633
SAMPLE QTY :	1.25
SAMPLE DATE :	1-FEB-2011
ANALYST :	KXM4
% YIELD :	79.737

CHAMBER : 225
DETECTOR S/N : 79418
AVERAGE %EFFICIENCY : 38.7926
COUNT DATE : 23-FEB-2010 21:16:36
ELAPSED LIVE TIME(SEC) : 52656.90

```
LIB FILE : ENV_ALPHA_AM
BKG FILE : B225.CNF;83
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W225.CNF;28
CAL DATE : 29-JAN-2010
```

MS/MSD

ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00
RESULTS : 2.3256E+00

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E

NUCLIDE ACTIVITY SUMMARY

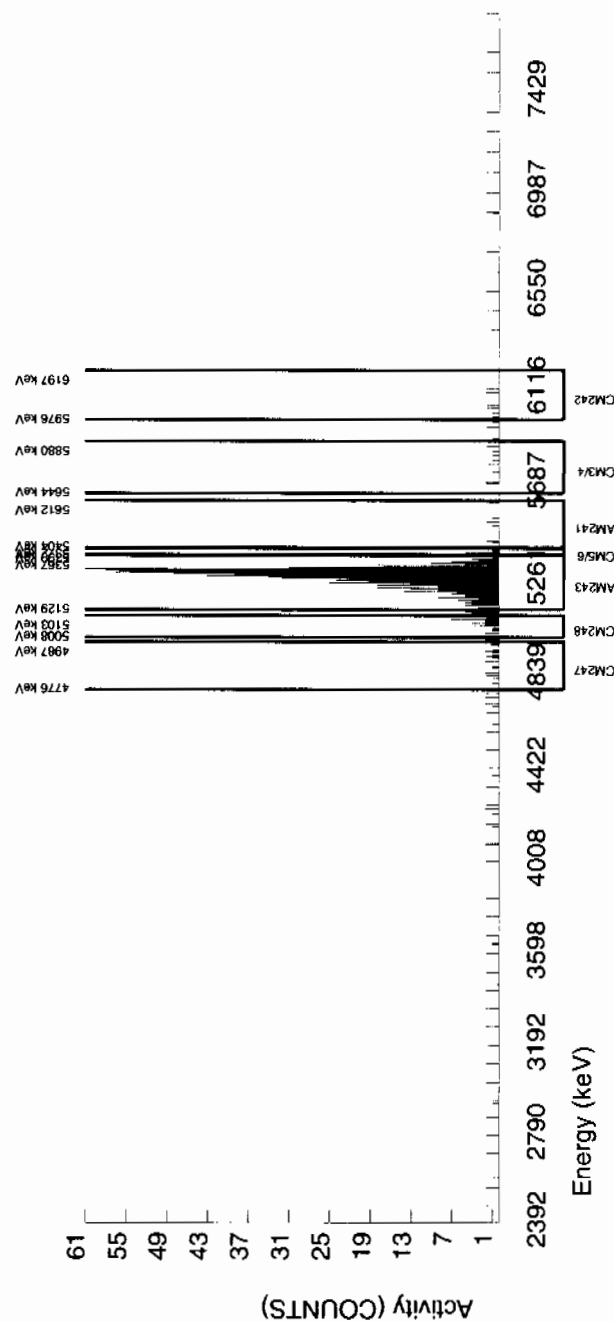
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5469.494	0.000	4.000	1.748	0.878	2.8409	99.94000	2.32E-03	2.45E-03	8.49E-03	2.06E-02	2.44E-03
AM243	5270.000	5276.928	44.477	790.000	790.000	0.000	0.0000	99.78000	1.05E+00	7.37E-02	0.00E+00	3.60E-03	3.73E-02
CM-242	6102.000	6037.972	54.466	9.000	9.000	0.000	4.3413	100.0000	1.32E-02	4.46E-03	1.30E-02	2.95E-02	4.38E-03
CM-3/4	5795.020	5756.956	84.175	9.000	8.122	0.878	5.1799	100.0000	2.08E-02	4.20E-03	1.55E-02	3.45E-02	4.15E-03
CM-5/6	5386.000	5382.357	13.617	14.000	14.000	0.000	14.2480	86.09000	1.15E-02	5.90E-03	4.94E-02	1.03E-01	5.76E-03
CM-247	4946.000	4909.808	126.262	22.000	21.122	0.878	13.7917	79.30000	3.53E-02	8.25E-03	5.19E-02	1.08E-01	7.97E-03
CM-248	5078.600	5064.234	77.972	35.000	35.000	0.000	19.5080	91.00000	5.09E-02	9.15E-03	6.40E-02	1.32E-01	8.61E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as $\sqrt{\text{BKG AREA}}$.

* Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056 SAMPLE ID : S0246344002_AM SAMPLE QTY : 1.256 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 78.876	CHAMBER : 226 DETECTOR S/N : 79419 AVERAGE %EFFICIENCY : 37.2343 COUNT DATE : 23-FEB-2010 21:16:39 ELAPSED LIVE TIME(SEC) : 52659.80	LIB FILE : ENV_ALPHA_AM BKG FILE : B226.CNF:83 BKG DATE : 21-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W226.CNF:28 CAL DATE : 29-JAN-2010
---	--	--

TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.3005E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G
---	---	---

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	5505.456	4.955	7.000	5.695	0.000	2.8409	99.94000	7.93E-03	3.36E-03	8.92E-03	2.16E-02	3.32E-03
AM243	5270.000	5275.228	46.401	751.000	750.122	0.878	0.9368	99.78000	1.05E+00	7.46E-02	2.94E-03	9.67E-03	3.82E-02
CM-242	6102.000	6046.039	34.683	3.000	2.122	0.878	4.3413	100.0000	3.26E-03	2.99E-03	1.36E-02	3.10E-02	2.98E-03
CM-3/4	5795.020	5776.620	143.685	7.000	7.000	0.000	5.1799	100.0000	9.76E-03	3.74E-03	1.62E-02	3.63E-02	3.69E-03
CM-5/6	5386.000	5378.445	0.000	15.000	15.000	0.000	14.2480	86.09000	2.42E-02	6.43E-03	5.19E-02	1.08E-01	6.26E-03
CM-247	4946.000	4886.697	4.955	15.000	10.612	4.388	13.7917	79.30000	1.86E-02	7.70E-03	5.45E-02	1.14E-01	7.62E-03
CM-248	5078.600	5054.291	66.733	21.000	21.000	0.000	19.5080	91.00000	3.21E-02	7.28E-03	6.72E-02	1.39E-01	7.01E-03

NOTES:

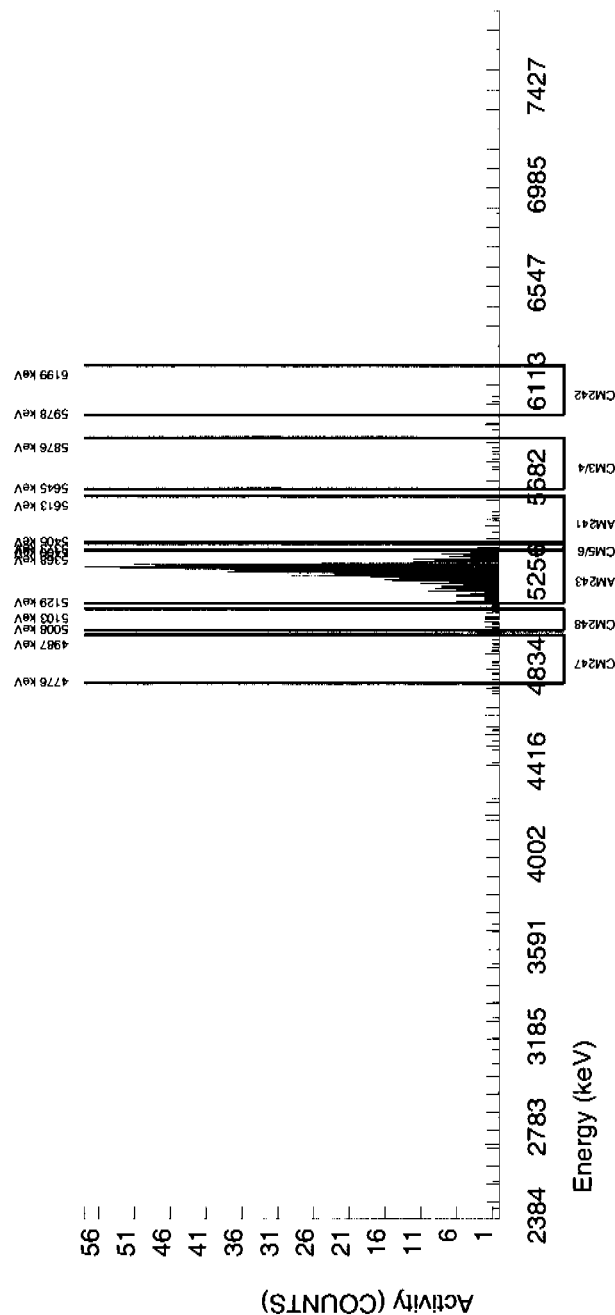
* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

AM-241



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056
SAMPLE ID : S0246344003_AM
SAMPLE QTY : 1.250 G
SAMPLE DATE : 1-FEB-2010 00:00:00.
ANALYST : KXM4
% YIELD : 81.979

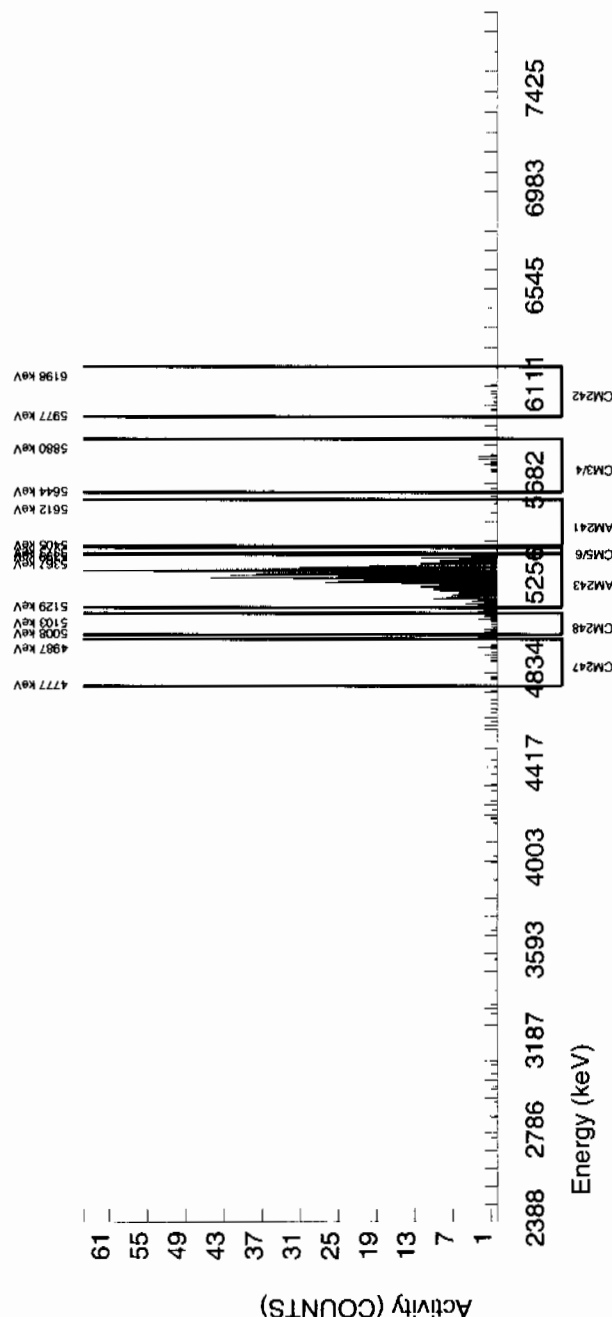
CHAMBER : 227
DETECTOR S/N : 79420
AVERAGE %EFFICIENCY : 38.6409
COUNT DATE : 23-FEB-2010 21:16:41
ELAPSED LIVE TIME(SEC) : 52662.30

LIB FILE : ENV_ALPHA_AM
BKG FILE : B227.CNF:83
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W227.CNF:28
CAL DATE : 29-JAN-2010

TRACER		MS/MSD		LCS/LCSD									
ID	: 445-96-2-SS	ID	: 0244-B	ID	: 0244-B								
NUCLIDE	: AM243	NUCLIDE	: AM-241	NUCLIDE	: AM-241								
NOMINAL	: 2.9166E+00 dpm	NOMINAL	: 3.3155E+01 pCi/G	NOMINAL	: 3.3155E+01 pCi/G								
RESULTS	: 2.3910E+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	5558.911	4.945	1.000	-1.286	0.878	2.8409	99.94000	-1.67E-03	1.73E-03	8.30E-03	2.01E-02	1.73E-03
AM243	5270.000	5275.876	48.885	810.000	809.122	0.878	0.9369	99.78000	1.05E+00	7.35E-02	2.74E-03	9.01E-03	3.70E-02
CM-242	6102.000	6064.949	108.177	8.000	8.000	0.000	4.3413	100.00000	1.14E-02	4.10E-03	1.27E-02	2.89E-02	4.05E-03
CM-3/4	5795.020	5772.709	16.072	16.000	16.000	0.000	5.1799	100.00000	2.08E-02	5.35E-03	1.51E-02	3.38E-02	5.20E-03
CM-5/6	5386.000	5377.970	0.000	8.000	8.000	0.000	14.2480	86.09000	1.20E-02	4.32E-03	4.84E-02	1.01E-01	4.26E-03
CM-247	4946.000	4900.253	7.418	14.000	13.122	0.878	13.7917	79.30000	2.14E-02	6.41E-03	5.08E-02	1.06E-01	6.28E-03
CM-248	5078.600	5060.681	0.000	21.000	20.122	0.878	19.5080	91.00000	2.87E-02	6.87E-03	6.26E-02	1.29E-01	6.65E-03

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

<p>BATCH NUMBER : 956056 SAMPLE ID : S0246344004_AM SAMPLE QTY : 1.252 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 77.274</p>	<p>CHAMBER : 228 DETECTOR S/N : 79421 AVERAGE %EFFICIENCY : 37.1363 COUNT DATE : 23-FEB-2010 21:16:45 ELAPSED LIVE TIME(SEC) : 52663.72</p>	<p>LIB FILE : ENV_ALPHA_AM BKG FILE : B228.CNF:83 BKG DATE : 21-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W228.CNF:28 CAL DATE : 29-JAN-2010</p>
--	---	---

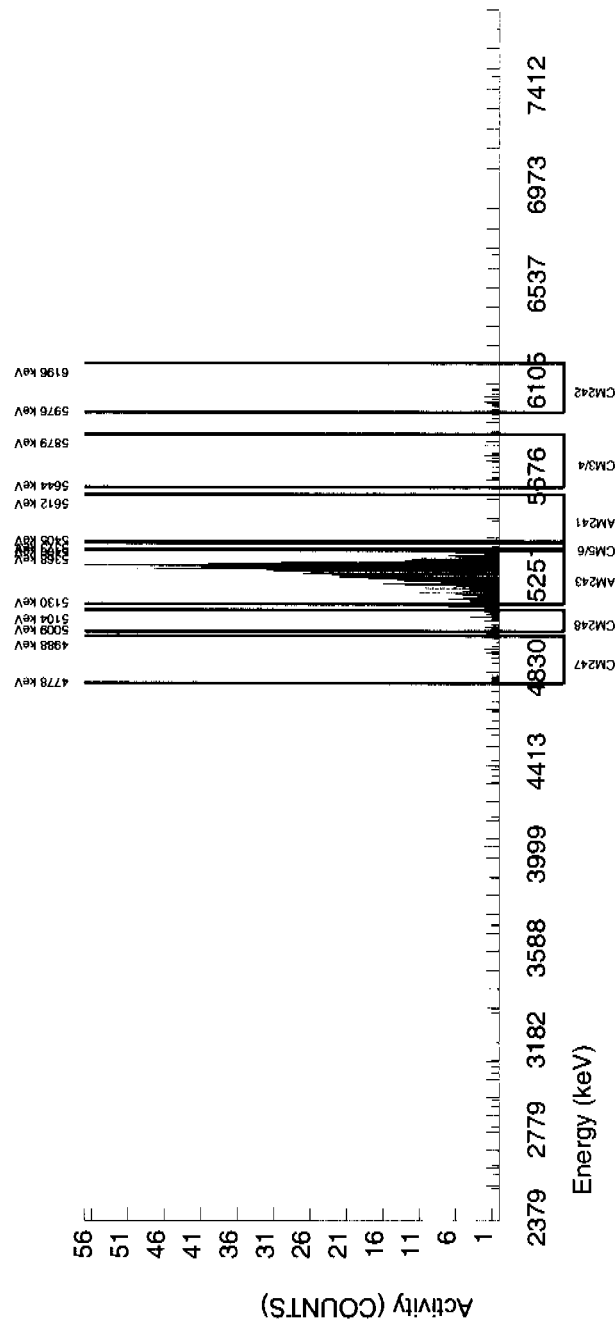
<p>TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.2537E+00 dpm</p>	<p>MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G</p>	<p>LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G</p>
--	--	--

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	5481.105	119.266	3.000	1.725	0.000	2.8409	99.94000	2.47E-03	1.88E-03	9.15E-03	2.22E-02	1.88E-03
AM243	5270.000	5274.757	42.481	733.000	733.000	0.000	0.0000	99.78000	1.05E+00	7.52E-02	0.00E+00	3.88E-03	3.88E-02
CM-242	6102.000	6038.769	24.847	14.000	14.000	0.000	4.3413	100.0000	2.21E-02	6.05E-03	1.40E-02	3.18E-02	5.90E-03
CM-3/4	5795.020	5774.450	49.591	13.000	12.122	0.878	5.1799	100.0000	1.74E-02	5.42E-03	1.67E-02	3.72E-02	5.31E-03
CM-5/6	5386.000	5379.379	5.772	6.000	6.000	0.000	14.2480	86.09000	9.96E-03	4.11E-03	5.33E-02	1.11E-01	4.06E-03
CM-247	4946.000	4886.561	0.000	20.000	20.000	0.000	13.7917	79.30000	3.60E-02	8.35E-03	5.60E-02	1.17E-01	8.06E-03
CM-248	5078.600	5063.158	6.626	21.000	21.000	0.000	19.5080	91.00000	3.30E-02	7.47E-03	6.90E-02	1.42E-01	7.19E-03

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056 SAMPLE ID : S0246344005_AM SAMPLE QTY : 1.252 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 83.861	CHAMBER : 229 DETECTOR S/N : 79422 AVERAGE %EFFICIENCY : 37.2509 COUNT DATE : 23-FEB-2010 21:16:47 ELAPSED LIVE TIME(SEC) : 52667.90	LIB FILE : ENV_ALPHA_AM BKG FILE : B229.CNF:83 BKG DATE : 21-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W229.CNF:28 CAL DATE : 29-JAN-2010
---	--	--

TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.4458E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G
---	---	---

NUCLIDE ACTIVITY SUMMARY

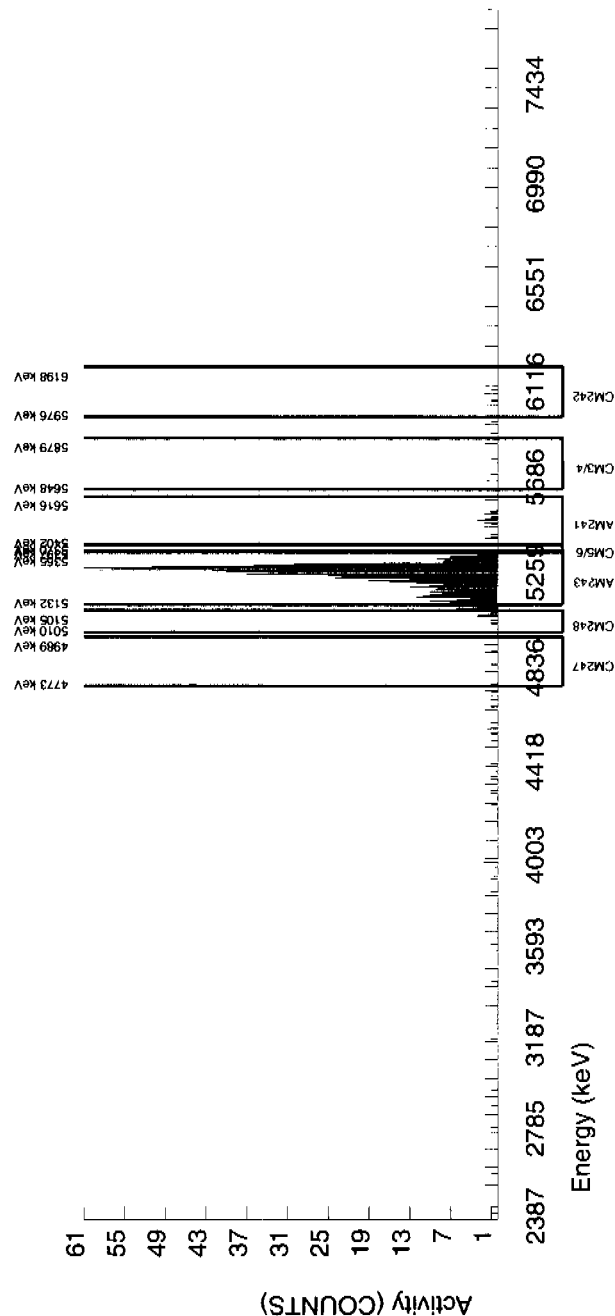
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.047	62.981	22.000	20.611	0.000	2.8409	99.94000	2.71E-02	6.18E-03	8.41E-03	2.04E-02	5.96E-03
AM243	5270.000	5270.039	46.591	798.000	798.000	0.000	0.0000	99.78000	1.05E+00	7.36E-02	0.00E+00	3.56E-03	3.71E-02
CM-242	6102.000	6075.254	4.947	5.000	4.122	0.878	4.3413	100.0000	5.97E-03	3.50E-03	1.28E-02	2.92E-02	3.48E-03
CM-3/4	5795.020	5723.071	133.568	3.000	3.000	0.000	5.1799	100.0000	3.95E-03	2.29E-03	1.53E-02	3.42E-02	2.28E-03
CM-5/6	5386.000	5380.500	0.000	9.000	9.000	0.000	14.2480	86.09000	1.37E-02	4.65E-03	4.89E-02	1.02E-01	4.57E-03
CM-247	4946.000	4898.793	4.947	9.000	8.122	0.878	13.7917	79.30000	1.34E-02	5.24E-03	5.14E-02	1.07E-01	5.17E-03
CM-248	5078.600	5071.688	0.000	18.000	18.000	0.000	19.5080	91.00000	2.60E-02	6.32E-03	6.34E-02	1.31E-01	6.12E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area
due to tracer impurity:
AM-241



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056	CHAMBER : 230	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202049947_AM	DETECTOR S/N : 79423	BKG FILE : B230.CNF;83
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5123	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:16:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 52675.93	EFF FILE : W230.CNF;28
% YIELD : 96.515		CAL DATE : 29-JAN-2010

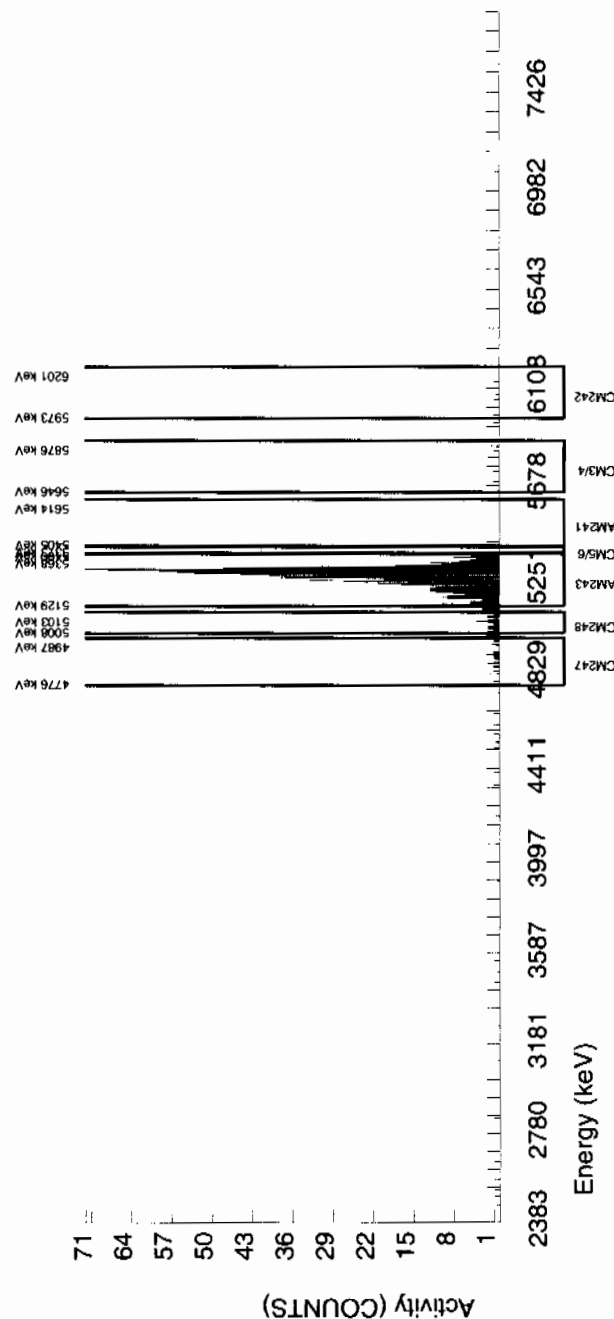
TRACER ID : 445-96-2-SS	MS/MSD ID : 0244-B	LCS/LCSD ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.8149E+00 dpm		

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	5509.342	0.000	0.000	-1.610	0.000	2.8409	99.94000	-2.28E-03	1.42E-03	9.08E-03	2.20E-02	1.42E-03
AM243	5270.000	5269.277	47.983	925.000	925.000	0.000	0.0000	99.78000	1.31E+00	8.89E-02	0.00E+00	3.85E-03	4.32E-02
CM-242	6102.000	6072.398	4.939	6.000	6.000	0.000	4.3413	100.0000	8.58E-03	3.54E-03	1.39E-02	3.16E-02	3.50E-03
CM-3/4	5795.020	5776.996	4.939	6.000	6.000	0.000	5.1799	100.0000	8.50E-03	3.51E-03	1.65E-02	3.69E-02	3.47E-03
CM-5/6	5386.000	5378.787	0.000	8.000	8.000	0.000	14.2480	86.09000	1.32E-02	4.72E-03	5.29E-02	1.10E-01	4.66E-03
CM-247	4946.000	4888.147	177.706	23.000	22.122	0.878	13.7917	79.30000	3.95E-02	9.02E-03	5.56E-02	1.16E-01	8.71E-03
CM-248	5078.600	5065.826	0.000	31.000	31.000	0.000	19.5080	91.00000	4.83E-02	9.13E-03	6.85E-02	1.41E-01	8.67E-03

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056 SAMPLE ID : S1202049948_AM SAMPLE QTY : 1.257 G SAMPLE DATE : 1-FEB-2010 00:00:00. ANALYST : KXM4 % YIELD : 75.729	CHAMBER : 235 DETECTOR S/N : 79428 AVERAGE %EFFICIENCY : 37.6823 COUNT DATE : 23-FEB-2010 21:16:52 ELAPSED LIVE TIME(SEC) : 52679.16	LIB FILE : ENV_ALPHA_AM BKG FILE : B235.CNF:83 BKG DATE : 21-FEB-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W235.CNF:28 CAL DATE : 29-JAN-2010
---	--	--

TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.2087E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3155E+01 pCi/G
---	---	---

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	5515.555	137.126	5.000	3.731	0.000	2.8409	99.94000	5.34E-03	2.79E-03	9.17E-03	2.22E-02	2.76E-03
AM243	5270.000	5267.980	68.483	730.000	729.122	0.878	0.9370	99.78000	1.05E+00	7.65E-02	3.03E-03	9.94E-03	3.88E-02
CM-242	6102.000	6038.176	34.200	15.000	13.244	1.756	4.3413	100.00000	2.09E-02	6.55E-03	1.40E-02	3.19E-02	6.42E-03
CM-3/4	5795.020	5741.375	14.590	10.000	9.122	0.878	5.1799	100.00000	1.31E-02	4.78E-03	1.67E-02	3.73E-02	4.71E-03
CM-5/6	5386.000	5378.269	0.000	7.000	7.000	0.000	14.2480	86.09000	1.16E-02	4.46E-03	5.34E-02	1.11E-01	4.40E-03
CM-247	4946.000	4915.675	0.000	24.000	24.000	0.000	13.7917	79.30000	4.33E-02	9.25E-03	5.61E-02	1.17E-01	8.84E-03
CM-248	5078.600	5072.826	0.000	43.000	43.000	0.000	19.5080	91.00000	6.76E-02	1.12E-02	6.91E-02	1.43E-01	1.03E-02

NOTES:

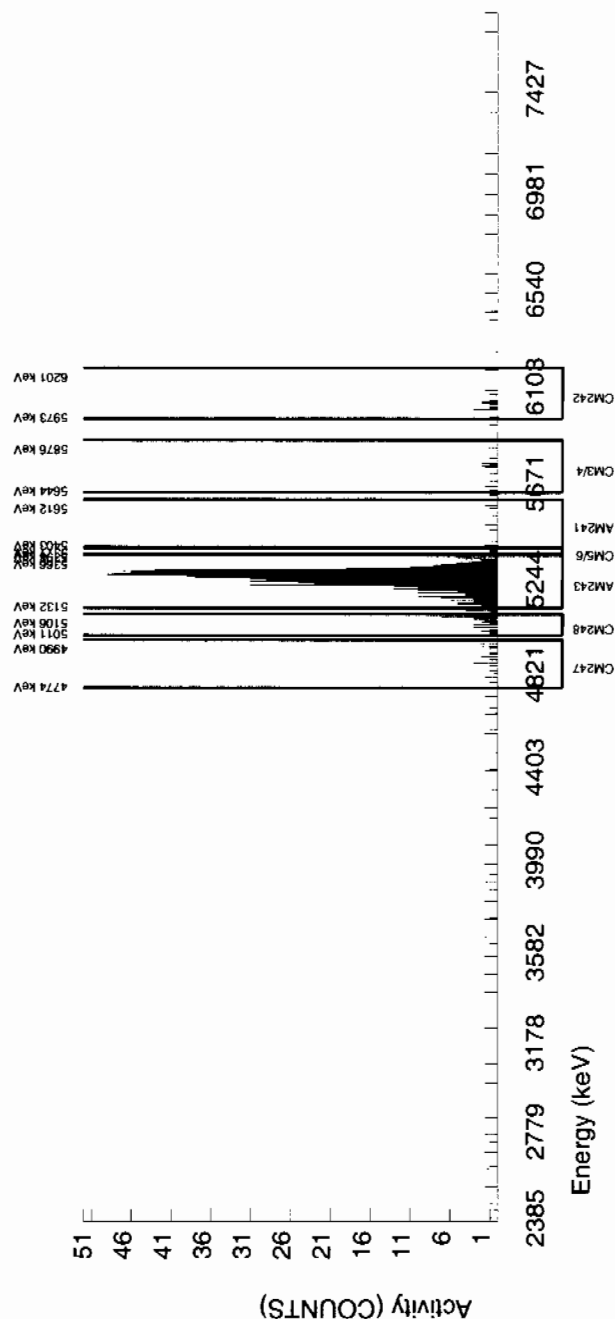
* Sg calculated via blank population.

(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

AM-241



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 956056
SAMPLE ID : S1202049949_AM
SAMPLE QTY : 0.133 G
SAMPLE DATE : 22-FEB-2010 00:00:00
ANALYST : KXM4
% YIELD : 100.126

CHAMBER : 236
DETECTOR S/N : 79429
AVERAGE %EFFICIENCY : 38.6953
COUNT DATE : 23-FEB-2010 21:16:54
ELAPSED LIVE TIME(SEC) : 52682.92

LIB FILE : ENV_ALPHA_AM
BKG FILE : B236.CNF:83
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W236.CNF:28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.9202E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3152E+01 pCi/G

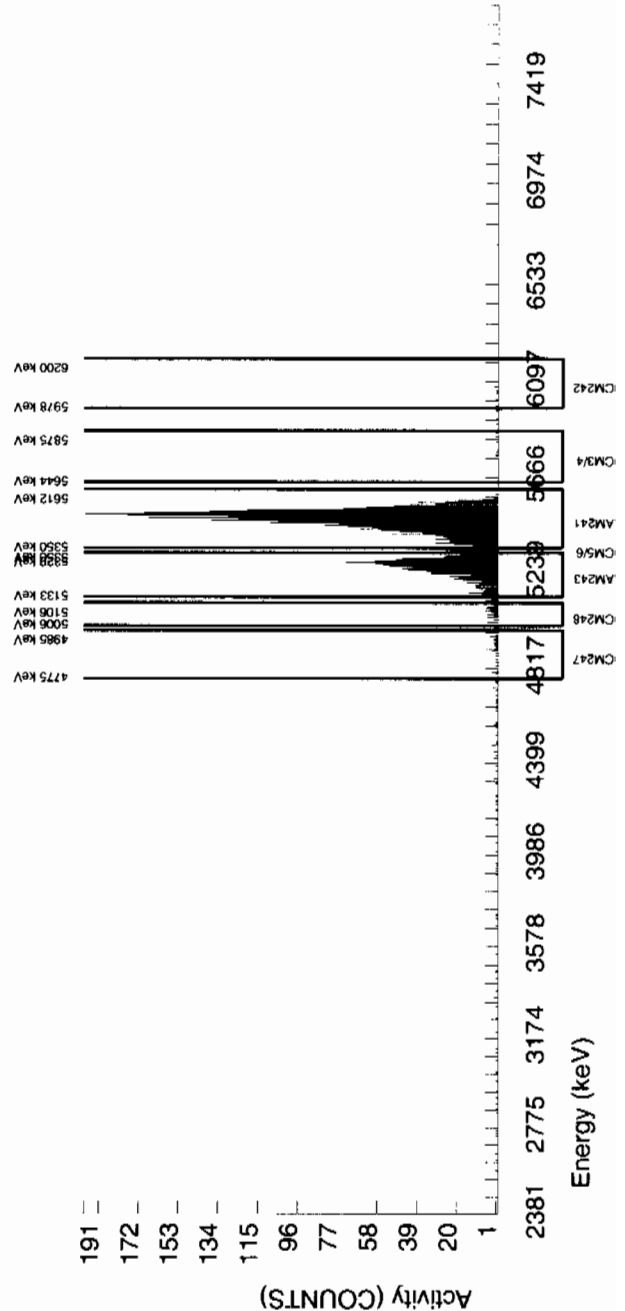
LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3152E+01 pCi/G

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	5481.212	57.209	3030.000	3028.277	0.000	2.8409	99.94000	3.02E+01	1.99E+00	6.38E-02	1.55E-01	5.48E-01
AM243	5270.000	5262.175	54.870	990.000	990.000	0.000	0.0000	99.78000	9.88E+00	7.00E-01	0.00E+00	2.70E-02	3.14E-01
CM-242	6102.000	6047.420	4.900	6.000	6.000	0.000	4.3413	100.0000	6.03E-02	2.49E-02	9.74E-02	2.22E-01	2.46E-02
CM-3/4	5795.020	5810.757	97.393	7.000	7.000	0.000	5.1799	100.0000	6.97E-02	2.67E-02	1.16E-01	2.59E-01	2.63E-02
CM-5/6	5386.000	5481.212	57.209	3030.000	3028.277	0.000	14.2480	86.09000	3.50E+01	2.31E+00	3.71E-01	7.74E-01	6.36E-01
CM-247	4946.000	4913.126	0.000	49.000	47.244	1.756	13.7917	79.30000	5.93E-01	9.68E-02	3.90E-01	8.15E-01	8.93E-02
CM-248	5078.600	5068.045	0.000	56.000	56.000	0.000	19.5080	91.00000	6.13E-01	9.06E-02	4.81E-01	9.92E-01	8.19E-02

NOTES:

- * Sg calculated via blank population.
(Sg updated 10-FEB-2010)
- * 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# 950787 Product: YS Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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%.			NA
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.			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 stasured.	✓		
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] 2/19/10

Secondary Review Performed By: [Signature] 2/22/10

LAVL
2/22/10

Gamma Spec Que Sheet

02/12/2010

Batch #: 950787 Analyst: MXR1 First Client Due Date: 02/26/2010 Internal Due Date: 02/16/2010
 Gamma Spike Isotope: Mixed Gamma Spike Code: hla Expiration Date: hla Vol: hla Nominal Concentration: hla
 Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: V
 Initials: MS Prep Date: 2/11/10 Library: SOLID Witness: hla

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Aliquot (1/2/F)	Detector	Sealing Date/Time (if Applicable)
24632001-1	RE16-10-1150	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	CAF	120.79	18	2/10/10
24632002-1	RE16-10-1151	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	117.35	19	
246315001-1	RE46-10-12039	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	134.63	23	
246315002-1	RE46-10-12040	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	134.77	15	
246315003-1	RE46-10-12043	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	119.66	22	
246325001-1	RE46-10-11906	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	125.48	10	2/11/10
246325002-1	RE46-10-12047	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	131.18	11	2/10/10
246325003-1	RE46-10-12048	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	114.59	16	
246325004-1	RE46-10-12049	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	128.73	12	
246325005-1	RE46-10-12050	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	114.70	20	
246325006-1	RE46-10-12051	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	125.00	21	
246331001-1	RE16-10-1132	SAMPLE		LANL010	SOIL	30-JAN-10 12:00:00	RF	125.08	17	
246331002-1	RE16-10-1145	SAMPLE		LANL010	SOIL	30-JAN-10 12:00:00	RF	136.01	14	
246338001-1	RE46-10-11592	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	166.28	1	
246338002-1	RE46-10-11593	SAMPLE		LANL010	SOIL	02-FEB-10 12:00:00	RF	112.13	7	
246344001-1	RE15-10-7981	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	142.00	14	
246344002-1	RE15-10-7983	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	134.54	18	
246344003-1	RE15-10-7984	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	143.81	19	
246344004-1	RE15-10-7982	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	118.64	23	2/11/10
246344005-1	RE15-10-7985	SAMPLE		LANL010	SOIL	01-FEB-10 12:00:00	RF	89.67	15	2/10/10
1202037549-1	MB	MB		QC ACCOUNT	SOIL	2/11/10	RF	166.28	22	2/11/10
1202037550-1	DUP RE46-10-11906(246325001)	DUP		QC ACCOUNT	SOIL	2/11/10	RF	120.05	12	
1202037551-1	LCS	LCS		QC ACCOUNT	SOIL		RF	155.44	16	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: Julian 2/11/10 Page 1 of 1

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
950787	246262001	SAMPLE	18-FEB-10		Americium-241	0.1439	0.2893	0.200
					Thorium-234	1.829	2.236	2.00
950787	246262002	SAMPLE	18-FEB-10		Americium-241	0.02164	0.2571	0.200
					Cerium-139	-0.04221	0.05178	0.050
					Sodium-22	0.02721	0.08111	0.080
950787	246315001	SAMPLE	18-FEB-10		Americium-241	0.1265	0.3916	0.200
					Cerium-139	-0.00173	0.05918	0.050
					Sodium-22	-0.01225	0.09161	0.080
950787	246315002	SAMPLE	18-FEB-10		Americium-241	0.3853	0.5684	0.200
					Cerium-139	-0.0078	0.06905	0.050
					Cesium-134	0.07938	0.1057	0.100
					Europium-152	-0.00493	0.2198	0.200
					Mercury-203	0.06746	0.104	0.100
					Sodium-22	-0.0637	0.09478	0.080
					Thorium-234	3.02	4.197	2.00
					Tin-113	-0.02146	0.1009	0.100
					Uranium-235	-0.04062	0.5004	0.500
950787	246315003	SAMPLE	18-FEB-10		Americium-241	-0.03898	0.2383	0.200
					Cerium-139	-0.00745	0.05137	0.050
950787	246325001	SAMPLE	18-FEB-10		Americium-241	-0.1238	0.411	0.200
					Sodium-22	0.00296	0.0877	0.080
950787	246325002	SAMPLE	18-FEB-10					
950787	246325003	SAMPLE	18-FEB-10		Americium-241	-0.07274	0.2546	0.200
					Cerium-139	-0.00276	0.05005	0.050
					Sodium-22	0.03776	0.08554	0.080
					Thorium-234	0.7364	2.03	2.00
950787	246325004	SAMPLE	18-FEB-10		Americium-241	0.03512	0.264	0.200
					Cesium-134	0.1002	0.1007	0.100
					Thorium-234	1.402	2.179	2.00
950787	246325005	SAMPLE	18-FEB-10					
950787	246325006	SAMPLE	18-FEB-10		Sodium-22	-0.00191	0.1114	0.080
950787	246331001	SAMPLE	18-FEB-10		Sodium-22	0.00735	0.1005	0.080
950787	246331002	SAMPLE	18-FEB-10					
950787	246338001	SAMPLE	18-FEB-10		Americium-241	-0.00639	0.2091	0.200
950787	246338002	SAMPLE	18-FEB-10		Americium-241	-0.04105	0.2009	0.200
					Cerium-139	0.01843	0.05502	0.050
					Sodium-22	7.10E-05	0.08779	0.080
950787	246344001	SAMPLE	18-FEB-10		Americium-241	0.06544	0.3605	0.200
950787	246344002	SAMPLE	18-FEB-10		Americium-241	0.03916	0.2792	0.200
					Thorium-234	1.854	2.267	2.00
950787	246344003	SAMPLE	18-FEB-10		Americium-241	0.04124	0.2446	0.200
					Thorium-234	1.409	2.154	2.00
950787	246344004	SAMPLE	18-FEB-10		Americium-241	0.2139	0.3769	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
950787	246344004	SAMPLE	18-FEB-10		Cerium-139	-0.0079	0.05944	0.050
					Cesium-134	0.09607	0.1095	0.100
					Sodium-22	-0.01486	0.08777	0.080
					Thorium-234	2.434	2.991	2.00
950787	246344005	SAMPLE	18-FEB-10		Americium-241	0.3127	0.5878	0.200
					Cerium-139	0.00753	0.06888	0.050
					Europium-152	-0.0752	0.2097	0.200
					Mercury-203	0.03261	0.1029	0.100
					Tin-113	-0.01266	0.1053	0.100
950787	1202037549	MB	18-FEB-10					
950787	1202037550	DUP	18-FEB-10		Americium-241	0.06815	0.2825	0.200
					Cerium-139	0.00882	0.05319	0.050
					Sodium-22	0.00566	0.08902	0.080
950787	1202037551	LCS	18-FEB-10		Cerium-139	0.01261	0.07027	0.050
					Cesium-134	-0.03524	0.1328	0.100
					Europium-152	-0.09562	0.268	0.200
					Ruthenium-106	0.08502	0.8794	0.800
					Thorium-234	1.213	3.062	2.00
					Tin-113	-0.00313	0.1303	0.100

GEL QUALS

Batch ID: 950787

Report run on: February 19, 2010 2:46 PM

Samp Id	Parname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246262001-1 18-FEB-2010 14:49	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.624			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.614			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.649			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.105			
246262002-1 18-FEB-2010 14:49	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.355			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.903			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1014		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.891			
246315001-1 18-FEB-2010 14:50	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.965			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		5.474			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1178		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.38			
246315002-1 18-FEB-2010 14:59	Bismuth-211	UI	UI	UI	Data rejected due to interference.		5.608			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.428			
	Radium-224	UI	UI	UI	Data rejected due to interference.		6.134			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.143			
246315003-1 18-FEB-2010 15:00	Bismuth-211	UI	UI	UI	Data rejected due to interference.		5.307			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		5.322			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1052		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.718			

GEL QUALS

Batch ID: 950787

Report run on: February 19, 2010 2:46 PM

Samp Id	Parname	Cofa	Edd	Qual Comments	Auto	Result	MDA	Uncert	SQL
246315003-1 18-FEB-2010 15:00	Strontium-85	UI	UI	UI		.1397			
246325001-1 18-FEB-2010 15:14	Bismuth-211	UI	UI	UI		4.532			
	Cadmium-109	UI	UI	UI		4.61			
	Radium-224	UI	UI	UI		4.814			
246325002-1 18-FEB-2010 15:16	Bismuth-211	UI	UI	UI		4.721			
	Cadmium-109	UI	UI	UI		4.352			
	Cesium-134	UI	UI	UI		.1163		.1	.1
	Mercury-203	UI	UI	UI		.1472		.1	.1
	Radium-224	UI	UI	UI		5.638			
246325003-1 18-FEB-2010 15:16	Bismuth-211	UI	UI	UI		4.262			
	Cadmium-109	UI	UI	UI		4.945			
	Radium-224	UI	UI	UI		6.599			
246325004-1 18-FEB-2010 15:24	Bismuth-211	UI	UI	UI		3.931			
	Cadmium-109	UI	UI	UI		2.443			
	Radium-224	UI	UI	UI		3.78			
246325005-1 18-FEB-2010 15:24	Bismuth-211	UI	UI	UI		4.22			
	Cadmium-109	UI	UI	UI		3.821			
	Cesium-134	UI	UI	UI		.1106		.1	.1
	Radium-224	UI	UI	UI		5.488			

GEL QUALS

Batch ID: 950787

Report run on: February 19, 2010 2:46 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246325006-1 18-FEB-2010 15:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.689			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.968			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.17		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		6.551			
246331001-1 18-FEB-2010 15:50	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.64			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.65			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.729			
246331002-1 18-FEB-2010 15:51	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.608			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.383			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.673			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06743			
246338001-1 18-FEB-2010 15:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		1.498			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.623			
	Radium-224	UI	UI	UI	Data rejected due to interference.		1.447			
246338002-1 18-FEB-2010 15:55	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.62			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.706			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1655		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.051			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1077			

GEL QUALS

Batch ID: 950787

Report run on: February 18, 2010 2:46 PM

Samp Id	Parname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246344001-1 18-FEB-2010 15:59	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.409			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.648			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1192		.1	
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.06481		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.278			
246344002-1 18-FEB-2010 16:57	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.682			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.902			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09111		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.505			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0687			
246344003-1 18-FEB-2010 16:58	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.29			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.05			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.55			
246344004-1 18-FEB-2010 16:59	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.418			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.232			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.914			
246344005-1 18-FEB-2010 17:02	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.93			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.577			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.615			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.2135			

GEL QUALS

Batch ID: 950787

Report run on: February 19, 2010 2:46 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1202037549-1 MB 18-FEB-2010 17:03	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07493			
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.368			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.94			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1265		.1	.1
1202037550-1 DUP 18-FEB-2010 17:29	Radium-224	UI	UI	UI	Data rejected due to interference.		5.444			

Gamma Review Report based on Result > MDA for Batch:950787

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue	
246262001	01-FEB-10 12:00	18-FEB-10 14:49	17.1	SAMPLE	LOAD	1	LANL	LANL01004IGEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228 ML	1.132	0.1474	pCi/g	0.1886	N	910.7	3	1.767	IDENTIFIED	11.22	<input type="checkbox"/>
Americium-243 ML	0.2898	0.03873	pCi/g	0.08618	N	75.02	1	1.185	IDENTIFIED	12.69	<input type="checkbox"/>
Annihilation Rad. HE	0.0864	0.02401	pCi/g	0.04241	N	510.5	1	2.012	IDENTIFIED	27.6	<input type="checkbox"/>
Bismuth-211 INT	2.624	0.1964	pCi/g	0.2463	Y	351.8	4	1.293	IDENTIFIED	6.762	<input checked="" type="checkbox"/> U ₁
Bismuth-212 LA	1.007	0.2197	pCi/g	0.5351	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 V	0.8021	0.06341	pCi/g	0.09564	0.200	609.1	4	1.501	IDENTIFIED	6.522	<input type="checkbox"/>
Cadmium-109 INT	2.614	0.3885	pCi/g	1.085	Y	87.43	3	1.2	IDENTIFIED	14.13	<input checked="" type="checkbox"/> U ₁
Cerium-143	1389	245.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Gross Gamma	8.408	1.232	pCi/g	1.781	N	0					<input type="checkbox"/>
Krypton-85 LA	20.05	3.34	pCi/g	11.6	N	0	9	0	NOT_IDENTI	0	<input type="checkbox"/>
Lead-212 V	1.23	0.06194	pCi/g	0.07441	0.100	238.8	4	1.21	IDENTIFIED	3.552	<input type="checkbox"/>
Lead-214 V	0.9129	0.07236	pCi/g	0.08583	0.100	351.8	4	1.293	IDENTIFIED	6.762	<input type="checkbox"/>
Lutetium-177 HE	2.01	0.7525	pCi/g	1.988	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237 ML	0.7523	0.1361	pCi/g	0.3039	N	87.43	3	1.2	IDENTIFIED	14.13	<input type="checkbox"/>
Polonium-212 ML	1.23	0.06194	pCi/g	0.07441	N	238.8	4	1.21	IDENTIFIED	3.552	<input type="checkbox"/>
Polonium-214 ML	0.9129	0.07236	pCi/g	0.08583	N	351.8	4	1.293	IDENTIFIED	6.762	<input type="checkbox"/>
Polonium-216 ML	1.23	0.06194	pCi/g	0.07441	N	238.8	4	1.21	IDENTIFIED	3.552	<input type="checkbox"/>
Polonium-218 ML	0.9129	0.07236	pCi/g	0.08583	N	351.8	4	1.293	IDENTIFIED	6.762	<input type="checkbox"/>
Potassium-40 V	38.42	1.676	pCi/g	0.4237	1.00	1460	1	2.354	IDENTIFIED	2.153	<input type="checkbox"/>
Radium-224 INT	3.649	0.4537	pCi/g	0.8457	Y	241.7	1	1.607	IDENTIFIED	12.12	<input checked="" type="checkbox"/> U ₁
Radium-226 V	0.8021	0.06341	pCi/g	0.09564	Y	609.1	4	1.501	IDENTIFIED	6.522	<input type="checkbox"/>
Radium-228 V	1.132	0.1474	pCi/g	0.1886	0.500	910.7	3	1.767	IDENTIFIED	11.22	<input type="checkbox"/>
Strontium-85 LA	0.105	0.01749	pCi/g	0.06076	Y	0	9	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Technetium-99m	2.95E+18	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200 HE	516.3	655.5	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208 V	0.349	0.03426	pCi/g	0.04896	0.080	583	1	1.615	IDENTIFIED	9.001	<input type="checkbox"/>
Thorium-228 ML	1.251	0.06301	pCi/g	0.07569	N	238.8	4	1.21	IDENTIFIED	3.552	<input type="checkbox"/>
Thorium-230 ML	0.8021	0.0634	pCi/g	0.09564	N	609.1	4	1.501	IDENTIFIED	6.522	<input type="checkbox"/>
Thorium-232 ML	1.132	0.1474	pCi/g	0.1886	N	910.7	3	1.767	IDENTIFIED	11.22	<input type="checkbox"/>
Tin-126 ML	0.2562	0.03807	pCi/g	0.107	N	87.43	3	1.2	IDENTIFIED	14.13	<input type="checkbox"/>
Titanium-44 LA	0.275	0.02362	pCi/g	0.07548	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium	5.4795	2.89E-06	ug/g	3.3291	N	0					<input type="checkbox"/>
Uranium-234 ML	0.8021	0.0634	pCi/g	0.09564	N	609.1	4	1.501	IDENTIFIED	6.522	<input type="checkbox"/>
Zirconium-97	3.39E+07	5.67E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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	
246262002	01-FEB-10 12:00	18-FEB-10 14:49	17.1	SAMPLE	LOAD	1	LANL	LANL01004IGEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228 ML	1.397	0.1786	pCi/g	0.2125	N	911.4	3	1.82	IDENTIFIED	11.46	<input type="checkbox"/>
Americium-243 ML	0.33	0.04689	pCi/g	0.09099	N	74.86	1	1.617	IDENTIFIED	13.64	<input type="checkbox"/>
Annihilation Rad. HE	0.09618	0.03632	pCi/g	0.04766	N	510.6	1	1.699	IDENTIFIED	37.65	<input type="checkbox"/>

Bismuth-211	INT	3.355	0.2387	pCi/g	0.3324	Y	351.8	4	1.38	IDENTIFIED	6.359	✓ UI
Bismuth-214	✓	0.8069	0.08787	pCi/g	0.1141	0.200	609.1	4	1.47	IDENTIFIED	10.16	□
Cadmium-109	INT	1.903	0.6143	pCi/g	1.353	Y	87.38	3	1.304	IDENTIFIED	31.97	✓ UI
Cerium-143		2282	353.7	pCi/g	0	N	0	7	0	SHORT_HLIF	0	□
Cesium-134	LA	0.1014	0.02616	pCi/g	0.09762	0.100	0	7	0	FAIL_ABUND	0	☒ UI Data rejected due to low abundance.
Gross Gamma		8.641	1.446	pCi/g	3.046	N						□
Lead-212	✓	1.37	0.07295	pCi/g	0.09371	0.100	238.4	4	1.217	IDENTIFIED	3.915	□
Lead-214	✓	1.167	0.08843	pCi/g	0.1158	0.100	351.8	4	1.38	IDENTIFIED	6.359	□
Lutetium-177	HE	4.035	0.9249	pCi/g	2.548	N	0	7	0	FAIL_ABUND	0	□
Neptunium-237	HE	0.5476	0.1856	pCi/g	0.4081	N	87.38	3	1.304	IDENTIFIED	31.97	□
Niobium-95m	HE	0.339	0.08585	pCi/g	0.2697	N	0	7	0	NOT_IDENTI	0	□
Polonium-212	ML	1.37	0.07295	pCi/g	0.09371	N	238.4	4	1.217	IDENTIFIED	3.915	□
Polonium-214	ML	1.167	0.08843	pCi/g	0.1158	N	351.8	4	1.38	IDENTIFIED	6.359	□
Polonium-216	ML	1.37	0.07295	pCi/g	0.09371	N	238.4	4	1.217	IDENTIFIED	3.915	□
Polonium-218	ML	1.167	0.08843	pCi/g	0.1158	N	351.8	4	1.38	IDENTIFIED	6.359	□
Potassium-40	✓	35.69	1.673	pCi/g	0.5152	1.00	1461	1	2.118	IDENTIFIED	2.849	□
Radium-224	INT	3.891	0.6696	pCi/g	1.066	Y	241.5	1	1.968	IDENTIFIED	16.97	✓ UI
Radium-226	✓	0.8069	0.08787	pCi/g	0.1141	Y	609.1	4	1.47	IDENTIFIED	10.16	□
Radium-228	✓	1.397	0.1786	pCi/g	0.2125	0.500	911.4	3	1.82	IDENTIFIED	11.46	□
Thallium-200	HE	1243	771.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	□
Thallium-208	✓	0.409	0.03923	pCi/g	0.06612	0.080	583	1	1.361	IDENTIFIED	8.971	□
Thorium-228	ML	1.394	0.0742	pCi/g	0.09533	N	238.4	4	1.217	IDENTIFIED	3.915	□
Thorium-230	ML	0.8069	0.08786	pCi/g	0.1141	N	609.1	4	1.47	IDENTIFIED	10.16	□
Thorium-232	ML	1.397	0.1786	pCi/g	0.2125	N	911.4	3	1.82	IDENTIFIED	11.46	□
Thorium-234	✓	2.404	1.025	pCi/g	2.133	2.00	63.41	2	1.212	IDENTIFIED	41.75	□
Tin-126	HE	0.1865	0.06019	pCi/g	0.1332	N	87.38	3	1.304	IDENTIFIED	31.97	□
Titanium-44	LA	0.3331	0.02907	pCi/g	0.08327	N	0	7	0	FAIL_ABUND	0	□
Total Uranium		7.1185	3.05E-06	ug/g	3.1751	N						□
Uranium-234	ML	0.8069	0.08786	pCi/g	0.1141	N	609.1	4	1.47	IDENTIFIED	10.16	□
Uranium-238	HE	2.404	1.025	pCi/g	2.133	N	63.41	2	1.212	IDENTIFIED	41.75	□
Zirconium-97		2.17E+07	8.09E+06	pCi/g	0	N	0	7	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
246315001	02-FEB-10 12:00	18-FEB-10 14:50	16.1	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	2.09	0.2032	pCi/g	0.2538	N	910.2	3	2.087	IDENTIFIED	7.818
Americium-243	ML	0.5853	0.05587	pCi/g	0.1228	N	74.63	1	1.385	IDENTIFIED	8.449
Annihilation Rad.		0.1858	0.03593	pCi/g	0.05531	N	510.2	1	1.678	IDENTIFIED	19.12
Bismuth-211	INT	4.965	0.3271	pCi/g	0.3799	Y	351.4	4	1.317	IDENTIFIED	5.728
Bismuth-212	HE	1.254	0.2249	pCi/g	0.835	N	0	12	0	NOT_IDENTI	0
Bismuth-214	✓	1.507	0.1114	pCi/g	0.1363	0.200	608.5	4	1.609	IDENTIFIED	6.366
Cadmium-109	INT	5.474	0.6938	pCi/g	1.418	Y	87.15	3	1.549	IDENTIFIED	11.71
Cerium-143		2488	322.4	pCi/g	0	N	0	12	0	SHORT_HLIF	0
Cesium-134	LA	0.1178	0.0306	pCi/g	0.1063	0.100	0	12	0	NOT_IDENTI	0
Cesium-135	HE	0.5174	0.1141	pCi/g	0.3689	N	0	12	0	NOT_IDENTI	0
Gross Gamma		11.77	1.552	pCi/g	4.46	N					□

Iodine-123	HE	1.24E+07	1.23E+07	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Iodine-133	HE	6242	8268	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	2.191	0.1023	pCi/g	0.1149	0.100	238.3	4	1.172	IDENTIFIED	2.984	<input type="checkbox"/>
Lead-214	✓	1.727	0.1224	pCi/g	0.1324	0.100	351.4	4	1.317	IDENTIFIED	5.728	<input type="checkbox"/>
Lutetium-177	HE	4.374	0.9022	pCi/g	2.741	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	ML	1.577	0.2578	pCi/g	0.4174	N	87.15	3	1.549	IDENTIFIED	11.71	<input type="checkbox"/>
Niobium-95m	LA	0.978	0.1095	pCi/g	0.3621	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>
Niobium-97	HE	14590	1.54E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	ML	2.191	0.1023	pCi/g	0.1149	N	238.3	4	1.172	IDENTIFIED	2.984	<input type="checkbox"/>
Polonium-214	ML	1.727	0.1224	pCi/g	0.1324	N	351.4	4	1.317	IDENTIFIED	5.728	<input type="checkbox"/>
Polonium-216	ML	2.191	0.1023	pCi/g	0.1149	N	238.3	4	1.172	IDENTIFIED	2.984	<input type="checkbox"/>
Polonium-218	ML	1.727	0.1224	pCi/g	0.1324	N	351.4	4	1.317	IDENTIFIED	5.728	<input type="checkbox"/>
Potassium-40	✓	31.94	1.54	pCi/g	0.5241	1.00	1459	1	2.31	IDENTIFIED	3.039	<input type="checkbox"/>
Radium-224	INT	5.38	0.7946	pCi/g	1.308	Y	241.2	1	1.788	IDENTIFIED	14.5	✓ U±
Radium-226	✓	1.507	0.1114	pCi/g	0.1363	Y	608.5	4	1.609	IDENTIFIED	6.366	<input type="checkbox"/>
Radium-228	✓	2.09	0.2032	pCi/g	0.2538	0.500	910.2	3	2.087	IDENTIFIED	7.818	<input type="checkbox"/>
Thallium-200	HE	619	486.1	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.6594	0.05294	pCi/g	0.07905	0.080	582.6	1	1.345	IDENTIFIED	7.342	<input type="checkbox"/>
Thorium-228	ML	2.226	0.104	pCi/g	0.1168	N	238.3	4	1.172	IDENTIFIED	2.984	<input type="checkbox"/>
Thorium-230	ML	1.507	0.1114	pCi/g	0.1363	N	608.5	4	1.609	IDENTIFIED	6.366	<input type="checkbox"/>
Thorium-232	ML	2.09	0.2032	pCi/g	0.2538	N	910.2	3	2.087	IDENTIFIED	7.818	<input type="checkbox"/>
Thorium-234	✓	5.073	2.014	pCi/g	3.031	2.00	63.01	2	1.606	IDENTIFIED	38.66	<input type="checkbox"/>
Tin-126	ML	0.5372	0.06809	pCi/g	0.14	N	87.15	3	1.549	IDENTIFIED	11.71	<input type="checkbox"/>
Titanium-44	ML	0.5195	0.03845	pCi/g	0.1078	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		15.057	5.99E-06	ug/g	4.5121	N		0				<input type="checkbox"/>
Uranium-234	ML	1.507	0.1114	pCi/g	0.1363	N	608.5	4	1.609	IDENTIFIED	6.366	<input type="checkbox"/>
Uranium-238	HE	5.073	2.014	pCi/g	3.031	N	63.01	2	1.606	IDENTIFIED	38.66	<input type="checkbox"/>
Zirconium-97		2.16E+07	3.68E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
246315002	02-FEB-10 12:00	18-FEB-10 14:59	16.1	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	2.142	0.2211	pCi/g	0.2898	N	911.2	3	1.482	IDENTIFIED	8.477	<input type="checkbox"/>
Americium-243 ML	0.4352	0.0618	pCi/g	0.1546	N	75.02	1	1.132	IDENTIFIED	12.98	<input type="checkbox"/>
Annihilation Rad.	0.2079	0.0475	pCi/g	0.0571	N	510.8	1	1.962	IDENTIFIED	22.43	<input type="checkbox"/>
Bismuth-211 INT	5.608	0.4256	pCi/g	0.44	Y	352	4	1.591	IDENTIFIED	5.738	W/ U±
Bismuth-212 LA	1.825	0.3605	pCi/g	0.9151	N	0	13	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 V	1.619	0.1292	pCi/g	0.1497	0.200	609.4	4	1.768	IDENTIFIED	6.255	<input type="checkbox"/>
Cadmium-109 INT	2.428	0.7097	pCi/g	1.837	Y	87.36	3	1.209	IDENTIFIED	28.57	W/ U±
Cerium-143	1686	276.6	pCi/g	0	N	0	13	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-135 HE	0.409	0.1182	pCi/g	0.3837	N	0	13	0	NOT_IDENTI	0	<input type="checkbox"/>
Gross Gamma	12.56	1.754	pCi/g	4.289	N		0				<input type="checkbox"/>
Iodine-135	1.64E+16		pCi/g	0	N	0	13	0	SHORT_HLIF	0	<input type="checkbox"/>
Krypton-85 HE	27.59	5.756	pCi/g	19.14	N	0	13	0	NOT_IDENTI	0	<input type="checkbox"/>
Lead-212 V	2.745	0.1829	pCi/g	0.1283	0.100	238.8	4	1.743	IDENTIFIED	2.992	<input type="checkbox"/>
Lead-214 V	1.951	0.1565	pCi/g	0.1533	0.100	352	4	1.591	IDENTIFIED	5.738	<input type="checkbox"/>

Lutetium-177	LA	6.176	1.234	pCi/g	3.192	N	0	13	0	FAIL_ABUND	0	
Neptunium-237	HE	0.6998	0.2169	pCi/g	0.5435	N	87.36	3	1.209	IDENTIFIED	28.57	
Niobium-95m	LA	0.6252	0.1074	pCi/g	0.3478	N	0	13	0	NOT_IDENTI	0	
Niobium-97	HE	1.37E+05	1.59E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	
Polonium-212	ML	2.745	0.1829	pCi/g	0.1283	N	238.8	4	1.743	IDENTIFIED	2.992	
Polonium-214	ML	1.951	0.1565	pCi/g	0.1533	N	352	4	1.591	IDENTIFIED	5.738	
Polonium-216	ML	2.745	0.1829	pCi/g	0.1283	N	238.8	4	1.743	IDENTIFIED	2.992	
Polonium-218	ML	1.951	0.1565	pCi/g	0.1533	N	352	4	1.591	IDENTIFIED	5.738	
Potassium-40	V	35.28	2.021	pCi/g	0.7363	1.00	1461	1	2.014	IDENTIFIED	2.947	
Radium-224	INT	6.134	0.9354	pCi/g	1.46	Y	241.7	1	1.854	IDENTIFIED	14.22	U
Radium-226	V	1.619	0.1292	pCi/g	0.1497	Y	609.4	4	1.768	IDENTIFIED	6.255	
Radium-228	V	2.142	0.2211	pCi/g	0.2898	0.500	911.2	3	1.482	IDENTIFIED	8.477	
Sodium-24	HE	4.63E+05	1.41E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	
Strontium-85	LA	0.143	0.02983	pCi/g	0.0992	Y	0	13	0	NOT_IDENTI	0	UI Data rejected due to low abundance.
Thallium-200	HE	514.4	543.8	pCi/g	0	N	0	13	0	SHORT_HLIF	0	
Thallium-208	V	0.8044	0.06301	pCi/g	0.07676	0.080	583.3	1	1.599	IDENTIFIED	6.356	
Thorium-228	ML	2.789	0.1859	pCi/g	0.1304	N	238.8	4	1.743	IDENTIFIED	2.992	
Thorium-230	ML	1.619	0.1292	pCi/g	0.1497	N	609.4	4	1.768	IDENTIFIED	6.255	
Thorium-232	ML	2.142	0.2211	pCi/g	0.2898	N	911.2	3	1.482	IDENTIFIED	8.477	
Tin-126	HE	0.2383	0.06965	pCi/g	0.1816	N	87.36	3	1.209	IDENTIFIED	28.57	
Titanium-44	LA	0.4877	0.05027	pCi/g	0.1296	N	0	13	0	FAIL_ABUND	0	
Total Uranium		8.9664	4.90E-06	ug/g	6.2481	N		0				
Uranium-234	ML	1.619	0.1292	pCi/g	0.1497	N	609.4	4	1.768	IDENTIFIED	6.255	
Zirconium-97		1.33E+07	3.60E+06	pCi/g	0	N	0	13	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
246315003	02-FEB-10 12:00	18-FEB-10 15:00	16.1	SAMPLE	LOAD	1	LANL	LANL01004KGL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	2.273	0.2092	pCi/g	0.196	N	911.1	3	2.279	IDENTIFIED 6.392
Americium-243	ML	0.4225	0.0421	pCi/g	0.08936	N	74.85	1	1.133	IDENTIFIED 9.09
Annihilation Rad.		0.1203	0.03168	pCi/g	0.04935	N	510.6	1	2.161	IDENTIFIED 25.84
Bismuth-211	INT	5.307	0.375	pCi/g	0.3149	Y	351.9	4	1.424	IDENTIFIED 4.014 U
Bismuth-212	LA	1.253	0.2597	pCi/g	0.6641	N	0	15	0	FAIL_ABUND 0
Bismuth-214	V	1.311	0.1123	pCi/g	0.1149	0.200	609.3	4	1.767	IDENTIFIED 6.298
Cadmium-109	INT	5.322	0.671	pCi/g	1.226	Y	87.17	3	1.605	IDENTIFIED 11.7 U
Cerium-143		1778	269.1	pCi/g	0	N	0	15	0	SHORT_HLIF 0
Cesium-134	LA	0.1052	0.03269	pCi/g	0.08664	0.100	0	15	0	FAIL_ABUND 0 UI Data rejected due to low abundance.
Cesium-135	HE	0.407	0.0965	pCi/g	0.2944	N	0	15	0	NOT_IDENTI 0
Gross Gamma		11.78	1.533	pCi/g	2.894	N		0		
Iodine-135		1.32E+15	0	pCi/g	0	N	0	15	0	SHORT_HLIF 0
Krypton-85	LA	26.96	4.563	pCi/g	14.59	N	0	15	0	NOT_IDENTI 0
Lead-212	V	2.176	0.1555	pCi/g	0.09779	0.100	238.7	4	1.287	IDENTIFIED 2.718
Lead-214	V	1.846	0.139	pCi/g	0.1098	0.100	351.9	4	1.424	IDENTIFIED 4.014
Lutetium-177	HE	3.719	1.033	pCi/g	2.436	N	0	15	0	FAIL_ABUND 0
Neptunium-237	ML	1.534	0.2499	pCi/g	0.3584	N	87.17	3	1.605	IDENTIFIED 11.7
Niobium-95m	HE	0.3004	0.07996	pCi/g	0.244	N	0	15	0	NOT_IDENTI 0

Polonium-212	AM	2.176	0.1555	pCi/g 0.09779	N	238.7	4	1.287	IDENTIFIED	2.718	<input type="checkbox"/>
Polonium-214	AM	1.846	0.139	pCi/g 0.1098	N	351.9	4	1.424	IDENTIFIED	4.014	<input type="checkbox"/>
Polonium-216	AM	2.176	0.1555	pCi/g 0.09779	N	238.7	4	1.287	IDENTIFIED	2.718	<input type="checkbox"/>
Polonium-218	AM	1.846	0.139	pCi/g 0.1098	N	351.9	4	1.424	IDENTIFIED	4.014	<input type="checkbox"/>
Potassium-40	✓	35.24	1.805	pCi/g 0.5225	1.00	1461	1	2.738	IDENTIFIED	2.29	<input type="checkbox"/>
Radium-224	INT	5.718	0.7148	pCi/g 1.112	Y	241.7	1	1.699	IDENTIFIED	10.81	✓ U ±
Radium-226	✓	1.311	0.1123	pCi/g 0.1149	Y	609.3	4	1.767	IDENTIFIED	6.298	<input type="checkbox"/>
Radium-228	✓	2.273	0.2092	pCi/g 0.196	0.500	911.1	3	2.279	IDENTIFIED	6.392	<input type="checkbox"/>
Rhenium-188	HE	0.3334	0.09293	pCi/g 0.3313	N	0	15	0	NOT_IDENTI	0	<input type="checkbox"/>
Sodium-24	HE	7.34E+05	1.21E+06	pCi/g 0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>
Strontium-85	LA	0.1397	0.02365	pCi/g 0.07562	Y	0	15	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Technetium-99m		7.31E+17	0	pCi/g 0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	124.7	429.8	pCi/g 0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.6193	0.05069	pCi/g 0.05758	0.080	583.3	1	1.824	IDENTIFIED	6.133	<input type="checkbox"/>
Thorium-228	AM	2.212	0.158	pCi/g 0.09937	N	238.7	4	1.287	IDENTIFIED	2.718	<input type="checkbox"/>
Thorium-230	AM	1.311	0.1123	pCi/g 0.1149	N	609.3	4	1.767	IDENTIFIED	6.298	<input type="checkbox"/>
Thorium-232	AM	2.273	0.2092	pCi/g 0.196	N	911.1	3	2.279	IDENTIFIED	6.392	<input type="checkbox"/>
Thorium-234	✓	2.864	0.9935	pCi/g 2.025	2.00	63.49	2	0.9133	IDENTIFIED	33.58	<input type="checkbox"/>
Tin-126	AM	0.5223	0.06585	pCi/g 0.1208	N	87.17	3	1.605	IDENTIFIED	11.7	<input type="checkbox"/>
Titanium-44	AM	0.448	0.03058	pCi/g 0.08061	N	0	15	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		8.4028	2.96E-06	ug/g 3.015	N	0					<input type="checkbox"/>
Uranium-234	AM	1.311	0.1123	pCi/g 0.1149	N	609.3	4	1.767	IDENTIFIED	6.298	<input type="checkbox"/>
Uranium-238	HE	2.864	0.9935	pCi/g 2.025	N	63.49	2	0.9133	IDENTIFIED	33.58	<input type="checkbox"/>
Zirconium-97		1.83E+07	3.13E+06	pCi/g 0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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	
246325001	02-FEB-10 12:00	18-FEB-10 15:14	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act	Rpt Err (%)	Qual	Qual Comment
Actinium-228	NA	1.783	0.2073	pCi/g 0.2206	N	910.9	3	1.743	IDENTIFIED	9.857	<input type="checkbox"/>
Americium-243	NA	0.4728	0.05504	pCi/g 0.1113	N	74.59	1	1.182	IDENTIFIED	10.27	<input type="checkbox"/>
Annihilation Rad.		0.1912	0.0403	pCi/g 0.04448	N	510.9	1	2.4	IDENTIFIED	20.83	<input type="checkbox"/>
Bismuth-211	INT	4.532	0.2891	pCi/g 0.3271	Y	351.6	4	1.373	IDENTIFIED	5.234	U U ±
Bismuth-212	HE	1.178	0.2957	pCi/g 0.727	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	1.288	0.08614	pCi/g 0.1144	0.200	608.9	4	1.433	IDENTIFIED	5.498	<input type="checkbox"/>
Cadmium-109	INT	4.61	0.7904	pCi/g 1.455	Y	86.83	3	1.61	IDENTIFIED	16.19	U U ±
Cerium-143		1475	229.4	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-135	HE	0.3287	0.09516	pCi/g 0.3138	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>
Gross Gamma		11.38	1.551	pCi/g 3.229	N	0					<input type="checkbox"/>
Iodine-133	HE	5632	6904	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Iodine-135		1.05E+16	0	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.946	0.09529	pCi/g 0.0957	0.100	238.3	4	1.228	IDENTIFIED	3.101	<input type="checkbox"/>
Lead-214	✓	1.577	0.1087	pCi/g 0.114	0.100	351.6	4	1.373	IDENTIFIED	5.234	<input type="checkbox"/>
Lutetium-177	LA	5.292	1.17	pCi/g 2.446	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Neodymium-147	HE	1.12	0.298	pCi/g 1.081	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	NA	1.329	0.2659	pCi/g 0.43	N	86.83	3	1.61	IDENTIFIED	16.19	<input type="checkbox"/>
Niobium-95m	HE	0.3266	0.07458	pCi/g 0.2497	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>

Polonium-212	ML	1.946	0.09529	pCi/g 0.0957	N	238.3	4	1.228	IDENTIFIED	3.101	<input type="checkbox"/>
Polonium-214	ML	1.577	0.1087	pCi/g 0.114	N	351.6	4	1.373	IDENTIFIED	5.234	<input type="checkbox"/>
Polonium-216	ML	1.946	0.09529	pCi/g 0.0957	N	238.3	4	1.228	IDENTIFIED	3.101	<input type="checkbox"/>
Polonium-218	ML	1.577	0.1087	pCi/g 0.114	N	351.6	4	1.373	IDENTIFIED	5.234	<input type="checkbox"/>
Potassium-40	✓	39.52	1.994	pCi/g 0.5509	1.00	1460	1	2.034	IDENTIFIED	2.628	<input type="checkbox"/>
Radium-224	INT	4.814	0.5867	pCi/g 1.089	Y	241.3	1	1.583	IDENTIFIED	11.79	✓ UI
Radium-226	✓	1.288	0.08614	pCi/g 0.1144	Y	608.9	4	1.433	IDENTIFIED	5.498	<input type="checkbox"/>
Radium-228	✓	1.783	0.2073	pCi/g 0.2206	0.500	910.9	3	1.743	IDENTIFIED	9.857	<input type="checkbox"/>
Sodium-24	HE	70310	1.27E+06	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	357.8	440.2	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.585	0.05039	pCi/g 0.0552	0.080	582.8	1	1.543	IDENTIFIED	7.931	<input type="checkbox"/>
Thorium-228	ML	1.977	0.09684	pCi/g 0.09725	N	238.3	4	1.228	IDENTIFIED	3.101	<input type="checkbox"/>
Thorium-230	ML	1.288	0.08614	pCi/g 0.1144	N	608.9	4	1.433	IDENTIFIED	5.498	<input type="checkbox"/>
Thorium-232	ML	1.783	0.2073	pCi/g 0.2206	N	910.9	3	1.743	IDENTIFIED	9.857	<input type="checkbox"/>
Thorium-234	✓	4.345	1.52	pCi/g 3.025	2.00	63.09	2	1.448	IDENTIFIED	33.56	<input type="checkbox"/>
Tin-126	ML	0.4524	0.07757	pCi/g 0.1439	N	86.83	3	1.61	IDENTIFIED	16.19	<input type="checkbox"/>
Titanium-44	LA	0.1601	0.02637	pCi/g 0.08625	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>
Total Uranium		12.991	4.52E-06	ug/g 4.503	N	0					<input type="checkbox"/>
Uranium-234	ML	1.288	0.08614	pCi/g 0.1144	N	608.9	4	1.433	IDENTIFIED	5.498	<input type="checkbox"/>
Uranium-238	HE	4.345	1.52	pCi/g 3.025	N	63.09	2	1.448	IDENTIFIED	33.56	<input type="checkbox"/>
Zirconium-97		8.70E+06	3.01E+06	pCi/g 0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
246325002	02-FEB-10 12:00	18-FEB-10 15:16	16.1	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	1.988	0.1886	pCi/g 0.2037	N	911.4	3	1.874	IDENTIFIED	7.275	<input type="checkbox"/>
Americium-243	ML	0.4716	0.03625	pCi/g 0.06885	N	74.8	1	0.9908	IDENTIFIED	6.532	<input type="checkbox"/>
Annihilation Rad.		0.1319	0.02967	pCi/g 0.04476	N	510.9	1	1.528	IDENTIFIED	21.85	<input type="checkbox"/>
Bismuth-211	INT	4.721	0.3859	pCi/g 0.2942	Y	352	4	1.117	IDENTIFIED	4.857	✓ UI
Bismuth-212	LA	1.131	0.2223	pCi/g 0.6551	N	0	10	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	1.523	0.1157	pCi/g 0.1055	0.200	609.5	4	1.31	IDENTIFIED	5.074	<input type="checkbox"/>
Cadmium-109	INT	4.352	0.4989	pCi/g 0.9302	Y	87.22	3	1.191	IDENTIFIED	10.46	✓ UI
Cerium-143		871.6	165.2	pCi/g 0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134	LA	0.1163	0.03227	pCi/g 0.09231	0.100	0	10	0	FAIL_ABUND	0	UI Data rejected due to low abundance.
Gross Gamma		12.27	1.732	pCi/g 3.774	N	0					<input type="checkbox"/>
Iodine-135		3.80E+16	0	pCi/g 0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.953	0.1482	pCi/g 0.08516	0.100	238.6	4	0.9486	IDENTIFIED	2.929	<input type="checkbox"/>
Lead-214	✓	1.642	0.1409	pCi/g 0.1025	0.100	352	4	1.117	IDENTIFIED	4.857	<input type="checkbox"/>
Lutetium-177	HE	3.404	0.8292	pCi/g 2.111	N	0	10	0	FAIL_ABUND	0	<input type="checkbox"/>
Mercury-203	APW	0.1472	0.04381	pCi/g 0.06164	0.100	278.9	1	4.494	IDENTIFIED	28.71	UI Data rejected due to high peak-width.
Neptunium-237	ML	1.254	0.1934	pCi/g 0.2932	N	87.22	3	1.191	IDENTIFIED	10.46	<input type="checkbox"/>
Niobium-97	HE	1.58E+05	1.30E+05	pCi/g 0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	ML	1.953	0.1482	pCi/g 0.08516	N	238.6	4	0.9486	IDENTIFIED	2.929	<input type="checkbox"/>
Polonium-214	ML	1.642	0.1409	pCi/g 0.1025	N	352	4	1.117	IDENTIFIED	4.857	<input type="checkbox"/>
Polonium-216	ML	1.953	0.1482	pCi/g 0.08516	N	238.6	4	0.9486	IDENTIFIED	2.929	<input type="checkbox"/>
Polonium-218	ML	1.642	0.1409	pCi/g 0.1025	N	352	4	1.117	IDENTIFIED	4.857	<input type="checkbox"/>

Thorium-228	ML	2.5	0.1623	pCi/g	0.0951	N	238.6	4	1.003	IDENTIFIED	2.667	<input type="checkbox"/>
Thorium-230	ML	1.306	0.1105	pCi/g	0.1105	N	609.2	4	1.205	IDENTIFIED	6.607	<input type="checkbox"/>
Thorium-232	ML	2.232	0.2043	pCi/g	0.2087	N	911.1	3	1.28	IDENTIFIED	6.967	<input type="checkbox"/>
Tin-126	ML	0.4853	0.06182	pCi/g	0.1153	N	87.29	3	1.27	IDENTIFIED	11.81	<input type="checkbox"/>
Titanium-44	LA	0.5132	0.03326	pCi/g	0.07976	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	ML	1.306	0.1105	pCi/g	0.1105	N	609.2	4	1.205	IDENTIFIED	6.607	<input type="checkbox"/>
Zirconium-97	HE	3.15E+06	2.94E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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		
246325004	02-FEB-10 12:00	18-FEB-10 15:24	16.1	SAMPLE	LOAD	1	LANL	LANL01004IGEL	N	RGSP		
Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.84	0.1863	pCi/g	0.2315	N	910.7	3	1.522	IDENTIFIED	8.506	<input type="checkbox"/>
Americium-243	ML	0.475	0.04387	pCi/g	0.09534	N	74.66	1	1.223	IDENTIFIED	8.588	<input type="checkbox"/>
Annihilation Rad. HE		0.1109	0.03399	pCi/g	0.04532	N	510.3	1	1.243	IDENTIFIED	30.51	<input type="checkbox"/>
Bismuth-211	INT	3.931	0.2715	pCi/g	0.3471	Y	351.7	4	1.301	IDENTIFIED	6.149	W/ UT
Bismuth-212	✓	1.402	0.2211	pCi/g	0.456	N	726.8	1	1.593	IDENTIFIED	15.17	<input type="checkbox"/>
Bismuth-214	✓	1.242	0.09115	pCi/g	0.1161	0.200	608.8	4	1.382	IDENTIFIED	6.074	<input type="checkbox"/>
Cadmium-109	INT	2.443	0.5693	pCi/g	1.295	Y	86.55	3	1.219	IDENTIFIED	22.99	W/ UT
Cerium-143		1384	213.4	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Gross Gamma		10.42	1.65	pCi/g	3.81	N	0				<input type="checkbox"/>	
Iodine-135		8.19E+15	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.582	0.08978	pCi/g	0.1237	0.100	238.3	4	1.062	IDENTIFIED	4.43	<input type="checkbox"/>
Lead-214	✓	1.368	0.1009	pCi/g	0.121	0.100	351.7	4	1.301	IDENTIFIED	6.149	<input type="checkbox"/>
Lutetium-177	LA	5.095	1.071	pCi/g	2.432	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	HE	0.7042	0.1794	pCi/g	0.429	N	86.55	3	1.219	IDENTIFIED	22.99	<input type="checkbox"/>
Niobium-97	HE	2.46E+05	1.36E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	ML	1.582	0.08978	pCi/g	0.1237	N	238.3	4	1.062	IDENTIFIED	4.43	<input type="checkbox"/>
Polonium-214	ML	1.368	0.1009	pCi/g	0.121	N	351.7	4	1.301	IDENTIFIED	6.149	<input type="checkbox"/>
Polonium-216	ML	1.582	0.08978	pCi/g	0.1237	N	238.3	4	1.062	IDENTIFIED	4.43	<input type="checkbox"/>
Polonium-218	ML	1.368	0.1009	pCi/g	0.121	N	351.7	4	1.301	IDENTIFIED	6.149	<input type="checkbox"/>
Potassium-40	✓	35.82	1.604	pCi/g	0.5614	1.00	1460	1	1.972	IDENTIFIED	2.707	<input type="checkbox"/>
Radium-224	INT	3.78	0.4853	pCi/g	1.408	Y	241.4	1	1.849	IDENTIFIED	12.54	W/ UT
Radium-226	✓	1.242	0.09115	pCi/g	0.1161	Y	608.8	4	1.382	IDENTIFIED	6.074	<input type="checkbox"/>
Radium-228	✓	1.84	0.1863	pCi/g	0.2315	0.500	910.7	3	1.522	IDENTIFIED	8.506	<input type="checkbox"/>
Thallium-208	✓	0.6461	0.04335	pCi/g	0.05121	0.080	582.8	1	1.497	IDENTIFIED	5.678	<input type="checkbox"/>
Thorium-228	ML	1.607	0.09124	pCi/g	0.1257	N	238.3	4	1.062	IDENTIFIED	4.43	<input type="checkbox"/>
Thorium-230	ML	1.242	0.09115	pCi/g	0.1161	N	608.8	4	1.382	IDENTIFIED	6.074	<input type="checkbox"/>
Thorium-232	ML	1.84	0.1863	pCi/g	0.2315	N	910.7	3	1.522	IDENTIFIED	8.506	<input type="checkbox"/>
Tin-126	HE	0.2398	0.05587	pCi/g	0.1477	N	86.55	3	1.219	IDENTIFIED	22.99	<input type="checkbox"/>
Titanium-44	LA	0.4549	0.02982	pCi/g	0.07685	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		4.1923	3.26E-06	ug/g	3.2447	N	0				<input type="checkbox"/>	
Uranium-234	ML	1.242	0.09115	pCi/g	0.1161	N	608.8	4	1.382	IDENTIFIED	6.074	<input type="checkbox"/>
Zirconium-97		1.00E+07	2.79E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246325005	02-FEB-10 12:00	18-FEB-10 15:24	16.1	SAMPLE	LOAD	1	LANL	LANL01004IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>ML</i>	1.74	0.2077	pCi/g	0.2365	N	911.3	3	1.621 IDENTIFIED	10.25	<input type="checkbox"/>
Americium-243 <i>ML</i>	0.4546	0.0391	pCi/g	0.07971	N	74.92	1	1.243 IDENTIFIED	7.595	<input type="checkbox"/>
Annihilation Rad.	0.1363	0.03589	pCi/g	0.04935	N	510.8	1	2.187 IDENTIFIED	25.91	<input type="checkbox"/>
Bismuth-211 <i>INT</i>	4.22	0.3086	pCi/g	0.3674	Y	351.8	4	1.283 IDENTIFIED	5.531	<input checked="" type="checkbox"/> <i>UI</i>
Bismuth-212 <i>LA</i>	1.511	0.2626	pCi/g	0.7583	N	0	9	0 FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 <i>✓</i>	1.204	0.1082	pCi/g	0.1182	0.200	609.4	4	1.403 IDENTIFIED	7.049	<input type="checkbox"/>
Cadmium-109 <i>INT</i>	3.821	0.5407	pCi/g	1.468	Y	87.25	3	1.119 IDENTIFIED	13.35	<input checked="" type="checkbox"/> <i>UI</i>
Cerium-143	1226	199.5	pCi/g	0	N	0	9	0 SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134 <i>LA</i>	0.1106	0.03642	pCi/g	0.09192	0.100	0	9	0 FAIL_ABUND	0	<input checked="" type="checkbox"/> <i>UI</i> Data rejected due to low abundance.
Cesium-135 <i>HE</i>	0.3527	0.08808	pCi/g	0.2919	N	0	9	0 NOT_IDENTI	0	<input type="checkbox"/>
Gross Gamma	11.14	1.766	pCi/g	4.401	N	0				<input type="checkbox"/>
Iodine-123 <i>HE</i>	1.29E+07	1.10E+07	pCi/g	0	N	0	9	0 SHORT_HLIF	0	<input type="checkbox"/>
Lead-212 <i>✓</i>	1.864	0.1163	pCi/g	0.09556	0.100	238.6	4	1.107 IDENTIFIED	3.265	<input type="checkbox"/>
Lead-214 <i>✓</i>	1.468	0.114	pCi/g	0.1244	0.100	351.8	4	1.283 IDENTIFIED	5.531	<input type="checkbox"/>
Luettium-177 <i>HE</i>	3.119	0.9275	pCi/g	2.288	N	0	9	0 FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237 <i>ML</i>	1.101	0.1928	pCi/g	0.4057	N	87.25	3	1.119 IDENTIFIED	13.35	<input type="checkbox"/>
Polonium-212 <i>ML</i>	1.864	0.1163	pCi/g	0.09556	N	238.6	4	1.107 IDENTIFIED	3.265	<input type="checkbox"/>
Polonium-214 <i>ML</i>	1.468	0.114	pCi/g	0.1244	N	351.8	4	1.283 IDENTIFIED	5.531	<input type="checkbox"/>
Polonium-216 <i>ML</i>	1.864	0.1163	pCi/g	0.09556	N	238.6	4	1.107 IDENTIFIED	3.265	<input type="checkbox"/>
Polonium-218 <i>ML</i>	1.468	0.114	pCi/g	0.1244	N	351.8	4	1.283 IDENTIFIED	5.531	<input type="checkbox"/>
Potassium-40 <i>✓</i>	39.67	2.011	pCi/g	0.5377	1.00	1461	1	1.655 IDENTIFIED	2.586	<input type="checkbox"/>
Radium-224 <i>INT</i>	5.488	0.783	pCi/g	1.087	Y	241.6	1	1.858 IDENTIFIED	13.42	<input checked="" type="checkbox"/> <i>UI</i>
Radium-226 <i>✓</i>	1.204	0.1082	pCi/g	0.1182	Y	609.4	4	1.403 IDENTIFIED	7.049	<input type="checkbox"/>
Radium-228 <i>✓</i>	1.74	0.2077	pCi/g	0.2365	0.500	911.3	3	1.621 IDENTIFIED	10.25	<input type="checkbox"/>
Sodium-24 <i>HE</i>	9.47E+05	1.22E+06	pCi/g	0	N	0	9	0 SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208 <i>✓</i>	0.5191	0.05369	pCi/g	0.06	0.080	583.3	1	1.315 IDENTIFIED	8.974	<input type="checkbox"/>
Thorium-228 <i>ML</i>	1.894	0.1182	pCi/g	0.0971	N	238.6	4	1.107 IDENTIFIED	3.265	<input type="checkbox"/>
Thorium-230 <i>ML</i>	1.204	0.1082	pCi/g	0.1182	N	609.4	4	1.403 IDENTIFIED	7.049	<input type="checkbox"/>
Thorium-232 <i>ML</i>	1.74	0.2077	pCi/g	0.2365	N	911.3	3	1.621 IDENTIFIED	10.25	<input type="checkbox"/>
Thorium-234 <i>✓</i>	1.964	0.7154	pCi/g	1.846	2.00	63.25	2	1.196 IDENTIFIED	35.38	<input type="checkbox"/>
Tin-126 <i>ML</i>	0.375	0.05306	pCi/g	0.1463	N	87.25	3	1.119 IDENTIFIED	13.35	<input type="checkbox"/>
Titanium-44 <i>ML</i>	0.4742	0.03075	pCi/g	0.08341	N	0	9	0 FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium	5.8944	2.13E-06	ug/g	2.7492	N	0				<input type="checkbox"/>
Uranium-234 <i>ML</i>	1.204	0.1082	pCi/g	0.1182	N	609.4	4	1.403 IDENTIFIED	7.049	<input type="checkbox"/>
Uranium-238 <i>HE</i>	1.964	0.7154	pCi/g	1.846	N	63.25	2	1.196 IDENTIFIED	35.38	<input type="checkbox"/>
Zirconium-97 <i>HE</i>	5.05E+06	2.93E+06	pCi/g	0	N	0	9	0 SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
246325006	02-FEB-10 12:00	18-FEB-10 15:26	16.1	SAMPLE	LOAD	1	LANL	LANL01004KEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>ML</i>	2.174	0.2499	pCi/g	0.3164	N	910.6	3	1.293 IDENTIFIED	9.998	<input type="checkbox"/>
Americium-243 <i>ML</i>	0.2545	0.02673	pCi/g	0.05498	N	74.7	1	1.232 IDENTIFIED	9.611	<input type="checkbox"/>
Annihilation Rad.	0.1723	0.04386	pCi/g	0.05817	N	510.2	1	1.308 IDENTIFIED	24.99	<input type="checkbox"/>
Bismuth-210 <i>HE</i>	1.207	0.2813	pCi/g	0.7196	N	46.67	3	0.7184 IDENTIFIED	22.8	<input type="checkbox"/>
Bismuth-211 <i>INT</i>	4.699	0.3313	pCi/g	0.3603	Y	351.7	4	1.053 IDENTIFIED	5.419	<input checked="" type="checkbox"/> <i>UI</i>
Bismuth-212 <i>LA</i>	2.38	0.4016	pCi/g	1.045	N	0	11	0 FAIL_ABUND	0	<input type="checkbox"/>

Bismuth-214	✓	1.533	0.1386	pCi/g 0.1327	0.200	609	4	1.291	IDENTIFIED	6.846	☐
Cadmium-109	INT	4.968	0.4523	pCi/g 0.828	Y	87.2	3	0.9403	IDENTIFIED	7.813	☐/ UI
Cerium-143		572.8	160.3	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Cesium-134	LA	0.17	0.04877	pCi/g 0.1324	0.100	0	11	0	FAIL_ABUND	0	☐ UI Data rejected due to low abundance.
Gross Gamma		11.87	1.668	pCi/g 4.093	N	0					☐
Iodine-123	HE	8.66E+06	9.13E+06	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Iodine-133	HE	13730	8266	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Iodine-135		5.05E+16	0	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Lead-210	HE	1.207	0.2813	pCi/g 0.7196	N	46.67	3	0.7184	IDENTIFIED	22.8	☐
Lead-212	✓	2.399	0.137	pCi/g 0.09163	0.100	238.4	4	0.8337	IDENTIFIED	2.81	☐
Lead-214	✓	1.634	0.1229	pCi/g 0.1257	0.100	351.7	4	1.053	IDENTIFIED	5.419	☐
Lutetium-177	LA	5.041	0.9723	pCi/g 2.501	N	0	11	0	FAIL_ABUND	0	☐
Neptunium-237	ML	1.432	0.197	pCi/g 0.2373	N	87.2	3	0.9403	IDENTIFIED	7.813	☐
Niobium-97	HE	56000	1.91E+05	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Polonium-210	HE	1.207	0.2803	pCi/g 0.7196	N	46.67	3	0.7184	IDENTIFIED	22.8	☐
Polonium-212	ML	2.399	0.137	pCi/g 0.09163	N	238.4	4	0.8337	IDENTIFIED	2.81	☐
Polonium-214	ML	1.634	0.1229	pCi/g 0.1257	N	351.7	4	1.053	IDENTIFIED	5.419	☐
Polonium-216	ML	2.399	0.137	pCi/g 0.09163	N	238.4	4	0.8337	IDENTIFIED	2.81	☐
Polonium-218	ML	1.634	0.1229	pCi/g 0.1257	N	351.7	4	1.053	IDENTIFIED	5.419	☐
Potassium-40	✓	34.52	1.907	pCi/g 0.6577	1.00	1460	1	1.917	IDENTIFIED	3.509	☐
Radium-224	INT	6.551	0.8978	pCi/g 1.046	Y	241.3	1	1.71	IDENTIFIED	12.97	☐/ UI
Radium-226	✓	1.533	0.1386	pCi/g 0.1327	Y	609	4	1.291	IDENTIFIED	6.846	☐
Radium-228	✓	2.174	0.2499	pCi/g 0.3164	0.500	910.6	3	1.293	IDENTIFIED	9.998	☐
Technetium-99m		7.51E+16	0	pCi/g 0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.693	0.06214	pCi/g 0.07824	0.080	582.9	1	1.111	IDENTIFIED	7.123	☐
Thorium-228	ML	2.438	0.1392	pCi/g 0.09312	N	238.4	4	0.8337	IDENTIFIED	2.81	☐
Thorium-230	ML	1.533	0.1386	pCi/g 0.1327	N	609	4	1.291	IDENTIFIED	6.846	☐
Thorium-232	ML	2.174	0.2499	pCi/g 0.3164	N	910.6	3	1.293	IDENTIFIED	9.998	☐
Thorium-234	✓	1.941	0.4827	pCi/g 0.8359	2.00	63.55	2	0.8688	IDENTIFIED	23.24	☐
Tin-126	ML	0.4876	0.04438	pCi/g 0.08112	N	87.2	3	0.9403	IDENTIFIED	7.813	☐
Titanium-44	ML	0.4591	0.02682	pCi/g 0.04418	N	0	11	0	FAIL_ABUND	0	☐
Total Uranium		5.7853	1.44E-06	ug/g 1.2461	N	0					☐
Uranium-234	ML	1.533	0.1386	pCi/g 0.1327	N	609	4	1.291	IDENTIFIED	6.846	☐
Uranium-238	ML	1.941	0.4827	pCi/g 0.8359	N	63.55	2	0.8688	IDENTIFIED	23.24	☐
Zirconium-97		8.69E+06	3.12E+06	pCi/g 0	N	0	11	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	
246331001	30-JAN-10 12:00	18-FEB-10 15:50	19.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>ML</i>	1.048	0.1761	pCi/g	0.2403	N	910.7	3	1.63	IDENTIFIED	15.81	☐
Americium-243 <i>ML</i>	0.2847	0.02613	pCi/g	0.05054	N	74.89	1	1.051	IDENTIFIED	7.77	☐
Annihilation Rad. HE	0.07349	0.04275	pCi/g	0.04991	N	511	1	2.241	IDENTIFIED	58	☐
Bismuth-210 HE	0.8133	0.4048	pCi/g	0.7574	N	46.24	3	0.8193	IDENTIFIED	49.48	☐
Bismuth-211 <i>INT</i>	2.64	0.2608	pCi/g	0.3237	Y	351.8	4	1.128	IDENTIFIED	8.711	<i>OK</i>
Bismuth-212 HE	0.976	0.2443	pCi/g	0.763	N	0	8	0	FAIL_ABUND	0	☐
Bismuth-214 <i>✓</i>	0.825	0.08765	pCi/g	0.1309	0.200	609	4	1.234	IDENTIFIED	9.328	☐

Bromine-77	HE	35.58	18.93	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>
Cadmium-109	INT	2.65	0.4008	pCi/g 0.8679	Y	87.22	3	1.166	IDENTIFIED 14.32	<input checked="" type="checkbox"/> UI
Cadmium-115	HE	21.35	20.13	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>
Cerium-143		3056	658	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>
Gross Gamma		6.377	1.28	pCi/g 2.798	N		0			<input type="checkbox"/>
Lead-210	HE	0.8133	0.4048	pCi/g 0.7574	N	46.24	3	0.8193	IDENTIFIED 49.48	<input type="checkbox"/>
Lead-212	V	0.9917	0.06997	pCi/g 0.08125	0.100	238.5	4	0.9929	IDENTIFIED 4.937	<input type="checkbox"/>
Lead-214	V	0.9182	0.09384	pCi/g 0.1129	0.100	351.8	4	1.128	IDENTIFIED 8.711	<input type="checkbox"/>
Neptunium-237	UI	0.7603	0.1392	pCi/g 0.2479	N	87.22	3	1.166	IDENTIFIED 14.32	<input type="checkbox"/>
Niobium-97	HE	6.55E+05	2.96E+06	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>
Polonium-210	HE	0.8133	0.4045	pCi/g 0.7574	N	46.24	3	0.8193	IDENTIFIED 49.48	<input type="checkbox"/>
Polonium-212	UI	0.9917	0.06997	pCi/g 0.08125	N	238.5	4	0.9929	IDENTIFIED 4.937	<input type="checkbox"/>
Polonium-214	UI	0.9182	0.09384	pCi/g 0.1129	N	351.8	4	1.128	IDENTIFIED 8.711	<input type="checkbox"/>
Polonium-216	UI	0.9917	0.06997	pCi/g 0.08125	N	238.5	4	0.9929	IDENTIFIED 4.937	<input type="checkbox"/>
Polonium-218	UI	0.9182	0.09384	pCi/g 0.1129	N	351.8	4	1.128	IDENTIFIED 8.711	<input type="checkbox"/>
Potassium-40	V	21.55	1.363	pCi/g 0.645	1.00	1460	1	1.853	IDENTIFIED 4.506	<input type="checkbox"/>
Radium-224	INT	3.729	0.5412	pCi/g 0.9253	Y	241.6	1	1.656	IDENTIFIED 13.79	<input checked="" type="checkbox"/> UI
Radium-226	V	0.825	0.08765	pCi/g 0.1309	Y	609	4	1.234	IDENTIFIED 9.328	<input type="checkbox"/>
Radium-228	V	1.048	0.1761	pCi/g 0.2403	0.500	910.7	3	1.63	IDENTIFIED 15.81	<input type="checkbox"/>
Thallium-200	HE	3186	2899	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>
Thallium-208	V	0.2676	0.04138	pCi/g 0.06777	0.080	582.9	1	1.061	IDENTIFIED 14.72	<input type="checkbox"/>
Thorium-228	UI	1.011	0.07131	pCi/g 0.08282	N	238.5	4	0.9929	IDENTIFIED 4.937	<input type="checkbox"/>
Thorium-230	UI	0.825	0.08765	pCi/g 0.1309	N	609	4	1.234	IDENTIFIED 9.328	<input type="checkbox"/>
Thorium-232	UI	1.048	0.1761	pCi/g 0.2403	N	910.7	3	1.63	IDENTIFIED 15.81	<input type="checkbox"/>
Tin-126	UI	0.2589	0.03915	pCi/g 0.08468	N	87.22	3	1.166	IDENTIFIED 14.32	<input type="checkbox"/>
Titanium-44	UI	0.2625	0.02043	pCi/g 0.05284	N	0	8	0	FAIL_ABUND 0	<input type="checkbox"/>
Total Uranium		1.4919	1.18E-06 ug/g	1.3854	N		0			<input type="checkbox"/>
Uranium-234	UI	0.825	0.08765	pCi/g 0.1309	N	609	4	1.234	IDENTIFIED 9.328	<input type="checkbox"/>
Zirconium-97		1.20E+08	5.81E+07	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>

*** = 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
246331002	30-JAN-10 12:00	18-FEB-10 15:51	19.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	UI	1.043	0.1397	pCi/g 0.1806	N	911.4	3	1.725	IDENTIFIED 12.03	<input type="checkbox"/>
Americium-243	UI	0.202	0.03134	pCi/g 0.0709	N	74.9	1	1.256	IDENTIFIED 15.05	<input type="checkbox"/>
Annihilation Rad.	HE	0.0529	0.02745	pCi/g 0.03915	N	511	1	2.695	IDENTIFIED 51.81	<input type="checkbox"/>
Bismuth-211	INT	2.608	0.1731	pCi/g 0.2929	Y	351.6	4	1.426	IDENTIFIED 5.834	<input checked="" type="checkbox"/> UI
Bismuth-214	V	0.7467	0.07258	pCi/g 0.0923	0.200	609.1	4	1.624	IDENTIFIED 8.877	<input type="checkbox"/>
Bromine-77	HE	6.894	14.57	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Cadmium-109	INT	1.383	0.3817	pCi/g 1.268	Y	87.28	3	0.9604	IDENTIFIED 27.26	<input checked="" type="checkbox"/> UI
Cadmium-115	HE	28.68	15.86	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Cerium-143		6802	963.3	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Gold-195	HE	0.499	0.1011	pCi/g 0.3386	N	0	14	0	FAIL_ABUND 0	<input type="checkbox"/>
Gross Gamma		6.01	1.053	pCi/g 2.374	N		0			<input type="checkbox"/>
Iodine-123	HE	3.25E+07	4.19E+08	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Iodine-133	HE	63410	61800	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>

Iodine-135		7.21E+19 0	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Krypton-85	HE	12.6 3.618	pCi/g 12.07	N	0	14	0	NOT_IDENTI 0	<input type="checkbox"/>
Lead-212	✓	0.9991 0.05599	pCi/g 0.07391	0.100	238.4	4	1.569	IDENTIFIED 4.259	<input type="checkbox"/>
Lead-214	✓	0.9072 0.0647	pCi/g 0.09739	0.100	351.6	4	1.426	IDENTIFIED 5.834	<input type="checkbox"/>
Neptunium-237	HE	0.3966 0.1169	pCi/g 0.3498	N	87.28	3	0.9604	IDENTIFIED 27.26	<input type="checkbox"/>
Niobium-95	HE	0.07442 0.01929	pCi/g 0.07245	N	0	14	0	NOT_IDENTI 0	<input type="checkbox"/>
Niobium-95m	LA	0.5441 0.06734	pCi/g 0.2373	N	0	14	0	NOT_IDENTI 0	<input type="checkbox"/>
Polonium-212	AL	0.9991 0.05599	pCi/g 0.07391	N	238.4	4	1.569	IDENTIFIED 4.259	<input type="checkbox"/>
Polonium-214	AL	0.9072 0.0647	pCi/g 0.09739	N	351.6	4	1.426	IDENTIFIED 5.834	<input type="checkbox"/>
Polonium-216	AL	0.9991 0.05599	pCi/g 0.07391	N	238.4	4	1.569	IDENTIFIED 4.259	<input type="checkbox"/>
Polonium-218	AL	0.9072 0.0647	pCi/g 0.09739	N	351.6	4	1.426	IDENTIFIED 5.834	<input type="checkbox"/>
Potassium-40	✓	22.93 1.099	pCi/g 0.4153	1.00	1461	1	1.799	IDENTIFIED 3.132	<input type="checkbox"/>
Promethium-149	HE	184.7 131.6	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>
Radium-224	INT	2.673 0.5231	pCi/g 0.8405	Y	241.4	1	2.062	IDENTIFIED 19.36	<input checked="" type="checkbox"/> UI
Radium-226	✓	0.7467 0.07258	pCi/g 0.0923	Y	609.1	4	1.624	IDENTIFIED 8.877	<input type="checkbox"/>
Radium-228	✓	1.043 0.1397	pCi/g 0.1806	0.500	911.4	3	1.725	IDENTIFIED 12.03	<input type="checkbox"/>
Strontium-85	LA	0.06743 0.01936	pCi/g 0.06456	Y	0	14	0	NOT_IDENTI 0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.304 0.03841	pCi/g 0.04711	0.080	583	1	1.836	IDENTIFIED 12.16	<input type="checkbox"/>
Thorium-228	AL	1.018 0.05707	pCi/g 0.07534	N	238.4	4	1.569	IDENTIFIED 4.259	<input type="checkbox"/>
Thorium-230	AL	0.7467 0.07258	pCi/g 0.0923	N	609.1	4	1.624	IDENTIFIED 8.877	<input type="checkbox"/>
Thorium-232	AL	1.043 0.1397	pCi/g 0.1806	N	911.4	3	1.725	IDENTIFIED 12.03	<input type="checkbox"/>
Tin-126	HE	0.1351 0.03729	pCi/g 0.1255	N	87.28	3	0.9604	IDENTIFIED 27.26	<input type="checkbox"/>
Titanium-44	LA	0.231 0.02236	pCi/g 0.06649	N	0	14	0	FAIL_ABUND 0	<input type="checkbox"/>
Uranium-234	AL	0.7467 0.07258	pCi/g 0.0923	N	609.1	4	1.624	IDENTIFIED 8.877	<input type="checkbox"/>
Zirconium-97		1.91E+08 4.70E+07	pCi/g 0	N	0	14	0	SHORT_HLIF 0	<input type="checkbox"/>

*** = 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
246338001	02-FEB-10 12:00	18-FEB-10 15:54	16.2	SAMPLE	LOAD	I	LANL	LANL01004IGEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	AL	0.5501	0.1012	pCi/g 0.1595	N	911.5	3	1.881 IDENTIFIED 17.46	<input type="checkbox"/>	
Americium-243	AL	0.1522	0.02784	pCi/g 0.07208	N	74.72	1	1.305 IDENTIFIED 17.81	<input type="checkbox"/>	
Bismuth-211	INT	1.498	0.1564	pCi/g 0.2773	Y	352.3	4	1.415 IDENTIFIED 9.398	<input checked="" type="checkbox"/> UI	
Bismuth-214	✓	0.5259	0.05956	pCi/g 0.08754	0.200	609.6	4	1.148 IDENTIFIED 10.19	<input type="checkbox"/>	
Cadmium-109	INT	1.623	0.3055	pCi/g 0.9457	Y	87.38	3	1.329 IDENTIFIED 18.23	<input checked="" type="checkbox"/> UI	
Cerium-143		431.4	102.6	pCi/g 0	N	0	4	0 SHORT_HLIF 0	<input type="checkbox"/>	
Gross Gamma		3.796	0.7066	pCi/g 1.447	N	0			<input type="checkbox"/>	
Lead-212	✓	0.5979	0.04803	pCi/g 0.06996	0.100	239	4	1.35 IDENTIFIED 6.237	<input type="checkbox"/>	
Lead-214	✓	0.5211	0.05606	pCi/g 0.09545	0.100	352.3	4	1.415 IDENTIFIED 9.398	<input type="checkbox"/>	
Neptunium-237	HE	0.4676	0.1004	pCi/g 0.3049	N	87.38	3	1.329 IDENTIFIED 18.23	<input type="checkbox"/>	
Polonium-212	AL	0.5979	0.04803	pCi/g 0.06996	N	239	4	1.35 IDENTIFIED 6.237	<input type="checkbox"/>	
Polonium-214	AL	0.5211	0.05606	pCi/g 0.09545	N	352.3	4	1.415 IDENTIFIED 9.398	<input type="checkbox"/>	
Polonium-216	AL	0.5979	0.04803	pCi/g 0.06996	N	239	4	1.35 IDENTIFIED 6.237	<input type="checkbox"/>	
Polonium-218	AL	0.5211	0.05606	pCi/g 0.09545	N	352.3	4	1.415 IDENTIFIED 9.398	<input type="checkbox"/>	
Potassium-40	✓	15.87	0.9662	pCi/g 0.3451	1.00	1461	1	2.241 IDENTIFIED 4.158	<input type="checkbox"/>	
Radium-224	INT	1.447	0.3648	pCi/g 0.7962	Y	242.1	1	1.461 IDENTIFIED 24.8	<input checked="" type="checkbox"/> UI	
Radium-226	✓	0.5259	0.05956	pCi/g 0.08754	Y	609.6	4	1.148 IDENTIFIED 10.19	<input type="checkbox"/>	

Radium-228	V	0.5501	0.1012	pCi/g	0.1595	0.500	911.5	3	1.881	IDENTIFIED	17.46	<input type="checkbox"/>
Thallium-200	HE	35.85	334.6	pCi/g	0	N	0	4	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	V	0.2167	0.02934	pCi/g	0.0487	0.080	583.3	1	1.433	IDENTIFIED	12.76	<input type="checkbox"/>
Thorium-228	u	0.6076	0.04881	pCi/g	0.0711	N	239	4	1.35	IDENTIFIED	6.237	<input type="checkbox"/>
Thorium-230	u	0.5259	0.05956	pCi/g	0.08754	N	609.6	4	1.148	IDENTIFIED	10.19	<input type="checkbox"/>
Thorium-232	u	0.5501	0.1012	pCi/g	0.1595	N	911.5	3	1.881	IDENTIFIED	17.46	<input type="checkbox"/>
Tin-126	u	0.1593	0.02998	pCi/g	0.0933	N	87.38	3	1.329	IDENTIFIED	18.23	<input type="checkbox"/>
Titanium-44	u	0.1317	0.01887	pCi/g	0.05469	N	0	4	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	u	0.5259	0.05956	pCi/g	0.08754	N	609.6	4	1.148	IDENTIFIED	10.19	<input type="checkbox"/>
Zirconium-97		4.93E+06	1.89E+06	pCi/g	0	N	0	4	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
246338002	02-FEB-10 12:00	18-FEB-10 15:55	16.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	u	1.976	0.211	pCi/g	0.2409	N	911.7	3	1.735	IDENTIFIED	8.949 <input type="checkbox"/>
Americium-243	u	0.4579	0.0412	pCi/g	0.08203	N	74.85	1	1.182	IDENTIFIED	8.046 <input type="checkbox"/>
Annihilation Rad.		0.2004	0.03806	pCi/g	0.05275	N	511.1	1	2.094	IDENTIFIED	18.46 <input type="checkbox"/>
Bismuth-211	INT	4.62	0.3403	pCi/g	0.3799	Y	352	4	1.283	IDENTIFIED	5.844 <input checked="" type="checkbox"/> UI
Bismuth-212	u	1.45	0.2988	pCi/g	0.8088	N	0	13	0	FAIL_ABUND	0 <input type="checkbox"/>
Bismuth-214	V	1.421	0.1197	pCi/g	0.143	0.200	609.5	4	1.327	IDENTIFIED	6.647 <input type="checkbox"/>
Cadmium-109	INT	3.706	0.535	pCi/g	1.285	Y	87.32	3	1.249	IDENTIFIED	13.66 <input checked="" type="checkbox"/> UI
Cerium-143		1083	197.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Cesium-134	u	0.1655	0.04232	pCi/g	0.1062	0.100	0	13	0	FAIL_ABUND	0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma		11.33	1.583	pCi/g	3.991	N	0				<input type="checkbox"/>
Iodine-123	HE	7.75E+06	1.22E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Iodine-133	HE	4792	7462	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Iodine-135		2.85E+16	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Krypton-85	HE	20.78	4.902	pCi/g	16.69	N	0	13	0	NOT_IDENTI	0 <input type="checkbox"/>
Lead-212	V	1.975	0.1155	pCi/g	0.1062	0.100	238.8	4	1.148	IDENTIFIED	3.368 <input type="checkbox"/>
Lead-214	V	1.607	0.1256	pCi/g	0.1324	0.100	352	4	1.283	IDENTIFIED	5.844 <input type="checkbox"/>
Lawrencium-177	HE	3.791	0.9672	pCi/g	2.624	N	0	13	0	FAIL_ABUND	0 <input type="checkbox"/>
Neptunium-237	u	1.068	0.1895	pCi/g	0.3732	N	87.32	3	1.249	IDENTIFIED	13.66 <input type="checkbox"/>
Polonium-212	u	1.975	0.1155	pCi/g	0.1062	N	238.8	4	1.148	IDENTIFIED	3.368 <input type="checkbox"/>
Polonium-214	u	1.607	0.1256	pCi/g	0.1324	N	352	4	1.283	IDENTIFIED	5.844 <input type="checkbox"/>
Polonium-216	u	1.975	0.1155	pCi/g	0.1062	N	238.8	4	1.148	IDENTIFIED	3.368 <input type="checkbox"/>
Polonium-218	u	1.607	0.1256	pCi/g	0.1324	N	352	4	1.283	IDENTIFIED	5.844 <input type="checkbox"/>
Potassium-40	V	36.93	1.918	pCi/g	0.5817	1.00	1461	1	2.038	IDENTIFIED	2.923 <input type="checkbox"/>
Radium-224	INT	5.051	0.6993	pCi/g	1.208	Y	241.6	1	1.828	IDENTIFIED	13.18 <input checked="" type="checkbox"/> UI
Radium-226	V	1.421	0.1197	pCi/g	0.143	Y	609.5	4	1.327	IDENTIFIED	6.647 <input type="checkbox"/>
Radium-228	V	1.976	0.211	pCi/g	0.2409	0.500	911.7	3	1.735	IDENTIFIED	8.949 <input type="checkbox"/>
Sodium-24	HE	5.65E+05	1.23E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Strontium-85	u	0.1077	0.02541	pCi/g	0.08652	Y	0	13	0	NOT_IDENTI	0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-200	HE	576	528.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0 <input type="checkbox"/>
Thallium-208	V	0.6973	0.05768	pCi/g	0.06501	0.080	583.4	1	1.181	IDENTIFIED	6.75 <input type="checkbox"/>
Thorium-228	u	2.007	0.1174	pCi/g	0.1079	N	238.8	4	1.148	IDENTIFIED	3.368 <input type="checkbox"/>
Thorium-230	u	1.421	0.1197	pCi/g	0.143	N	609.5	4	1.327	IDENTIFIED	6.647 <input type="checkbox"/>

Thorium-232	ML	1.976	0.211	pCi/g	0.2409	N	911.7	3	1.735	IDENTIFIED	8.949	□
Thorium-234	✓	2.636	1.006	pCi/g	1.721	2.00	63.23	2	1.334	IDENTIFIED	37.16	□
Tin-126	ML	0.3637	0.0525	pCi/g	0.1264	N	87.32	3	1.249	IDENTIFIED	13.66	□
Titanium-44	LA	0.406	0.02888	pCi/g	0.07942	N	0	13	0	FAIL_ABUND	0	□
Total Uranium		7.8582	2.99E-06	ug/g	2.5631	N	0					□
Uranium-234	ML	1.421	0.1197	pCi/g	0.143	N	609.5	4	1.327	IDENTIFIED	6.647	□
Uranium-238	HE	2.636	1.006	pCi/g	1.721	N	63.23	2	1.334	IDENTIFIED	37.16	□
Zirconium-97	HE	3.17E+06	3.39E+06	pCi/g	0	N	0	13	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
246344001	01-FEB-10 12:00	18-FEB-10 15:59	17.2	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	1.289	0.1611	pCi/g	0.1869	N	911.3	3	1.91	IDENTIFIED	11.25	□		
Americium-243	ML	0.3043	0.0406	pCi/g	0.09617	N	74.77	1	0.9617	IDENTIFIED	12.05	□		
Annihilation Rad.		0.1943	0.02947	pCi/g	0.03647	N	511	1	1.607	IDENTIFIED	14.91	□		
Barium-137m	HE	0.06976	0.02883	pCi/g	0.05721	N	661.6	2	1.113	IDENTIFIED	41.25	□		
Bismuth-211	INT	3.409	0.2142	pCi/g	0.3027	Y	351.9	4	1.32	IDENTIFIED	5.302	□	UI	
Bismuth-212	HE	0.9202	0.1973	pCi/g	0.6055	N	0	9	0	FAIL_ABUND	0	□		
Bismuth-214	✓	0.9257	0.07423	pCi/g	0.09421	0.200	609.3	4	1.297	IDENTIFIED	7.127	□		
Cadmium-109	INT	2.648	0.5666	pCi/g	1.182	Y	87.11	3	1.377	IDENTIFIED	20.54	□	UI	
Cerium-143		1746	284.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0	□		
Cesium-134	LA	0.1192	0.03024	pCi/g	0.09175	0.100	0	9	0	FAIL_ABUND	0	□	UI	Data rejected due to low abundance.
Cesium-137	✓	0.07374	0.03047	pCi/g	0.06048	0.100	661.6	2	1.113	IDENTIFIED	41.25	□		
Gross Gamma		8.456	1.234	pCi/g	2.417	N	0					□		
Iodine-135		2.65E+17	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	□		
Lead-212	✓	1.386	0.07429	pCi/g	0.08428	0.100	238.6	4	1.065	IDENTIFIED	3.549	□		
Lead-214	✓	1.186	0.08068	pCi/g	0.09792	0.100	351.9	4	1.32	IDENTIFIED	5.302	□		
Lutetium-177	HE	3.256	0.892	pCi/g	2.193	N	0	9	0	FAIL_ABUND	0	□		
Mercury-203	INT	0.06481	0.02296	pCi/g	0.05925	0.100	277.7	1	1.241	IDENTIFIED	35.26	□	UI	
Neptunium-237	ML	0.7621	0.181	pCi/g	0.3493	N	87.11	3	1.377	IDENTIFIED	20.54	□		
Niobium-97	HE	3.60E+05	3.62E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	□		
Polonium-212	ML	1.386	0.07429	pCi/g	0.08428	N	238.6	4	1.065	IDENTIFIED	3.549	□		
Polonium-214	ML	1.186	0.08068	pCi/g	0.09792	N	351.9	4	1.32	IDENTIFIED	5.302	□		
Polonium-216	ML	1.386	0.07429	pCi/g	0.08428	N	238.6	4	1.065	IDENTIFIED	3.549	□		
Polonium-218	ML	1.186	0.08068	pCi/g	0.09792	N	351.9	4	1.32	IDENTIFIED	5.302	□		
Potassium-40	✓	25.2	1.198	pCi/g	0.5208	1.00	1461	1	1.925	IDENTIFIED	3.156	□		
Radium-224	INT	4.278	0.5	pCi/g	0.9591	Y	241.5	1	1.863	IDENTIFIED	11.2	□	UI	
Radium-226	✓	0.9257	0.07423	pCi/g	0.09421	Y	609.3	4	1.297	IDENTIFIED	7.127	□		
Radium-228	✓	1.289	0.1611	pCi/g	0.1869	0.500	911.3	3	1.91	IDENTIFIED	11.25	□		
Sodium-24	HE	1.43E+06	3.19E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	□		
Thallium-208	✓	0.3933	0.04205	pCi/g	0.04936	0.080	583.2	1	1.476	IDENTIFIED	10.22	□		
Thorium-228	ML	1.41	0.07557	pCi/g	0.08573	N	238.6	4	1.065	IDENTIFIED	3.549	□		
Thorium-230	ML	0.9257	0.07423	pCi/g	0.09421	N	609.3	4	1.297	IDENTIFIED	7.127	□		
Thorium-232	ML	1.289	0.1611	pCi/g	0.1869	N	911.3	3	1.91	IDENTIFIED	11.25	□		
Thorium-234	✓	5.027	1.46	pCi/g	2.667	2.00	63.38	2	1.093	IDENTIFIED	27.3	□		
Tin-126	ML	0.2595	0.05552	pCi/g	0.1167	N	87.11	3	1.377	IDENTIFIED	20.54	□		

Titanium-44	LA	0.3459	0.03206	pCi/g	0.07829	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		15.01	4.34E-06	ug/g	3.9706	N		0				<input type="checkbox"/>
Uranium-234	ML	0.9257	0.07423	pCi/g	0.09421	N	609.3	4	1.297	IDENTIFIED	7.127	<input type="checkbox"/>
Uranium-238	HE	5.027	1.46	pCi/g	2.667	N	63.38	2	1.093	IDENTIFIED	27.3	<input type="checkbox"/>
Zirconium-97	HE	9.45E+06	6.45E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
246344002	01-FEB-10 12:00	18-FEB-10 16:57	17.2	SAMPLE	LOAD	I	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.679	0.1661	pCi/g	0.1714	N	910.9	3	1.861	IDENTIFIED	7.346	<input type="checkbox"/>		
Americium-243	ML	0.4352	0.04091	pCi/g	0.0856	N	74.97	1	1.219	IDENTIFIED	8.42	<input type="checkbox"/>		
Annihilation Rad.		0.1465	0.02689	pCi/g	0.0347	N	510.7	1	1.819	IDENTIFIED	18.06	<input type="checkbox"/>		
Barium-137m	HE	0.07268	0.02338	pCi/g	0.04264	N	661.6	2	2.182	IDENTIFIED	31.94	<input type="checkbox"/>		
Bismuth-211	INT	3.682	0.2025	pCi/g	0.254	Y	351.9	4	1.28	IDENTIFIED	4.464	<input checked="" type="checkbox"/>	UI	
Bismuth-212	LA	0.9169	0.1681	pCi/g	0.5222	N	0	15	0	FAIL_ABUND	0	<input type="checkbox"/>		
Bismuth-214	✓	1.164	0.07745	pCi/g	0.08195	0.200	609.2	4	1.67	IDENTIFIED	4.929	<input type="checkbox"/>		
Cadmium-109	INT	2.902	0.4918	pCi/g	1.463	Y	87.4	3	1.145	IDENTIFIED	16.31	<input checked="" type="checkbox"/>	UI	
Cerium-143		1992	297.9	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Cesium-134	LA	0.09111	0.02227	pCi/g	0.07051	0.100	0	15	0	FAIL_ABUND	0	<input checked="" type="checkbox"/>	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2787	0.06999	pCi/g	0.2298	N	0	15	0	NOT_IDENTI	0	<input type="checkbox"/>		
Cesium-137	✓	0.07683	0.02472	pCi/g	0.04507	0.100	661.6	2	2.182	IDENTIFIED	31.94	<input type="checkbox"/>		
Gross Gamma		8.615	1.212	pCi/g	2.351	N	0					<input type="checkbox"/>		
Iodine-123	HE	4.63E+07	3.33E+07	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Iodine-133	HE	2944	11860	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Iodine-135		3.19E+17	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Krypton-85	HE	13.11	3.216	pCi/g	10.64	N	0	15	0	NOT_IDENTI	0	<input type="checkbox"/>		
Lead-212	✓	1.568	0.07203	pCi/g	0.07335	0.100	238.7	4	1.179	IDENTIFIED	2.887	<input type="checkbox"/>		
Lead-214	✓	1.281	0.07796	pCi/g	0.08852	0.100	351.9	4	1.28	IDENTIFIED	4.464	<input type="checkbox"/>		
Lutetium-177	HE	3.421	0.906	pCi/g	2.024	N	0	15	0	FAIL_ABUND	0	<input type="checkbox"/>		
Neptunium-237	ML	0.8349	0.1657	pCi/g	0.3895	N	87.4	3	1.145	IDENTIFIED	16.31	<input type="checkbox"/>		
Niobium-95	HE	0.05621	0.02857	pCi/g	0.04827	N	767.2	1	1.28	IDENTIFIED	50.62	<input type="checkbox"/>		
Niobium-97	HE	3.67E+05	3.12E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Polonium-212	ML	1.568	0.07203	pCi/g	0.07335	N	238.7	4	1.179	IDENTIFIED	2.887	<input type="checkbox"/>		
Polonium-214	ML	1.281	0.07796	pCi/g	0.08852	N	351.9	4	1.28	IDENTIFIED	4.464	<input type="checkbox"/>		
Polonium-216	ML	1.568	0.07203	pCi/g	0.07335	N	238.7	4	1.179	IDENTIFIED	2.887	<input type="checkbox"/>		
Polonium-218	ML	1.281	0.07796	pCi/g	0.08852	N	351.9	4	1.28	IDENTIFIED	4.464	<input type="checkbox"/>		
Potassium-40	✓	23.78	1.098	pCi/g	0.419	1.00	1460	1	2.143	IDENTIFIED	2.626	<input type="checkbox"/>		
Radium-224	INT	4.505	0.3791	pCi/g	0.8336	Y	241.8	1	1.607	IDENTIFIED	7.939	<input checked="" type="checkbox"/>	UI	
Radium-226	✓	1.164	0.07745	pCi/g	0.08195	Y	609.2	4	1.67	IDENTIFIED	4.929	<input type="checkbox"/>		
Radium-228	✓	1.679	0.1661	pCi/g	0.1714	0.500	910.9	3	1.861	IDENTIFIED	7.346	<input type="checkbox"/>		
Sodium-24	HE	2.89E+06	2.73E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Strontium-85	LA	0.0687	0.01685	pCi/g	0.05575	Y	0	15	0	NOT_IDENTI	0	<input checked="" type="checkbox"/>	UI	Data rejected due to low abundance.
Technetium-99m		4.11E+18	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	<input type="checkbox"/>		
Thallium-208	✓	0.4832	0.03591	pCi/g	0.04552	0.080	583.1	1	1.567	IDENTIFIED	6.314	<input type="checkbox"/>		
Thorium-228	ML	1.595	0.07327	pCi/g	0.07462	N	238.7	4	1.179	IDENTIFIED	2.887	<input type="checkbox"/>		
Thorium-230	ML	1.164	0.07745	pCi/g	0.08195	N	609.2	4	1.67	IDENTIFIED	4.929	<input type="checkbox"/>		

Thorium-232	AM	1.679	0.1661	pCi/g	0.1714	N	910.9	3	1.861	IDENTIFIED	7.346	□
Tin-126	AM	0.2843	0.04819	pCi/g	0.1364	N	87.4	3	1.145	IDENTIFIED	16.31	□
Titanium-44	LA	0.3697	0.0274	pCi/g	0.07952	N	0	15	0	FAIL_ABUND	0	□
Total Uranium		5.5198	3.20E-06	ug/g	3.3751	N	0					□
Uranium-234	AM	1.164	0.07745	pCi/g	0.08195	N	609.2	4	1.67	IDENTIFIED	4.929	□
Zirconium-97		3.24E+07	6.54E+06	pCi/g	0	N	0	15	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
246344003	01-FEB-10 12:00	18-FEB-10 16:58	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228	AM	1.702	0.1658	pCi/g	0.1948	N	911.5	3	1.356	IDENTIFIED	7.929	□		
Americium-243	AM	0.3752	0.04229	pCi/g	0.09111	N	74.71	1	1.47	IDENTIFIED	10.55	□		
Annihilation Rad.		0.1229	0.03428	pCi/g	0.04528	N	510.6	1	2.168	IDENTIFIED	27.75	□		
Bismuth-211	INT	3.29	0.2279	pCi/g	0.3477	Y	351.7	4	1.455	IDENTIFIED	6.147	□	VI	
Bismuth-212	HE	1.3	0.3113	pCi/g	0.6843	N	0	8	0	FAIL_ABUND	0	□		
Bismuth-214	V	1.042	0.0876	pCi/g	0.1085	0.200	609.2	4	1.607	IDENTIFIED	7.435	□		
Cadmium-109	INT	2.05	0.5399	pCi/g	1.337	Y	87	3	1.144	IDENTIFIED	25.96	□	VI	
Cerium-143		2664	388.7	pCi/g	0	N	0	8	0	SHORT_HLIF	0	□		
Gross Gamma		9.405	1.375	pCi/g	2.877	N	0					□		
Iodine-135		2.68E+17	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	□		
Lead-212	V	1.449	0.07474	pCi/g	0.09577	0.100	238.5	4	1.304	IDENTIFIED	3.687	□		
Lead-214	V	1.145	0.08471	pCi/g	0.1115	0.100	351.7	4	1.455	IDENTIFIED	6.147	□		
Lutetium-177	HE	3.103	0.9725	pCi/g	2.542	N	0	8	0	FAIL_ABUND	0	□		
Neptunium-237	HE	0.5899	0.1668	pCi/g	0.4023	N	87	3	1.144	IDENTIFIED	25.96	□		
Niobium-95m	LA	0.4812	0.08001	pCi/g	0.2646	N	0	8	0	NOT_IDENTI	0	□		
Niobium-97	HE	1.34E+05	3.49E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	□		
Polonium-212	AM	1.449	0.07474	pCi/g	0.09577	N	238.5	4	1.304	IDENTIFIED	3.687	□		
Polonium-214	AM	1.145	0.08471	pCi/g	0.1115	N	351.7	4	1.455	IDENTIFIED	6.147	□		
Polonium-216	AM	1.449	0.07474	pCi/g	0.09577	N	238.5	4	1.304	IDENTIFIED	3.687	□		
Polonium-218	AM	1.145	0.08471	pCi/g	0.1115	N	351.7	4	1.455	IDENTIFIED	6.147	□		
Potassium-40	V	33.82	1.543	pCi/g	0.4959	1.00	1461	1	1.902	IDENTIFIED	2.639	□		
Radium-224	INT	3.55	0.7064	pCi/g	1.089	Y	241.1	1	1.967	IDENTIFIED	19.7	□	VI	
Radium-226	V	1.042	0.0876	pCi/g	0.1085	Y	609.2	4	1.607	IDENTIFIED	7.435	□		
Radium-228	V	1.702	0.1658	pCi/g	0.1948	0.500	911.5	3	1.356	IDENTIFIED	7.929	□		
Thallium-208	V	0.4798	0.04043	pCi/g	0.05912	0.080	583.1	1	1.266	IDENTIFIED	7.71	□		
Thorium-228	AM	1.474	0.07604	pCi/g	0.09742	N	238.5	4	1.304	IDENTIFIED	3.687	□		
Thorium-230	AM	1.042	0.0876	pCi/g	0.1085	N	609.2	4	1.607	IDENTIFIED	7.435	□		
Thorium-232	AM	1.702	0.1658	pCi/g	0.1948	N	911.5	3	1.356	IDENTIFIED	7.929	□		
Tin-126	HE	0.2809	0.0529	pCi/g	0.1439	N	87	3	1.144	IDENTIFIED	25.96	□		
Titanium-44	LA	0.3494	0.0266	pCi/g	0.0845	N	0	8	0	FAIL_ABUND	0	□		
Total Uranium		4.1995	2.41E-06	ug/g	3.2066	N	0					□		
Uranium-234	AM	1.042	0.0876	pCi/g	0.1085	N	609.2	4	1.607	IDENTIFIED	7.435	□		
Zirconium-97		2.95E+07	7.89E+06	pCi/g	0	N	0	8	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
246344004	01-FEB-10 12:00	18-FEB-10 16:59	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228 <i>LM</i>	1.868	0.2014	pCi/g	0.2639	N	910.3	3	1.476	IDENTIFIED	9.106			
Americium-243 <i>LM</i>	0.3767	0.04874	pCi/g	0.1181	N	74.68	1	1.196	IDENTIFIED	12.15			
Annihilation Rad. HE	0.1331	0.0479	pCi/g	0.05206	N	510.7	1	2.156	IDENTIFIED	35.88			
Bismuth-211 <i>JUT</i>	4.418	0.3061	pCi/g	0.3649	Y	351.4	4	1.391	IDENTIFIED	6.116			<i>U I</i>
Bismuth-212 HE	1.129	0.341	pCi/g	0.8079	N	0	9	0	FAIL_ABUND	0			
Bismuth-214 <i>✓</i>	1.202	0.1037	pCi/g	0.1367	0.200	608.7	4	1.312	IDENTIFIED	7.766			
Cadmium-109 <i>JUT</i>	3.232	0.5457	pCi/g	1.652	Y	87.06	3	1.324	IDENTIFIED	16.17			<i>U I</i>
Cerium-143	3460	479.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0			
Cesium-135 HE	0.452	0.1136	pCi/g	0.3621	N	0	9	0	NOT_IDENTI	0			
Gross Gamma	9.208	1.494	pCi/g	3.283	N	0							
Iodine-135	3.40E+17	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0			
Lead-212 <i>✓</i>	1.755	0.08907	pCi/g	0.1021	0.100	238.3	4	1.171	IDENTIFIED	3.584			
Lead-214 <i>✓</i>	1.537	0.1138	pCi/g	0.1272	0.100	351.4	4	1.391	IDENTIFIED	6.116			
Lutetium-177 HE	3.654	1.143	pCi/g	3.026	N	0	9	0	FAIL_ABUND	0			
Neptunium-237 <i>LM</i>	0.93	0.184	pCi/g	0.5283	N	87.06	3	1.324	IDENTIFIED	16.17			
Niobium-95m <i>LA</i>	0.7199	0.1004	pCi/g	0.3314	N	0	9	0	NOT_IDENTI	0			
Polonium-212 <i>LM</i>	1.755	0.08907	pCi/g	0.1021	N	238.3	4	1.171	IDENTIFIED	3.584			
Polonium-214 <i>LM</i>	1.537	0.1138	pCi/g	0.1272	N	351.4	4	1.391	IDENTIFIED	6.116			
Polonium-216 <i>LM</i>	1.755	0.08907	pCi/g	0.1021	N	238.3	4	1.171	IDENTIFIED	3.584			
Polonium-218 <i>LM</i>	1.537	0.1138	pCi/g	0.1272	N	351.4	4	1.391	IDENTIFIED	6.116			
Potassium-40 <i>✓</i>	25.8	1.373	pCi/g	0.7828	1.00	1460	1	2.138	IDENTIFIED	3.784			
Radium-224 <i>JUT</i>	4.914	0.8057	pCi/g	1.162	Y	241.3	1	1.952	IDENTIFIED	16.15			<i>U I</i>
Radium-226 <i>✓</i>	1.202	0.1037	pCi/g	0.1367	Y	608.7	4	1.312	IDENTIFIED	7.766			
Radium-228 <i>✓</i>	1.868	0.2014	pCi/g	0.2639	0.500	910.3	3	1.476	IDENTIFIED	9.106			
Sodium-24 HE	1.99E+06	4.46E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0			
Thallium-208 <i>✓</i>	0.4999	0.04672	pCi/g	0.07395	0.080	582.6	1	1.645	IDENTIFIED	8.764			
Thorium-228 <i>LM</i>	1.785	0.09061	pCi/g	0.1039	N	238.3	4	1.171	IDENTIFIED	3.584			
Thorium-230 <i>LM</i>	1.202	0.1037	pCi/g	0.1367	N	608.7	4	1.312	IDENTIFIED	7.766			
Thorium-232 <i>LM</i>	1.868	0.2014	pCi/g	0.2639	N	910.3	3	1.476	IDENTIFIED	9.106			
Tin-126 <i>LM</i>	0.3167	0.05347	pCi/g	0.1628	N	87.06	3	1.324	IDENTIFIED	16.17			
Titanium-44 <i>LA</i>	0.4619	0.0377	pCi/g	0.1062	N	0	9	0	FAIL_ABUND	0			
Total Uranium	7.3606	3.15E-06	ug/g	4.4524	N	0							
Uranium-234 <i>LM</i>	1.202	0.1037	pCi/g	0.1367	N	608.7	4	1.312	IDENTIFIED	7.766			
Zirconium-97	6.20E+07	1.06E+07	pCi/g	0	N	0	9	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
246344005	01-FEB-10 12:00	18-FEB-10 17:02	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL		N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228 <i>LM</i>	1.627	0.1984	pCi/g	0.242	N	911.2	3	2	IDENTIFIED	10.68			
Americium-243 <i>LM</i>	0.3641	0.06584	pCi/g	0.1489	N	74.96	1	1.404	IDENTIFIED	17.14			
Annihilation Rad.	0.2586	0.0534	pCi/g	0.05803	N	511.5	1	2.626	IDENTIFIED	20.19			
Barium-137m <i>LM</i>	1.85	0.1027	pCi/g	0.06924	N	661.7	2	1.58	IDENTIFIED	3.73			
Bismuth-211 <i>JUT</i>	3.93	0.3405	pCi/g	0.4705	Y	352.1	4	1.582	IDENTIFIED	7.097			<i>U I</i>
Bismuth-212 HE	1.133	0.2561	pCi/g	0.7691	N	0	18	0	FAIL_ABUND	0			
Bismuth-214 <i>✓</i>	1.335	0.1237	pCi/g	0.1458	0.200	609.5	4	1.786	IDENTIFIED	7.83			
Cadmium-109 <i>JUT</i>	4.577	0.9565	pCi/g	1.9	Y	87.32	3	1.626	IDENTIFIED	19.96			<i>U I</i>

Cerium-141	HE	0.1666	0.06089	pCi/g 0.1407	N	144.1	2	1.395	IDENTIFIED	36.19	<input type="checkbox"/>
Cerium-143		2834	469.4	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-137	✓	1.956	0.1087	pCi/g 0.0732	0.100	661.7	2	1.58	IDENTIFIED	3.73	<input type="checkbox"/>
Gadolinium-153	HE	0.3627	0.08756	pCi/g 0.2136	N	0	18	0	FAIL_ABUND	0	<input type="checkbox"/>
Gold-195	HE	1.058	0.2554	pCi/g 0.6226	N	0	18	0	FAIL_ABUND	0	<input type="checkbox"/>
Gross Gamma		12.57	1.798	pCi/g 4.605	N		0				<input type="checkbox"/>
Iodine-135		2.07E+17	0	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>
Krypton-85	LA	40.72	5.631	pCi/g 20.27	N	0	18	0	NOT_IDENTI	0	<input type="checkbox"/>
Lead-212	✓	1.565	0.1171	pCi/g 0.1203	0.100	238.8	4	1.295	IDENTIFIED	4.533	<input type="checkbox"/>
Lead-214	✓	1.367	0.1237	pCi/g 0.1563	0.100	352.1	4	1.582	IDENTIFIED	7.097	<input type="checkbox"/>
Lutetium-177	HE	4.842	1.136	pCi/g 3.244	N	209.4	1	2.011	IDENTIFIED	22.82	<input type="checkbox"/>
Neptunium-237	ML	1.317	0.3069	pCi/g 0.561	N	87.32	3	1.626	IDENTIFIED	19.96	<input type="checkbox"/>
Niobium-95	HE	0.1205	0.03098	pCi/g 0.1115	N	0	18	0	NOT_IDENTI	0	<input type="checkbox"/>
Niobium-95m	HE	0.4885	0.1047	pCi/g 0.3219	N	0	18	0	NOT_IDENTI	0	<input type="checkbox"/>
Niobium-97		3.72E+06	6.58E+05	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	ML	1.565	0.1171	pCi/g 0.1203	N	238.8	4	1.295	IDENTIFIED	4.533	<input type="checkbox"/>
Polonium-214	ML	1.367	0.1237	pCi/g 0.1563	N	352.1	4	1.582	IDENTIFIED	7.097	<input type="checkbox"/>
Polonium-216	ML	1.565	0.1171	pCi/g 0.1203	N	238.8	4	1.295	IDENTIFIED	4.533	<input type="checkbox"/>
Polonium-218	ML	1.367	0.1237	pCi/g 0.1563	N	352.1	4	1.582	IDENTIFIED	7.097	<input type="checkbox"/>
Potassium-40	✓	21.97	1.372	pCi/g 0.7473	1.00	1461	1	2.045	IDENTIFIED	3.856	<input type="checkbox"/>
Protactinium-234m	LA	28.47	5.343	pCi/g 14.04	N	0	18	0	FAIL_ABUND	0	<input type="checkbox"/>
Radium-224	DT	4.615	0.978	pCi/g 1.368	Y	241.8	1	2.04	IDENTIFIED	20.46	<input checked="" type="checkbox"/> UI
Radium-226	✓	1.335	0.1237	pCi/g 0.1458	Y	609.5	4	1.786	IDENTIFIED	7.83	<input type="checkbox"/>
Radium-228	✓	1.627	0.1984	pCi/g 0.242	0.500	911.2	3	2	IDENTIFIED	10.68	<input type="checkbox"/>
Silver-110m	HE	0.1314	0.02839	pCi/g 0.09467	N	0	18	0	NOT_IDENTI	0	<input type="checkbox"/>
Sodium-24	HE	3.89E+06	4.53E+06	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>
Strontium-85	LA	0.2135	0.02952	pCi/g 0.1062	Y	0	18	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Technetium-99m		3.55E+18	0	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.4384	0.0511	pCi/g 0.07712	0.080	583.3	1	1.54	IDENTIFIED	10.72	<input type="checkbox"/>
Thorium-228	ML	1.592	0.1192	pCi/g 0.1224	N	238.8	4	1.295	IDENTIFIED	4.533	<input type="checkbox"/>
Thorium-230	ML	1.335	0.1237	pCi/g 0.1458	N	609.5	4	1.786	IDENTIFIED	7.83	<input type="checkbox"/>
Thorium-232	ML	1.627	0.1984	pCi/g 0.242	N	911.2	3	2	IDENTIFIED	10.68	<input type="checkbox"/>
Thorium-234	✓	17.63	2.823	pCi/g 4.303	2.00	63.34	2	1.372	IDENTIFIED	12.71	<input type="checkbox"/>
Tin-126	ML	0.4485	0.09372	pCi/g 0.1875	N	87.32	3	1.626	IDENTIFIED	19.96	<input type="checkbox"/>
Titanium-44	LA	0.3441	0.04255	pCi/g 0.1181	N	0	18	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		52.703	8.40E-06	ug/g 6.4057	N		0				<input type="checkbox"/>
Tungsten-181	LA	3.174	0.4992	pCi/g 1.466	N	0	18	0	NOT_IDENTI	0	<input type="checkbox"/>
Uranium-231	LA	8.177	1.759	pCi/g 4.068	N	0	18	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	ML	1.335	0.1237	pCi/g 0.1458	N	609.5	4	1.786	IDENTIFIED	7.83	<input type="checkbox"/>
Uranium-235	✓	0.5312	0.1983	pCi/g 0.4599	0.500	144.1	2	1.395	IDENTIFIED	36.19	<input type="checkbox"/>
Uranium-238	ML	17.63	2.823	pCi/g 4.303	N	63.34	2	1.372	IDENTIFIED	12.71	<input type="checkbox"/>
Zirconium-97	—	3.49E+07	1.19E+07	pCi/g 0	N	0	18	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
1202037549		18-FEB-10 17:03	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	1.73E+06	7.41E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Krypton-85	LA	15.8	2.15	pCi/g	7.926	N	0	6	0	NOT_IDENTI	0	<input type="checkbox"/>
Sodium-24	HE	48.86	43.34	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Strontium-85	W+	0.07493	0.0102	pCi/g	0.03759	Y	0	6	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Technetium-99m	HE	1.04E+07	1.06E+07	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Zirconium-97		1655	386.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
1202037550	02-FEB-10 12:00	18-FEB-10 17:29	16.2	DUP	LOAD	I		LANL01004IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MM	2.039	0.1811	pCi/g	0.2017	N	910.6	3	1.338	IDENTIFIED	6.982	<input type="checkbox"/>
Americium-243	MM	0.5424	0.04802	pCi/g	0.09575	N	74.63	1	1.223	IDENTIFIED	8.176	<input type="checkbox"/>
Annihilation Rad.		0.1573	0.0382	pCi/g	0.05164	N	510.8	1	2.266	IDENTIFIED	24.09	<input type="checkbox"/>
Bismuth-211	DNT	4.368	0.2787	pCi/g	0.3315	Y	351.6	4	1.221	IDENTIFIED	5.554	<input checked="" type="checkbox"/> UI
Bismuth-212	HE	0.9406	0.246	pCi/g	0.6961	N	0	10	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	1.342	0.1071	pCi/g	0.1184	0.200	609	4	1.372	IDENTIFIED	6.84	<input type="checkbox"/>
Cadmium-109	DNT	2.94	0.5976	pCi/g	1.269	Y	86.9	3	1.067	IDENTIFIED	19.97	<input checked="" type="checkbox"/> UI
Cerium-143		1513	236	pCi/g	0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134	LA	0.1265	0.03321	pCi/g	0.09953	0.100	0	10	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma		11.27	1.618	pCi/g	3.453	N		0				<input type="checkbox"/>
Iodine-123	HE	5.98E+06	1.21E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.858	0.09029	pCi/g	0.09746	0.100	238.4	4	1.091	IDENTIFIED	3.319	<input type="checkbox"/>
Lead-214	✓	1.519	0.1047	pCi/g	0.1156	0.100	351.6	4	1.221	IDENTIFIED	5.554	<input type="checkbox"/>
Lutetium-177	HE	2.632	0.944	pCi/g	2.477	N	0	10	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	MM	0.8471	0.1931	pCi/g	0.4609	N	86.9	3	1.067	IDENTIFIED	19.97	<input type="checkbox"/>
Niobium-97	HE	8405	1.76E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	MM	1.858	0.09029	pCi/g	0.09746	N	238.4	4	1.091	IDENTIFIED	3.319	<input type="checkbox"/>
Polonium-214	MM	1.519	0.1047	pCi/g	0.1156	N	351.6	4	1.221	IDENTIFIED	5.554	<input type="checkbox"/>
Polonium-216	MM	1.858	0.09029	pCi/g	0.09746	N	238.4	4	1.091	IDENTIFIED	3.319	<input type="checkbox"/>
Polonium-218	MM	1.519	0.1047	pCi/g	0.1156	N	351.6	4	1.221	IDENTIFIED	5.554	<input type="checkbox"/>
Potassium-40	✓	37.18	1.698	pCi/g	0.6418	1.00	1460	1	2.056	IDENTIFIED	2.855	<input type="checkbox"/>
Radium-224	DNT	5.444	0.5229	pCi/g	1.109	Y	241.3	1	1.922	IDENTIFIED	9.2	<input checked="" type="checkbox"/> UI
Radium-226	✓	1.342	0.1071	pCi/g	0.1184	Y	609	4	1.372	IDENTIFIED	6.84	<input type="checkbox"/>
Radium-228	✓	2.039	0.1811	pCi/g	0.2017	0.500	910.6	3	1.338	IDENTIFIED	6.982	<input type="checkbox"/>
Sodium-24	HE	1.10E+06	1.54E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	502.7	468.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.6699	0.04856	pCi/g	0.06684	0.080	582.8	1	1.466	IDENTIFIED	6.306	<input type="checkbox"/>
Thorium-228	MM	1.888	0.09176	pCi/g	0.09905	N	238.4	4	1.091	IDENTIFIED	3.319	<input type="checkbox"/>
Thorium-230	MM	1.342	0.1071	pCi/g	0.1184	N	609	4	1.372	IDENTIFIED	6.84	<input type="checkbox"/>
Thorium-232	MM	2.039	0.1811	pCi/g	0.2017	N	910.6	3	1.338	IDENTIFIED	6.982	<input type="checkbox"/>
Thorium-234	✓	2.642	1.055	pCi/g	2.342	2.00	63.37	2	0.8949	IDENTIFIED	39.02	<input type="checkbox"/>
Tin-126	MM	0.2885	0.05864	pCi/g	0.1551	N	86.9	3	1.067	IDENTIFIED	19.97	<input type="checkbox"/>
Titanium-44	LA	0.4292	0.02895	pCi/g	0.08019	N	0	10	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		7.8883	3.14E-06	ug/g	3.4865	N		0				<input type="checkbox"/>
Uranium-234	MM	1.342	0.1071	pCi/g	0.1184	N	609	4	1.372	IDENTIFIED	6.84	<input type="checkbox"/>
Uranium-238	HE	2.642	1.055	pCi/g	2.342	N	63.37	2	0.8949	IDENTIFIED	39.02	<input type="checkbox"/>

Zirconium-97 9.37E+06 3.67E+06 pCi/g 0 N 0 10 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	
1202037551		18-FEB-10 17:29	0	LCS	LOAD	1		GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228	1.031	0.2311	pCi/g	0.4732	N	911.1	3	0.9993	IDENTIFIED	21.62	<input type="checkbox"/>
Americium-241	13.42	0.6353	pCi/g	0.4814	0.200	59.56	1	0.9293	IDENTIFIED	2.649	<input type="checkbox"/>
Americium-243 HE	0.1969	0.03949	pCi/g	0.1553	N	0	3	0	FAIL_ABUND	0	<input type="checkbox"/>
Annihilation Rad. HE	0.1289	0.05888	pCi/g	0.07581	N	510.8	1	1.778	IDENTIFIED	45.42	<input type="checkbox"/>
Barium-137m	5.693	0.2815	pCi/g	0.1106	N	661.6	2	1.413	IDENTIFIED	2.18	<input type="checkbox"/>
Bismuth-211	2.943	0.3558	pCi/g	0.5467	Y	351.8	4	1.103	IDENTIFIED	10.79	<input type="checkbox"/>
Bismuth-214	0.7222	0.1198	pCi/g	0.1765	0.200	608.9	4	1.146	IDENTIFIED	15.72	<input type="checkbox"/>
Cadmium-109	30.06	1.907	pCi/g	2.005	Y	87.96	3	0.8604	IDENTIFIED	4.127	<input type="checkbox"/>
Cesium-137	6.018	0.298	pCi/g	0.1169	0.100	661.6	2	1.413	IDENTIFIED	2.18	<input type="checkbox"/>
Cobalt-57	0.2586	0.03243	pCi/g	0.05678	N	122	1	1.006	IDENTIFIED	11.83	<input type="checkbox"/>
Cobalt-60	6.673	0.3244	pCi/g	0.0868	0.100	1332	1	1.993	IDENTIFIED	2.417	<input type="checkbox"/>
Gross Gamma	27.64	2.824	pCi/g	4.426	N	0					<input type="checkbox"/>
Lead-212	0.9552	0.09929	pCi/g	0.1566	0.100	238.5	4	1.016	IDENTIFIED	8.545	<input type="checkbox"/>
Lead-214	1.024	0.1266	pCi/g	0.1906	0.100	351.8	4	1.103	IDENTIFIED	10.79	<input type="checkbox"/>
Neptunium-237	8.773	1.063	pCi/g	0.5945	N	87.96	3	0.8604	IDENTIFIED	4.127	<input type="checkbox"/>
Polonium-212	0.9552	0.09929	pCi/g	0.1566	N	238.5	4	1.016	IDENTIFIED	8.545	<input type="checkbox"/>
Polonium-214	1.024	0.1266	pCi/g	0.1906	N	351.8	4	1.103	IDENTIFIED	10.79	<input type="checkbox"/>
Polonium-216	0.9552	0.09929	pCi/g	0.1566	N	238.5	4	1.016	IDENTIFIED	8.545	<input type="checkbox"/>
Polonium-218	1.024	0.1266	pCi/g	0.1906	N	351.8	4	1.103	IDENTIFIED	10.79	<input type="checkbox"/>
Potassium-40	0.7264	0.2932	pCi/g	0.4942	1.00	1460	1	3.057	IDENTIFIED	40.12	<input type="checkbox"/>
Radium-226	0.7222	0.1198	pCi/g	0.1765	Y	608.9	4	1.146	IDENTIFIED	15.72	<input type="checkbox"/>
Radium-228	1.031	0.2311	pCi/g	0.4732	0.500	911.1	3	0.9993	IDENTIFIED	21.62	<input type="checkbox"/>
Technetium-99m HE	1.55E+07	3.15E+07	pCi/g	0	N	0	3	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	0.3499	0.05629	pCi/g	0.09316	0.080	583	1	1.17	IDENTIFIED	15.31	<input type="checkbox"/>
Thorium-228	0.9626	0.1001	pCi/g	0.1578	N	238.5	4	1.016	IDENTIFIED	8.545	<input type="checkbox"/>
Thorium-230	0.7222	0.1198	pCi/g	0.1765	N	608.9	4	1.146	IDENTIFIED	15.72	<input type="checkbox"/>
Thorium-232	1.031	0.2311	pCi/g	0.4732	N	911.1	3	0.9993	IDENTIFIED	21.62	<input type="checkbox"/>
Tin-126	2.988	0.1895	pCi/g	0.2002	N	87.96	3	0.8604	IDENTIFIED	4.127	<input type="checkbox"/>
Uranium-234	0.7222	0.1198	pCi/g	0.1765	N	608.9	4	1.146	IDENTIFIED	15.72	<input type="checkbox"/>
Zirconium-97	2489	1035	pCi/g	0	N	0	3	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = Number of isotopes identified with a keyline at this energy.

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

2/19/10

Batch Id	Sample Id	Sample Type	Run Date	Paramname	Result	Uncertainty	Units	DL	RDL
950787	246344004	SAMPLE	18-FEB-10	Uranium-235	0.2573	0.1293	pCi/g	0.2174	0.500
				Zirconium-97	6.20E+07	1.06E+07	pCi/g	0	N
950787	246344005	SAMPLE	18-FEB-10	Americium-241	0.3127	0.2001	pCi/g	0.2941	0.200
				Bismuth-210	16.69	7.758	pCi/g	12.99	N
				Bismuth-211	3.93	0.3405	pCi/g	0.2354	Y
				Bismuth-214	1.335	0.1237	pCi/g	0.07294	0.200
				Cadmium-109	4.577	0.9565	pCi/g	0.9503	Y
				Cerium-143	2834	469.4	pCi/g	0	N
				Cesium-134	0.05483	0.02753	pCi/g	0.04829	0.100
				Cesium-137	1.956	0.7087	pCi/g	0.03662	0.100
				Gross Gamma	12.57	1.798	pCi/g	2.244	N
				Iodine-135	2.07E+17	0	pCi/g	0	N
				Krypton-85	40.72	5.631	pCi/g	10.14	N
				Lead-210	16.69	7.758	pCi/g	12.99	N
				Lead-212	1.565	0.1171	pCi/g	0.06018	0.100
				Lead-214	1.367	0.1237	pCi/g	0.0782	0.100
				Niobium-97	3.72E+06	6.58E+05	pCi/g	0	N
				Polonium-210	16.69	7.751	pCi/g	12.99	N
				Potassium-40	21.97	1.372	pCi/g	0.3739	1.00
				Protactinium-234m	28.47	5.343	pCi/g	7.026	N
				Radium-224	4.615	0.978	pCi/g	0.6846	Y
				Radium-226	1.335	0.1237	pCi/g	0.07294	Y
				Radium-228	1.627	0.1984	pCi/g	0.1211	0.500
				Sodium-24	3.89E+06	4.53E+06	pCi/g	0	N
				Strontium-85	0.2135	0.02952	pCi/g	0.05315	Y
				Technetium-99m	3.55E+18	0	pCi/g	0	N
				Thallium-208	0.4384	0.0511	pCi/g	0.03858	0.080
				Thorium-234	17.63	2.823	pCi/g	2.153	2.00
				Uranium-231	8.177	1.759	pCi/g	2.035	N
				Uranium-235	0.5312	0.1983	pCi/g	0.2301	0.500
				Uranium-238	17.63	2.823	pCi/g	2.153	N
				Zirconium-97	3.49E+07	1.19E+07	pCi/g	0	N
950787	1202037549	MB	18-FEB-10	Cadmium-109	0.3078	0.1424	pCi/g	0.2473	Y
				Iodine-135	1.73E+06	7.41E+06	pCi/g	0	N
				Krypton-85	15.8	2.15	pCi/g	3.965	N
				Sodium-24	48.86	43.34	pCi/g	0	N
				Strontium-85	0.07493	0.0102	pCi/g	0.01881	Y

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Paramname	Result	Uncertainty	Units	DL	RDL
950787	1202037549	MB	18-FEB-10	Technetium-99m	1.04E+07	1.06E+07	pCi/g	0	N
				Zirconium-97	1655	386.1	pCi/g	0	N
950787	1202037550	DUP	18-FEB-10	Bismuth-211	4.368	0.2787	pCi/g	0.1659	Y
				Bismuth-214	1.342	0.1071	pCi/g	0.05822	0.200
				Cadmium-109	2.94	0.5976	pCi/g	0.635	Y
				Cerium-143	1513	236	pCi/g	0	N
				Cesium-134	0.1265	0.03321	pCi/g	0.04979	0.100
				Cesium-137	0.04143	0.02631	pCi/g	0.04104	0.100
				Gross Gamma	11.27	1.618	pCi/g	1.672	N
				Iodine-123	5.98E+06	1.21E+07	pCi/g	0	N
				Krypton-85	13.07	4.19	pCi/g	6.827	N
				Lead-212	1.858	0.09029	pCi/g	0.04876	0.100
				Lead-214	1.519	0.1047	pCi/g	0.05783	0.100
				Niobium-97	8405	1.76E+05	pCi/g	0	N
				Potassium-40	37.18	1.698	pCi/g	0.3211	1.00
				Radium-224	5.444	0.5229	pCi/g	0.5549	Y
				Radium-226	1.342	0.1071	pCi/g	0.05822	Y
				Radium-228	2.039	0.1811	pCi/g	0.1009	0.500
				Sodium-24	1.10E+06	1.54E+06	pCi/g	0	N
				Strontium-85	0.06783	0.02173	pCi/g	0.03541	Y
				Thallium-200	502.7	468.5	pCi/g	0	N
				Thallium-208	0.6699	0.04856	pCi/g	0.03344	0.080
				Thorium-234	2.642	1.055	pCi/g	1.172	2.00
				Zirconium-97	9.37E+06	3.67E+06	pCi/g	0	N
950787	1202037551	LCS	18-FEB-10	Americium-241	13.42	0.6353	pCi/g	0.2409	0.200
				Barium-137m	5.693	0.2815	pCi/g	0.05531	N
				Bismuth-211	2.943	0.3558	pCi/g	0.2735	Y
				Bismuth-214	0.7222	0.1198	pCi/g	0.08831	0.200
				Cadmium-109	30.06	1.907	pCi/g	1.003	Y
				Cerium-143	7.772	3.001	pCi/g	4.691	N
				Cesium-137	6.018	0.298	pCi/g	0.05847	0.100
				Cobalt-60	6.673	0.3244	pCi/g	0.04343	0.100
				Gross Gamma	27.64	2.824	pCi/g	2.157	N
				Krypton-85	12.14	6.18	pCi/g	10.09	N
				Lead-212	0.9552	0.09929	pCi/g	0.07836	0.100
				Lead-214	1.024	0.1266	pCi/g	0.09534	0.100
				Neptunium-237	8.773	1.063	pCi/g	0.2974	N

Blank Results Greater Than CSU

Batch ID	Blank ID & Run Seq.	Run Date	Parmname	Result Units	1 Sigma			RDL	MDA	Report Parm?
					1 Sigma TPU	TPU x1.65	1 Sigma TPU x2			
950787	1202037549-1	18-FEB-10 17:03	Antimony-125	0.026 pCi/g	0.0196	0.0323	0.0392		0.07087	N
950787	1202037549-1	18-FEB-10 17:03	Cadmium-109	0.308 pCi/g	0.142	0.235	0.285		0.4944	Y
950787	1202037549-1	18-FEB-10 17:03	Cerium-144	0.0685 pCi/g	0.044	0.0726	0.0879		0.1673	N
950787	1202037549-1	18-FEB-10 17:03	Cobalt-57	0.0098 pCi/g	0.0055 6	0.0091 7	0.0111		0.02028	N
950787	1202037549-1	18-FEB-10 17:03	Europium-154	0.0326 pCi/g	0.0204	0.0337	0.0408		0.07587	N
950787	1202037549-1	18-FEB-10 17:03	Gadolinium-153	0.026 pCi/g	0.0167	0.0275	0.0334		0.05606	N
950787	1202037549-1	18-FEB-10 17:03	Germanium-68	0.378 pCi/g	0.26	0.429	0.52		0.6921	N
950787	1202037549-1	18-FEB-10 17:03	Gold-195	0.0714 pCi/g	0.0434	0.0715	0.0867		0.161	N
950787	1202037549-1	18-FEB-10 17:03	Holmium-166m	0.0209 pCi/g	0.0141	0.0232	0.0282		0.04714	N
950787	1202037549-1	18-FEB-10 17:03	Krypton-85	15.8 pCi/g	2.15	3.55	4.3		7.926	N
950787	1202037549-1	18-FEB-10 17:03	Mercury-203	0.00932 pCi/g	0.0082 4	0.0136	0.0165	0.100	0.02913	Y
950787	1202037549-1	18-FEB-10 17:03	Polonium-209	1.28 pCi/g	1.5	2.48	3.01		5.35	N
950787	1202037549-1	18-FEB-10 17:03	Praseodymium-144	0.603 pCi/g	0.526	0.867	1.05		1.864	N
950787	1202037549-1	18-FEB-10 17:03	Promethium-144	0.00894 pCi/g	0.0077 9	0.0129	0.0156		0.02761	N
950787	1202037549-1	18-FEB-10 17:03	Rhenium-183	0.0478 pCi/g	0.0226	0.0373	0.0452		0.08593	N
950787	1202037549-1	18-FEB-10 17:03	Rhenium-188	0.054 pCi/g	0.0334	0.055	0.0667		0.1262	N
950787	1202037549-1	18-FEB-10 17:03	Rubidium-84	0.0192 pCi/g	0.012	0.0198	0.024		0.04432	N
950787	1202037549-1	18-FEB-10 17:03	Rubidium-86	0.185 pCi/g	0.128	0.21	0.255		0.3269	N
950787	1202037549-1	18-FEB-10 17:03	Selenium-75	0.0141 pCi/g	0.0099 1	0.0164	0.0198		0.03548	N
950787	1202037549-1	18-FEB-10 17:03	Sodium-22	0.0118 pCi/g	0.0072 8	0.012	0.0146	0.080	0.02715	Y
950787	1202037549-1	18-FEB-10 17:03	Sodium-24	48.9 pCi/g	43.3	71.5	86.7		0	N
950787	1202037549-1	18-FEB-10 17:03	Strontium-85	0.0749 pCi/g	0.0102	0.0168	0.0204		0.03759	Y
950787	1202037549-1	18-FEB-10 17:03	Tantalum-182	0.0494 pCi/g	0.0345	0.0569	0.0689		0.1253	N
950787	1202037549-1	18-FEB-10 17:03	Technetium-99m	1.04E+07 pCi/g	106000 00	175000 00	212000 00		0	N
950787	1202037549-1	18-FEB-10 17:03	Terbium-160	0.0473 pCi/g	0.0258	0.0425	0.0515		0.09609	N
950787	1202037549-1	18-FEB-10 17:03	Thallium-208	0.00923 pCi/g	0.0095 6	0.0158	0.0191	0.080	0.0257	Y
950787	1202037549-1	18-FEB-10 17:03	Zirconium-95	0.0196 pCi/g	0.0128	0.0211	0.0255		0.04617	N
950787	1202037549-1	18-FEB-10 17:03	Zirconium-97	1660 pCi/g	386	637	772		0	N

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 17:15:14.08

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246325001.CNF;1
Sample date        : 2-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 15:14:44
Sample ID          : G246325001      Sample quantity   : 1.25480E+02 GRAM
Detector name      : GAM10           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.18  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials  : MXR1
Abundance limit    : 75.00000        Sensitivity       : 5.00000
Batch ID           : 950787          Detector SN#      :
Matrix Spike ID    :                 LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.09*	124	484	1.45	126.35	122	9	1.72E-02	33.6	
2	2	74.59*	403	442	1.18	149.32	143	15	5.60E-02	10.3	1.43E+00
3	2	76.83	640	360	1.05	153.80	143	15	8.90E-02	6.2	
4	5	86.83	293	528	1.61	173.77	165	24	4.07E-02	16.2	5.86E+00
5	5	89.50	166	387	1.11	179.11	165	24	2.30E-02	21.2	
6	5	92.55*	192	462	1.40	185.20	165	24	2.67E-02	21.5	
7	0	128.76	100	345	1.10	257.56	254	8	1.39E-02	33.8	
8	0	153.42	78	379	1.48	306.83	302	10	1.09E-02	48.1	
9	0	185.56*	244	444	1.16	371.07	365	12	3.39E-02	18.8	
10	0	209.44*	204	414	1.48	418.79	414	13	2.83E-02	21.9	
11	3	238.33*	1485	216	1.23	476.52	470	19	2.06E-01	3.1	2.52E+00
12	3	241.26*	323	251	1.58	482.39	470	19	4.48E-02	11.8	
13	0	269.87	142	206	1.27	539.55	536	9	1.97E-02	20.1	
14	0	294.91*	421	225	1.20	589.60	585	10	5.85E-02	8.3	
15	0	299.82*	108	211	1.02	599.42	595	10	1.51E-02	27.1	
16	0	327.78	75	186	0.86	655.29	651	9	1.05E-02	34.6	
17	0	338.11	270	171	1.34	675.93	671	9	3.75E-02	10.6	
18	0	351.65*	762	179	1.37	703.00	698	13	1.06E-01	5.2	
19	0	462.91	127	150	1.13	925.39	919	13	1.76E-02	21.7	
20	0	510.95*	187	168	2.40	1021.41	1012	22	2.60E-02	20.8	
21	0	582.77*	433	131	1.54	1164.99	1156	18	6.01E-02	7.9	
22	0	608.91*	505	61	1.43	1217.24	1213	11	7.01E-02	5.5	
23	0	726.89*	100	106	2.56	1453.10	1447	15	1.39E-02	24.8	
24	0	860.05	77	59	2.06	1719.36	1713	14	1.07E-02	24.1	
25	0	910.86*	287	89	1.74	1820.96	1814	16	3.99E-02	9.9	
26	0	964.23	44	51	1.30	1927.69	1922	9	6.06E-03	33.3	
27	0	968.54*	167	96	1.97	1936.30	1931	15	2.31E-02	14.2	
28	0	1119.51*	88	72	1.92	2238.22	2232	13	1.23E-02	22.9	
29	0	1376.73*	39	13	2.24	2752.73	2747	13	5.47E-03	26.3	
30	0	1459.96*	1561	18	2.03	2919.24	2912	16	2.17E-01	2.6	
31	0	1728.32*	35	3	1.87	3456.18	3449	13	4.82E-03	21.0	
32	0	1763.92*	88	11	2.19	3527.43	3520	16	1.23E-02	14.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 17:15:16

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246325001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 2-FEB-2010 12:00:00   Acquisition date : 18-FEB-2010 15:14:44
Sample ID        : G246325001             Sample quantity  : 125.48 GRAM
Sample type      : SOLID                  Sample geometry   :
Detector name    : GAMMA10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00          Elapsed real time: 0 02:00:01.18    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	+	1460.81	*	3.952E+01	3.988E+00	5.513E-01	4.749E-02	71.674
CD-109	+	88.03	*	4.610E+00	1.581E+00	1.400E+00	1.587E-01	3.293
SN-126	+	64.28		1.720E+00	1.192E+00	1.124E+00	1.922E-01	1.530
	+	86.94		1.881E+00	9.974E-01	5.812E-01	2.441E-01	3.236
	+	87.57	*	4.524E-01	1.551E-01	1.384E-01	1.566E-02	3.269
TL-208		277.35		3.515E-01	3.979E-01	6.786E-01	7.401E-02	0.518
	+	510.84		8.853E-01	3.804E-01	2.029E-01	2.133E-02	4.363
	+	583.14	*	5.850E-01	1.008E-01	5.451E-02	3.663E-03	10.732
	+	860.37		1.002E+00	4.936E-01	5.105E-01	4.985E-02	1.963
BI-211		72.87		1.109E+01	4.136E+00	7.104E+00	7.812E-01	1.561
	+	351.07	*	4.532E+00	5.782E-01	3.207E-01	2.338E-02	14.131
PB-212	+	74.81		2.917E+00	7.317E-01	6.562E-01	9.446E-02	4.445
	+	77.11		2.565E+00	4.255E-01	3.636E-01	3.975E-02	7.056
	+	87.30		2.092E+00	7.474E-01	6.428E-01	9.699E-02	3.255
	+	238.63	*	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
	+	300.09		2.180E+00	1.196E+00	1.157E+00	1.017E-01	1.884
PO-212	+	74.81		2.917E+00	7.317E-01	6.562E-01	9.446E-02	4.445
	+	77.11		2.565E+00	4.255E-01	3.636E-01	3.975E-02	7.056
	+	87.30		2.092E+00	7.474E-01	6.428E-01	9.699E-02	3.255
		115.19		-1.492E+00	3.788E+00	6.050E+00	4.329E-01	-0.247
	+	238.63	*	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
	+	300.09		2.180E+00	1.196E+00	1.157E+00	1.017E-01	1.884
BI-214	+	609.31	*	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
	+	1120.29		1.237E+00	5.795E-01	5.707E-01	5.577E-02	2.168
	+	1764.49		1.711E+00	5.090E-01	3.716E-01	2.481E-02	4.605
PB-214	+	74.81		5.025E+00	1.228E+00	1.131E+00	1.495E-01	4.445
	+	77.11		4.398E+00	8.028E-01	6.233E-01	8.306E-02	7.056
	+	87.30		3.585E+00	1.260E+00	1.101E+00	1.506E-01	3.255
	+	241.98		2.539E+00	6.350E-01	5.619E-01	4.675E-02	4.518
	+	295.21		1.486E+00	2.819E-01	2.285E-01	2.063E-02	6.504
	+	351.92	*	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
PO-214	+	74.81		5.025E+00	1.228E+00	1.131E+00	1.495E-01	4.445
	+	77.11		4.398E+00	8.028E-01	6.233E-01	8.306E-02	7.056
	+	87.30		3.585E+00	1.260E+00	1.101E+00	1.506E-01	3.255

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		2.539E+00	6.350E-01	5.619E-01	4.675E-02	4.518
	+	295.21		1.486E+00	2.819E-01	2.285E-01	2.063E-02	6.504
	+	351.92	*	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
	+	74.81		2.917E+00	7.317E-01	6.562E-01	9.446E-02	4.445
	+	77.11		2.565E+00	4.255E-01	3.636E-01	3.975E-02	7.056
	+	87.30		2.092E+00	7.474E-01	6.428E-01	9.699E-02	3.255
PO-218	+	238.63	*	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
	+	300.09		2.180E+00	1.196E+00	1.157E+00	1.017E-01	1.884
	+	74.81		5.025E+00	1.228E+00	1.131E+00	1.495E-01	4.445
	+	77.11		4.398E+00	8.028E-01	6.233E-01	8.306E-02	7.056
	+	87.30		3.585E+00	1.260E+00	1.101E+00	1.506E-01	3.255
	+	241.98		2.539E+00	6.350E-01	5.619E-01	4.675E-02	4.518
RA-224	+	295.21		1.486E+00	2.819E-01	2.285E-01	2.063E-02	6.504
	+	351.92	*	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
	+	240.98	*	4.814E+00	1.173E+00	1.062E+00	6.518E-02	4.533
RA-226	+	609.31	*	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
AC-228	+	1120.29		1.237E+00	5.795E-01	5.707E-01	5.577E-02	2.168
	+	1764.49		1.711E+00	5.090E-01	3.716E-01	2.481E-02	4.605
	+	338.32		1.771E+00	8.167E-01	4.050E-01	1.657E-01	4.374
	+	911.07	*	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
RA-228	+	969.11		1.834E+00	6.783E-01	3.950E-01	9.339E-02	4.644
	+	338.32		1.771E+00	8.167E-01	4.050E-01	1.657E-01	4.374
	+	911.07	*	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
TH-228	+	969.11		1.834E+00	6.783E-01	3.950E-01	9.339E-02	4.644
	+	74.81		2.964E+00	6.908E-01	6.668E-01	7.339E-02	4.445
	+	77.11		2.607E+00	4.324E-01	3.695E-01	4.040E-02	7.056
	+	87.30		2.126E+00	7.292E-01	6.532E-01	7.381E-02	3.255
TH-230	+	238.63	*	1.977E+00	1.937E-01	9.484E-02	7.194E-03	20.846
	+	300.09		2.216E+00	1.775E+00	1.176E+00	6.940E-01	1.884
	+	609.31	*	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
	+	1120.29		1.237E+00	5.795E-01	5.707E-01	5.577E-02	2.168
TH-232	+	1764.49		1.711E+00	5.090E-01	3.716E-01	2.481E-02	4.604
	+	338.32		1.771E+00	3.951E-01	4.050E-01	2.715E-02	4.374
	+	911.07	*	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
TH-234	+	969.11		1.834E+00	6.783E-01	3.950E-01	9.339E-02	4.644
	+	63.29	*	4.345E+00	3.040E+00	2.897E+00	5.710E-01	1.500
	+	92.38		1.860E+00	8.742E-01	8.853E-01	1.676E-01	2.101
U-234	+	609.31	*	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
	+	1120.29		1.237E+00	5.795E-01	5.707E-01	5.577E-02	2.168
	+	1764.49		1.711E+00	5.090E-01	3.716E-01	2.481E-02	4.604
NP-237	+	86.50	*	1.329E+00	5.317E-01	4.136E-01	9.720E-02	3.212
	+	95.87		-4.796E-01	1.158E+00	1.650E+00	4.123E-01	-0.291
U-238	+	63.29	*	4.345E+00	3.040E+00	2.897E+00	5.710E-01	1.500
	+	92.38		1.860E+00	8.227E-01	8.853E-01	9.096E-02	2.101
AM-243	+	74.67	*	4.728E-01	1.101E-01	1.069E-01	1.170E-02	4.425
	+	86.72		4.982E+01	1.708E+01	1.545E+01	1.740E+00	3.224
	+	117.66		-2.767E+00	3.957E+00	6.220E+00	4.316E-01	-0.445
ANH-511	+	142.18		1.667E+01	1.865E+01	3.052E+01	1.822E+00	0.546
	+	511.00	*	1.912E-01	8.060E-02	4.384E-02	2.808E-03	4.362

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.59	*		9.466E-02	3.256E-01	5.372E-01	3.995E-02	0.176
NA-22	1274.54	*		2.959E-03	5.239E-02	8.759E-02	6.785E-03	0.034
NA-24	1368.53	*		7.031E-02	5.239E-02	Half-Life too short		
AL-26	1129.67			3.923E-01	2.018E+00	3.439E+00	2.412E-01	0.114
	1808.65	*		-9.098E-03	2.877E-02	4.295E-02	2.723E-03	-0.212
TI-44	67.85			-3.095E-02	6.286E-02	9.738E-02	1.099E-02	-0.318
	78.38	*		1.601E-01	5.273E-02	8.284E-02	9.064E-03	1.933
SC-46	889.25	*		1.159E-02	4.617E-02	7.705E-02	7.625E-03	0.150
	+ 1120.51			2.136E-01	9.904E-02	1.435E-01	1.030E-02	1.488
V-48	944.10			-7.515E-01	1.094E+00	1.666E+00	1.614E-01	-0.451
	983.50	*		8.156E-03	7.795E-02	1.278E-01	1.182E-02	0.064
	1312.09			-1.887E-02	9.290E-02	1.508E-01	1.259E-02	-0.125
CR-51	320.08	*		-1.457E-01	3.812E-01	6.175E-01	4.460E-02	-0.236
MN-52	744.21			-1.076E-01	2.837E-01	4.553E-01	2.970E-02	-0.236
	848.13			-6.840E+00	7.900E+00	1.185E+01	1.050E+00	-0.577
	935.52			1.425E-01	3.354E-01	5.653E-01	5.527E-02	0.252
	1246.25			1.046E+00	1.032E+01	1.733E+01	1.262E+00	0.060
	1333.61			1.747E+00	5.299E+00	9.159E+00	7.958E-01	0.191
	1434.06	*		1.243E-01	2.897E-01	5.041E-01	4.260E-02	0.247
MN-54	834.83	*		5.174E-03	4.341E-02	7.195E-02	6.147E-03	0.072
CO-56	846.75	*		-9.357E-03	4.050E-02	6.501E-02	5.741E-03	-0.144
	977.42			-2.712E+00	3.399E+00	4.673E+00	4.355E-01	-0.580
	1037.82			-4.016E-01	3.600E-01	5.124E-01	4.607E-02	-0.784
	1175.09			1.227E+00	2.736E+00	4.732E+00	2.931E-01	0.259
	1238.25			1.869E-01	1.136E-01	2.086E-01	1.556E-02	0.896
	1360.21			-5.401E-01	1.151E+00	1.798E+00	1.553E-01	-0.300
	1771.40			-1.670E-01	2.842E-01	4.109E-01	2.723E-02	-0.406
CO-57	122.06	*		-1.009E-02	2.672E-02	4.258E-02	2.808E-03	-0.237
	136.48			1.970E-01	2.257E-01	3.762E-01	2.631E-02	0.524
CO-58	810.76	*		-3.482E-03	3.946E-02	6.444E-02	5.156E-03	-0.054
FE-59	142.65			2.413E+00	2.959E+00	4.828E+00	2.876E-01	0.500
	192.34			-5.133E-01	1.025E+00	1.581E+00	1.859E-01	-0.325
	1099.22	*		-8.273E-03	1.169E-01	1.868E-01	1.559E-02	-0.044
	1291.56			2.244E-02	1.213E-01	2.057E-01	1.904E-02	0.109
CO-60	1173.22			5.085E-02	5.555E-02	9.901E-02	6.105E-03	0.514
	1332.49	*		8.058E-03	3.709E-02	6.321E-02	5.493E-03	0.127
ZN-65	1115.52	*		4.866E-02	1.220E-01	1.772E-01	1.290E-02	0.275
GE-68	1077.35	*		8.360E-01	1.482E+00	2.508E+00	1.987E-01	0.333
AS-73	53.44	*		3.052E-01	1.693E+00	2.850E+00	3.772E-01	0.107
AS-74	595.88	*		-3.938E-03	1.031E-01	1.730E-01	9.885E-03	-0.023
	634.78			-1.720E-01	3.761E-01	6.082E-01	3.210E-02	-0.283
SE-75	66.05			4.508E-01	6.989E+00	1.044E+01	1.345E+00	0.043
	96.73			-1.455E+00	9.420E-01	1.324E+00	1.874E-01	-1.099
	121.11			-6.080E-02	1.437E-01	2.285E-01	2.238E-02	-0.266
	136.00			3.305E-02	4.292E-02	7.130E-02	4.427E-03	0.464
	198.60			3.484E-01	1.843E+00	2.940E+00	2.083E-01	0.118
	264.65	*		-4.325E-02	4.962E-02	7.302E-02	4.658E-03	-0.592
	279.53			-5.322E-02	1.132E-01	1.845E-01	1.264E-02	-0.288
	303.91			-1.257E-01	2.321E+00	3.376E+00	3.384E-01	-0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		1.849E-01	2.559E-01	4.364E-01	4.262E-02	0.424
		87.88		1.338E+03	4.590E+02	5.153E+02	5.842E+01	2.597
		200.40		-2.032E+01	2.297E+02	3.613E+02	2.083E+01	-0.056
	+	239.00		4.205E+02	3.662E+01	5.529E+01	3.384E+00	7.605
		249.79		8.134E+00	8.915E+01	1.503E+02	9.337E+00	0.054
		281.68		-6.846E+01	1.235E+02	2.002E+02	1.289E+01	-0.342
		297.23		1.727E+02	1.062E+02	1.340E+02	8.746E+00	1.289
		303.76		-8.960E+00	2.648E+02	3.858E+02	2.532E+01	-0.023
		439.47		5.442E+01	1.976E+02	3.270E+02	2.198E+01	0.166
		484.57		-2.941E+01	3.037E+02	4.863E+02	3.186E+01	-0.060
		520.65	*	-2.979E+00	1.491E+01	2.163E+01	1.372E+00	-0.138
		574.64		7.005E+01	2.957E+02	4.643E+02	2.748E+01	0.151
		578.91		5.442E+01	1.238E+02	1.899E+02	1.116E+01	0.287
		585.48		8.758E+02	2.819E+02	5.082E+02	2.956E+01	1.723
		755.35		8.873E+01	2.456E+02	4.173E+02	2.819E+01	0.213
817.79		-1.979E+01	1.771E+02	2.883E+02	2.347E+01	-0.069		
SR-82		698.33		1.008E+00	3.786E+01	6.311E+01	3.541E+00	0.016
		776.49	*	3.068E-02	4.013E-01	6.669E-01	4.808E-02	0.046
		1395.20		-1.927E+01	1.181E+01	1.444E+01	1.236E+00	-1.334
RB-83		520.41	*	-1.969E-02	7.350E-02	1.058E-01	6.717E-03	-0.186
		529.64		1.999E-03	1.091E-01	1.752E-01	1.101E-02	0.011
		552.65		-8.571E-02	1.974E-01	3.035E-01	1.854E-02	-0.282
RB-84		881.50	*	1.623E-02	7.831E-02	1.305E-01	1.265E-02	0.124
KR-85		513.99	*	1.149E+01	7.185E+00	1.275E+01	8.146E-01	0.901
SR-85		513.99	*	5.953E-02	3.723E-02	6.609E-02	4.222E-03	0.901
RB-86		1076.63	*	6.810E-01	9.936E-01	1.696E+00	1.346E-01	0.402
Y-88		898.02		2.407E-02	4.859E-02	8.257E-02	8.388E-03	0.292
		1836.01	*	2.469E-03	3.504E-02	5.738E-02	3.521E-03	0.043
ZR-88		392.90	*	-1.708E-02	3.294E-02	5.212E-02	3.542E-03	-0.328
Y-91		1204.90	*	-6.435E+00	2.331E+01	3.814E+01	2.533E+00	-0.169
NB-94		702.63	*	-1.007E-02	3.377E-02	5.487E-02	3.124E-03	-0.184
		871.10		3.199E-02	3.937E-02	6.859E-02	6.470E-03	0.466
NB-95		765.79	*	4.312E-02	4.870E-02	8.449E-02	5.896E-03	0.510
NB-95M		235.69	*	3.266E-01	1.492E-01	2.434E-01	1.888E-02	1.342
ZR-95		724.18		1.176E-01	1.158E-01	1.832E-01	1.306E-02	0.642
		756.15	*	-1.755E-03	7.990E-02	1.320E-01	1.037E-02	-0.013
NB-97		657.90	*	-5.776E-02	7.990E-02	Half-Life	too short	
		1024.50		1.180E+01	7.990E-02	Half-Life	too short	
ZR-97		254.15		2.598E+00	7.990E-02	Half-Life	too short	
		355.39		2.604E+00	7.990E-02	Half-Life	too short	
		507.63	*	8.701E+00	7.990E-02	Half-Life	too short	
		602.52		-9.506E+00	7.990E-02	Half-Life	too short	
		1021.30		4.049E-01	7.990E-02	Half-Life	too short	
		1147.95		1.190E+01	7.990E-02	Half-Life	too short	
		1362.66		-1.121E+01	7.990E-02	Half-Life	too short	
		1750.46		-1.554E+01	7.990E-02	Half-Life	too short	
MO-99		140.51		-3.127E+01	3.642E+01	5.484E+01	1.480E+01	-0.570
		181.06		4.077E+00	2.635E+01	3.753E+01	6.406E+00	0.109
		366.43		-3.020E+01	1.121E+02	1.811E+02	1.227E+01	-0.167

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		-1.739E+00	1.502E+01	2.464E+01	3.464E+00	-0.071
	778.00			5.305E-01	4.546E+01	7.514E+01	5.443E+00	0.007
TC-99M	140.51	*		-5.863E+11	4.546E+01	Half-Life too short		
RH-101	127.23			8.631E-03	3.951E-02	5.762E-02	3.683E-03	0.150
	198.01	*		1.715E-02	3.404E-02	5.511E-02	3.166E-03	0.311
	325.23			-1.822E-02	2.735E-01	3.956E-01	2.634E-02	-0.046
RH-102	418.52			9.986E-03	2.964E-01	4.839E-01	3.276E-02	0.021
	475.06	*		2.212E-02	3.055E-02	5.181E-02	3.417E-03	0.427
	631.29			-1.162E-03	5.406E-02	9.042E-02	4.811E-03	-0.013
	697.49			4.007E-02	8.513E-02	1.428E-01	7.991E-03	0.281
	766.84			1.450E-01	1.231E-01	2.171E-01	1.520E-02	0.668
	1046.59			-3.593E-02	1.384E-01	2.179E-01	1.831E-02	-0.165
	1112.84			1.357E-01	3.019E-01	4.420E-01	3.235E-02	0.307
RU-103	497.08	*		1.879E-02	4.417E-02	7.322E-02	9.499E-03	0.257
	610.33	+		1.416E+01	2.672E+00	3.004E+00	4.604E-01	4.715
RH-106	511.85	+		9.570E-01	4.034E-01	4.155E-01	2.659E-02	2.303
	621.84	*		-2.128E-01	3.110E-01	4.810E-01	5.560E-02	-0.442
	1050.47			-4.384E-01	2.743E+00	4.360E+00	3.637E-01	-0.101
RU-106	511.85	+		9.570E-01	4.034E-01	4.155E-01	2.659E-02	2.303
	621.84	*		-2.128E-01	3.103E-01	4.810E-01	2.612E-02	-0.442
	1050.47			-4.384E-01	2.743E+00	4.360E+00	3.637E-01	-0.101
AG-108M	433.93	*		-1.243E-02	3.414E-02	5.408E-02	3.878E-03	-0.230
	614.37			-5.852E-04	4.313E-02	6.294E-02	3.796E-03	-0.009
	722.95			1.848E-02	4.683E-02	7.045E-02	4.622E-03	0.262
AG-110M	657.75	*		-8.464E-03	3.571E-02	5.861E-02	3.175E-03	-0.144
	677.61			6.287E-02	3.262E-01	5.515E-01	3.096E-02	0.114
	706.67			-1.323E-01	2.115E-01	3.342E-01	2.045E-02	-0.396
	763.93			-2.403E-01	1.925E-01	2.882E-01	2.086E-02	-0.834
	884.67			5.015E-02	5.642E-02	9.882E-02	9.905E-03	0.507
	937.48			-9.224E-02	1.311E-01	1.996E-01	2.002E-02	-0.462
	1384.27			2.035E-01	1.998E-01	3.404E-01	3.006E-02	0.598
IN-111	171.28			-2.283E-01	1.339E+00	2.116E+00	1.164E-01	-0.108
	245.39	*		4.786E-01	1.496E+00	2.263E+00	1.397E-01	0.211
IN-113M	391.69	*		-2.391E-02	4.870E-02	7.727E-02	5.510E-03	-0.309
SN-113	391.69	*		-2.391E-02	4.870E-02	7.727E-02	5.510E-03	-0.309
IN-114M	190.27	*		2.277E-01	2.140E-01	3.207E-01	1.819E-02	0.710
CD-115	260.90			1.358E+02	1.818E+02	3.149E+02	1.983E+01	0.431
	492.35			-1.664E+01	5.068E+01	7.957E+01	5.182E+00	-0.209
	527.90	*		-4.301E+00	1.493E+01	2.337E+01	1.472E+00	-0.184
SN-117M	156.02			-8.828E-01	2.749E+00	3.840E+00	2.174E-01	-0.230
	158.56	*		6.136E-03	6.357E-02	9.722E-02	5.452E-03	0.063
SB-122	563.90	*		-8.838E-01	2.957E+00	4.611E+00	2.773E-01	-0.192
	692.80			-3.209E+01	6.025E+01	9.635E+01	5.304E+00	-0.333
I-123	159.00	*		-4.253E+00	6.025E+01	Half-Life too short		
	528.96			-1.054E+03	6.025E+01	Half-Life too short		
TE-123M	159.00	*		-5.817E-03	2.984E-02	4.731E-02	2.687E-03	-0.123
I-124	602.71	*		-3.538E-01	8.616E-01	1.324E+00	7.472E-02	-0.267
	722.78			1.509E+00	5.734E+00	8.510E+00	5.181E-01	0.177
	1325.50			2.056E+00	4.544E+01	7.573E+01	6.492E+00	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124	+	1376.25		9.142E+01	4.880E+01	8.096E+01	6.967E+00	1.129
		1509.49		3.061E+01	2.107E+01	4.051E+01	3.312E+00	0.756
		1691.02		-1.385E+00	3.914E+00	5.815E+00	4.182E-01	-0.238
		602.71		-1.757E-02	4.280E-02	6.578E-02	3.713E-03	-0.267
		645.85		-3.976E-01	4.841E-01	7.542E-01	4.500E-02	-0.527
		709.31		2.329E+00	2.792E+00	4.930E+00	2.871E-01	0.472
		713.82		-3.178E-01	1.694E+00	2.772E+00	2.848E-01	-0.115
		722.78		1.086E-01	4.129E-01	6.128E-01	3.890E-02	0.177
	+	968.20		1.911E+01	5.722E+00	8.248E+00	7.775E-01	2.317
		1045.16		6.033E-01	2.832E+00	4.665E+00	3.928E-01	0.129
SB-125		1325.50		1.581E-01	3.494E+00	5.824E+00	4.993E-01	0.027
		1368.21		5.463E-02	1.962E+00	3.109E+00	4.190E-01	0.018
		1436.60		5.659E-01	4.036E+00	6.778E+00	5.722E-01	0.083
		1691.02	*	-2.352E-02	6.648E-02	9.875E-02	7.503E-03	-0.238
		427.89	*	-1.766E-02	1.002E-01	1.612E-01	1.122E-02	-0.110
	+	463.38		1.173E+00	5.175E-01	6.318E-01	4.739E-02	1.857
		600.56		-3.185E-02	1.882E-01	3.128E-01	2.062E-02	-0.102
		635.90		2.793E-02	2.724E-01	4.596E-01	2.914E-02	0.061
	TE-125M	109.28	*	5.315E+00	1.041E+01	1.727E+01	1.659E+00	0.308
	I-126	388.63		1.944E-01	2.396E-01	4.095E-01	2.782E-02	0.475
SB-126		666.33	*	-3.914E-02	1.962E-01	3.228E-01	1.619E-02	-0.121
		753.82		9.112E-01	1.648E+00	2.843E+00	1.911E-01	0.321
		223.80		1.019E+00	4.287E+00	7.312E+00	4.378E-01	0.139
		278.60		1.924E+00	2.782E+00	4.722E+00	3.031E-01	0.408
		296.50		1.174E+01	2.537E+00	3.752E+00	2.448E-01	3.128
		414.70		-2.940E-02	8.312E-02	1.324E-01	8.968E-03	-0.222
		415.30		-1.241E-01	6.823E+00	1.111E+01	7.525E-01	-0.011
		555.20		-1.015E+00	4.291E+00	6.720E+00	4.091E-01	-0.151
		573.80		4.761E-01	1.146E+00	1.887E+00	1.118E-01	0.252
		593.00		2.650E-01	1.003E+00	1.718E+00	9.862E-02	0.154
SB-127		656.30		-2.485E+00	3.561E+00	5.627E+00	2.817E-01	-0.442
		666.33		-1.640E-02	8.220E-02	1.352E-01	6.782E-03	-0.121
		675.00		9.840E-01	2.095E+00	3.618E+00	1.872E-01	0.272
		695.00		3.350E-02	8.951E-02	1.528E-01	8.476E-03	0.219
		697.00		1.445E-01	3.136E-01	5.258E-01	2.937E-02	0.275
		720.50	*	6.361E-02	1.676E-01	2.523E-01	1.525E-02	0.252
		856.80		2.615E-01	6.082E-01	9.078E-01	8.239E-02	0.288
		989.30		1.476E+00	1.392E+00	2.481E+00	2.276E-01	0.595
		1034.80		5.597E-01	1.023E+01	1.657E+01	1.420E+00	0.034
		1213.00		-3.388E+00	5.950E+00	9.498E+00	6.426E-01	-0.357
SB-127		61.10		2.130E+01	1.109E+02	1.673E+02	2.391E+01	0.127
		252.40		1.450E-01	5.162E+00	8.676E+00	3.617E+00	0.017
		290.80		-3.012E+01	3.158E+01	4.307E+01	4.294E+00	-0.699
		411.60		-1.108E+00	1.560E+01	2.532E+01	3.806E+00	-0.044
		444.90		4.253E-01	1.175E+01	1.912E+01	2.219E+00	0.022
		473.00		3.161E-01	2.116E+00	3.456E+00	4.116E-01	0.091
		543.00		-5.004E+00	2.051E+01	3.215E+01	4.291E+00	-0.156
		603.60		-7.057E+00	1.636E+01	2.292E+01	2.520E+00	-0.308
		685.20	*	-6.864E-01	1.757E+00	2.841E+00	2.710E-01	-0.242

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		4.952E+00	1.943E+01	3.289E+01	4.816E+00	0.151
		722.20		7.376E+00	3.929E+01	5.786E+01	5.614E+00	0.127
		783.80		4.704E+00	4.445E+00	7.895E+00	9.380E-01	0.596
		57.60		6.166E+00	1.058E+01	1.799E+01	2.288E+00	0.343
		145.22		-3.207E-01	7.428E-01	1.171E+00	6.906E-02	-0.274
		172.10		-4.557E-02	1.283E-01	2.010E-01	1.107E-02	-0.227
I-131		202.84	*	4.767E-03	4.742E-02	8.081E-02	4.679E-03	0.059
		374.96		-3.639E-02	2.086E-01	3.386E-01	2.297E-02	-0.107
		80.18		6.106E+00	7.627E+00	9.422E+00	1.039E+00	0.648
		284.30		-1.503E+00	1.675E+00	2.660E+00	1.876E-01	-0.565
		364.48	*	5.100E-03	1.289E-01	2.123E-01	1.563E-02	0.024
TE-132		636.97		5.098E-01	1.685E+00	2.885E+00	1.737E-01	0.177
		722.89		2.991E+00	8.580E+00	1.285E+01	7.939E-01	0.233
		49.72		-1.024E+01	5.460E+01	9.088E+01	1.316E+01	-0.113
		111.76		5.253E+00	4.052E+01	6.626E+01	6.805E+00	0.079
		116.30		3.696E+01	3.553E+01	5.990E+01	5.971E+00	0.617
BA-133		228.16	*	3.207E-01	8.841E-01	1.512E+00	2.217E-01	0.212
		53.15		1.497E+00	7.269E+00	1.225E+01	1.623E+00	0.122
		79.62		4.857E-01	1.753E+00	2.400E+00	3.999E-01	0.202
		81.00		7.972E-02	1.480E-01	1.793E-01	3.098E-02	0.445
		276.40		1.684E-01	3.963E-01	6.646E-01	8.803E-02	0.253
I-133		302.84		3.571E-02	1.567E-01	2.328E-01	2.806E-02	0.153
		356.01	*	2.071E-02	4.690E-02	7.021E-02	8.471E-03	0.295
		383.85		3.179E-02	3.172E-01	5.227E-01	5.976E-02	0.061
	+	510.53		4.392E+00	3.172E-01	Half-Life	too short	
		529.87	*	5.632E-03	3.172E-01	Half-Life	too short	
CS-134		706.58		-6.023E-01	3.172E-01	Half-Life	too short	
		856.28		1.616E-01	3.172E-01	Half-Life	too short	
		875.33		-9.317E-02	3.172E-01	Half-Life	too short	
		1236.41		1.645E+00	3.172E-01	Half-Life	too short	
		1298.22		3.722E-01	3.172E-01	Half-Life	too short	
I-135		475.35		1.528E+00	1.973E+00	3.359E+00	2.215E-01	0.455
		563.23		-7.263E-02	3.892E-01	6.122E-01	3.757E-02	-0.119
		569.32		-3.977E-02	2.220E-01	3.443E-01	2.112E-02	-0.116
		604.70		-1.282E-02	3.812E-02	5.391E-02	3.048E-03	-0.238
		795.84	*	7.028E-02	5.496E-02	9.814E-02	7.565E-03	0.716
CS-135		801.93		-1.699E-01	4.414E-01	7.043E-01	5.515E-02	-0.241
		1038.57		-3.797E+00	4.386E+00	6.439E+00	5.484E-01	-0.590
		1167.94		2.093E-01	2.931E+00	4.937E+00	3.097E-01	0.042
		1365.15		7.125E-03	1.338E+00	2.215E+00	1.998E-01	0.003
		268.24	*	3.287E-01	1.903E-01	3.065E-01	2.477E-02	1.072
I-135		288.45		2.567E+11	1.903E-01	Half-Life	too short	
		417.63		5.262E+11	1.903E-01	Half-Life	too short	
		546.56		1.861E+10	1.903E-01	Half-Life	too short	
		836.80		3.202E+10	1.903E-01	Half-Life	too short	
		1038.76		-1.953E+11	1.903E-01	Half-Life	too short	
		1124.00		2.957E+10	1.903E-01	Half-Life	too short	
		1131.51		1.848E+10	1.903E-01	Half-Life	too short	
		1260.41	*	1.045E+10	1.903E-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
		1457.56		1.769E+13	1.903E-01	Half-Life	too short	
		1678.03		3.921E+10	1.903E-01	Half-Life	too short	
		1706.46		2.892E+11	1.903E-01	Half-Life	too short	
		1791.20		-1.370E+11	1.903E-01	Half-Life	too short	
CS-136		66.91		2.937E-01	1.191E+00	1.792E+00	3.069E-01	0.164
	+	86.29		6.229E+00	2.217E+00	2.426E+00	3.574E-01	2.568
	+	153.22		1.128E+00	1.088E+00	1.213E+00	8.685E-02	0.930
		163.89		1.026E+00	1.187E+00	1.965E+00	1.378E-01	0.522
		176.55		-4.652E-02	4.152E-01	6.571E-01	4.135E-02	-0.071
		273.65		-6.987E-01	5.648E-01	7.598E-01	5.421E-02	-0.920
		340.57		2.027E-01	1.547E-01	2.440E-01	1.716E-02	0.831
		818.51		-8.045E-03	8.020E-02	1.307E-01	1.068E-02	-0.062
		1048.07	*	5.189E-02	1.303E-01	2.181E-01	1.909E-02	0.238
		1235.34		2.634E-01	8.056E-01	1.371E+00	1.481E-01	0.192
BA-137M		661.65	*	1.157E-02	3.763E-02	6.419E-02	3.167E-03	0.180
CS-137		661.65	*	1.223E-02	3.978E-02	6.786E-02	3.368E-03	0.180
CE-139		165.85	*	-3.546E-02	3.177E-02	4.800E-02	2.622E-03	-0.739
BA-140		162.64		1.044E+00	8.300E-01	1.396E+00	8.764E-02	0.748
		304.84		-3.041E-02	1.475E+00	2.150E+00	5.906E-01	-0.014
		423.70		3.674E+00	2.374E+00	3.738E+00	1.195E+00	0.983
		537.32	*	3.634E-01	3.133E-01	5.080E-01	1.656E-01	0.715
LA-140	+	328.77		6.467E-01	4.497E-01	6.037E-01	4.398E-02	1.071
		432.53		-1.061E+00	2.353E+00	3.708E+00	2.696E-01	-0.286
		487.03		3.301E-02	1.457E-01	2.390E-01	1.728E-02	0.138
		751.79		-5.827E-01	1.982E+00	3.205E+00	2.511E-01	-0.182
		815.85		-1.339E-01	3.500E-01	5.554E-01	5.080E-02	-0.241
		867.82		1.344E+00	1.823E+00	3.002E+00	2.934E-01	0.448
		919.63		2.580E+00	3.204E+00	5.344E+00	6.271E-01	0.483
		925.24		-5.624E-01	1.257E+00	1.956E+00	2.025E-01	-0.288
		1596.49	*	-1.744E-02	1.106E-01	1.768E-01	1.372E-02	-0.099
CE-141		145.44	*	-6.337E-02	6.843E-02	1.054E-01	6.451E-03	-0.601
CE-143		57.37		2.531E-03	6.843E-02	Half-Life	too short	
		231.56		-3.579E-03	6.843E-02	Half-Life	too short	
		293.26	*	1.475E-03	6.843E-02	Half-Life	too short	
	+	350.59		6.003E-02	6.843E-02	Half-Life	too short	
		490.36		-2.188E-03	6.843E-02	Half-Life	too short	
		664.57		-2.854E-04	6.843E-02	Half-Life	too short	
		721.93		-2.772E-04	6.843E-02	Half-Life	too short	
CE-144		80.11		2.254E+00	3.241E+00	3.977E+00	4.364E-01	0.567
		133.54	*	-2.608E-02	2.352E-01	3.594E-01	5.163E-02	-0.073
PM-144		476.78		9.533E-03	6.965E-02	1.136E-01	8.651E-03	0.084
		618.01		6.362E-03	3.155E-02	5.370E-02	3.138E-03	0.118
		696.49	*	2.245E-02	3.813E-02	6.447E-02	3.598E-03	0.348
		778.57		4.955E-01	2.364E+00	3.970E+00	2.882E-01	0.125
PR-144		696.49	*	1.522E+00	2.585E+00	4.371E+00	2.437E-01	0.348
		1489.15		2.075E-02	1.079E+01	1.773E+01	1.464E+00	0.001
PM-146		453.90	*	2.554E-02	4.770E-02	7.990E-02	7.380E-03	0.320
		633.02		-7.736E-01	1.430E+00	2.250E+00	8.268E-01	-0.344
		735.90		-3.234E-02	1.586E-01	2.510E-01	7.030E-02	-0.129

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13		3.877E-02	9.559E-02	1.632E-01	2.103E-02	0.238
		91.11		9.976E-01	4.428E-01	5.830E-01	6.500E-02	1.711
		319.41		-1.911E+00	3.525E+00	5.656E+00	3.754E-01	-0.338
		439.89		-5.992E-01	6.519E+00	1.052E+01	7.075E-01	-0.057
		531.02	*	1.120E+00	5.960E-01	1.066E+00	1.464E-01	1.051
PM-149		285.90	*	-3.835E+01	1.310E+02	2.149E+02	3.109E+01	-0.178
EU-152		121.78		-1.605E-02	7.664E-02	1.231E-01	1.014E-02	-0.130
		244.69		1.180E-01	3.573E-01	5.408E-01	3.337E-02	0.218
		344.27	*	-7.282E-02	9.946E-02	1.568E-01	1.155E-02	-0.464
		443.98		2.062E-01	9.398E-01	1.549E+00	1.040E-01	0.133
		778.89		1.368E-02	2.725E-01	4.518E-01	3.281E-02	0.030
	+	867.32		8.765E-01	1.058E+00	1.702E+00	1.589E-01	0.515
		964.01		5.522E-01	3.720E-01	6.141E-01	5.818E-02	0.899
		1085.78		-3.868E-01	4.943E-01	7.313E-01	5.693E-02	-0.529
		1112.02		3.554E-01	3.945E-01	6.330E-01	4.643E-02	0.562
		1407.95		3.658E-01	2.202E-01	4.233E-01	3.609E-02	0.864
GD-153		69.67		-1.318E+00	2.332E+00	3.363E+00	3.751E-01	-0.392
		83.37		6.559E+00	1.925E+01	2.858E+01	3.168E+00	0.229
		97.43	*	-5.459E-02	8.846E-02	1.397E-01	1.301E-02	-0.391
EU-154		103.18		-6.085E-03	1.111E-01	1.809E-01	1.529E-02	-0.034
		123.07		4.404E-02	5.487E-02	9.158E-02	9.050E-03	0.481
		247.94		1.911E-02	3.730E-01	6.078E-01	5.948E-02	0.031
		591.81		-1.253E-01	6.281E-01	1.042E+00	1.016E-01	-0.120
		723.30		1.012E-01	2.038E-01	3.091E-01	2.265E-02	0.327
		756.87		6.307E-02	8.468E-01	1.409E+00	1.512E-01	0.045
		873.19		-1.552E-01	3.472E-01	5.455E-01	7.020E-02	-0.285
		996.32		-5.135E-01	4.259E-01	5.911E-01	1.064E-01	-0.869
		1004.76		-1.888E-01	2.675E-01	4.050E-01	4.823E-02	-0.466
		1274.45	*	-4.275E-02	1.509E-01	2.447E-01	2.607E-02	-0.175
EU-155		48.70		-2.945E+00	5.897E+00	9.693E+00	1.164E+00	-0.304
		60.01		-4.289E+00	8.297E+00	1.205E+01	1.484E+00	-0.356
		86.54		5.451E-01	1.870E-01	2.129E-01	2.410E-02	2.560
	+	105.31	*	9.043E-02	1.207E-01	2.022E-01	1.677E-02	0.447
		86.79		1.470E+00	5.040E-01	5.742E-01	6.469E-02	2.560
		197.04		-9.684E-02	5.769E-01	9.047E-01	5.188E-02	-0.107
TB-160	+	215.65		4.197E-01	8.600E-01	1.320E+00	7.803E-02	0.318
		298.57		3.204E-01	1.748E-01	2.195E-01	1.435E-02	1.459
		879.36	*	-6.614E-02	1.554E-01	2.441E-01	2.354E-02	-0.271
		962.29		5.993E-01	6.904E-01	1.079E+00	1.024E-01	0.556
		966.15		1.430E+00	4.475E-01	6.213E-01	5.872E-02	2.302
		1177.93		-4.262E-01	4.318E-01	6.636E-01	4.139E-02	-0.642
		1271.85		-6.173E-01	8.625E-01	1.339E+00	1.030E-01	-0.461
		80.57		6.173E-01	3.909E-01	5.064E-01	5.563E-02	1.219
		184.41		1.696E-01	6.454E-02	7.221E-02	4.056E-03	2.349
		280.46		-3.462E-02	8.864E-02	1.451E-01	9.331E-03	-0.239
HO-166M	+	410.95		2.304E-01	2.571E-01	4.413E-01	2.992E-02	0.522
		711.68	*	3.501E-02	6.202E-02	1.074E-01	6.304E-03	0.326
		752.31		-9.059E-02	3.053E-01	4.938E-01	3.304E-02	-0.183
		810.29		-1.234E-02	6.058E-02	9.790E-02	7.800E-03	-0.126

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-2.797E+01	6.590E+01	1.085E+02	1.426E+01	-0.258
		52.39		4.299E+00	3.234E+01	5.442E+01	7.207E+00	0.079
		59.40		-1.934E+01	4.673E+01	6.834E+01	8.490E+00	-0.283
		66.72	*	4.026E+01	4.022E+01	6.241E+01	7.109E+00	0.645
LU-176	+	88.36		5.814E-01	2.542E-01	4.063E-01	4.570E-02	1.431
		201.83		-2.316E-02	2.868E-02	4.711E-02	2.723E-03	-0.492
		306.84	*	-5.726E-03	2.449E-02	4.013E-02	2.640E-03	-0.143
		401.10		1.674E+00	6.879E+00	1.141E+01	7.747E-01	0.147
LU-177		112.95		-5.749E-01	1.967E+00	3.161E+00	2.327E-01	-0.182
	+	208.36	*	5.292E+00	2.341E+00	2.381E+00	1.391E-01	2.223
LU-177M		52.97		9.008E-01	3.304E+00	5.583E+00	7.396E-01	0.161
		54.07		1.779E-01	1.687E+00	2.832E+00	3.736E-01	0.063
		61.30		7.917E-01	2.396E+00	3.635E+00	4.398E-01	0.218
		121.62		-1.211E-01	3.961E-01	6.333E-01	4.190E-02	-0.191
		147.16		9.322E-02	6.783E-01	1.096E+00	6.413E-02	0.085
		171.86		-1.222E-01	5.055E-01	7.961E-01	4.383E-02	-0.154
		218.09		4.039E-01	8.666E-01	1.492E+00	8.857E-02	0.271
	+	268.79		2.846E+00	1.160E+00	1.643E+00	1.044E-01	1.732
		319.02		-2.249E-01	2.592E-01	4.073E-01	2.701E-02	-0.552
		367.43		-2.218E-01	9.257E-01	1.498E+00	1.014E-01	-0.148
		413.65	*	-1.051E-01	1.856E-01	2.914E-01	1.975E-02	-0.361
HF-181		56.28		3.154E-01	1.749E+00	2.940E+00	3.798E-01	0.107
		57.53		6.617E-01	8.885E-01	1.517E+00	1.930E-01	0.436
		65.20		-5.968E-01	1.463E+00	2.135E+00	2.467E-01	-0.280
		133.02		-2.106E-02	8.115E-02	1.150E-01	7.143E-03	-0.183
		136.25		5.991E-01	4.937E-01	8.339E-01	5.103E-02	0.718
		345.85		-3.429E-02	2.140E-01	3.230E-01	2.173E-02	-0.106
		482.03	*	1.375E-02	4.153E-02	6.875E-02	4.513E-03	0.200
W-181		56.28		1.220E-01	6.770E-01	1.138E+00	1.470E-01	0.107
		57.53		2.568E-01	3.444E-01	5.879E-01	7.481E-02	0.437
		65.20	*	-2.294E-01	5.625E-01	8.208E-01	9.484E-02	-0.280
TA-182		67.75		-7.660E-02	1.512E-01	2.341E-01	2.644E-02	-0.327
		100.10		2.712E-01	1.931E-01	3.307E-01	2.938E-02	0.820
	+	152.43		5.518E-01	5.317E-01	5.893E-01	3.381E-02	0.936
		222.10		6.445E-02	3.496E-01	5.951E-01	3.554E-02	0.108
		1001.68		2.379E+00	2.556E+00	4.398E+00	3.967E-01	0.541
		1121.28		5.484E-01	2.282E-01	3.842E-01	2.754E-02	1.427
		1189.05		-1.326E-04	3.429E-01	5.736E-01	3.672E-02	0.000
		1221.42	*	-4.150E-02	2.366E-01	3.898E-01	2.688E-02	-0.106
		1230.97		-1.706E-01	5.733E-01	9.351E-01	6.587E-02	-0.182
RE-183		57.98		6.937E-02	3.534E-01	5.676E-01	7.181E-02	0.122
		59.32		-7.549E-02	1.945E-01	2.850E-01	3.544E-02	-0.265
		67.20		4.794E-03	2.896E-01	4.313E-01	4.893E-02	0.011
		162.32	*	1.088E-01	1.176E-01	1.953E-01	1.080E-02	0.557
	+	208.81		4.326E+00	1.913E+00	1.978E+00	1.157E-01	2.187
		291.72		-7.954E-01	1.144E+00	1.596E+00	1.037E-01	-0.498
RE-184		57.98		2.541E-01	1.295E+00	2.079E+00	2.631E-01	0.122
		59.32		-2.763E-01	7.120E-01	1.043E+00	1.297E-01	-0.265
		67.20		1.756E-02	1.060E+00	1.579E+00	1.792E-01	0.011

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key	Act error (pCi/GRAM)	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		-7.310E-02	3.808E-01	6.035E-01	-0.121
		216.55		1.232E-01	2.881E-01	4.627E-01	0.266
		252.85	*	-8.352E-02	2.330E-01	3.843E-01	-0.217
		318.01		-5.449E-01	4.625E-01	7.131E-01	-0.764
		792.07		8.412E-01	1.101E+00	1.916E+00	0.439
		903.28		-7.517E-01	1.319E+00	1.827E+00	-0.411
		920.93		9.071E-02	4.675E-01	7.766E-01	0.117
		59.72		-1.937E-01	5.039E-01	7.378E-01	-0.263
		61.14		5.716E-02	2.646E-01	3.994E-01	0.143
		69.30		-1.268E-02	4.123E-01	6.118E-01	-0.021
		592.07		-7.205E-01	2.567E+00	4.233E+00	-0.170
		646.12	*	-3.653E-02	4.078E-02	6.306E-02	-0.579
		717.42		-2.582E-01	8.754E-01	1.418E+00	-0.182
		874.81		-3.059E-01	6.572E-01	1.030E+00	-0.297
RE-188		880.27		-2.786E-01	8.653E-01	1.374E+00	-0.203
		155.03	*	5.156E-02	1.993E-01	2.885E-01	0.179
		477.96		1.186E-01	3.072E+00	4.976E+00	0.024
		633.10		-1.652E+00	2.856E+00	4.573E+00	-0.361
W-188	+	63.58		1.764E+02	1.202E+02	1.345E+02	1.311
		227.08		-1.637E+00	1.327E+01	2.229E+01	-0.073
IR-192		290.67	*	-7.513E+00	9.092E+00	1.255E+01	-0.598
	+	295.96		1.144E+00	2.052E-01	3.030E-01	3.776
		308.46		3.360E-03	9.761E-02	1.623E-01	0.021
		316.51	*	1.476E-02	3.461E-02	5.869E-02	0.252
AU-195		468.07		-5.410E-02	7.621E-02	9.931E-02	-0.545
		604.41		-1.265E-01	5.230E-01	7.469E-01	-0.169
		612.46		3.697E-01	7.463E-01	1.146E+00	0.323
		65.12		-9.453E-02	2.609E-01	3.816E-01	-0.248
		66.83		3.880E-02	1.365E-01	2.058E-01	0.189
	+	75.70		1.536E+00	3.576E-01	5.865E-01	2.619
		98.88	*	1.656E-01	2.515E-01	4.172E-01	0.397
TL-200	+	129.76		5.816E+00	3.950E+00	5.172E+00	1.124
		367.94	*	3.578E-04	3.950E+00	Half-Life too short	
		579.30		6.750E-03	3.950E+00	Half-Life too short	
		828.27		-6.130E-03	3.950E+00	Half-Life too short	
TL-201		1205.75		-2.210E-03	3.950E+00	Half-Life too short	
		68.90		2.150E+00	8.360E+00	1.258E+01	0.171
		70.82		2.668E+00	4.647E+00	7.071E+00	0.377
		80.30		1.450E+01	9.140E+00	1.185E+01	1.224
TL-202		135.34		3.733E+01	3.485E+01	5.851E+01	0.638
		167.43	*	-1.159E+00	8.949E+00	1.419E+01	-0.082
		68.90		1.625E-01	6.317E-01	9.504E-01	0.171
		70.82		2.010E-01	3.501E-01	5.329E-01	0.377
HG-203		80.30		1.093E+00	6.890E-01	8.930E-01	1.224
		439.56	*	-1.634E-02	7.741E-02	1.239E-01	-0.132
		70.83		8.443E-01	1.457E+00	2.214E+00	0.381
		72.87		2.239E+00	8.646E-01	1.434E+00	1.561
		82.60		2.623E-01	1.438E+00	2.122E+00	0.124
		279.20	*	-1.716E-03	4.309E-02	7.180E-02	-0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		5.622E-01	2.364E-01	4.067E-01	4.473E-02	1.382
	+	74.97		8.488E-01	1.976E-01	2.924E-01	3.200E-02	2.903
		84.90		3.478E-01	2.216E-01	3.735E-01	4.167E-02	0.931
		569.67		-7.798E-03	3.449E-02	5.328E-02	3.177E-03	-0.146
		1063.62	*	-1.667E-02	6.190E-02	9.722E-02	7.914E-03	-0.171
TL-207		1770.23		3.340E-02	5.442E-01	7.670E-01	5.089E-02	0.044
		81.07		1.624E-01	3.251E-01	3.937E-01	4.330E-02	0.413
		83.78		1.546E-01	1.453E-01	2.431E-01	2.699E-02	0.636
		94.90		3.033E-01	2.697E-01	4.148E-01	4.051E-02	0.731
		122.32		8.263E-01	1.809E+00	2.987E+00	2.204E-01	0.277
		144.24		5.820E-01	7.319E-01	1.192E+00	8.737E-02	0.488
	+	154.21		6.430E-01	6.201E-01	6.789E-01	4.705E-02	0.947
	+	269.46		6.634E-01	2.706E-01	3.906E-01	2.577E-02	1.698
		323.87	*	8.353E-02	7.753E-01	1.136E+00	1.912E-01	0.074
	+	338.28		7.397E+00	1.774E+00	2.624E+00	2.901E-01	2.819
		445.03		4.176E-02	2.276E+00	3.698E+00	3.997E-01	0.011
		260.50		7.200E+00	9.880E+00	1.709E+01	1.076E+00	0.421
PO-209		262.80		-4.203E+00	2.721E+01	4.523E+01	2.854E+00	-0.093
		896.60	*	-2.889E+00	9.001E+00	1.431E+01	1.443E+00	-0.202
BI-210		46.50	*	2.118E+00	9.434E+00	1.598E+01	1.568E+00	0.133
PB-210		46.50	*	2.118E+00	9.434E+00	1.598E+01	1.568E+00	0.133
PO-210		46.50	*	2.118E+00	9.434E+00	1.598E+01	1.435E+00	0.133
PB-211		404.84	*	-7.075E-01	1.087E+00	1.549E+00	9.671E-01	-0.457
		427.08		-1.248E+00	2.338E+00	3.456E+00	2.139E+00	-0.361
BI-212		831.96		2.801E-01	1.416E+00	2.343E+00	1.468E+00	0.120
	+	727.18	*	1.178E+00	5.914E-01	7.202E-01	5.761E-02	1.635
		785.46		1.419E+00	1.779E+00	3.120E+00	2.311E-01	0.455
PO-215		1620.62		-3.715E-01	1.279E+00	1.979E+00	1.509E-01	-0.188
		81.07		1.624E-01	3.251E-01	3.937E-01	4.330E-02	0.413
		83.78		1.546E-01	1.453E-01	2.431E-01	2.699E-02	0.636
		94.90		3.033E-01	2.697E-01	4.148E-01	4.051E-02	0.731
		122.32		8.263E-01	1.809E+00	2.987E+00	2.204E-01	0.277
		144.24		5.820E-01	7.319E-01	1.192E+00	8.737E-02	0.488
	+	154.21		6.430E-01	6.201E-01	6.789E-01	4.705E-02	0.947
	+	269.46		6.634E-01	2.706E-01	3.906E-01	2.577E-02	1.698
		323.87	*	8.353E-02	7.753E-01	1.136E+00	1.912E-01	0.074
	+	338.28		7.397E+00	1.774E+00	2.624E+00	2.901E-01	2.819
RN-219		445.03		4.176E-02	2.276E+00	3.698E+00	3.997E-01	0.011
	+	271.23		8.511E-01	3.502E-01	4.759E-01	4.055E-02	1.789
		401.81	*	1.370E-01	4.214E-01	7.018E-01	9.865E-02	0.195
RN-220		549.76	*	-3.960E+00	2.589E+01	4.086E+01	2.506E+00	-0.097
RA-223		81.07		1.624E-01	3.251E-01	3.937E-01	4.330E-02	0.413
		83.78		1.546E-01	1.453E-01	2.431E-01	2.699E-02	0.636
		94.90		3.033E-01	2.697E-01	4.148E-01	4.051E-02	0.731
		122.32		8.263E-01	1.809E+00	2.987E+00	2.204E-01	0.277
		144.24		5.820E-01	7.319E-01	1.192E+00	8.737E-02	0.488
	+	154.21		6.430E-01	6.201E-01	6.789E-01	4.705E-02	0.947
	+	269.46		6.634E-01	2.706E-01	3.906E-01	2.577E-02	1.698
		323.87	*	8.353E-02	7.753E-01	1.136E+00	1.912E-01	0.074

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28		7.397E+00	1.774E+00	2.624E+00	2.901E-01	2.819
		445.03		4.176E-02	2.276E+00	3.698E+00	3.997E-01	0.011
		79.80		1.479E+00	2.519E+00	3.051E+00	6.878E-01	0.485
		236.00		1.063E+00	3.070E-01	4.986E-01	5.295E-02	2.132
		256.20	*	-1.158E-01	3.793E-01	6.263E-01	8.867E-02	-0.185
		286.10		1.949E-01	1.585E+00	2.657E+00	3.164E-01	0.073
TH-227	+	299.80		4.041E+00	2.288E+00	2.826E+00	4.682E-01	1.430
		304.40		-6.927E-02	2.042E+00	2.974E+00	5.226E-01	-0.023
		334.20		-1.840E+00	2.747E+00	3.751E+00	6.989E-01	-0.491
		79.80		1.479E+00	2.519E+00	3.051E+00	6.958E-01	0.485
	+	94.00		7.186E+00	3.489E+00	3.912E+00	8.736E-01	1.837
		236.00		1.063E+00	3.020E-01	4.986E-01	4.612E-02	2.132
TH-229		256.20	*	-1.158E-01	3.795E-01	6.263E-01	1.069E-01	-0.185
		286.10		1.949E-01	1.596E+00	2.657E+00	2.663E+00	0.073
	+	299.80		4.041E+00	2.288E+00	2.826E+00	4.682E-01	1.430
		304.40		-6.927E-02	2.042E+00	2.974E+00	5.226E-01	-0.023
		334.20		-1.840E+00	2.747E+00	3.751E+00	6.989E-01	-0.491
	+	85.43		1.015E+00	3.479E-01	3.793E-01	4.243E-02	2.674
PA-231	+	88.47		3.347E-01	1.463E-01	2.320E-01	2.603E-02	1.443
		100.00		2.733E-01	1.990E-01	3.404E-01	3.031E-02	0.803
		193.63	*	-3.439E-01	5.254E-01	8.039E-01	4.584E-02	-0.428
		210.97		9.366E-01	7.875E-01	1.389E+00	8.148E-02	0.675
		283.67	*	-1.385E-01	1.555E+00	2.582E+00	3.632E-01	-0.054
	+	301.29		1.616E+00	8.929E-01	1.119E+00	1.218E-01	1.444
TH-231		81.07		1.624E-01	3.251E-01	3.937E-01	4.330E-02	0.413
		83.78		1.546E-01	1.453E-01	2.431E-01	2.699E-02	0.636
		94.90		3.033E-01	2.697E-01	4.148E-01	4.051E-02	0.731
		122.32		8.263E-01	1.809E+00	2.987E+00	2.204E-01	0.277
		144.24		5.820E-01	7.319E-01	1.192E+00	8.737E-02	0.488
	+	154.21		6.430E-01	6.201E-01	6.789E-01	4.705E-02	0.947
U-231	+	269.46		6.634E-01	2.706E-01	3.906E-01	2.577E-02	1.698
		323.87	*	8.353E-02	7.753E-01	1.136E+00	1.912E-01	0.074
	+	338.28		7.397E+00	1.774E+00	2.624E+00	2.901E-01	2.819
		445.03		4.176E-02	2.276E+00	3.698E+00	3.997E-01	0.011
		84.21		9.212E+00	7.407E+00	1.243E+01	1.383E+00	0.741
	+	92.29		8.395E+00	3.714E+00	5.194E+00	5.347E-01	1.616
PA-233		95.87	*	-6.429E-01	1.546E+00	2.212E+00	2.120E-01	-0.291
		108.00		-1.118E+00	2.773E+00	4.447E+00	3.500E-01	-0.252
	+	75.28		2.477E+01	6.568E+00	8.920E+00	1.495E+00	2.777
	+	86.59		8.857E+00	3.779E+00	3.462E+00	9.617E-01	2.558
	+	300.12		1.126E+00	6.295E-01	7.965E-01	1.097E-01	1.414
		311.98	*	-1.948E-02	6.628E-02	1.082E-01	7.486E-03	-0.180
PA-234		340.50		1.062E+00	7.556E-01	1.142E+00	2.652E-01	0.930
		398.62		-8.821E-01	2.122E+00	3.352E+00	8.748E-01	-0.263
		415.76		-3.651E-01	1.723E+00	2.767E+00	5.778E-01	-0.132
	+	63.00		5.064E+00	3.513E+00	4.007E+00	7.012E-01	1.264
		94.67		2.751E-01	1.995E-01	3.069E-01	4.068E-02	0.896
		98.44		1.069E-02	1.032E-01	1.676E-01	9.365E-02	0.064
		99.86		6.700E-01	5.029E-01	8.596E-01	7.671E-02	0.779

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-3.065E-02	2.054E-01	3.323E-01	3.772E-02	-0.092
		131.20		-8.423E-02	1.240E-01	1.713E-01	1.073E-02	-0.492
	+	152.70		5.277E-01	5.143E-01	5.651E-01	8.919E-02	0.934
	+	186.00		6.106E+00	2.959E+00	2.681E+00	8.184E-01	2.277
		226.40		-2.964E-01	4.150E-01	6.774E-01	7.903E-02	-0.438
		227.20		-2.375E-02	4.437E-01	7.472E-01	4.497E-02	-0.032
		248.90		-9.445E-03	8.227E-01	1.381E+00	2.983E-01	-0.007
	+	293.70		7.133E+00	1.666E+00	1.879E+00	3.073E-01	3.796
		369.80		-2.405E-01	8.577E-01	1.381E+00	2.916E-01	-0.174
		568.70		3.426E-01	1.113E+00	1.791E+00	1.069E-01	0.191
		569.50		-6.229E-02	3.065E-01	4.743E-01	2.829E-02	-0.131
		574.00		6.009E-01	1.551E+00	2.549E+00	1.510E-01	0.236
		699.00		-1.210E-01	7.661E-01	1.260E+00	2.258E-01	-0.096
		706.10		-5.660E-01	1.077E+00	1.667E+00	7.358E-01	-0.339
		733.00		3.123E-01	4.247E-01	6.560E-01	1.404E-01	0.476
		742.81		-1.264E-02	1.397E+00	2.313E+00	1.550E+00	-0.005
		796.30		7.935E-01	1.086E+00	1.847E+00	4.943E-01	0.430
		805.60		5.840E-01	1.037E+00	1.764E+00	5.371E-01	0.331
		819.60		-3.409E-01	1.263E+00	2.014E+00	7.640E-01	-0.169
		826.30		-2.526E-01	9.005E-01	1.433E+00	6.403E-01	-0.176
		831.60		-1.685E-01	7.350E-01	1.183E+00	3.526E-01	-0.142
		876.40		-1.612E-01	9.263E-01	1.468E+00	1.510E+00	-0.110
		880.51		-9.995E-02	3.105E-01	4.930E-01	4.768E-02	-0.203
		883.24		7.757E-02	3.203E-01	5.281E-01	3.558E-01	0.147
		899.00		3.107E-01	9.889E-01	1.642E+00	7.232E-01	0.189
		925.00		-1.076E+00	1.270E+00	1.889E+00	1.867E-01	-0.570
		926.50		-9.691E-02	1.925E-01	2.958E-01	7.611E-02	-0.328
		946.00	*	8.658E-02	3.601E-01	5.973E-01	1.151E-01	0.145
		949.00		3.443E-01	5.384E-01	9.206E-01	8.872E-02	0.374
		980.50		-7.698E-02	7.621E-01	1.224E+00	1.136E-01	-0.063
PA-234M		1394.10		-2.542E-01	1.119E+00	1.765E+00	1.149E+00	-0.144
		766.42		1.761E+01	1.559E+01	2.293E+01	1.158E+01	0.768
		1001.03	*	6.472E+00	5.714E+00	9.954E+00	1.027E+00	0.650
U-235	+	89.95		3.359E+00	1.774E+00	2.088E+00	6.587E-01	1.609
	+	93.35		2.236E+00	1.155E+00	1.335E+00	3.804E-01	1.675
		105.00		9.869E-01	1.210E+00	1.976E+00	5.876E-01	0.499
		143.76	*	1.419E-01	2.264E-01	3.651E-01	5.969E-02	0.389
		163.35		2.852E-01	5.030E-01	8.195E-01	1.466E-01	0.348
	+	185.71		2.261E-01	8.605E-02	9.965E-02	5.609E-03	2.269
		205.31		1.979E-01	5.821E-01	8.826E-01	1.588E-01	0.224
NP-236		94.67		2.106E-01	1.503E-01	2.330E-01	2.286E-02	0.904
		98.44		8.046E-03	7.787E-02	1.267E-01	1.159E-02	0.064
		111.00		-2.318E-02	1.554E-01	2.513E-01	1.898E-02	-0.092
		160.31	*	-7.947E-02	8.584E-02	1.314E-01	7.321E-03	-0.605
NP-239		99.55		1.349E-01	1.702E-01	2.863E-01	2.568E-02	0.471
		117.00	*	-5.317E-03	1.964E-01	3.185E-01	2.228E-02	-0.017
	+	209.75		3.379E+00	1.494E+00	1.566E+00	9.171E-02	2.157
		228.18		8.383E-02	2.325E-01	3.980E-01	2.399E-02	0.211
		277.60		1.981E-01	1.909E-01	3.285E-01	2.107E-02	0.603

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.087E+00	1.544E+00	2.117E+00	1.417E-01	-0.513
AM-241		59.54	*	-1.238E-01	2.697E-01	3.933E-01	5.050E-02	-0.315
CM-243		99.55		1.388E-01	1.752E-01	2.946E-01	2.643E-02	0.471
		103.76	*	5.738E-02	1.069E-01	1.780E-01	1.491E-02	0.322
		117.00		-5.471E-03	2.021E-01	3.277E-01	2.292E-02	-0.017
	+	209.75		3.331E+00	1.473E+00	1.544E+00	9.042E-02	2.157
		228.18		8.471E-02	2.350E-01	4.022E-01	2.424E-02	0.211
		277.60		1.997E-01	1.925E-01	3.312E-01	2.124E-02	0.603
AM-246		798.80		-1.896E-01	1.660E-01	2.486E-01	1.915E-02	-0.763
		1036.00		-1.540E-02	3.235E-01	5.184E-01	4.434E-02	-0.030
		1062.04		-2.216E-01	2.671E-01	3.943E-01	3.220E-02	-0.562
		1078.86	*	9.135E-02	1.757E-01	2.957E-01	2.336E-02	0.309
CM-247		278.00		7.521E-01	7.990E-01	1.370E+00	8.786E-02	0.549
		287.40		3.537E-01	1.283E+00	2.167E+00	1.403E-01	0.163
		402.60	*	-4.721E-04	3.818E-02	6.230E-02	4.230E-03	-0.008
CF-249		252.85		-3.121E-01	8.707E-01	1.436E+00	8.953E-02	-0.217
		333.44		-1.723E-02	2.150E-01	2.886E-01	1.930E-02	-0.060
		387.95	*	3.616E-02	4.476E-02	7.646E-02	5.195E-03	0.473
CF-251		176.60	*	-2.046E-02	1.363E-01	2.153E-01	1.194E-02	-0.095
		227.00		-1.239E-01	3.965E-01	6.605E-01	3.974E-02	-0.188
		285.00		-1.960E+00	1.795E+00	2.818E+00	1.820E-01	-0.696

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 Savage Road      *
*               Charleston, SC 29414  *
*                                     *
*****
*
*               DETECTOR DATA
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246325001
* Acquisition date   : 18-FEB-2010 15:14:44 Detector SN#      :
* Detector ID        : GAM10          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 02:00:01.18 Half life ratio         : 8.000
*****
*
*               SAMPLE DATA
*
* Sample date        : 2-FEB-2010 12:00:00 Nuclide Library    : SOLID
* Sample ID          : G246325001    Analyst initials      : MXR1
* Batch Number       : 950787        Sample Quantity       : 1.2548E+02 GRAM
* Recovery           : 1.00000       Carrier Weight         : 0.00000
*****
*
*               QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 16-MAR-2009 13:18:08 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	3.952E+01	3.909E+00	5.509E-01	0.000E+00
CD-109	4.610E+00	1.549E+00	1.455E+00	0.000E+00
SN-126	4.524E-01	1.520E-01	1.439E-01	0.000E+00
TL-208	5.850E-01	9.877E-02	5.520E-02	0.000E+00
BI-211	4.532E+00	5.666E-01	3.271E-01	0.000E+00
PB-212	1.946E+00	1.868E-01	9.570E-02	0.000E+00
PO-212	1.946E+00	1.868E-01	9.570E-02	0.000E+00
BI-214	1.288E+00	1.688E-01	1.144E-01	0.000E+00
PB-214	1.577E+00	2.130E-01	1.140E-01	0.000E+00
PO-214	1.577E+00	2.130E-01	1.140E-01	0.000E+00
PO-216	1.946E+00	1.868E-01	9.570E-02	0.000E+00
PO-218	1.577E+00	2.130E-01	1.140E-01	0.000E+00
RA-224	4.814E+00	1.150E+00	1.089E+00	0.000E+00
RA-226	1.288E+00	1.688E-01	1.144E-01	0.000E+00
AC-228	1.783E+00	4.064E-01	2.206E-01	0.000E+00
RA-228	1.783E+00	4.064E-01	2.206E-01	0.000E+00
TH-228	1.977E+00	1.898E-01	9.725E-02	0.000E+00
TH-230	1.288E+00	1.688E-01	1.144E-01	0.000E+00
TH-232	1.783E+00	4.064E-01	2.206E-01	0.000E+00
TH-234	4.345E+00	2.979E+00	3.025E+00	0.000E+00
U-234	1.288E+00	1.688E-01	1.144E-01	0.000E+00
NP-237	1.329E+00	5.211E-01	4.300E-01	0.000E+00
U-238	4.345E+00	2.979E+00	3.025E+00	0.000E+00
AM-243	4.728E-01	1.079E-01	1.113E-01	0.000E+00
ANH-511	1.912E-01	7.899E-02	4.448E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	9.466E-02	3.191E-01	5.455E-01	0.000E+00 NOT IDENT.
NA-22	2.959E-03	5.134E-02	8.770E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	2.479E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-9.098E-03	2.820E-02	4.278E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.168E-02	8.625E-02	0.000E+00	NOT IDENT.
SC-46	1.159E-02	4.525E-02	7.755E-02	0.000E+00	FAIL ABUN
V-48	8.156E-03	7.639E-02	1.284E-01	0.000E+00	NOT IDENT.
CR-51	-1.457E-01	3.735E-01	6.306E-01	0.000E+00	NOT IDENT.
MN-52	1.243E-01	2.839E-01	5.038E-01	0.000E+00	NOT IDENT.
MN-54	5.174E-03	4.255E-02	7.248E-02	0.000E+00	NOT IDENT.
CO-56	-9.357E-03	3.969E-02	6.548E-02	0.000E+00	NOT IDENT.
CO-57	-1.009E-02	2.619E-02	4.407E-02	0.000E+00	NOT IDENT.
CO-58	-3.482E-03	3.868E-02	6.495E-02	0.000E+00	NOT IDENT.
FE-59	-8.273E-03	1.146E-01	1.875E-01	0.000E+00	NOT IDENT.
CO-60	8.058E-03	3.635E-02	6.325E-02	0.000E+00	NOT IDENT.
ZN-65	4.866E-02	1.196E-01	1.777E-01	0.000E+00	NOT IDENT.
GE-68	8.360E-01	1.453E+00	2.518E+00	0.000E+00	NOT IDENT.
AS-73	3.052E-01	1.659E+00	2.983E+00	0.000E+00	NOT IDENT.
AS-74	-3.938E-03	1.011E-01	1.752E-01	0.000E+00	NOT IDENT.
SE-75	-4.325E-02	4.863E-02	7.477E-02	0.000E+00	NOT IDENT.
BR-77	-2.979E+00	1.461E+01	2.194E+01	0.000E+00	FAIL ABUN
SR-82	3.068E-02	3.932E-01	6.725E-01	0.000E+00	NOT IDENT.
RB-83	-1.969E-02	7.203E-02	1.074E-01	0.000E+00	NOT IDENT.
RB-84	1.623E-02	7.675E-02	1.313E-01	0.000E+00	NOT IDENT.
KR-85	1.149E+01	7.041E+00	1.294E+01	0.000E+00	NOT IDENT.
SR-85	5.953E-02	3.649E-02	6.705E-02	0.000E+00	NOT IDENT.
RB-86	6.810E-01	9.737E-01	1.702E+00	0.000E+00	NOT IDENT.
Y-88	2.469E-03	3.434E-02	5.715E-02	0.000E+00	NOT IDENT.
ZR-88	-1.708E-02	3.228E-02	5.307E-02	0.000E+00	NOT IDENT.
Y-91	-6.435E+00	2.284E+01	3.822E+01	0.000E+00	NOT IDENT.
NB-94	-1.007E-02	3.309E-02	5.541E-02	0.000E+00	NOT IDENT.
NB-95	4.312E-02	4.773E-02	8.523E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.462E-01	2.497E-01	0.000E+00	NOT IDENT.
ZR-95	-1.755E-03	7.830E-02	1.331E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.656E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.906E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.739E+00	1.472E+01	2.487E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.739E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.715E-02	3.336E-02	5.665E-02	0.000E+00	NOT IDENT.
RH-102	2.212E-02	2.994E-02	5.262E-02	0.000E+00	NOT IDENT.
RU-103	1.879E-02	4.329E-02	7.431E-02	0.000E+00	FAIL ABUN
RH-106	-2.128E-01	3.048E-01	4.866E-01	0.000E+00	FAIL ABUN
RU-106	-2.128E-01	3.041E-01	4.866E-01	0.000E+00	FAIL ABUN
AG-108M	-1.243E-02	3.345E-02	5.499E-02	0.000E+00	NOT IDENT.
AG-110M	-8.464E-03	3.499E-02	5.925E-02	0.000E+00	NOT IDENT.
IN-111	4.786E-01	1.466E+00	2.320E+00	0.000E+00	NOT IDENT.
IN-113M	-2.391E-02	4.773E-02	7.869E-02	0.000E+00	NOT IDENT.
SN-113	-2.391E-02	4.773E-02	7.869E-02	0.000E+00	NOT IDENT.
IN-114M	2.277E-01	2.097E-01	3.299E-01	0.000E+00	NOT IDENT.
CD-115	-4.301E+00	1.463E+01	2.370E+01	0.000E+00	NOT IDENT.
SN-117M	6.136E-03	6.230E-02	1.003E-01	0.000E+00	NOT IDENT.
SB-122	-8.838E-01	2.898E+00	4.671E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.138E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-5.817E-03	2.925E-02	4.879E-02	0.000E+00	NOT IDENT.
I-124	-3.538E-01	8.444E-01	1.340E+00	0.000E+00	FAIL ABUN
SB-124	-2.352E-02	6.515E-02	9.847E-02	0.000E+00	FAIL ABUN
SB-125	-1.766E-02	9.821E-02	1.639E-01	0.000E+00	FAIL ABUN
TE-125M	5.315E+00	1.021E+01	1.790E+01	0.000E+00	NOT IDENT.
I-126	-3.914E-02	1.923E-01	3.263E-01	0.000E+00	NOT IDENT.
SB-126	6.361E-02	1.642E-01	2.547E-01	0.000E+00	NOT IDENT.
SB-127	-6.864E-01	1.722E+00	2.870E+00	0.000E+00	NOT IDENT.
XE-127	4.767E-03	4.648E-02	8.305E-02	0.000E+00	NOT IDENT.
I-131	5.100E-03	1.263E-01	2.164E-01	0.000E+00	NOT IDENT.
TE-132	3.207E-01	8.664E-01	1.551E+00	0.000E+00	NOT IDENT.
BA-133	2.071E-02	4.596E-02	7.160E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.353E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.028E-02	5.386E-02	9.893E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.865E-01	3.138E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.765E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.189E-02	1.277E-01	2.190E-01	0.000E+00	FAIL ABUN
BA-137M	1.157E-02	3.688E-02	6.489E-02	0.000E+00	NOT IDENT.
CS-137	1.223E-02	3.899E-02	6.859E-02	0.000E+00	NOT IDENT.
CE-139	-3.546E-02	3.114E-02	4.947E-02	0.000E+00	NOT IDENT.
BA-140	3.634E-01	3.070E-01	5.150E-01	0.000E+00	NOT IDENT.
LA-140	-1.744E-02	1.084E-01	1.765E-01	0.000E+00	FAIL ABUN
CE-141	-6.337E-02	6.706E-02	1.088E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.497E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.608E-02	2.305E-01	3.715E-01	0.000E+00	NOT IDENT.
PM-144	2.245E-02	3.737E-02	6.512E-02	0.000E+00	NOT IDENT.
PR-144	1.522E+00	2.534E+00	4.415E+00	0.000E+00	NOT IDENT.

PM-146	2.554E-02	4.674E-02	8.119E-02	0.000E+00	NOT IDENT.
ND-147	0.000E+00	5.841E-01	1.081E+00	0.000E+00	FAIL ABUN
PM-149	-3.835E+01	1.283E+02	2.198E+02	0.000E+00	NOT IDENT.
EU-152	-7.282E-02	9.747E-02	1.599E-01	0.000E+00	FAIL ABUN
GD-153	-5.459E-02	8.669E-02	1.450E-01	0.000E+00	NOT IDENT.
EU-154	-4.275E-02	1.479E-01	2.450E-01	0.000E+00	NOT IDENT.
EU-155	9.043E-02	1.183E-01	2.097E-01	0.000E+00	FAIL ABUN
TB-160	-6.614E-02	1.523E-01	2.458E-01	0.000E+00	FAIL ABUN
HO-166M	3.501E-02	6.078E-02	1.085E-01	0.000E+00	FAIL ABUN
TM-171	4.026E+01	3.942E+01	6.512E+01	0.000E+00	NOT IDENT.
LU-176	-5.726E-03	2.400E-02	4.100E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.294E+00	2.446E+00	0.000E+00	FAIL ABUN
LU-177M	-1.051E-01	1.819E-01	2.965E-01	0.000E+00	FAIL ABUN
HF-181	1.375E-02	4.070E-02	6.981E-02	0.000E+00	NOT IDENT.
W-181	-2.294E-01	5.513E-01	8.567E-01	0.000E+00	NOT IDENT.
TA-182	-4.150E-02	2.319E-01	3.905E-01	0.000E+00	FAIL ABUN
RE-183	1.088E-01	1.152E-01	2.013E-01	0.000E+00	FAIL ABUN
RE-184	-8.352E-02	2.284E-01	3.938E-01	0.000E+00	NOT IDENT.
OS-185	-3.653E-02	3.996E-02	6.376E-02	0.000E+00	NOT IDENT.
RE-188	5.156E-02	1.953E-01	2.976E-01	0.000E+00	NOT IDENT.
W-188	-7.513E+00	8.911E+00	1.284E+01	0.000E+00	FAIL ABUN
IR-192	1.476E-02	3.392E-02	5.995E-02	0.000E+00	FAIL ABUN
AU-195	1.656E-01	2.464E-01	4.330E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	8.628E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.159E+00	8.770E+00	1.462E+01	0.000E+00	NOT IDENT.
TL-202	-1.634E-02	7.586E-02	1.260E-01	0.000E+00	NOT IDENT.
HG-203	-1.716E-03	4.223E-02	7.346E-02	0.000E+00	NOT IDENT.
BI-207	-1.667E-02	6.066E-02	9.760E-02	0.000E+00	FAIL ABUN
TL-207	8.353E-02	7.598E-01	1.160E+00	0.000E+00	FAIL ABUN
PO-209	-2.889E+00	8.821E+00	1.440E+01	0.000E+00	NOT IDENT.
BI-210	2.118E+00	9.245E+00	1.676E+01	0.000E+00	NOT IDENT.
PB-210	2.118E+00	9.245E+00	1.676E+01	0.000E+00	NOT IDENT.
PO-210	2.118E+00	9.245E+00	1.676E+01	0.000E+00	NOT IDENT.
PB-211	-7.075E-01	1.065E+00	1.576E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.796E-01	7.270E-01	0.000E+00	FAIL ABUN
PO-215	8.353E-02	7.598E-01	1.160E+00	0.000E+00	FAIL ABUN
RN-219	1.370E-01	4.130E-01	7.144E-01	0.000E+00	FAIL ABUN
RN-220	-3.960E+00	2.537E+01	4.141E+01	0.000E+00	NOT IDENT.
RA-223	8.353E-02	7.598E-01	1.160E+00	0.000E+00	FAIL ABUN
AC-227	-1.158E-01	3.718E-01	6.416E-01	0.000E+00	FAIL ABUN
TH-227	-1.158E-01	3.719E-01	6.416E-01	0.000E+00	FAIL ABUN
TH-229	-3.439E-01	5.149E-01	8.267E-01	0.000E+00	FAIL ABUN
PA-231	-1.385E-01	1.524E+00	2.641E+00	0.000E+00	FAIL ABUN
TH-231	8.353E-02	7.598E-01	1.160E+00	0.000E+00	FAIL ABUN
U-231	-6.429E-01	1.515E+00	2.297E+00	0.000E+00	FAIL ABUN
PA-233	-1.948E-02	6.495E-02	1.105E-01	0.000E+00	FAIL ABUN
PA-234	8.658E-02	3.529E-01	6.007E-01	0.000E+00	FAIL ABUN
PA-234M	6.472E+00	5.600E+00	1.000E+01	0.000E+00	NOT IDENT.
U-235	1.419E-01	2.219E-01	3.770E-01	0.000E+00	FAIL ABUN
NP-236	-7.947E-02	8.412E-02	1.355E-01	0.000E+00	NOT IDENT.
NP-239	-5.317E-03	1.925E-01	3.298E-01	0.000E+00	FAIL ABUN
AM-241	-1.238E-01	2.643E-01	4.110E-01	0.000E+00	NOT IDENT.
CM-243	5.738E-02	1.048E-01	1.846E-01	0.000E+00	FAIL ABUN
AM-246	9.135E-02	1.722E-01	2.968E-01	0.000E+00	NOT IDENT.
CM-247	-4.721E-04	3.741E-02	6.342E-02	0.000E+00	NOT IDENT.
CF-249	3.616E-02	4.386E-02	7.787E-02	0.000E+00	NOT IDENT.
CF-251	-2.046E-02	1.336E-01	2.217E-01	0.000E+00	NOT IDENT.


```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246325001.CNF;1
Sample date        : 2-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 15:14:44
Sample ID          : G246325001      Sample quantity   : 1.25480E+02 GRAM
Detector name      : GAM10           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.18  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000        Sensitivity      : 5.00000
Batch ID           : 950787          Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1561	10.67*	1.108E+00	3.952E+01	3.952E+01	10.09
CD-109	88.03	293	3.72*	5.237E+00	4.500E+00	4.610E+00	34.29
SN-126	64.28	124	9.60	2.249E+00	1.720E+00	1.720E+00	69.29
	86.94	293	8.90	5.237E+00	1.881E+00	1.881E+00	53.03
	87.57	293	37.00*	5.237E+00	4.524E-01	4.524E-01	34.29
TL-208	277.35	-----	6.80	4.610E+00	-----	Line Not Found	-----
	510.84	187	21.60	2.929E+00	8.853E-01	8.853E-01	42.96
	583.14	433	84.20*	2.629E+00	5.850E-01	5.850E-01	17.23
	860.37	77	12.46	1.842E+00	1.002E+00	1.002E+00	49.25
BI-211	72.87	-----	1.27	3.633E+00	-----	Line Not Found	-----
	351.07	762	12.94*	3.889E+00	4.532E+00	4.532E+00	12.76
PB-212	74.81	403	10.70	3.862E+00	2.917E+00	2.917E+00	25.09
	77.11	640	18.00	4.149E+00	2.565E+00	2.565E+00	16.59
	87.30	293	8.00	5.237E+00	2.092E+00	2.092E+00	35.72
	238.63	1485	44.60*	5.118E+00	1.946E+00	1.946E+00	9.80
	300.09	108	3.41	4.362E+00	2.180E+00	2.180E+00	54.87
PO-212	74.81	403	10.70	3.862E+00	2.917E+00	2.917E+00	25.09
	77.11	640	18.00	4.149E+00	2.565E+00	2.565E+00	16.59
	87.30	293	8.00	5.237E+00	2.092E+00	2.092E+00	35.72
	115.19	-----	0.60	6.657E+00	-----	Line Not Found	-----
	238.63	1485	44.60*	5.118E+00	1.946E+00	1.946E+00	9.80
	300.09	108	3.41	4.362E+00	2.180E+00	2.180E+00	54.87
BI-214	609.31	505	46.30*	2.532E+00	1.288E+00	1.288E+00	13.37
	1120.29	88	15.10	1.416E+00	1.237E+00	1.237E+00	46.85
	1764.49	88	15.80	9.766E-01	1.711E+00	1.711E+00	29.75
PB-214	74.81	403	6.21	3.862E+00	5.025E+00	5.025E+00	24.43
	77.11	640	10.50	4.149E+00	4.398E+00	4.398E+00	18.25
	87.30	293	4.67	5.237E+00	3.584E+00	3.585E+00	35.15
	241.98	323	7.49	5.076E+00	2.539E+00	2.539E+00	25.01
	295.21	421	19.20	4.414E+00	1.486E+00	1.486E+00	18.97
	351.92	762	37.20*	3.889E+00	1.577E+00	1.577E+00	13.78
PO-214	74.81	403	6.21	3.862E+00	5.025E+00	5.025E+00	24.43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	640	10.50	4.149E+00	4.398E+00	4.398E+00	18.25
	87.30	293	4.67	5.237E+00	3.584E+00	3.585E+00	35.15
	241.98	323	7.49	5.076E+00	2.539E+00	2.539E+00	25.01
	295.21	421	19.20	4.414E+00	1.486E+00	1.486E+00	18.97
	351.92	762	37.20*	3.889E+00	1.577E+00	1.577E+00	13.78
PO-216	74.81	403	10.70	3.862E+00	2.917E+00	2.917E+00	25.09
	77.11	640	18.00	4.149E+00	2.565E+00	2.565E+00	16.59
	87.30	293	8.00	5.237E+00	2.092E+00	2.092E+00	35.72
	238.63	1485	44.60*	5.118E+00	1.946E+00	1.946E+00	9.80
	300.09	108	3.41	4.362E+00	2.180E+00	2.180E+00	54.87
PO-218	74.81	403	6.21	3.862E+00	5.025E+00	5.025E+00	24.43
	77.11	640	10.50	4.149E+00	4.398E+00	4.398E+00	18.25
	87.30	293	4.67	5.237E+00	3.584E+00	3.585E+00	35.15
	241.98	323	7.49	5.076E+00	2.539E+00	2.539E+00	25.01
	295.21	421	19.20	4.414E+00	1.486E+00	1.486E+00	18.97
	351.92	762	37.20*	3.889E+00	1.577E+00	1.577E+00	13.78
RA-224	240.98	323	3.95*	5.076E+00	4.814E+00	4.814E+00	24.38
RA-226	609.31	505	46.30*	2.532E+00	1.288E+00	1.288E+00	13.37
	1120.29	88	15.10	1.416E+00	1.237E+00	1.237E+00	46.85
	1764.49	88	15.80	9.766E-01	1.711E+00	1.711E+00	29.75
AC-228	338.32	270	11.40	4.002E+00	1.771E+00	1.771E+00	46.11
	911.07	287	27.70*	1.740E+00	1.783E+00	1.783E+00	23.26
	969.11	167	16.60	1.637E+00	1.834E+00	1.834E+00	36.97
RA-228	338.32	270	11.40	4.002E+00	1.771E+00	1.771E+00	46.11
	911.07	287	27.70*	1.740E+00	1.783E+00	1.783E+00	23.26
	969.11	167	16.60	1.637E+00	1.834E+00	1.834E+00	36.97
TH-228	74.81	403	10.70	3.862E+00	2.917E+00	2.964E+00	23.31
	77.11	640	18.00	4.149E+00	2.565E+00	2.607E+00	16.59
	87.30	293	8.00	5.237E+00	2.092E+00	2.126E+00	34.29
	238.63	1485	44.60*	5.118E+00	1.946E+00	1.977E+00	9.80
	300.09	108	3.41	4.362E+00	2.180E+00	2.216E+00	80.10
TH-230	609.31	505	46.30*	2.532E+00	1.288E+00	1.288E+00	13.37
	1120.29	88	15.10	1.416E+00	1.237E+00	1.237E+00	46.85
	1764.49	88	15.80	9.766E-01	1.711E+00	1.711E+00	29.75
TH-232	338.32	270	11.40	4.002E+00	1.771E+00	1.771E+00	22.31
	911.07	287	27.70*	1.740E+00	1.783E+00	1.783E+00	23.26
	969.11	167	16.60	1.637E+00	1.834E+00	1.834E+00	36.97
TH-234	63.29	124	3.80*	2.249E+00	4.345E+00	4.345E+00	69.96
	92.38	192	5.41	5.708E+00	1.860E+00	1.860E+00	47.01
U-234	609.31	505	46.30*	2.532E+00	1.288E+00	1.288E+00	13.37
	1120.29	88	15.10	1.416E+00	1.237E+00	1.237E+00	46.85
	1764.49	88	15.80	9.766E-01	1.711E+00	1.711E+00	29.75
NP-237	86.50	293	12.60*	5.237E+00	1.329E+00	1.329E+00	40.02
	95.87	-----	2.60	5.933E+00	-----	Line Not Found	-----
U-238	63.29	124	3.80*	2.249E+00	4.345E+00	4.345E+00	69.96
	92.38	192	5.41	5.708E+00	1.860E+00	1.860E+00	44.24
AM-243	74.67	403	66.00*	3.862E+00	4.728E-01	4.728E-01	23.28
	86.72	293	0.34	5.237E+00	4.982E+01	4.982E+01	34.29
	117.66	-----	0.55	6.694E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	6.676E+00	-----	Line Not Found	-----
ANH-511	511.00	187	100.00*	2.929E+00	1.912E-01	1.912E-01	42.15

Flag: "*" = Keyline

Total number of lines in spectrum 32
Number of unidentified lines 1
Number of lines tentatively identified by NID 31 96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.952E+01	3.952E+01	0.399E+01	10.09	
CD-109	464.00D	1.02	4.500E+00	4.610E+00	1.581E+00	34.29	
SN-126	1.00E+05Y	1.00	4.524E-01	4.524E-01	1.551E-01	34.29	
TL-208	1.41E+10Y	1.00	5.850E-01	5.850E-01	1.008E-01	17.23	
BI-211	7.04E+08Y	1.00	4.532E+00	4.532E+00	0.578E+00	12.76	
PB-212	1.41E+10Y	1.00	1.946E+00	1.946E+00	0.191E+00	9.80	
PO-212	1.41E+10Y	1.00	1.946E+00	1.946E+00	0.191E+00	9.80	
BI-214	1600.00Y	1.00	1.288E+00	1.288E+00	0.172E+00	13.37	
PB-214	1600.00Y	1.00	1.577E+00	1.577E+00	0.217E+00	13.78	
PO-214	1600.00Y	1.00	1.577E+00	1.577E+00	0.217E+00	13.78	
PO-216	1.41E+10Y	1.00	1.946E+00	1.946E+00	0.191E+00	9.80	
PO-218	1600.00Y	1.00	1.577E+00	1.577E+00	0.217E+00	13.78	
RA-224	1.41E+10Y	1.00	4.814E+00	4.814E+00	1.173E+00	24.38	
RA-226	1600.00Y	1.00	1.288E+00	1.288E+00	0.172E+00	13.37	
AC-228	1.41E+10Y	1.00	1.783E+00	1.783E+00	0.415E+00	23.26	
RA-228	1.41E+10Y	1.00	1.783E+00	1.783E+00	0.415E+00	23.26	
TH-228	1.91Y	1.02	1.946E+00	1.977E+00	0.194E+00	9.80	
TH-230	4.47E+09Y	1.00	1.288E+00	1.288E+00	0.172E+00	13.37	
TH-232	1.41E+10Y	1.00	1.783E+00	1.783E+00	0.415E+00	23.26	
TH-234	4.47E+09Y	1.00	4.345E+00	4.345E+00	3.040E+00	69.96	
U-234	4.47E+09Y	1.00	1.288E+00	1.288E+00	0.172E+00	13.37	
NP-237	2.14E+06Y	1.00	1.329E+00	1.329E+00	0.532E+00	40.02	
U-238	4.47E+09Y	1.00	4.345E+00	4.345E+00	3.040E+00	69.96	
AM-243	7380.00Y	1.00	4.728E-01	4.728E-01	1.101E-01	23.28	
ANH-511	1.00E+09Y	1.00	1.912E-01	1.912E-01	0.806E-01	42.15	
Total Activity :			8.809E+01	8.824E+01			

Grand Total Activity : 8.809E+01 8.824E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.50	166	387	1.11	179.11	165	24	2.30E-02	42.3	5.47E+00	T
0	128.76	100	345	1.10	257.56	254	8	1.39E-02	67.6	6.76E+00	T
0	153.42	78	379	1.48	306.83	302	10	1.09E-02	96.2	6.53E+00	T
0	185.56	244	444	1.16	371.07	365	12	3.39E-02	37.6	5.98E+00	T
0	209.44	204	414	1.48	418.79	414	13	2.83E-02	43.8	5.57E+00	T
0	269.87	142	206	1.27	539.55	536	9	1.97E-02	40.3	4.70E+00	T
0	327.78	75	186	0.86	655.29	651	9	1.05E-02	69.2	4.09E+00	T
0	462.91	127	150	1.13	925.39	919	13	1.76E-02	43.5	3.17E+00	T
0	726.89	100	106	2.56	1453.10	1447	15	1.39E-02	49.6	2.16E+00	T
0	964.23	44	51	1.30	1927.69	1922	9	6.06E-03	66.7	1.64E+00	T
0	1376.73	39	13	2.24	2752.73	2747	13	5.47E-03	52.7	1.16E+00	T
0	1728.32	35	3	1.87	3456.18	3449	13	4.82E-03	42.0	9.87E-01	

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246325001.CNF;1
* Acquisition date   : 18-FEB-2010 15:14:44   Detector SN#      :
* Detector ID        : GAM10                   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 02:00:01.18           Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 2-FEB-2010 12:00:00.   Nuclide Library : SOLID
* Sample ID          : G246325001             Analyst initials: MXR1
* Batch Number       : 950787                 Sample Quantity : 1.25480E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 16-MAR-2009 13:18:08.8MS 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	3.952E+01	3.988E+00	5.513E-01	4.749E-02	71.674
CD-109	4.610E+00	1.581E+00	1.400E+00	1.587E-01	3.293
SN-126	4.524E-01	1.551E-01	1.384E-01	1.566E-02	3.269
TL-208	5.850E-01	1.008E-01	5.451E-02	3.663E-03	10.732
BI-211	4.532E+00	5.782E-01	3.207E-01	2.338E-02	14.131
PB-212	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
PO-212	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
BI-214	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
PB-214	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
PO-214	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
PO-216	1.946E+00	1.906E-01	9.333E-02	7.080E-03	20.846
PO-218	1.577E+00	2.173E-01	1.118E-01	1.003E-02	14.102
RA-224	4.814E+00	1.173E+00	1.062E+00	6.518E-02	4.533
RA-226	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
AC-228	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
RA-228	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
TH-228	1.977E+00	1.937E-01	9.484E-02	7.194E-03	20.846
TH-230	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.783E+00	4.146E-01	2.192E-01	2.705E-02	8.132
TH-234	4.345E+00	3.040E+00	2.897E+00	5.710E-01	1.500
U-234	1.288E+00	1.723E-01	1.131E-01	8.605E-03	11.392
NP-237	1.329E+00	5.317E-01	4.136E-01	9.720E-02	3.212
U-238	4.345E+00	3.040E+00	2.897E+00	5.710E-01	1.500
AM-243	4.728E-01	1.101E-01	1.069E-01	1.170E-02	4.425
ANH-511	1.912E-01	8.060E-02	4.384E-02	2.808E-03	4.362

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.466E-02		3.256E-01	5.372E-01	3.995E-02	0.176
NA-22	2.959E-03		5.239E-02	8.759E-02	6.785E-03	0.034
NA-24	7.031E-02		1.265E+00	Half-Life too short		
AL-26	-9.098E-03		2.877E-02	4.295E-02	2.723E-03	-0.212
TI-44	1.601E-01		5.273E-02	8.284E-02	9.064E-03	1.933
SC-46	1.159E-02		4.617E-02	7.705E-02	7.625E-03	0.150
V-48	8.156E-03		7.795E-02	1.278E-01	1.182E-02	0.064
CR-51	-1.457E-01		3.812E-01	6.175E-01	4.460E-02	-0.236
MN-52	1.243E-01		2.897E-01	5.041E-01	4.260E-02	0.247
MN-54	5.174E-03		4.341E-02	7.195E-02	6.147E-03	0.072
CO-56	-9.357E-03		4.050E-02	6.501E-02	5.741E-03	-0.144
CO-57	-1.009E-02		2.672E-02	4.258E-02	2.808E-03	-0.237
CO-58	-3.482E-03		3.946E-02	6.444E-02	5.156E-03	-0.054
FE-59	-8.273E-03		1.169E-01	1.868E-01	1.559E-02	-0.044
CO-60	8.058E-03		3.709E-02	6.321E-02	5.493E-03	0.127
ZN-65	4.866E-02		1.220E-01	1.772E-01	1.290E-02	0.275
GE-68	8.360E-01		1.482E+00	2.508E+00	1.987E-01	0.333
AS-73	3.052E-01		1.693E+00	2.850E+00	3.772E-01	0.107
AS-74	-3.938E-03		1.031E-01	1.730E-01	9.885E-03	-0.023
SE-75	-4.325E-02		4.962E-02	7.302E-02	4.658E-03	-0.592
BR-77	-2.979E+00		1.491E+01	2.163E+01	1.372E+00	-0.138
SR-82	3.068E-02		4.013E-01	6.669E-01	4.808E-02	0.046
RB-83	-1.969E-02		7.350E-02	1.058E-01	6.717E-03	-0.186
RB-84	1.623E-02		7.831E-02	1.305E-01	1.265E-02	0.124
KR-85	1.149E+01		7.185E+00	1.275E+01	8.146E-01	0.901
SR-85	5.953E-02		3.723E-02	6.609E-02	4.222E-03	0.901
RB-86	6.810E-01		9.936E-01	1.696E+00	1.346E-01	0.402
Y-88	2.469E-03		3.504E-02	5.738E-02	3.521E-03	0.043
ZR-88	-1.708E-02		3.294E-02	5.212E-02	3.542E-03	-0.328
Y-91	-6.435E+00		2.331E+01	3.814E+01	2.533E+00	-0.169
NB-94	-1.007E-02		3.377E-02	5.487E-02	3.124E-03	-0.184
NB-95	4.312E-02		4.870E-02	8.449E-02	5.896E-03	0.510
NB-95M	3.266E-01		1.492E-01	2.434E-01	1.888E-02	1.342
ZR-95	-1.755E-03		7.990E-02	1.320E-01	1.037E-02	-0.013
NB-97	-5.776E-02		1.355E-01	Half-Life too short		
ZR-97	8.701E+00		3.013E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.739E+00		1.502E+01	2.464E+01	3.464E+00	-0.071
TC-99M	-5.863E+11		3.438E+11	Half-Life too short		
RH-101	1.715E-02		3.404E-02	5.511E-02	3.166E-03	0.311
RH-102	2.212E-02		3.055E-02	5.181E-02	3.417E-03	0.427
RU-103	1.879E-02		4.417E-02	7.322E-02	9.499E-03	0.257
RH-106	-2.128E-01		3.110E-01	4.810E-01	5.560E-02	-0.442
RU-106	-2.128E-01		3.103E-01	4.810E-01	2.612E-02	-0.442
AG-108M	-1.243E-02		3.414E-02	5.408E-02	3.878E-03	-0.230
AG-110M	-8.464E-03		3.571E-02	5.861E-02	3.175E-03	-0.144
IN-111	4.786E-01		1.496E+00	2.263E+00	1.397E-01	0.211
IN-113M	-2.391E-02		4.870E-02	7.727E-02	5.510E-03	-0.309
SN-113	-2.391E-02		4.870E-02	7.727E-02	5.510E-03	-0.309
IN-114M	2.277E-01		2.140E-01	3.207E-01	1.819E-02	0.710
CD-115	-4.301E+00		1.493E+01	2.337E+01	1.472E+00	-0.184
SN-117M	6.136E-03		6.357E-02	9.722E-02	5.452E-03	0.063
SB-122	-8.838E-01		2.957E+00	4.611E+00	2.773E-01	-0.192
I-123	-4.253E+00		1.091E+01	Half-Life too short		
TE-123M	-5.817E-03		2.984E-02	4.731E-02	2.687E-03	-0.123
I-124	-3.538E-01		8.616E-01	1.324E+00	7.472E-02	-0.267
SB-124	-2.352E-02		6.648E-02	9.875E-02	7.503E-03	-0.238
SB-125	-1.766E-02		1.002E-01	1.612E-01	1.122E-02	-0.110
TE-125M	5.315E+00		1.041E+01	1.727E+01	1.659E+00	0.308
I-126	-3.914E-02		1.962E-01	3.228E-01	1.619E-02	-0.121
SB-126	6.361E-02		1.676E-01	2.523E-01	1.525E-02	0.252
SB-127	-6.864E-01		1.757E+00	2.841E+00	2.710E-01	-0.242
XE-127	4.767E-03		4.742E-02	8.081E-02	4.679E-03	0.059
I-131	5.100E-03		1.289E-01	2.123E-01	1.563E-02	0.024
TE-132	3.207E-01		8.841E-01	1.512E+00	2.217E-01	0.212
BA-133	2.071E-02		4.690E-02	7.021E-02	8.471E-03	0.295
I-133	5.632E-03		6.904E-03	Half-Life too short		
CS-134	7.028E-02		5.496E-02	9.814E-02	7.565E-03	0.716
CS-135	3.287E-01		1.903E-01	3.065E-01	2.477E-02	1.072
I-135	1.045E+10		4.472E+10	Half-Life too short		
CS-136	5.189E-02		1.303E-01	2.181E-01	1.909E-02	0.238
BA-137M	1.157E-02		3.763E-02	6.419E-02	3.167E-03	0.180
CS-137	1.223E-02		3.978E-02	6.786E-02	3.368E-03	0.180
CE-139	-3.546E-02		3.177E-02	4.800E-02	2.622E-03	-0.739
BA-140	3.634E-01		3.133E-01	5.080E-01	1.656E-01	0.715
LA-140	-1.744E-02		1.106E-01	1.768E-01	1.372E-02	-0.099
CE-141	-6.337E-02		6.843E-02	1.054E-01	6.451E-03	-0.601
CE-143	1.475E-03		2.294E-04	Half-Life too short		
CE-144	-2.608E-02		2.352E-01	3.594E-01	5.163E-02	-0.073
PM-144	2.245E-02		3.813E-02	6.447E-02	3.598E-03	0.348
PR-144	1.522E+00		2.585E+00	4.371E+00	2.437E-01	0.348
PM-146	2.554E-02		4.770E-02	7.990E-02	7.380E-03	0.320
ND-147	1.120E+00		5.960E-01	1.066E+00	1.464E-01	1.051
PM-149	-3.835E+01		1.310E+02	2.149E+02	3.109E+01	-0.178
EU-152	-7.282E-02		9.946E-02	1.568E-01	1.155E-02	-0.464

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-5.459E-02		8.846E-02	1.397E-01	1.301E-02	-0.391
EU-154	-4.275E-02		1.509E-01	2.447E-01	2.607E-02	-0.175
EU-155	9.043E-02		1.207E-01	2.022E-01	1.677E-02	0.447
TB-160	-6.614E-02		1.554E-01	2.441E-01	2.354E-02	-0.271
HO-166M	3.501E-02		6.202E-02	1.074E-01	6.304E-03	0.326
TM-171	4.026E+01		4.022E+01	6.241E+01	7.109E+00	0.645
LU-176	-5.726E-03		2.449E-02	4.013E-02	2.640E-03	-0.143
LU-177	5.292E+00	+	2.341E+00	2.381E+00	1.391E-01	2.223
LU-177M	-1.051E-01		1.856E-01	2.914E-01	1.975E-02	-0.361
HF-181	1.375E-02		4.153E-02	6.875E-02	4.513E-03	0.200
W-181	-2.294E-01		5.625E-01	8.208E-01	9.484E-02	-0.280
TA-182	-4.150E-02		2.366E-01	3.898E-01	2.688E-02	-0.106
RE-183	1.088E-01		1.176E-01	1.953E-01	1.080E-02	0.557
RE-184	-8.352E-02		2.330E-01	3.843E-01	2.396E-02	-0.217
OS-185	-3.653E-02		4.078E-02	6.306E-02	3.240E-03	-0.579
RE-188	5.156E-02		1.993E-01	2.885E-01	1.639E-02	0.179
W-188	-7.513E+00		9.092E+00	1.255E+01	8.151E-01	-0.598
IR-192	1.476E-02		3.461E-02	5.869E-02	3.902E-03	0.252
AU-195	1.656E-01		2.515E-01	4.172E-01	3.786E-02	0.397
TL-200	3.578E-04		4.402E-04	Half-Life too short		
TL-201	-1.159E+00		8.949E+00	1.419E+01	7.760E-01	-0.082
TL-202	-1.634E-02		7.741E-02	1.239E-01	8.330E-03	-0.132
HG-203	-1.716E-03		4.309E-02	7.180E-02	4.845E-03	-0.024
BI-207	-1.667E-02		6.190E-02	9.722E-02	7.914E-03	-0.171
TL-207	8.353E-02		7.753E-01	1.136E+00	1.912E-01	0.074
PO-209	-2.889E+00		9.001E+00	1.431E+01	1.443E+00	-0.202
BI-210	2.118E+00		9.434E+00	1.598E+01	1.568E+00	0.133
PB-210	2.118E+00		9.434E+00	1.598E+01	1.568E+00	0.133
PO-210	2.118E+00		9.434E+00	1.598E+01	1.435E+00	0.133
PB-211	-7.075E-01		1.087E+00	1.549E+00	9.671E-01	-0.457
BI-212	1.178E+00	+	5.914E-01	7.202E-01	5.761E-02	1.635
PO-215	8.353E-02		7.753E-01	1.136E+00	1.912E-01	0.074
RN-219	1.370E-01		4.214E-01	7.018E-01	9.865E-02	0.195
RN-220	-3.960E+00		2.589E+01	4.086E+01	2.506E+00	-0.097
RA-223	8.353E-02		7.753E-01	1.136E+00	1.912E-01	0.074
AC-227	-1.158E-01		3.793E-01	6.263E-01	8.867E-02	-0.185
TH-227	-1.158E-01		3.795E-01	6.263E-01	1.069E-01	-0.185
TH-229	-3.439E-01		5.254E-01	8.039E-01	4.584E-02	-0.428
PA-231	-1.385E-01		1.555E+00	2.582E+00	3.632E-01	-0.054
TH-231	8.353E-02		7.753E-01	1.136E+00	1.912E-01	0.074
U-231	-6.429E-01		1.546E+00	2.212E+00	2.120E-01	-0.291
PA-233	-1.948E-02		6.628E-02	1.082E-01	7.486E-03	-0.180
PA-234	8.658E-02		3.601E-01	5.973E-01	1.151E-01	0.145
PA-234M	6.472E+00		5.714E+00	9.954E+00	1.027E+00	0.650
U-235	1.419E-01		2.264E-01	3.651E-01	5.969E-02	0.389
NP-236	-7.947E-02		8.584E-02	1.314E-01	7.321E-03	-0.605
NP-239	-5.317E-03		1.964E-01	3.185E-01	2.228E-02	-0.017
AM-241	-1.238E-01		2.697E-01	3.933E-01	5.050E-02	-0.315

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.738E-02		1.069E-01	1.780E-01	1.491E-02	0.322
AM-246	9.135E-02		1.757E-01	2.957E-01	2.336E-02	0.309
CM-247	-4.721E-04		3.818E-02	6.230E-02	4.230E-03	-0.008
CF-249	3.616E-02		4.476E-02	7.646E-02	5.195E-03	0.473
CF-251	-2.046E-02		1.363E-01	2.153E-01	1.194E-02	-0.095

VAX/VMS Nuclide Identification Report Generated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G246325001             *
* Acquisition date   : 18-FEB-2010 15:14:44 Detector SN#      :              *
* Detector ID        : GAM10                      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 02:00:01.18             Half life ratio : 8.000         *
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 2-FEB-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID          : G246325001                 Analyst initials: MXR1         *
* Batch Number       : 950787                     Sample Quantity : 1.2548E+02 GRAM  *
* Recovery           : 1.00000                     Carrier Weight  : 0.00000       *
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME  : 16-MAR-2009 13:18:08 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	DLC (pCi/GRAM)	TPU
K-40	3.952E+01	3.909E+00	2.756E-01	1.994E+00
CD-109	4.610E+00	1.549E+00	7.281E-01	7.904E-01
SN-126	4.524E-01	1.520E-01	7.198E-02	7.757E-02
TL-208	5.850E-01	9.877E-02	2.762E-02	5.039E-02
BI-211	4.532E+00	5.666E-01	1.637E-01	2.891E-01
PB-212	1.946E+00	1.868E-01	4.788E-02	9.529E-02
PO-212	1.946E+00	1.868E-01	4.788E-02	9.529E-02
BI-214	1.288E+00	1.688E-01	5.725E-02	8.614E-02
PB-214	1.577E+00	2.130E-01	5.704E-02	1.087E-01
PO-214	1.577E+00	2.130E-01	5.704E-02	1.087E-01
PO-216	1.946E+00	1.868E-01	4.788E-02	9.529E-02
PO-218	1.577E+00	2.130E-01	5.704E-02	1.087E-01
RA-224	4.814E+00	1.150E+00	5.447E-01	5.867E-01
RA-226	1.288E+00	1.688E-01	5.725E-02	8.614E-02
AC-228	1.783E+00	4.064E-01	1.103E-01	2.073E-01
RA-228	1.783E+00	4.064E-01	1.103E-01	2.073E-01
TH-228	1.977E+00	1.898E-01	4.865E-02	9.684E-02
TH-230	1.288E+00	1.688E-01	5.725E-02	8.614E-02
TH-232	1.783E+00	4.064E-01	1.103E-01	2.073E-01
TH-234	4.345E+00	2.979E+00	1.513E+00	1.520E+00
U-234	1.288E+00	1.688E-01	5.725E-02	8.614E-02
NP-237	1.329E+00	5.211E-01	2.152E-01	2.659E-01
U-238	4.345E+00	2.979E+00	1.513E+00	1.520E+00
AM-243	4.728E-01	1.079E-01	5.570E-02	5.504E-02
ANH-511	1.912E-01	7.899E-02	2.225E-02	4.030E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	9.466E-02	3.191E-01	2.729E-01	1.628E-01 NOT IDENT.
NA-22	2.959E-03	5.134E-02	4.388E-02	2.620E-02 NOT IDENT.

NA-24	7.031E+04	2.479E+06	0.000E+00	1.265E+06	SHORT HLIF
AL-26	-9.098E-03	2.820E-02	2.140E-02	1.439E-02	NOT IDENT.
TI-44	1.601E-01	5.168E-02	4.315E-02	2.637E-02	NOT IDENT.
SC-46	1.159E-02	4.525E-02	3.880E-02	2.308E-02	FAIL ABUN
V-48	8.156E-03	7.639E-02	6.425E-02	3.897E-02	NOT IDENT.
CR-51	-1.457E-01	3.735E-01	3.155E-01	1.906E-01	NOT IDENT.
MN-52	1.243E-01	2.839E-01	2.521E-01	1.449E-01	NOT IDENT.
MN-54	5.174E-03	4.255E-02	3.626E-02	2.171E-02	NOT IDENT.
CO-56	-9.357E-03	3.969E-02	3.276E-02	2.025E-02	NOT IDENT.
CO-57	-1.009E-02	2.619E-02	2.205E-02	1.336E-02	NOT IDENT.
CO-58	-3.482E-03	3.868E-02	3.249E-02	1.973E-02	NOT IDENT.
FE-59	-8.273E-03	1.146E-01	9.379E-02	5.847E-02	NOT IDENT.
CO-60	8.058E-03	3.635E-02	3.164E-02	1.855E-02	NOT IDENT.
ZN-65	4.866E-02	1.196E-01	8.892E-02	6.100E-02	NOT IDENT.
GE-68	8.360E-01	1.453E+00	1.260E+00	7.412E-01	NOT IDENT.
AS-73	3.052E-01	1.659E+00	1.492E+00	8.463E-01	NOT IDENT.
AS-74	-3.938E-03	1.011E-01	8.763E-02	5.157E-02	NOT IDENT.
SE-75	-4.325E-02	4.863E-02	3.741E-02	2.481E-02	NOT IDENT.
BR-77	-2.979E+00	1.461E+01	1.098E+01	7.455E+00	FAIL ABUN
SR-82	3.068E-02	3.932E-01	3.364E-01	2.006E-01	NOT IDENT.
RB-83	-1.969E-02	7.203E-02	5.371E-02	3.675E-02	NOT IDENT.
RB-84	1.623E-02	7.675E-02	6.570E-02	3.916E-02	NOT IDENT.
KR-85	1.149E+01	7.041E+00	6.472E+00	3.592E+00	NOT IDENT.
SR-85	5.953E-02	3.649E-02	3.354E-02	1.862E-02	NOT IDENT.
RB-86	6.810E-01	9.737E-01	8.517E-01	4.968E-01	NOT IDENT.
Y-88	2.469E-03	3.434E-02	2.859E-02	1.752E-02	NOT IDENT.
ZR-88	-1.708E-02	3.228E-02	2.655E-02	1.647E-02	NOT IDENT.
Y-91	-6.435E+00	2.284E+01	1.912E+01	1.165E+01	NOT IDENT.
NB-94	-1.007E-02	3.309E-02	2.772E-02	1.688E-02	NOT IDENT.
NB-95	4.312E-02	4.773E-02	4.264E-02	2.435E-02	NOT IDENT.
NB-95M	3.266E-01	1.462E-01	1.249E-01	7.458E-02	NOT IDENT.
ZR-95	-1.755E-03	7.830E-02	6.661E-02	3.995E-02	NOT IDENT.
NB-97	-5.776E+04	2.656E+05	0.000E+00	1.355E+05	SHORT HLIF
ZR-97	8.701E+06	5.906E+06	0.000E+00	3.013E+06	SHORT HLIF
MO-99	-1.739E+00	1.472E+01	1.244E+01	7.508E+00	NOT IDENT.
TC-99M	-5.863E+17	6.739E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.715E-02	3.336E-02	2.834E-02	1.702E-02	NOT IDENT.
RH-102	2.212E-02	2.994E-02	2.632E-02	1.528E-02	NOT IDENT.
RU-103	1.879E-02	4.329E-02	3.718E-02	2.209E-02	FAIL ABUN
RH-106	-2.128E-01	3.048E-01	2.435E-01	1.555E-01	FAIL ABUN
RU-106	-2.128E-01	3.041E-01	2.435E-01	1.551E-01	FAIL ABUN
AG-108M	-1.243E-02	3.345E-02	2.751E-02	1.707E-02	NOT IDENT.
AG-110M	-8.464E-03	3.499E-02	2.964E-02	1.785E-02	NOT IDENT.
IN-111	4.786E-01	1.466E+00	1.161E+00	7.482E-01	NOT IDENT.
IN-113M	-2.391E-02	4.773E-02	3.937E-02	2.435E-02	NOT IDENT.
SN-113	-2.391E-02	4.773E-02	3.937E-02	2.435E-02	NOT IDENT.
IN-114M	2.277E-01	2.097E-01	1.650E-01	1.070E-01	NOT IDENT.
CD-115	-4.301E+00	1.463E+01	1.186E+01	7.466E+00	NOT IDENT.
SN-117M	6.136E-03	6.230E-02	5.016E-02	3.179E-02	NOT IDENT.
SB-122	-8.838E-01	2.898E+00	2.337E+00	1.478E+00	NOT IDENT.
I-123	-4.253E+06	2.138E+07	0.000E+00	1.091E+07	SHORT HLIF
TE-123M	-5.817E-03	2.925E-02	2.441E-02	1.492E-02	NOT IDENT.
I-124	-3.538E-01	8.444E-01	6.706E-01	4.308E-01	FAIL ABUN
SB-124	-2.352E-02	6.515E-02	4.926E-02	3.324E-02	FAIL ABUN
SB-125	-1.766E-02	9.821E-02	8.201E-02	5.011E-02	FAIL ABUN
TE-125M	5.315E+00	1.021E+01	8.958E+00	5.207E+00	NOT IDENT.
I-126	-3.914E-02	1.923E-01	1.632E-01	9.812E-02	NOT IDENT.
SB-126	6.361E-02	1.642E-01	1.274E-01	8.380E-02	NOT IDENT.
SB-127	-6.864E-01	1.722E+00	1.436E+00	8.784E-01	NOT IDENT.
XE-127	4.767E-03	4.648E-02	4.155E-02	2.371E-02	NOT IDENT.
I-131	5.100E-03	1.263E-01	1.083E-01	6.444E-02	NOT IDENT.
TE-132	3.207E-01	8.664E-01	7.760E-01	4.420E-01	NOT IDENT.
BA-133	2.071E-02	4.596E-02	3.582E-02	2.345E-02	NOT IDENT.
I-133	5.632E+03	1.353E+04	0.000E+00	6.904E+03	SHORT HLIF
CS-134	7.028E-02	5.386E-02	4.950E-02	2.748E-02	NOT IDENT.
CS-135	3.287E-01	1.865E-01	1.570E-01	9.516E-02	NOT IDENT.
I-135	1.045E+16	8.765E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.189E-02	1.277E-01	1.096E-01	6.515E-02	FAIL ABUN
BA-137M	1.157E-02	3.688E-02	3.246E-02	1.882E-02	NOT IDENT.
CS-137	1.223E-02	3.899E-02	3.432E-02	1.989E-02	NOT IDENT.
CE-139	-3.546E-02	3.114E-02	2.475E-02	1.589E-02	NOT IDENT.
BA-140	3.634E-01	3.070E-01	2.576E-01	1.566E-01	NOT IDENT.
LA-140	-1.744E-02	1.084E-01	8.828E-02	5.532E-02	FAIL ABUN
CE-141	-6.337E-02	6.706E-02	5.445E-02	3.421E-02	NOT IDENT.
CE-143	1.475E+03	4.497E+02	0.000E+00	2.294E+02	SHORT HLIF
CE-144	-2.608E-02	2.305E-01	1.858E-01	1.176E-01	NOT IDENT.
PM-144	2.245E-02	3.737E-02	3.258E-02	1.907E-02	NOT IDENT.
PR-144	1.522E+00	2.534E+00	2.209E+00	1.293E+00	NOT IDENT.

PM-146	2.554E-02	4.674E-02	4.062E-02	2.385E-02	NOT IDENT.
ND-147	1.120E+00	5.841E-01	5.406E-01	2.980E-01	FAIL ABUN
PM-149	-3.835E+01	1.283E+02	1.100E+02	6.548E+01	NOT IDENT.
EU-152	-7.282E-02	9.747E-02	8.002E-02	4.973E-02	FAIL ABUN
GD-153	-5.459E-02	8.669E-02	7.256E-02	4.423E-02	NOT IDENT.
EU-154	-4.275E-02	1.479E-01	1.226E-01	7.544E-02	NOT IDENT.
EU-155	9.043E-02	1.183E-01	1.049E-01	6.036E-02	FAIL ABUN
TB-160	-6.614E-02	1.523E-01	1.230E-01	7.768E-02	FAIL ABUN
HO-166M	3.501E-02	6.078E-02	5.426E-02	3.101E-02	FAIL ABUN
TM-171	4.026E+01	3.942E+01	3.258E+01	2.011E+01	NOT IDENT.
LU-176	-5.726E-03	2.400E-02	2.051E-02	1.224E-02	FAIL ABUN
LU-177	5.292E+00	2.294E+00	1.224E+00	1.170E+00	FAIL ABUN
LU-177M	-1.051E-01	1.819E-01	1.483E-01	9.281E-02	FAIL ABUN
HF-181	1.375E-02	4.070E-02	3.492E-02	2.077E-02	NOT IDENT.
W-181	-2.294E-01	5.513E-01	4.286E-01	2.813E-01	NOT IDENT.
TA-182	-4.150E-02	2.319E-01	1.954E-01	1.183E-01	FAIL ABUN
RE-183	1.088E-01	1.152E-01	1.007E-01	5.880E-02	FAIL ABUN
RE-184	-8.352E-02	2.284E-01	1.970E-01	1.165E-01	NOT IDENT.
OS-185	-3.653E-02	3.996E-02	3.190E-02	2.039E-02	NOT IDENT.
RE-188	5.156E-02	1.953E-01	1.489E-01	9.966E-02	NOT IDENT.
W-188	-7.513E+00	8.911E+00	6.423E+00	4.546E+00	FAIL ABUN
IR-192	1.476E-02	3.392E-02	2.999E-02	1.731E-02	FAIL ABUN
AU-195	1.656E-01	2.464E-01	2.166E-01	1.257E-01	FAIL ABUN
TL-200	3.578E+02	8.628E+02	0.000E+00	4.402E+02	SHORT HLIF
TL-201	-1.159E+00	8.770E+00	7.315E+00	4.475E+00	NOT IDENT.
TL-202	-1.634E-02	7.586E-02	6.302E-02	3.871E-02	NOT IDENT.
HG-203	-1.716E-03	4.223E-02	3.675E-02	2.155E-02	NOT IDENT.
BI-207	-1.667E-02	6.066E-02	4.883E-02	3.095E-02	FAIL ABUN
TL-207	8.353E-02	7.598E-01	5.803E-01	3.876E-01	FAIL ABUN
PO-209	-2.889E+00	8.821E+00	7.203E+00	4.500E+00	NOT IDENT.
BI-210	2.118E+00	9.245E+00	8.385E+00	4.717E+00	NOT IDENT.
PB-210	2.118E+00	9.245E+00	8.385E+00	4.717E+00	NOT IDENT.
PO-210	2.118E+00	9.245E+00	8.385E+00	4.717E+00	NOT IDENT.
PB-211	-7.075E-01	1.065E+00	7.887E-01	5.433E-01	NOT IDENT.
BI-212	1.178E+00	5.796E-01	3.637E-01	2.957E-01	FAIL ABUN
PO-215	8.353E-02	7.598E-01	5.803E-01	3.876E-01	FAIL ABUN
RN-219	1.370E-01	4.130E-01	3.574E-01	2.107E-01	FAIL ABUN
RR-220	-3.960E+00	2.537E+01	2.072E+01	1.295E+01	NOT IDENT.
RA-223	8.353E-02	7.598E-01	5.803E-01	3.876E-01	FAIL ABUN
AC-227	-1.158E-01	3.718E-01	3.210E-01	1.897E-01	FAIL ABUN
TH-227	-1.158E-01	3.719E-01	3.210E-01	1.897E-01	FAIL ABUN
TH-229	-3.439E-01	5.149E-01	4.136E-01	2.627E-01	FAIL ABUN
PA-231	-1.385E-01	1.524E+00	1.321E+00	7.777E-01	FAIL ABUN
TH-231	8.353E-02	7.598E-01	5.803E-01	3.876E-01	FAIL ABUN
U-231	-6.429E-01	1.515E+00	1.149E+00	7.729E-01	FAIL ABUN
PA-233	-1.948E-02	6.495E-02	5.529E-02	3.314E-02	FAIL ABUN
PA-234	8.658E-02	3.529E-01	3.005E-01	1.801E-01	FAIL ABUN
PA-234M	6.472E+00	5.600E+00	5.004E+00	2.857E+00	NOT IDENT.
U-235	1.419E-01	2.219E-01	1.886E-01	1.132E-01	FAIL ABUN
NP-236	-7.947E-02	8.412E-02	6.777E-02	4.292E-02	NOT IDENT.
NP-239	-5.317E-03	1.925E-01	1.650E-01	9.821E-02	FAIL ABUN
AM-241	-1.238E-01	2.643E-01	2.056E-01	1.348E-01	NOT IDENT.
CM-243	5.738E-02	1.048E-01	9.236E-02	5.345E-02	FAIL ABUN
AM-246	9.135E-02	1.722E-01	1.485E-01	8.786E-02	NOT IDENT.
CM-247	-4.721E-04	3.741E-02	3.173E-02	1.909E-02	NOT IDENT.
CF-249	3.616E-02	4.386E-02	3.896E-02	2.238E-02	NOT IDENT.
CF-251	-2.046E-02	1.336E-01	1.109E-01	6.815E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON, SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.50	308.7528
46.50	308.7528
46.50	308.7528
48.70	325.3084
49.72	306.8430
51.35	322.0356
52.39	307.1255
52.97	312.2263
53.15	318.8767
53.44	325.6229
54.07	327.0719
56.28	334.4860
56.28	334.4887
57.37	0.0000
57.53	311.0710
57.53	311.0722
57.60	317.7028
57.98	327.4014
57.98	327.4014
59.32	342.6047
59.32	342.6047
59.40	342.6693
59.54	342.7829
59.72	330.1752
60.01	330.4001
61.10	322.7119
61.14	322.7414
61.30	322.8609
63.00	324.5989
63.29	324.8127
63.29	324.8127
63.58	325.0260
64.28	352.2699
65.12	383.0608
65.20	383.1286
65.20	383.1286
66.05	343.5971
66.72	315.3071
66.83	354.2669
66.91	354.3288
67.20	358.8779
67.20	358.8779
67.75	383.2610
67.85	383.3441
68.90	352.9671
68.90	352.9671
69.30	361.9576
69.67	392.6742
70.82	361.6743
70.82	361.6743
70.83	361.6819
72.80	384.0807
72.87	384.1370
72.87	384.1370
74.67	385.5594
74.81	385.6699
74.81	385.6699
74.81	385.6699
74.81	385.6699
74.81	385.6699
74.81	385.6699
74.81	385.6699
74.97	385.7944
75.28	386.0375
75.70	386.3650
77.11	387.4600
77.11	387.4600

77.11	387.4600
77.11	387.4600
77.11	387.4600
77.11	387.4600
77.11	387.4600
78.38	408.5978
79.62	368.6832
79.80	346.1316
79.80	346.1316
80.11	346.3422
80.18	340.4675
80.30	287.2435
80.30	287.2435
80.57	287.3945
81.00	346.9403
81.07	346.9867
81.07	346.9867
81.07	346.9867
81.07	346.9867
82.60	395.5967
83.37	411.0688
83.78	378.5990
83.78	378.5990
83.78	378.5990
83.78	378.5990
84.21	378.9052
84.90	379.3974
85.43	379.7733
86.29	380.3799
86.50	380.5291
86.54	380.5562
86.59	380.5911
86.72	380.6841
86.79	380.7307
86.94	380.8372
87.30	381.0911
87.30	381.0911
87.30	381.0911
87.30	381.0911
87.30	381.0911
87.30	381.0911
87.30	381.0911
87.57	381.2791
87.88	381.4961
88.03	381.6007
88.36	381.8314
88.47	381.9069
89.95	382.9340
91.11	383.7324
92.29	384.5385
92.38	384.6006
92.38	384.6006
93.35	360.9911
94.00	337.1073
94.67	326.8567
94.67	326.8600
94.90	317.8659
94.90	317.8659
94.90	317.8659
94.90	317.8659
95.87	359.5331
95.87	359.5331
96.73	390.5820
97.43	347.2595
98.44	328.4758
98.44	328.4758
98.88	305.2413
99.55	304.5645
99.55	304.5645
99.86	280.1822
100.00	280.2491
100.10	280.2979
103.18	305.3824
103.76	319.0536
105.00	318.6688
105.31	326.0534
108.00	376.1735
109.28	330.2116

111.00	350.8891
111.00	350.8891
111.76	338.7979
112.95	342.5576
115.19	323.8286
116.30	267.6885
117.00	290.0409
117.00	290.0409
117.66	309.2646
121.11	303.4588
121.62	299.4554
121.78	295.2923
122.06	304.9424
122.32	274.3405
122.32	274.3405
122.32	274.3405
122.32	274.3405
123.07	281.0058
127.23	342.4397
129.76	297.0992
131.20	326.6660
133.02	333.9461
133.54	333.2174
135.34	299.9478
136.00	305.6189
136.25	278.7153
136.48	297.1753
140.51	334.6473
140.51	0.0000
142.18	278.7682
142.65	290.9258
143.76	293.5346
144.24	289.3504
144.24	289.3504
144.24	289.3504
144.24	289.3504
145.22	325.8011
145.44	345.5800
147.16	299.2214
152.43	296.8293
152.70	296.9305
153.22	297.1248
154.21	295.2797
154.21	295.2797
154.21	295.2797
154.21	295.2797
155.03	282.2992
156.02	292.6226
158.56	286.8696
159.00	0.0000
159.00	291.4745
160.31	327.5978
161.27	304.5534
162.32	273.6661
162.64	257.0093
163.35	282.9521
163.89	269.7055
165.85	317.4509
167.43	267.4740
171.28	273.2002
171.86	276.7739
172.10	283.6312
176.55	287.3557
176.60	290.7787
181.06	287.6810
184.41	300.2137
185.71	300.6428
186.00	300.7387
190.27	240.4440
192.34	284.3224
193.63	270.8267
197.04	256.7070
198.01	248.8286
198.60	248.9831
200.40	262.2734
201.83	295.0601
202.84	268.1982
205.31	253.0635

208.36	289.1071
208.81	268.9576
209.75	269.2136
209.75	269.2136
210.97	269.5440
215.65	247.1853
216.55	245.2734
218.09	244.7540
222.10	242.1389
223.80	238.9560
226.40	270.9549
227.00	263.9276
227.08	256.7655
227.20	255.0002
228.16	244.4476
228.18	244.4518
228.18	244.4518
231.56	0.0000
235.69	240.3879
236.00	240.4589
236.00	240.4589
238.63	234.1452
238.63	234.1452
238.63	234.1452
238.63	234.1452
239.00	234.2239
240.98	234.6491
241.98	234.8636
241.98	234.8636
241.98	234.8636
244.69	198.5746
245.39	198.6991
247.94	202.9195
248.90	205.1875
249.79	199.8511
252.40	194.8002
252.85	205.9087
252.85	205.9087
254.15	0.0000
256.20	202.8259
256.20	202.8259
260.50	189.7038
260.90	184.2153
262.80	202.1330
264.65	222.8870
268.24	193.7559
268.79	192.3568
269.46	211.8594
269.46	211.8594
269.46	211.8594
269.46	211.8594
271.23	201.7156
273.65	247.0408
276.40	205.3994
277.35	189.6031
277.60	184.9490
277.60	184.9490
278.00	190.6439
278.60	193.5588
279.20	208.6941
279.53	213.4533
280.46	211.7340
281.68	201.5818
283.67	184.9254
284.30	202.9568
285.00	205.9052
285.90	195.6576
286.10	185.2902
286.10	185.2902
287.40	185.4816
288.45	0.0000
290.67	224.6811
290.80	230.7758
291.72	221.8302
293.26	0.0000
293.70	208.4835
295.21	193.4952
295.21	193.4952

295.21	193.4952
295.96	152.4487
296.50	152.5122
297.23	152.6001
298.57	152.7612
299.80	152.9077
299.80	152.9077
300.09	152.9419
300.09	152.9419
300.09	152.9419
300.09	152.9419
300.12	152.9443
301.29	157.6760
302.84	156.3344
303.76	161.0453
303.91	161.0658
304.40	156.5212
304.40	156.5212
304.84	156.5760
306.84	161.4272
308.46	160.6651
311.98	172.6715
316.51	144.2233
318.01	182.1766
319.02	167.7680
319.41	161.9953
320.08	160.1358
323.87	166.6180
323.87	166.6180
323.87	166.6180
323.87	166.6180
325.23	190.1663
328.77	171.9072
333.44	172.4873
334.20	185.1355
334.20	185.1355
334.30	185.1471
338.28	176.2332
338.28	176.2332
338.28	176.2332
338.28	176.2332
338.32	176.2387
338.32	176.2387
338.32	176.2387
340.50	152.8721
340.57	152.8792
344.27	163.9458
345.85	151.6043
350.59	0.0000
351.07	134.9562
351.92	135.0371
351.92	135.0371
351.92	135.0371
355.39	0.0000
356.01	119.4855
364.48	134.1963
366.43	139.3881
367.43	136.4711
367.94	0.0000
369.80	133.6717
374.96	139.1729
383.85	137.9548
387.95	143.4075
388.63	140.4174
391.69	154.9664
391.69	154.9664
392.90	147.9427
398.62	131.0723
400.65	109.7086
401.10	126.1493
401.81	123.1274
402.60	131.4004
404.84	152.1440
410.95	121.7649
411.60	140.3953
413.65	140.5717
414.70	133.4230
415.30	124.1602

415.76	129.3697
417.63	0.0000
418.52	121.2936
423.70	91.5154
427.08	136.5090
427.89	133.4492
432.53	132.7729
433.93	122.4183
439.47	108.1220
439.56	121.7756
439.89	118.6486
443.98	97.8830
444.90	104.2524
445.03	104.2615
445.03	104.2615
445.03	104.2615
445.03	104.2615
453.90	115.3801
463.38	96.8458
468.07	109.2656
473.00	105.9277
475.06	96.4078
475.35	93.2088
476.78	101.8594
477.59	93.3230
477.96	94.4158
482.03	83.8736
484.57	93.6801
487.03	91.6497
490.36	0.0000
492.35	100.5636
497.08	98.6495
507.63	0.0000
510.53	0.0000
510.84	85.1738
511.00	85.1810
511.85	85.2179
511.85	85.2179
513.99	85.3131
513.99	85.3131
520.41	86.3298
520.65	86.3394
527.90	90.3331
528.96	0.0000
529.64	90.4132
529.87	0.0000
531.02	55.1682
537.32	78.5880
543.00	92.1313
546.56	0.0000
549.76	83.5316
552.65	85.8801
555.20	88.2216
563.23	102.0223
563.90	107.6631
568.70	92.1749
569.32	101.1978
569.50	101.2061
569.67	101.2143
573.80	84.5123
574.00	84.5192
574.64	82.4531
578.91	78.3174
579.30	0.0000
583.14	75.1539
585.48	72.5176
591.81	92.7338
592.07	92.7463
593.00	87.3281
595.88	105.6631
600.56	107.7153
602.52	0.0000
602.71	108.5072
602.71	108.5072
603.60	108.1727
604.41	100.5925
604.70	100.6060
609.31	90.7363

609.31	90.7363
609.31	90.7363
609.31	90.7363
610.33	88.6379
612.46	76.4852
614.37	87.2697
618.01	80.0523
621.84	79.2687
621.84	79.2687
631.29	78.6769
633.02	88.9266
633.10	88.9313
634.78	88.0698
635.90	78.8387
636.97	75.1643
645.85	81.0464
646.12	81.0549
656.30	89.8359
657.75	87.0831
657.90	0.0000
661.65	87.2284
661.65	87.2284
664.57	0.0000
666.33	89.2805
666.33	89.2805
675.00	69.8014
677.61	82.1530
685.20	91.8871
692.80	96.9274
695.00	89.4079
696.49	83.7504
696.49	83.7504
697.00	85.6736
697.49	86.6411
698.33	94.2917
698.50	88.5839
699.00	95.2710
702.63	84.9172
706.10	85.9922
706.58	0.0000
706.67	87.9233
709.31	65.0565
711.68	70.8637
713.82	79.5511
717.42	71.9879
720.50	64.0682
721.93	0.0000
722.20	68.9197
722.78	70.5386
722.78	70.5386
722.89	70.5422
722.95	70.5439
723.30	75.3652
724.18	78.5982
727.18	76.1224
733.00	59.5574
735.90	76.2792
739.58	69.7184
742.81	71.7453
744.21	79.5456
747.13	68.9529
751.79	85.6174
752.31	88.5539
753.82	70.1051
755.35	77.9395
756.15	84.7868
756.87	80.9108
763.93	118.2734
765.79	76.2957
766.42	70.4443
766.84	74.3690
776.49	68.7490
778.00	69.7710
778.57	66.8379
778.89	68.8105
783.80	58.1055
785.46	60.1124
792.07	74.0900

795.84	77.1621
796.30	85.0888
798.80	107.9462
801.93	83.2843
805.60	58.5751
810.29	65.6375
810.76	60.6753
815.85	65.7696
817.79	57.8386
818.51	61.8441
819.60	62.8662
826.30	72.0193
828.27	0.0000
831.60	88.1912
831.96	81.1859
834.83	86.2856
836.80	0.0000
846.75	62.4692
848.13	69.5559
856.28	0.0000
856.80	62.3517
860.37	70.8665
867.32	63.7886
867.82	65.9744
871.10	60.9683
873.19	77.2821
874.81	71.2202
875.33	0.0000
876.40	65.1516
879.36	69.2933
880.27	68.2955
880.51	68.3004
881.50	61.1851
883.24	61.2217
884.67	57.1676
889.25	68.5032
896.60	80.9731
898.02	65.6297
899.00	68.7290
903.28	83.6492
911.07	57.6762
911.07	57.6762
911.07	57.6762
919.63	45.1877
920.93	51.6650
925.00	67.2550
925.24	60.0164
926.50	65.2164
935.52	66.4469
937.48	79.9947
944.10	76.0031
946.00	68.7570
949.00	65.6947
962.29	64.5769
964.01	68.1056
966.15	68.1516
968.20	68.1960
969.11	59.4696
969.11	59.4696
969.11	59.4696
977.42	63.1333
980.50	52.6611
983.50	51.6570
989.30	40.1329
996.32	76.2064
1001.03	58.2979
1001.68	62.5492
1004.76	84.8926
1021.30	0.0000
1024.50	0.0000
1034.80	49.2591
1036.00	49.2771
1037.82	71.8124
1038.57	67.5404
1038.76	0.0000
1045.16	56.9310
1046.59	69.8528
1048.07	55.9051

1050.47	66.7045
1050.47	66.7045
1062.04	71.2497
1063.62	66.9618
1076.63	58.5431
1077.35	57.4719
1078.86	62.9221
1085.78	76.0908
1099.22	74.2023
1112.02	51.6293
1112.84	60.2476
1115.52	65.7744
1120.29	76.8394
1120.29	76.8394
1120.29	76.8394
1120.29	76.8394
1120.51	78.6759
1121.28	71.3730
1124.00	0.0000
1129.67	70.6225
1131.51	0.0000
1147.95	0.0000
1167.94	71.3698
1173.22	68.6885
1175.09	71.5076
1177.93	86.4344
1189.05	66.1840
1204.90	87.0588
1205.75	0.0000
1213.00	89.1205
1221.42	84.6167
1230.97	89.5380
1235.34	101.9092
1236.41	0.0000
1238.25	73.6550
1246.25	78.5386
1260.41	0.0000
1271.85	67.6228
1274.45	66.7159
1274.54	59.0912
1291.56	34.4590
1298.22	0.0000
1312.09	44.2555
1325.50	38.6100
1325.50	38.6100
1332.49	26.1057
1333.61	24.1791
1360.21	39.9089
1362.66	0.0000
1365.15	31.1849
1368.21	29.2578
1368.53	0.0000
1376.25	23.4502
1384.27	24.9636
1394.10	23.5498
1395.20	39.2594
1407.95	22.6416
1434.06	23.7686
1436.60	24.7732
1457.56	0.0000
1460.81	21.9212
1489.15	16.0436
1509.49	17.1231
1596.49	29.7611
1620.62	19.5968
1678.03	0.0000
1691.02	11.5089
1691.02	11.5089
1706.46	0.0000
1750.46	0.0000
1764.49	16.9831
1764.49	16.9831
1764.49	16.9831
1764.49	16.9831
1770.23	12.7515
1771.40	22.3202
1791.20	0.0000
1808.65	11.7748

1836.01

11.8352

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246325001

Total Uranium Activity	1.2991E+01	ug/g
Total Uranium Counting Unc.	8.8628E+00	ug/g
Total Uranium Tpu	4.5218E-06	ug/g
Total Uranium Mda	4.5030E+00	ug/g


```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON , SC 29417              *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G246325001
*  ANALYST       : MXR1                             DETECTOR    : GAM10
*  SAMPLE DATE   : 2-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 15:14:44.65          SAMPLE ALQT  : 125.480 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.138E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.551E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 3.229E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.564E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 17:59:35.26

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344001.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 15:59:06
Sample ID          : G246344001      Sample quantity   : 1.42000E+02 GRAM
Detector name      : GAM04           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.24  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000        Sensitivity      : 5.00000
Batch ID           : 950787          Detector SN#     :
Matrix Spike ID    :                 LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.38*	150	425	1.09	126.80	121	10	2.09E-02	27.3	
2	3	74.77*	276	316	0.96	149.59	143	18	3.83E-02	12.0	2.52E+00
3	3	77.03*	500	317	1.03	154.09	143	18	6.94E-02	7.3	
4	4	83.88*	140	395	1.37	167.79	163	29	1.95E-02	26.0	1.08E+00
5	4	87.11*	182	395	1.38	174.26	163	29	2.52E-02	20.5	
6	4	89.91	128	295	0.98	179.86	163	29	1.77E-02	23.3	
7	4	92.61*	504	393	1.33	185.26	163	29	6.99E-02	8.4	
8	0	185.76*	287	434	1.52	371.59	365	13	3.99E-02	16.3	
9	0	209.61	121	273	0.96	419.28	415	10	1.68E-02	27.2	
10	5	238.58*	1129	187	1.06	477.22	472	16	1.57E-01	3.5	2.32E+00
11	5	241.54	306	199	1.86	483.15	472	16	4.25E-02	11.2	
12	0	270.53	106	226	1.13	541.13	536	11	1.47E-02	29.3	
13	0	277.72	63	145	1.24	555.51	552	8	8.81E-03	35.3	
14	0	295.08	385	220	1.14	590.23	584	11	5.34E-02	9.0	
15	0	300.61	67	192	1.26	601.31	597	11	9.24E-03	42.6	
16	0	327.76	89	134	0.99	655.60	651	10	1.24E-02	26.3	
17	0	338.14	270	170	1.27	676.36	672	10	3.75E-02	10.8	
18	0	351.91*	605	113	1.32	703.90	699	10	8.40E-02	5.3	
19	0	410.66	20	102	0.86	821.40	816	8	2.77E-03	90.6	
20	0	462.99	78	79	1.60	926.08	922	9	1.09E-02	23.6	
21	0	511.00*	201	95	1.61	1022.10	1014	17	2.79E-02	14.9	
22	0	583.20*	308	139	1.48	1166.50	1159	15	4.27E-02	10.2	
23	0	609.34*	384	90	1.30	1218.78	1212	11	5.33E-02	7.1	
24	0	661.59*	52	111	1.11	1323.26	1319	10	7.27E-03	41.2	
25	0	727.39	84	61	1.50	1454.87	1450	11	1.16E-02	21.1	
26	0	768.83	48	53	1.74	1537.75	1533	9	6.69E-03	31.3	
27	0	795.48	64	51	1.99	1591.04	1586	11	8.88E-03	25.1	
28	0	911.34*	223	71	1.91	1822.74	1814	18	3.10E-02	11.2	
29	2	964.62	60	36	2.06	1929.29	1921	26	8.34E-03	23.9	1.63E+00
30	2	969.04	159	36	2.06	1938.14	1921	26	2.21E-02	10.9	
31	0	1120.79*	107	13	2.15	2241.58	2235	16	1.49E-02	12.5	
32	0	1460.86*	1093	16	1.93	2921.60	2913	16	1.52E-01	3.2	
33	0	1765.04*	66	23	2.12	3529.80	3523	13	9.14E-03	19.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 17:59:37

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 1-FEB-2010 12:00:00   Acquisition date : 18-FEB-2010 15:59:06
Sample ID        : G246344001             Sample quantity  : 142.00 GRAM
Sample type       : SOLID                  Sample geometry   :
Detector name     : GAMMA4                 Detector geometry: CAN
Elapsed live time : 0 02:00:00.00          Elapsed real time: 0 02:00:01.24   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	+	1460.81	*	2.520E+01	2.396E+00	5.185E-01	3.685E-02	48.611
CD-109	+	88.03	*	2.648E+00	1.133E+00	1.110E+00	1.334E-01	2.387
SN-126	+	64.28		1.990E+00	1.140E+00	9.549E-01	1.645E-01	2.084
	+	86.94		1.079E+00	6.353E-01	4.604E-01	1.942E-01	2.343
	+	87.57	*	2.595E-01	1.110E-01	1.096E-01	1.314E-02	2.369
BA-137M	+	661.65	*	6.976E-02	5.765E-02	5.598E-02	2.730E-03	1.246
CS-137	+	661.65	*	7.374E-02	6.094E-02	5.918E-02	2.903E-03	1.246
HG-203		70.83		-7.258E-01	1.256E+00	1.828E+00	2.851E-01	-0.397
		72.87		3.354E-01	6.743E-01	1.090E+00	1.659E-01	0.308
	+	82.60		2.874E+00	1.565E+00	1.698E+00	2.688E-01	1.693
	+	279.20	*	6.481E-02	4.593E-02	5.693E-02	3.964E-03	1.138
TL-208	+	277.35		5.704E-01	4.071E-01	5.322E-01	5.881E-02	1.072
	+	510.84		8.995E-01	2.830E-01	1.643E-01	1.649E-02	5.475
	+	583.14	*	3.933E-01	8.411E-02	4.817E-02	3.031E-03	8.166
		860.37		4.551E-01	2.872E-01	5.293E-01	4.415E-02	0.860
BI-211		72.87		1.636E+00	3.284E+00	5.318E+00	6.097E-01	0.308
	+	351.07	*	3.409E+00	4.284E-01	2.922E-01	1.974E-02	11.664
PB-212	+	74.81		1.877E+00	5.307E-01	5.524E-01	8.165E-02	3.398
	+	77.11		1.874E+00	3.474E-01	3.049E-01	3.498E-02	6.147
	+	87.30		1.200E+00	5.274E-01	5.091E-01	7.941E-02	2.358
	+	238.63	*	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
	+	300.09		1.265E+00	1.084E+00	1.082E+00	9.524E-02	1.170
PO-212	+	74.81		1.877E+00	5.307E-01	5.524E-01	8.165E-02	3.398
	+	77.11		1.874E+00	3.474E-01	3.049E-01	3.498E-02	6.147
	+	87.30		1.200E+00	5.274E-01	5.091E-01	7.941E-02	2.358
		115.19		-2.309E-01	3.255E+00	5.349E+00	4.025E-01	-0.043
	+	238.63	*	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
	+	300.09		1.265E+00	1.084E+00	1.082E+00	9.524E-02	1.170
BI-214	+	609.31	*	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
	+	1120.29		1.381E+00	3.674E-01	4.252E-01	3.961E-02	3.247
	+	1764.49		1.156E+00	4.606E-01	2.634E-01	1.606E-02	4.390
PB-214	+	74.81		3.235E+00	8.956E-01	9.518E-01	1.298E-01	3.398
	+	77.11		3.213E+00	6.439E-01	5.227E-01	7.199E-02	6.147
	+	87.30		2.056E+00	8.940E-01	8.721E-01	1.242E-01	2.358

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	241.98		2.256E+00	5.423E-01	4.528E-01	3.945E-02	4.983
	+	295.21		1.282E+00	2.593E-01	1.910E-01	1.734E-02	6.712
	+	351.92	*	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
	+	74.81		3.235E+00	8.956E-01	9.518E-01	1.298E-01	3.398
	+	77.11		3.213E+00	6.439E-01	5.227E-01	7.199E-02	6.147
	+	87.30		2.056E+00	8.940E-01	8.721E-01	1.242E-01	2.358
PO-216	+	241.98		2.256E+00	5.423E-01	4.528E-01	3.945E-02	4.983
	+	295.21		1.282E+00	2.593E-01	1.910E-01	1.734E-02	6.712
	+	351.92	*	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
	+	74.81		1.877E+00	5.307E-01	5.524E-01	8.165E-02	3.398
	+	77.11		1.874E+00	3.474E-01	3.049E-01	3.498E-02	6.147
	+	87.30		1.200E+00	5.274E-01	5.091E-01	7.941E-02	2.358
PO-218	+	238.63	*	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
	+	300.09		1.265E+00	1.084E+00	1.082E+00	9.524E-02	1.170
	+	74.81		3.235E+00	8.956E-01	9.518E-01	1.298E-01	3.398
	+	77.11		3.213E+00	6.439E-01	5.227E-01	7.199E-02	6.147
	+	87.30		2.056E+00	8.940E-01	8.721E-01	1.242E-01	2.358
	+	241.98		2.256E+00	5.423E-01	4.528E-01	3.945E-02	4.983
RA-224	+	295.21		1.282E+00	2.593E-01	1.910E-01	1.734E-02	6.712
	+	351.92	*	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
	+	240.98	*	4.278E+00	9.999E-01	9.189E-01	6.126E-02	4.656
	+	609.31	*	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
	+	1120.29		1.381E+00	3.674E-01	4.252E-01	3.961E-02	3.247
	+	1764.49		1.156E+00	4.606E-01	2.634E-01	1.605E-02	4.390
AC-228	+	338.32		1.678E+00	7.759E-01	3.353E-01	1.369E-01	5.005
	+	911.07	*	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997
	+	969.11		1.626E+00	5.164E-01	3.148E-01	7.260E-02	5.164
	+	338.32		1.678E+00	7.759E-01	3.353E-01	1.369E-01	5.005
	+	911.07	*	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997
	+	969.11		1.626E+00	5.164E-01	3.148E-01	7.260E-02	5.164
TH-228	+	74.81		1.910E+00	5.099E-01	5.619E-01	6.466E-02	3.398
	+	77.11		1.907E+00	3.534E-01	3.102E-01	3.558E-02	6.147
	+	87.30		1.221E+00	5.224E-01	5.178E-01	6.199E-02	2.358
	+	238.63	*	1.410E+00	1.511E-01	8.211E-02	6.594E-03	17.173
	+	300.09		1.287E+00	1.334E+00	1.100E+00	6.494E-01	1.170
	+	609.31	*	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
TH-230	+	1120.29		1.381E+00	3.674E-01	4.252E-01	3.961E-02	3.247
	+	1764.49		1.156E+00	4.606E-01	2.634E-01	1.605E-02	4.390
	+	338.32		1.678E+00	3.788E-01	3.353E-01	2.108E-02	5.005
	+	911.07	*	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997
	+	969.11		1.626E+00	5.164E-01	3.148E-01	7.260E-02	5.164
	+	63.29	*	5.027E+00	2.920E+00	2.488E+00	4.922E-01	2.021
TH-234	+	92.38		4.509E+00	1.152E+00	6.984E-01	1.345E-01	6.456
	+	609.31	*	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
	+	1120.29		1.381E+00	3.674E-01	4.252E-01	3.961E-02	3.247
	+	1764.49		1.156E+00	4.606E-01	2.634E-01	1.605E-02	4.390
	+	86.50	*	7.621E-01	3.620E-01	3.278E-01	7.809E-02	2.325
	+	95.87		1.524E-01	9.177E-01	1.379E+00	3.473E-01	0.111
U-238	+	63.29	*	5.027E+00	2.920E+00	2.488E+00	4.922E-01	2.021

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	92.38		4.509E+00	9.024E-01	6.984E-01	7.584E-02	6.456
	+	74.67	*	3.043E-01	8.120E-02	8.999E-02	1.031E-02	3.382
	+	86.72		2.858E+01	1.223E+01	1.224E+01	1.460E+00	2.334
		117.66		-1.904E+00	3.332E+00	5.341E+00	3.899E-01	-0.356
ANH-511		142.18		-1.116E+00	1.563E+01	2.524E+01	1.651E+00	-0.044
	+	511.00	*	1.943E-01	5.894E-02	3.550E-02	1.985E-03	5.474

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.882E-02	2.790E-01	4.587E-01	3.038E-02	0.063
NA-22		1274.54	*	1.689E-02	4.008E-02	6.990E-02	4.570E-03	0.242
NA-24		1368.53	*	1.429E+00	4.008E-02	Half-Life too short		
AL-26		1129.67		-7.721E-01	1.828E+00	2.663E+00	1.718E-01	-0.290
		1808.65	*	1.617E-02	2.286E-02	4.335E-02	2.571E-03	0.373
TI-44		67.85		2.901E-02	5.189E-02	8.546E-02	9.938E-03	0.340
	+	78.38	*	3.459E-01	6.411E-02	7.333E-02	8.432E-03	4.718
SC-46		889.25	*	5.296E-03	3.676E-02	6.138E-02	4.964E-03	0.086
	+	1120.51		2.404E-01	6.196E-02	1.073E-01	7.029E-03	2.240
V-48		944.10		-4.113E-01	8.382E-01	1.297E+00	1.037E-01	-0.317
		983.50	*	-1.605E-02	6.442E-02	1.021E-01	7.913E-03	-0.157
		1312.09		1.200E-02	8.039E-02	1.365E-01	9.194E-03	0.088
CR-51		320.08	*	-8.350E-02	3.305E-01	5.446E-01	3.835E-02	-0.153
MN-52		744.21		6.603E-02	2.582E-01	4.408E-01	2.616E-02	0.150
		848.13		-3.233E+00	7.536E+00	1.191E+01	8.860E-01	-0.271
		935.52		2.773E-01	3.057E-01	5.423E-01	4.361E-02	0.511
		1246.25		1.721E+00	8.696E+00	1.484E+01	9.444E-01	0.116
		1333.61		1.768E+00	5.879E+00	1.015E+01	6.957E-01	0.174
		1434.06	*	-8.648E-03	2.577E-01	4.248E-01	2.899E-02	-0.020
MN-54		834.83	*	6.410E-03	3.584E-02	6.018E-02	4.355E-03	0.107
CO-56		846.75	*	-5.065E-03	3.505E-02	5.711E-02	4.237E-03	-0.089
		977.42		6.486E-01	2.856E+00	4.520E+00	3.521E-01	0.143
		1037.82		-2.610E-03	2.840E-01	4.614E-01	3.631E-02	-0.006
		1175.09		1.295E+00	2.248E+00	3.819E+00	2.275E-01	0.339
		1238.25		1.148E-01	8.727E-02	1.603E-01	1.067E-02	0.717
		1360.21		6.725E-03	9.862E-01	1.643E+00	1.126E-01	0.004
		1771.40		-6.601E-01	3.014E-01	2.904E-01	1.763E-02	-2.273
		122.06	*	1.777E-02	2.289E-02	3.881E-02	2.694E-03	0.458
CO-57		136.48		-2.286E-02	1.837E-01	2.986E-01	2.221E-02	-0.077
		810.76	*	-3.413E-04	3.486E-02	5.776E-02	3.988E-03	-0.006
FE-59		142.65		1.350E+00	2.506E+00	4.151E+00	2.713E-01	0.325
		192.34		4.012E-01	8.430E-01	1.383E+00	1.683E-01	0.290
		1099.22	*	-6.280E-02	9.232E-02	1.385E-01	1.058E-02	-0.454
CO-60		1291.56		-5.959E-02	1.130E-01	1.772E-01	1.432E-02	-0.336
		1173.22		8.152E-03	4.559E-02	7.465E-02	4.439E-03	0.109
		1332.49	*	-9.271E-03	3.563E-02	5.749E-02	3.939E-03	-0.161
ZN-65		1115.52	*	1.086E-02	9.373E-02	1.330E-01	8.796E-03	0.082
GE-68		1077.35	*	4.588E-01	1.103E+00	1.870E+00	1.306E-01	0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	1.241E+00	1.357E+00	2.382E+00	3.116E-01	0.521
AS-74		595.88	*	6.387E-02	8.628E-02	1.474E-01	7.781E-03	0.433
		634.78		1.909E-01	3.609E-01	6.031E-01	3.051E-02	0.317
SE-75		66.05		2.368E-01	5.822E+00	8.852E+00	1.162E+00	0.027
		96.73		-3.740E-01	7.850E-01	1.135E+00	1.646E-01	-0.329
		121.11		7.777E-02	1.236E-01	2.083E-01	2.091E-02	0.373
		136.00		-5.813E-03	3.454E-02	5.603E-02	3.755E-03	-0.104
		198.60		4.884E-01	1.683E+00	2.685E+00	2.072E-01	0.182
		264.65	*	-1.283E-02	4.081E-02	6.291E-02	4.232E-03	-0.204
		279.53		2.917E-02	1.030E-01	1.565E-01	1.105E-02	0.186
		303.91		5.865E-01	1.977E+00	2.994E+00	2.997E-01	0.196
		400.65		7.430E-02	2.365E-01	3.980E-01	3.584E-02	0.187
BR-77	+	87.88		1.037E+03	4.437E+02	5.608E+02	6.740E+01	1.849
		200.40		1.127E+02	2.688E+02	4.390E+02	2.864E+01	0.257
	+	239.00		4.047E+02	3.939E+01	6.212E+01	4.139E+00	6.514
		249.79		-4.629E+01	1.031E+02	1.711E+02	1.143E+01	-0.271
		281.68		-3.002E+01	1.576E+02	2.311E+02	1.534E+01	-0.130
		297.23		2.288E+02	1.381E+02	1.760E+02	1.158E+01	1.300
		303.76		7.286E+01	3.048E+02	4.597E+02	3.009E+01	0.159
		439.47		2.405E+02	2.338E+02	4.103E+02	2.327E+01	0.586
		484.57		-3.823E+02	3.505E+02	5.004E+02	2.823E+01	-0.764
		520.65	*	-1.626E+01	1.650E+01	2.435E+01	1.356E+00	-0.668
		574.64		4.355E+01	3.397E+02	5.525E+02	2.972E+01	0.079
		578.91		-5.385E+01	1.569E+02	2.108E+02	1.130E+01	-0.256
		585.48		1.382E+03	3.987E+02	7.067E+02	3.767E+01	1.955
		755.35		1.466E+02	2.852E+02	4.945E+02	3.010E+01	0.296
		817.79		-2.116E+02	2.184E+02	3.268E+02	2.282E+01	-0.647
SR-82		698.33		-9.273E+00	3.091E+01	5.055E+01	2.696E+00	-0.183
		776.49	*	-3.621E-01	3.926E-01	6.019E-01	3.841E-02	-0.602
		1395.20		-5.228E+00	1.013E+01	1.553E+01	1.063E+00	-0.337
RB-83		520.41	*	-6.608E-02	6.183E-02	9.055E-02	5.043E-03	-0.730
		529.64		-4.594E-02	9.529E-02	1.478E-01	8.191E-03	-0.311
		552.65		-2.313E-02	1.638E-01	2.607E-01	1.425E-02	-0.089
RB-84		881.50	*	1.573E-02	6.434E-02	1.086E-01	8.648E-03	0.145
KR-85		513.99	*	3.142E+00	7.175E+00	1.063E+01	5.939E-01	0.296
SR-85		513.99	*	1.646E-02	3.759E-02	5.570E-02	3.111E-03	0.296
RB-86		1076.63	*	3.428E-01	7.347E-01	1.254E+00	8.765E-02	0.273
Y-88		898.02		9.902E-03	3.794E-02	6.401E-02	5.296E-03	0.155
		1836.01	*	9.171E-03	3.661E-02	6.203E-02	3.620E-03	0.148
ZR-88		392.90	*	9.855E-03	2.686E-02	4.546E-02	2.559E-03	0.217
Y-91		1204.90	*	-1.132E+00	2.007E+01	3.206E+01	1.965E+00	-0.035
NB-94		702.63	*	1.900E-02	3.184E-02	5.562E-02	2.996E-03	0.342
		871.10		3.285E-03	2.581E-02	4.319E-02	3.368E-03	0.076
NB-95		765.79	*	1.017E-02	4.481E-02	6.653E-02	4.146E-03	0.153
NB-95M		235.69	*	7.303E-02	1.266E-01	1.852E-01	1.520E-02	0.394
ZR-95		724.18		-2.356E-02	9.585E-02	1.354E-01	9.135E-03	-0.174
		756.15	*	7.670E-03	6.861E-02	1.154E-01	8.403E-03	0.066
NB-97		657.90	*	3.603E-01	6.861E-02	Half-Life too short		
		1024.50		-4.768E+01	6.861E-02	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
ZR-97	254.15			7.604E+00	6.861E-02	Half-Life too short		
	355.39			-2.461E+00	6.861E-02	Half-Life too short		
	507.63	*		9.451E+00	6.861E-02	Half-Life too short		
	602.52			1.255E+01	6.861E-02	Half-Life too short		
	1021.30			3.178E+01	6.861E-02	Half-Life too short		
	1147.95			-9.369E-01	6.861E-02	Half-Life too short		
	1362.66			1.057E+01	6.861E-02	Half-Life too short		
	1750.46			1.831E+01	6.861E-02	Half-Life too short		
MO-99	140.51			-2.004E+01	3.861E+01	6.092E+01	1.652E+01	-0.329
	181.06			-1.645E+01	2.858E+01	3.924E+01	6.813E+00	-0.419
	366.43			1.258E+01	1.183E+02	1.978E+02	1.183E+01	0.064
	739.58	*		-6.910E-01	1.667E+01	2.773E+01	3.830E+00	-0.025
	778.00			1.913E+01	5.097E+01	8.751E+01	5.605E+00	0.219
TC-99M	140.51	*		-5.002E+12	5.097E+01	Half-Life too short		
RH-101	127.23			-3.400E-03	2.943E-02	4.805E-02	3.263E-03	-0.071
	198.01	*		2.185E-02	2.971E-02	4.838E-02	3.151E-03	0.452
	325.23			3.908E-02	2.041E-01	3.054E-01	1.955E-02	0.128
RH-102	418.52			1.249E-02	2.652E-01	4.377E-01	2.479E-02	0.029
	475.06	*		-1.037E-02	2.458E-02	3.867E-02	2.187E-03	-0.268
	631.29			5.651E-03	4.794E-02	7.744E-02	3.934E-03	0.073
	697.49			2.501E-02	6.595E-02	1.139E-01	6.061E-03	0.220
	766.84			1.757E-01	1.160E-01	1.932E-01	1.207E-02	0.909
	1046.59			1.511E-02	1.104E-01	1.820E-01	1.322E-02	0.083
	1112.84			1.324E-01	2.276E-01	3.696E-01	2.451E-02	0.358
RU-103	497.08	*		8.024E-03	3.493E-02	5.788E-02	7.272E-03	0.139
+	610.33			1.036E+01	2.160E+00	2.710E+00	4.121E-01	3.824
RH-106	511.85	+		9.742E-01	2.956E-01	4.098E-01	2.291E-02	2.377
	621.84	*		6.625E-02	3.083E-01	5.019E-01	5.734E-02	0.132
	1050.47			5.161E-01	2.337E+00	3.878E+00	2.803E-01	0.133
RU-106	511.85	+		9.742E-01	2.956E-01	4.098E-01	2.291E-02	2.377
	621.84	*		6.625E-02	3.082E-01	5.019E-01	2.579E-02	0.132
	1050.47			5.161E-01	2.337E+00	3.878E+00	2.803E-01	0.133
AG-108M	433.93	*		-2.659E-03	2.803E-02	4.568E-02	2.823E-03	-0.058
	614.37			-3.046E-02	3.976E-02	4.993E-02	2.859E-03	-0.610
	722.95			-1.223E-02	4.072E-02	5.705E-02	3.511E-03	-0.214
AG-110M	657.75	*		1.729E-02	3.476E-02	5.383E-02	2.876E-03	0.321
	677.61			3.367E-02	2.592E-01	4.403E-01	2.410E-02	0.076
	706.67			-4.826E-02	2.027E-01	3.336E-01	1.937E-02	-0.145
	763.93			-2.426E-02	1.695E-01	2.411E-01	1.577E-02	-0.101
	884.67			-1.101E-02	4.624E-02	7.439E-02	6.183E-03	-0.148
	937.48			-1.117E-01	1.041E-01	1.509E-01	1.263E-02	-0.740
	1384.27			-1.337E-01	1.478E-01	2.137E-01	1.529E-02	-0.625
IN-111	171.28			-1.080E+00	1.433E+00	2.223E+00	1.417E-01	-0.486
	245.39	*		-4.534E-01	1.843E+00	2.538E+00	1.693E-01	-0.179
IN-113M	391.69	*		4.301E-03	3.864E-02	6.433E-02	3.876E-03	0.067
SN-113	391.69	*		4.301E-03	3.864E-02	6.433E-02	3.876E-03	0.067
IN-114M	190.27	*		9.485E-02	1.784E-01	2.641E-01	1.710E-02	0.359
CD-115	260.90			6.340E+01	2.046E+02	3.520E+02	2.350E+01	0.180
	492.35			6.416E+01	6.230E+01	1.091E+02	6.140E+00	0.588

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		527.90	*	-1.385E+00	1.727E+01	2.775E+01	1.540E+00	-0.050
		156.02		7.177E-02	2.236E+00	3.635E+00	2.331E-01	0.020
		158.56	*	-1.924E-03	5.416E-02	8.770E-02	5.610E-03	-0.022
SB-122		563.90	*	2.297E+00	3.034E+00	5.198E+00	2.820E-01	0.442
		692.80		-2.835E+01	6.439E+01	1.041E+02	5.480E+00	-0.272
I-123		159.00	*	-3.041E+01	6.439E+01	Half-Life	too short	
		528.96		6.703E+02	6.439E+01	Half-Life	too short	
TE-123M		159.00	*	-1.133E-02	2.592E-02	4.116E-02	2.661E-03	-0.275
I-124		602.71	*	1.641E-01	8.988E-01	1.285E+00	6.740E-02	0.128
		722.78		-1.549E+00	5.993E+00	8.444E+00	4.770E-01	-0.183
SB-124		1325.50		4.007E+01	4.374E+01	8.060E+01	5.491E+00	0.502
		1376.25		4.001E+01	4.099E+01	7.540E+01	5.166E+00	0.531
		1509.49		1.226E+01	1.937E+01	3.489E+01	2.352E+00	0.351
		1691.02		-3.717E+00	4.880E+00	6.667E+00	4.226E-01	-0.558
		602.71		6.950E-03	3.808E-02	5.445E-02	2.857E-03	0.128
		645.85		-2.824E-02	4.616E-01	7.747E-01	4.521E-02	-0.036
		709.31		7.868E-02	2.551E+00	4.283E+00	2.344E-01	0.018
		713.82		5.650E-01	1.466E+00	2.507E+00	2.522E-01	0.225
		722.78		-9.516E-02	3.681E-01	5.186E-01	3.075E-02	-0.183
	+	968.20		1.713E+01	3.977E+00	6.815E+00	5.348E-01	2.514
		1045.16		2.711E-01	2.398E+00	3.944E+00	2.869E-01	0.069
		1325.50		2.654E+00	2.869E+00	5.287E+00	3.602E-01	0.502
		1368.21		3.620E-01	1.657E+00	2.834E+00	3.520E-01	0.128
		1436.60		-9.917E-01	3.365E+00	5.323E+00	3.631E-01	-0.186
SB-125		1691.02	*	-5.385E-02	7.070E-02	9.658E-02	6.562E-03	-0.558
		427.89	*	6.854E-02	8.736E-02	1.507E-01	8.922E-03	0.455
	+	463.38		6.855E-01	3.262E-01	4.940E-01	3.284E-02	1.388
		600.56		-3.358E-02	1.575E-01	2.476E-01	1.546E-02	-0.136
TE-125M		635.90		-7.713E-02	2.649E-01	4.119E-01	2.539E-02	-0.187
		109.28	*	5.579E+00	8.385E+00	1.400E+01	1.391E+00	0.398
I-126		388.63		7.763E-03	1.902E-01	3.154E-01	1.789E-02	0.025
		666.33	*	-1.656E-02	2.028E-01	2.944E-01	1.452E-02	-0.056
SB-126		753.82		2.174E+00	1.506E+00	2.787E+00	1.691E-01	0.780
		223.80		-8.954E-01	4.011E+00	6.298E+00	4.172E-01	-0.142
	+	278.60		4.229E+00	2.995E+00	4.273E+00	2.841E-01	0.990
	+	296.50		1.431E+01	2.754E+00	3.736E+00	2.459E-01	3.830
		414.70		-2.420E-03	7.863E-02	1.195E-01	6.764E-03	-0.020
		415.30		-1.838E+00	6.547E+00	1.019E+01	5.766E-01	-0.180
		555.20		-9.850E-01	3.661E+00	5.752E+00	3.140E-01	-0.171
		573.80		8.593E-01	1.019E+00	1.755E+00	9.451E-02	0.489
		593.00		-8.911E-01	9.401E-01	1.373E+00	7.271E-02	-0.649
		656.30		1.170E+00	3.591E+00	5.471E+00	2.689E-01	0.214
		666.33		-6.953E-03	8.513E-02	1.236E-01	6.098E-03	-0.056
		675.00		8.991E-01	1.878E+00	3.280E+00	1.653E-01	0.274
		695.00		1.076E-02	7.402E-02	1.256E-01	6.646E-03	0.086
		697.00		2.160E-01	2.569E-01	4.590E-01	2.439E-02	0.471
		720.50	*	9.721E-02	1.452E-01	2.444E-01	1.373E-02	0.398
		856.80		-6.224E-01	5.062E-01	7.370E-01	5.582E-02	-0.844
		989.30		4.619E-01	1.221E+00	2.076E+00	1.600E-01	0.223

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		1034.80		-7.797E+00	9.192E+00	1.349E+01	9.932E-01	-0.578
		1213.00		-3.297E+00	5.257E+00	7.906E+00	4.882E-01	-0.417
		61.10		3.486E+01	1.113E+02	1.723E+02	2.500E+01	0.202
		252.40		9.321E-01	5.241E+00	8.948E+00	3.745E+00	0.104
		290.80		-2.241E+01	3.014E+01	4.207E+01	4.380E+00	-0.533
	+	411.60		1.053E+01	1.915E+01	2.698E+01	3.997E+00	0.390
		444.90		-1.661E+01	1.222E+01	1.756E+01	1.998E+00	-0.946
		473.00		-3.022E+00	2.186E+00	3.115E+00	3.656E-01	-0.970
		543.00		-1.787E+00	2.216E+01	3.556E+01	4.740E+00	-0.050
		603.60		-3.487E-01	1.633E+01	2.276E+01	2.536E+00	-0.015
		685.20	*	5.720E-01	1.763E+00	3.034E+00	2.980E-01	0.189
		698.50		-1.225E+01	1.932E+01	3.060E+01	4.527E+00	-0.400
XE-127		722.20		1.714E+01	4.106E+01	6.270E+01	6.162E+00	0.273
		783.80		5.008E-01	4.486E+00	7.532E+00	8.798E-01	0.066
		57.60		5.104E+00	8.927E+00	1.485E+01	1.859E+00	0.344
		145.22		8.659E-01	6.243E-01	1.075E+00	6.996E-02	0.805
		172.10		-7.227E-02	1.103E-01	1.722E-01	1.098E-02	-0.420
		202.84	*	-2.995E-02	4.443E-02	6.856E-02	4.482E-03	-0.437
I-131		374.96		2.555E-02	1.743E-01	2.917E-01	1.711E-02	0.088
		80.18		1.595E+00	7.008E+00	8.529E+00	9.902E-01	0.187
		284.30		2.638E-01	1.519E+00	2.585E+00	1.868E-01	0.102
		364.48	*	-7.937E-02	1.175E-01	1.858E-01	1.241E-02	-0.427
TE-132		636.97		-3.893E-01	1.865E+00	2.922E+00	1.711E-01	-0.133
		722.89		-2.383E+00	8.189E+00	1.149E+01	6.615E-01	-0.207
		49.72		1.101E+01	5.589E+01	9.604E+01	1.385E+01	0.115
		111.76		9.058E+00	4.168E+01	6.940E+01	7.536E+00	0.131
BA-133		116.30		1.232E+01	3.801E+01	6.345E+01	6.690E+00	0.194
		228.16	*	2.500E-01	9.752E-01	1.570E+00	2.377E-01	0.159
		53.15		4.558E+00	5.811E+00	1.017E+01	1.331E+00	0.448
		79.62		-9.892E-02	1.685E+00	2.005E+00	3.418E-01	-0.049
		81.00		-1.491E-02	1.228E-01	1.452E-01	2.565E-02	-0.103
	+	276.40		5.639E-01	4.047E-01	5.840E-01	7.807E-02	0.966
I-133		302.84		2.853E-02	1.328E-01	1.999E-01	2.409E-02	0.143
		356.01	*	3.271E-03	3.888E-02	5.730E-02	6.713E-03	0.057
		383.85		-1.147E-01	2.593E-01	4.155E-01	4.505E-02	-0.276
	+	510.53		1.018E+01	2.593E-01	Half-Life	too short	
		529.87	*	-7.831E-03	2.593E-01	Half-Life	too short	
		706.58		-4.012E-01	2.593E-01	Half-Life	too short	
		856.28		-2.807E+00	2.593E-01	Half-Life	too short	
		875.33		-2.595E-01	2.593E-01	Half-Life	too short	
		1236.41		2.120E+00	2.593E-01	Half-Life	too short	
		1298.22		-1.331E-01	2.593E-01	Half-Life	too short	
CS-134		475.35		-5.520E-02	1.572E+00	2.556E+00	1.445E-01	-0.022
		563.23		1.650E-01	3.139E-01	5.282E-01	2.935E-02	0.312
		569.32		-3.186E-02	1.768E-01	2.740E-01	1.531E-02	-0.116
		604.70		-1.024E-02	3.280E-02	4.402E-02	2.320E-03	-0.233
	+	795.84	*	1.192E-01	6.048E-02	9.014E-02	6.075E-03	1.322
		801.93		-4.511E-01	4.147E-01	5.169E-01	3.520E-02	-0.873
		1038.57		1.965E+00	3.318E+00	5.750E+00	4.215E-01	0.342

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135 I-135	1167.94			1.517E-01	2.420E+00	3.923E+00	2.358E-01	0.039
	1365.15			-1.856E-02	1.179E+00	1.958E+00	1.438E-01	-0.009
	268.24	*		6.006E-02	1.528E-01	2.343E-01	1.953E-02	0.256
	288.45			-1.502E+12	1.528E-01	Half-Life	too short	
	417.63			7.762E+11	1.528E-01	Half-Life	too short	
	546.56			8.952E+11	1.528E-01	Half-Life	too short	
	836.80			3.633E+12	1.528E-01	Half-Life	too short	
	1038.76			1.933E+12	1.528E-01	Half-Life	too short	
	1124.00			4.813E+12	1.528E-01	Half-Life	too short	
	1131.51			2.908E+11	1.528E-01	Half-Life	too short	
	1260.41	*		2.653E+11	1.528E-01	Half-Life	too short	
	1457.56			6.228E+13	1.528E-01	Half-Life	too short	
	1678.03			-2.860E+10	1.528E-01	Half-Life	too short	
	1706.46			-3.898E+12	1.528E-01	Half-Life	too short	
CS-136	1791.20			-7.087E+11	1.528E-01	Half-Life	too short	
	66.91			1.091E+00	1.045E+00	1.644E+00	2.850E-01	0.664
	86.29	+		3.773E+00	1.654E+00	2.041E+00	3.112E-01	1.848
	153.22			3.340E-01	6.368E-01	1.059E+00	8.198E-02	0.316
	163.89			7.911E-01	1.044E+00	1.747E+00	1.347E-01	0.453
	176.55			-5.547E-02	3.728E-01	5.969E-01	4.213E-02	-0.093
	273.65			3.026E-01	5.950E-01	6.914E-01	5.105E-02	0.438
	340.57			1.767E-01	1.390E-01	2.228E-01	1.472E-02	0.793
	818.51			4.548E-03	6.848E-02	1.143E-01	8.002E-03	0.040
	1048.07	*		5.764E-02	1.198E-01	2.036E-01	1.564E-02	0.283
CE-139 BA-140	1235.34			-2.076E-01	6.363E-01	1.039E+00	1.069E-01	-0.200
	165.85	*		-3.077E-02	2.608E-02	3.959E-02	2.515E-03	-0.777
	162.64			5.454E-01	7.568E-01	1.264E+00	8.894E-02	0.431
	304.84			8.906E-02	1.305E+00	1.941E+00	5.330E-01	0.046
	423.70			-1.195E+00	2.114E+00	3.291E+00	1.045E+00	-0.363
LA-140	537.32	*		1.964E-02	2.635E-01	4.286E-01	1.392E-01	0.046
	328.77	+		7.663E-01	4.071E-01	5.391E-01	3.780E-02	1.421
	432.53			1.982E-02	2.017E+00	3.314E+00	2.084E-01	0.006
	487.03			-1.590E-01	1.341E-01	1.903E-01	1.222E-02	-0.835
	751.79			-9.823E-01	1.804E+00	2.871E+00	2.094E-01	-0.342
	815.85			-2.391E-01	3.225E-01	4.951E-01	4.036E-02	-0.483
	867.82			-1.203E+00	1.211E+00	1.753E+00	1.446E-01	-0.686
	919.63			2.983E+00	3.026E+00	5.053E+00	5.180E-01	0.590
	925.24			5.619E-02	1.102E+00	1.819E+00	1.577E-01	0.031
	1596.49	*		1.289E-03	7.435E-02	1.225E-01	8.067E-03	0.011
CE-141 CE-143	145.44	*		3.093E-02	5.770E-02	9.616E-02	6.455E-03	0.322
	57.37			5.104E-04	5.770E-02	Half-Life	too short	
	231.56			-1.192E-03	5.770E-02	Half-Life	too short	
	293.26	*		1.746E-03	5.770E-02	Half-Life	too short	
	350.59	+		7.591E-02	5.770E-02	Half-Life	too short	
	490.36			2.591E-03	5.770E-02	Half-Life	too short	
	664.57			2.101E-03	5.770E-02	Half-Life	too short	
	721.93			1.814E-03	5.770E-02	Half-Life	too short	
	80.11			6.606E-01	2.721E+00	3.315E+00	3.830E-01	0.199
CE-144	133.54	*		-7.246E-02	1.843E-01	2.959E-01	4.314E-02	-0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144		476.78		4.645E-02	5.704E-02	9.888E-02	6.744E-03	0.470
		618.01		3.212E-03	2.975E-02	4.804E-02	2.666E-03	0.067
		696.49	*	1.564E-02	2.913E-02	5.095E-02	2.708E-03	0.307
		778.57		8.842E-01	2.001E+00	3.458E+00	2.219E-01	0.256
PR-144		696.49	*	1.061E+00	1.976E+00	3.456E+00	1.835E-01	0.307
		1489.15		-2.901E+00	7.760E+00	1.171E+01	7.931E-01	-0.248
PM-146		453.90	*	1.235E-02	3.927E-02	6.570E-02	5.607E-03	0.188
		633.02		-3.715E-01	1.297E+00	2.005E+00	7.360E-01	-0.185
		735.90		-5.310E-03	1.228E-01	2.043E-01	5.697E-02	-0.026
		747.13		-1.613E-02	7.816E-02	1.280E-01	1.611E-02	-0.126
ND-147	+	91.11		6.802E-01	3.268E-01	6.038E-01	7.081E-02	1.127
		319.41		-4.415E-01	3.102E+00	5.147E+00	3.319E-01	-0.086
		439.89		6.961E+00	5.901E+00	1.046E+01	5.934E-01	0.666
		531.02	*	-1.151E-01	5.671E-01	9.014E-01	1.209E-01	-0.128
PM-149		285.90	*	-4.793E+01	1.503E+02	2.486E+02	3.615E+01	-0.193
EU-152		121.78		4.328E-02	6.575E-02	1.110E-01	9.459E-03	0.390
		244.69		-2.164E-01	3.393E-01	4.520E-01	3.016E-02	-0.479
		344.27	*	-5.327E-02	8.830E-02	1.363E-01	9.433E-03	-0.391
		443.98		-9.891E-01	8.381E-01	1.243E+00	7.050E-02	-0.796
		778.89		7.010E-02	2.329E-01	3.976E-01	2.551E-02	0.176
		867.32		-3.382E-01	6.543E-01	1.015E+00	7.853E-02	-0.333
	+	964.01		7.056E-01	3.420E-01	5.214E-01	4.106E-02	1.353
		1085.78		2.030E-01	3.449E-01	5.954E-01	4.111E-02	0.341
		1112.02		1.043E-01	3.039E-01	5.083E-01	3.375E-02	0.205
		1407.95		9.785E-02	1.757E-01	3.113E-01	2.129E-02	0.314
	+	69.67		-1.209E+00	1.975E+00	2.877E+00	3.322E-01	-0.420
		83.37		3.773E+01	2.014E+01	2.530E+01	2.962E+00	1.491
EU-154		97.43	*	-3.208E-02	7.950E-02	1.155E-01	1.134E-02	-0.278
		103.18		4.219E-02	9.935E-02	1.673E-01	1.488E-02	0.252
		123.07		-1.269E-02	4.672E-02	7.582E-02	7.674E-03	-0.167
		247.94		4.480E-02	3.365E-01	5.359E-01	5.411E-02	0.084
		591.81		-5.156E-01	5.571E-01	8.132E-01	7.714E-02	-0.634
		723.30		-8.088E-02	1.722E-01	2.359E-01	1.642E-02	-0.343
		756.87		2.076E-02	7.305E-01	1.220E+00	1.259E-01	0.017
		873.19		2.010E-01	2.256E-01	4.073E-01	4.767E-02	0.493
		996.32		-4.064E-01	3.660E-01	5.175E-01	8.963E-02	-0.785
		1004.76		-1.673E-01	2.044E-01	3.035E-01	3.309E-02	-0.551
		1274.45	*	4.556E-02	1.117E-01	1.945E-01	1.908E-02	0.234
		48.70		-1.627E+00	4.922E+00	8.264E+00	9.521E-01	-0.197
EU-155		60.01		-1.169E+00	6.972E+00	1.052E+01	1.278E+00	-0.111
	+	86.54		3.128E-01	1.339E-01	1.703E-01	2.040E-02	1.837
		105.31	*	5.003E-02	9.790E-02	1.653E-01	1.440E-02	0.303
TB-160	+	86.79		8.514E-01	3.643E-01	4.669E-01	5.571E-02	1.824
		197.04		-1.875E-01	5.241E-01	8.091E-01	5.265E-02	-0.232
		215.65		2.330E-03	6.614E-01	1.054E+00	6.952E-02	0.002
		298.57		3.626E-02	1.567E-01	1.739E-01	1.143E-02	0.209
		879.36	*	2.053E-02	1.240E-01	2.078E-01	1.648E-02	0.099
		962.29		7.355E-01	4.878E-01	8.313E-01	6.555E-02	0.885
		966.15		7.234E-01	2.262E-01	4.397E-01	3.456E-02	1.645

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M		1177.93		-2.543E-01	3.681E-01	5.499E-01	3.285E-02	-0.462
		1271.85		2.839E-01	6.579E-01	1.149E+00	7.482E-02	0.247
		80.57		3.003E-02	3.431E-01	4.129E-01	4.778E-02	0.073
	+	184.41		1.851E-01	6.146E-02	6.139E-02	3.954E-03	3.016
		280.46		3.128E-02	7.799E-02	1.196E-01	7.946E-03	0.262
	+	410.95		1.456E-01	2.640E-01	3.904E-01	2.208E-02	0.373
TM-171		711.68	*	-1.847E-02	5.412E-02	8.808E-02	4.848E-03	-0.210
		752.31		-1.400E-01	2.566E-01	4.083E-01	2.468E-02	-0.343
		810.29		-3.891E-02	5.286E-02	8.140E-02	5.592E-03	-0.478
		51.35		-4.513E+01	5.414E+01	8.812E+01	1.141E+01	-0.512
		52.39		7.543E+00	2.625E+01	4.519E+01	5.911E+00	0.167
		59.40		1.316E+01	3.767E+01	5.850E+01	7.133E+00	0.225
LU-176		66.72	*	2.547E+01	3.388E+01	5.321E+01	6.221E+00	0.479
	+	88.36		6.155E-01	2.634E-01	3.264E-01	3.891E-02	1.886
		201.83		-5.738E-03	2.571E-02	4.066E-02	2.656E-03	-0.141
	*	306.84		-2.817E-02	2.334E-02	3.307E-02	2.159E-03	-0.852
LU-177		401.10		-1.655E+00	6.079E+00	9.849E+00	5.556E-01	-0.168
		112.95		3.773E-01	1.868E+00	3.106E+00	2.405E-01	0.121
LU-177M	+	208.36	*	3.256E+00	1.784E+00	2.095E+00	1.375E-01	1.554
		52.97		1.190E+00	2.692E+00	4.659E+00	6.100E-01	0.256
		54.07		1.631E+00	1.335E+00	2.360E+00	3.078E-01	0.691
		61.30		6.247E-01	1.994E+00	3.085E+00	3.722E-01	0.202
		121.62		2.504E-01	3.386E-01	5.738E-01	3.996E-02	0.436
		147.16		-4.738E-01	5.748E-01	8.991E-01	5.834E-02	-0.527
		171.86		-3.904E-01	4.268E-01	6.563E-01	4.185E-02	-0.595
		218.09		2.259E-03	7.780E-01	1.239E+00	8.184E-02	0.002
		268.79		1.023E+00	8.192E-01	1.316E+00	8.776E-02	0.778
		319.02		-3.850E-02	2.155E-01	3.568E-01	2.301E-02	-0.108
		367.43		1.446E-03	7.657E-01	1.271E+00	7.578E-02	0.001
	*	413.65		-5.697E-02	1.775E-01	2.483E-01	1.405E-02	-0.229
		56.28		-1.545E+00	1.410E+00	2.253E+00	2.872E-01	-0.686
		57.53		2.517E-01	7.539E-01	1.241E+00	1.556E-01	0.203
HF-181		65.20		-3.827E-01	1.206E+00	1.798E+00	2.119E-01	-0.213
		133.02		-1.242E-02	6.054E-02	9.818E-02	6.552E-03	-0.127
		136.25		-4.266E-02	4.112E-01	6.690E-01	4.429E-02	-0.064
		345.85		1.507E-01	1.787E-01	2.934E-01	1.823E-02	0.513
	*	482.03		2.110E-02	3.568E-02	6.099E-02	3.443E-03	0.346
W-181		56.28		-5.915E-01	5.402E-01	8.627E-01	1.100E-01	-0.686
		57.53		9.601E-02	2.890E-01	4.758E-01	5.963E-02	0.202
TA-182		65.20	*	-1.455E-01	4.585E-01	6.836E-01	8.057E-02	-0.213
		67.75		7.914E-02	1.261E-01	2.082E-01	2.422E-02	0.380
		100.10		-9.730E-02	1.660E-01	2.683E-01	2.511E-02	-0.363
		152.43		-3.798E-03	2.932E-01	4.763E-01	3.068E-02	-0.008
		222.10		9.566E-02	3.215E-01	5.195E-01	3.438E-02	0.184
		1001.68		1.820E+00	1.989E+00	3.511E+00	2.675E-01	0.518
	+	1121.28		6.609E-01	1.704E-01	2.918E-01	1.909E-02	2.265
		1189.05		8.469E-02	3.325E-01	5.469E-01	3.302E-02	0.155
		1221.42	*	7.566E-02	1.776E-01	3.092E-01	1.924E-02	0.245
		1230.97		4.970E-01	4.362E-01	7.992E-01	5.017E-02	0.622

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183		57.98		1.993E-01	3.010E-01	4.753E-01	5.918E-02	0.419
		59.32		5.964E-02	1.584E-01	2.464E-01	3.008E-02	0.242
		67.20		3.245E-01	2.423E-01	3.883E-01	4.529E-02	0.836
		162.32	*	8.214E-02	1.012E-01	1.697E-01	1.081E-02	0.484
	+	208.81		2.417E+00	1.324E+00	1.570E+00	1.031E-01	1.540
RE-184		291.72		-1.193E-01	9.466E-01	1.392E+00	9.194E-02	-0.086
		57.98		7.256E-01	1.096E+00	1.731E+00	2.155E-01	0.419
		59.32		2.170E-01	5.764E-01	8.964E-01	1.094E-01	0.242
		67.20		1.181E+00	8.820E-01	1.413E+00	1.649E-01	0.836
		161.27		4.491E-03	3.218E-01	5.217E-01	3.328E-02	0.009
		216.55		-1.769E-01	2.397E-01	3.660E-01	2.415E-02	-0.483
		252.85	*	3.245E-02	1.940E-01	3.319E-01	2.216E-02	0.098
		318.01		-1.150E-01	3.863E-01	6.352E-01	4.100E-02	-0.181
		792.07		4.351E-01	9.586E-01	1.464E+00	9.666E-02	0.297
		903.28		7.190E-01	9.885E-01	1.552E+00	1.273E-01	0.463
OS-185		920.93		2.358E-01	4.096E-01	7.104E-01	5.768E-02	0.332
		59.72		-7.415E-02	4.252E-01	6.415E-01	7.804E-02	-0.116
		61.14		6.953E-02	2.220E-01	3.436E-01	4.149E-02	0.202
		69.30		-3.510E-01	3.677E-01	5.241E-01	6.060E-02	-0.670
		592.07		-2.252E+00	2.293E+00	3.334E+00	1.766E-01	-0.675
		646.12	*	-4.407E-03	3.854E-02	6.440E-02	3.210E-03	-0.068
		717.42		-4.300E-01	7.748E-01	1.233E+00	6.877E-02	-0.349
		874.81		1.695E-01	4.757E-01	8.145E-01	6.399E-02	0.208
		880.27		3.560E-01	6.853E-01	1.187E+00	9.430E-02	0.300
		155.03	*	1.956E-02	1.552E-01	2.534E-01	1.627E-02	0.077
RE-188		477.96		4.988E-01	2.640E+00	4.371E+00	2.470E-01	0.114
		633.10		-7.484E-01	2.661E+00	4.138E+00	2.097E-01	-0.181
	+	63.58		2.062E+02	1.153E+02	1.222E+02	1.455E+01	1.687
W-188		227.08		-1.151E+01	1.182E+01	1.770E+01	1.174E+00	-0.650
	*	290.67		-5.626E+00	7.346E+00	1.025E+01	6.775E-01	-0.549
IR-192	+	295.96		9.962E-01	1.920E-01	2.734E-01	1.823E-02	3.644
		308.46		1.007E-02	8.388E-02	1.417E-01	9.318E-03	0.071
	*	316.51		-1.109E-02	2.974E-02	4.867E-02	3.160E-03	-0.228
		468.07		4.487E-02	6.818E-02	1.040E-01	6.830E-03	0.431
		604.41		-8.978E-04	4.390E-01	6.133E-01	6.791E-02	-0.001
AU-195		612.46		6.480E-01	7.055E-01	1.089E+00	7.754E-02	0.595
		65.12		-6.332E-02	2.121E-01	3.166E-01	3.734E-02	-0.200
		66.83		9.590E-02	1.129E-01	1.780E-01	2.080E-02	0.539
	+	75.70		9.925E-01	2.648E-01	4.572E-01	5.238E-02	2.171
	*	98.88		8.306E-02	2.039E-01	3.438E-01	3.288E-02	0.242
TL-200		129.76		4.687E+00	2.677E+00	4.659E+00	3.138E-01	1.006
	*	367.94		-4.737E-05	2.677E+00	Half-Life	too short	
		579.30		-3.635E-03	2.677E+00	Half-Life	too short	
		828.27		5.209E-03	2.677E+00	Half-Life	too short	
		1205.75		-3.332E-03	2.677E+00	Half-Life	too short	
TL-201		68.90		-7.350E+00	9.285E+00	1.338E+01	1.549E+00	-0.549
		70.82		-2.896E+00	4.988E+00	7.274E+00	8.371E-01	-0.398
		80.30		1.921E+00	1.018E+01	1.235E+01	1.428E+00	0.156
		135.34		-1.093E+01	3.515E+01	5.666E+01	3.759E+00	-0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		167.43	*	-1.932E+00	9.169E+00	1.466E+01	9.322E-01	-0.132
		68.90		-4.656E-01	5.882E-01	8.475E-01	9.813E-02	-0.549
		70.82		-1.830E-01	3.151E-01	4.595E-01	5.289E-02	-0.398
		80.30		1.214E-01	6.432E-01	7.804E-01	9.022E-02	0.156
BI-207		439.56	*	7.238E-02	6.997E-02	1.228E-01	6.966E-03	0.589
		72.80		1.244E-01	1.872E-01	3.080E-01	3.532E-02	0.404
	+	74.97		5.464E-01	1.458E-01	2.243E-01	2.569E-02	2.436
	+	84.90		4.851E-01	2.590E-01	3.087E-01	3.642E-02	1.572
TL-207		569.67		3.013E-03	2.776E-02	4.416E-02	2.385E-03	0.068
		1063.62	*	5.955E-02	5.223E-02	9.366E-02	6.661E-03	0.636
		1770.23		1.461E-02	4.469E-01	6.291E-01	3.822E-02	0.023
		81.07		-4.075E-02	2.705E-01	3.189E-01	3.697E-02	-0.128
PO-209	+	83.78		3.198E-01	1.708E-01	2.137E-01	2.507E-02	1.496
		94.90		2.224E-01	2.266E-01	3.532E-01	3.640E-02	0.630
		122.32		7.887E-01	1.592E+00	2.671E+00	2.054E-01	0.295
		144.24		5.799E-01	6.174E-01	1.037E+00	8.109E-02	0.559
BI-210		154.21		2.561E-01	3.465E-01	5.808E-01	4.379E-02	0.441
	+	269.46		4.666E-01	2.752E-01	3.198E-01	2.206E-02	1.459
		323.87	*	1.884E-01	5.942E-01	8.982E-01	1.504E-01	0.210
	+	338.28		7.008E+00	1.698E+00	2.413E+00	2.608E-01	2.904
PB-210		445.03		-2.657E+00	1.965E+00	2.835E+00	2.891E-01	-0.937
		260.50		3.026E+00	7.994E+00	1.380E+01	9.214E-01	0.219
		262.80		-2.119E+00	2.246E+01	3.783E+01	2.526E+00	-0.056
		896.60	*	4.283E+00	6.522E+00	1.142E+01	9.370E-01	0.375
PB-211		46.50	*	7.550E+00	8.113E+00	1.413E+01	1.232E+00	0.534
PO-210		46.50	*	7.550E+00	8.108E+00	1.413E+01	1.098E+00	0.534
PB-211		404.84	*	-7.577E-01	1.105E+00	1.345E+00	8.380E-01	-0.564
BI-212		427.08		5.149E-01	2.013E+00	3.320E+00	2.052E+00	0.155
		831.96		-9.537E-01	1.273E+00	1.718E+00	1.073E+00	-0.555
	+	727.18	*	9.202E-01	3.946E-01	5.938E-01	4.538E-02	1.550
		785.46		6.895E-01	1.527E+00	2.636E+00	1.716E-01	0.262
PO-215		1620.62		5.080E-01	1.198E+00	2.148E+00	1.403E-01	0.236
		81.07		-4.075E-02	2.705E-01	3.189E-01	3.697E-02	-0.128
	+	83.78		3.198E-01	1.708E-01	2.137E-01	2.507E-02	1.496
		94.90		2.224E-01	2.266E-01	3.532E-01	3.640E-02	0.630
RN-219		122.32		7.887E-01	1.592E+00	2.671E+00	2.054E-01	0.295
		144.24		5.799E-01	6.174E-01	1.037E+00	8.109E-02	0.559
		154.21		2.561E-01	3.465E-01	5.808E-01	4.379E-02	0.441
	+	269.46		4.666E-01	2.752E-01	3.198E-01	2.206E-02	1.459
RA-223		323.87	*	1.884E-01	5.942E-01	8.982E-01	1.504E-01	0.210
	+	338.28		7.008E+00	1.698E+00	2.413E+00	2.608E-01	2.904
		445.03		-2.657E+00	1.965E+00	2.835E+00	2.891E-01	-0.937
	+	271.23		5.987E-01	3.546E-01	4.135E-01	3.616E-02	1.448
RN-220		401.81	*	1.103E-01	3.762E-01	6.318E-01	8.555E-02	0.175
RA-223		549.76	*	-1.182E+00	2.220E+01	3.566E+01	1.954E+00	-0.033
RA-223		81.07		-4.075E-02	2.705E-01	3.189E-01	3.697E-02	-0.128
	+	83.78		3.198E-01	1.708E-01	2.137E-01	2.507E-02	1.496
		94.90		2.224E-01	2.266E-01	3.532E-01	3.640E-02	0.630

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		7.887E-01	1.592E+00	2.671E+00	2.054E-01	0.295
		144.24		5.799E-01	6.174E-01	1.037E+00	8.109E-02	0.559
		154.21		2.561E-01	3.465E-01	5.808E-01	4.379E-02	0.441
	+	269.46		4.666E-01	2.752E-01	3.198E-01	2.206E-02	1.459
		323.87	*	1.884E-01	5.942E-01	8.982E-01	1.504E-01	0.210
	+	338.28		7.008E+00	1.698E+00	2.413E+00	2.608E-01	2.904
		445.03		-2.657E+00	1.965E+00	2.835E+00	2.891E-01	-0.937
		79.80		-8.224E-02	2.133E+00	2.543E+00	5.806E-01	-0.032
		236.00		2.079E-01	2.317E-01	3.448E-01	3.776E-02	0.603
		256.20	*	-3.587E-02	3.157E-01	5.321E-01	7.634E-02	-0.067
		286.10		-2.120E-01	1.309E+00	2.185E+00	2.622E-01	-0.097
	+	299.80		2.345E+00	2.035E+00	2.281E+00	3.781E-01	1.028
		304.40		5.858E-01	1.739E+00	2.638E+00	4.633E-01	0.222
		334.20		-2.615E-01	2.220E+00	3.229E+00	5.975E-01	-0.081
TH-227		79.80		-8.224E-02	2.133E+00	2.543E+00	5.871E-01	-0.032
	+	94.00		1.742E+01	4.930E+00	3.779E+00	8.536E-01	4.611
		236.00		2.079E-01	2.315E-01	3.448E-01	3.320E-02	0.603
		256.20	*	-3.587E-02	3.157E-01	5.321E-01	9.163E-02	-0.067
		286.10		-2.120E-01	1.326E+00	2.185E+00	2.190E+00	-0.097
	+	299.80		2.345E+00	2.035E+00	2.281E+00	3.781E-01	1.028
TH-229		304.40		5.858E-01	1.739E+00	2.638E+00	4.633E-01	0.222
		334.20		-2.615E-01	2.220E+00	3.229E+00	5.975E-01	-0.081
		85.43		3.647E-01	1.830E-01	3.045E-01	3.603E-02	1.198
	+	88.47		3.543E-01	1.516E-01	1.869E-01	2.221E-02	1.896
		100.00		-9.225E-02	1.705E-01	2.762E-01	2.590E-02	-0.334
		193.63	*	-2.110E-01	4.440E-01	6.942E-01	4.505E-02	-0.304
PA-231	+	210.97		1.855E+00	1.016E+00	1.146E+00	7.532E-02	1.619
		283.67	*	8.363E-01	1.303E+00	2.262E+00	3.200E-01	0.370
TH-231	+	301.29		9.381E-01	8.057E-01	9.176E-01	9.995E-02	1.022
		81.07		-4.075E-02	2.705E-01	3.189E-01	3.697E-02	-0.128
	+	83.78		3.198E-01	1.708E-01	2.137E-01	2.507E-02	1.496
		94.90		2.224E-01	2.266E-01	3.532E-01	3.640E-02	0.630
U-231		122.32		7.887E-01	1.592E+00	2.671E+00	2.054E-01	0.295
		144.24		5.799E-01	6.174E-01	1.037E+00	8.109E-02	0.559
		154.21		2.561E-01	3.465E-01	5.808E-01	4.379E-02	0.441
	+	269.46		4.666E-01	2.752E-01	3.198E-01	2.206E-02	1.459
		323.87	*	1.884E-01	5.942E-01	8.982E-01	1.504E-01	0.210
	+	338.28		7.008E+00	1.698E+00	2.413E+00	2.608E-01	2.904
		445.03		-2.657E+00	1.965E+00	2.835E+00	2.891E-01	-0.937
	+	84.21		1.931E+01	1.031E+01	1.270E+01	1.492E+00	1.521
	+	92.29		2.413E+01	4.829E+00	6.380E+00	6.942E-01	3.782
		95.87	*	2.422E-01	1.457E+00	2.191E+00	2.215E-01	0.111
PA-233		108.00		-2.034E+00	2.574E+00	4.101E+00	3.395E-01	-0.496
	+	75.28		1.594E+01	4.710E+00	6.793E+00	1.162E+00	2.347
	+	86.59		5.080E+00	2.528E+00	2.769E+00	7.767E-01	1.835
	+	300.12		6.538E-01	5.642E-01	6.323E-01	8.716E-02	1.034
		311.98	*	4.845E-02	5.473E-02	9.620E-02	6.560E-03	0.504
		340.50		9.903E-01	6.555E-01	1.008E+00	2.327E-01	0.982
		398.62		-7.281E-01	1.923E+00	3.080E+00	7.952E-01	-0.236

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		-3.587E-01	1.471E+00	2.377E+00	4.883E-01	-0.151
		63.00		5.860E+00	3.361E+00	3.637E+00	6.390E-01	1.611
		94.67		2.615E-01	1.680E-01	2.644E-01	3.613E-02	0.989
		98.44		8.763E-02	9.728E-02	1.397E-01	7.819E-02	0.627
		99.86		-2.080E-01	4.330E-01	7.034E-01	6.612E-02	-0.296
		111.00		-2.912E-01	1.769E-01	2.625E-01	3.049E-02	-1.109
		131.20		-4.475E-02	9.901E-02	1.591E-01	1.067E-02	-0.281
		152.70		6.651E-02	2.763E-01	4.538E-01	7.285E-02	0.147
	+	186.00		6.664E+00	2.982E+00	2.412E+00	7.403E-01	2.763
		226.40		-2.897E-01	3.575E-01	5.388E-01	6.466E-02	-0.538
		227.20		-3.519E-01	3.924E-01	5.908E-01	3.919E-02	-0.596
		248.90		1.534E-01	7.513E-01	1.200E+00	2.610E-01	0.128
	+	293.70		6.152E+00	1.501E+00	1.570E+00	2.572E-01	3.919
		369.80		1.199E-01	7.204E-01	1.208E+00	2.519E-01	0.099
		568.70		-9.808E-02	8.451E-01	1.346E+00	7.277E-02	-0.073
		569.50		-2.854E-02	2.471E-01	3.854E-01	2.082E-02	-0.074
		574.00		9.041E-01	1.308E+00	2.228E+00	1.199E-01	0.406
		699.00		-8.199E-01	6.597E-01	9.676E-01	1.726E-01	-0.847
		706.10		5.894E-01	1.027E+00	1.736E+00	7.653E-01	0.340
		733.00		-6.232E-02	3.568E-01	5.062E-01	1.076E-01	-0.123
	+	742.81		1.436E-01	1.172E+00	1.972E+00	1.320E+00	0.073
		796.30		2.312E+00	1.314E+00	1.739E+00	4.607E-01	1.329
		805.60		5.049E-01	8.871E-01	1.526E+00	4.605E-01	0.331
		819.60		9.496E-01	1.110E+00	1.891E+00	7.127E-01	0.502
		826.30		1.413E-01	7.000E-01	1.178E+00	5.237E-01	0.120
		831.60		-3.410E-01	5.728E-01	8.809E-01	2.595E-01	-0.387
		876.40		-6.097E-01	9.497E-01	1.067E+00	1.096E+00	-0.572
		880.51		1.268E-01	2.441E-01	4.228E-01	3.360E-02	0.300
		883.24		2.273E-02	2.650E-01	4.395E-01	2.951E-01	0.052
		899.00		-3.251E-02	7.622E-01	1.249E+00	5.449E-01	-0.026
		925.00		-1.459E-01	1.050E+00	1.698E+00	1.375E-01	-0.086
		926.50		-5.583E-02	1.550E-01	2.435E-01	6.113E-02	-0.229
	*	946.00		2.048E-01	2.623E-01	4.601E-01	8.502E-02	0.445
		949.00		-1.053E-01	4.179E-01	6.672E-01	5.315E-02	-0.158
		980.50		5.489E-02	6.233E-01	1.028E+00	7.988E-02	0.053
		1394.10		-1.078E-01	9.909E-01	1.615E+00	1.048E+00	-0.067
PA-234M		766.42		1.033E+01	1.323E+01	1.918E+01	9.666E+00	0.538
		1001.03	*	2.661E+00	4.442E+00	7.643E+00	6.968E-01	0.348
U-235	+	89.95		2.381E+00	1.341E+00	1.782E+00	5.663E-01	1.336
		93.35		5.421E+00	1.807E+00	1.363E+00	3.914E-01	3.976
		105.00		2.925E-01	9.830E-01	1.640E+00	4.896E-01	0.178
		143.76	*	1.186E-01	1.920E-01	3.176E-01	5.264E-02	0.374
	+	163.35		3.665E-01	4.198E-01	6.987E-01	1.270E-01	0.525
		185.71		2.468E-01	8.195E-02	9.016E-02	5.813E-03	2.738
NP-236		205.31		2.938E-01	5.139E-01	7.551E-01	1.377E-01	0.389
		94.67		1.998E-01	1.263E-01	2.007E-01	2.078E-02	0.995
		98.44		6.625E-02	6.383E-02	1.056E-01	1.018E-02	0.627
		111.00		-2.202E-01	1.325E-01	1.986E-01	1.577E-02	-1.109
	*	160.31		-2.309E-02	7.232E-02	1.155E-01	7.374E-03	-0.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		-7.953E-04	1.420E-01	2.356E-01	2.226E-02	-0.003
		117.00	*	2.362E-02	1.692E-01	2.804E-01	2.063E-02	0.084
	+	209.75		1.868E+00	1.024E+00	1.231E+00	8.087E-02	1.518
		228.18		5.525E-02	2.063E-01	3.324E-01	2.206E-02	0.166
	+	277.60		2.751E-01	1.948E-01	2.806E-01	1.866E-02	0.980
		334.30		-1.690E-01	1.256E+00	1.825E+00	1.154E-01	-0.093
AM-241		59.54	*	6.544E-02	2.168E-01	3.358E-01	4.240E-02	0.195
CM-243		99.55		-8.185E-04	1.462E-01	2.425E-01	2.291E-02	-0.003
		103.76	*	9.814E-02	8.983E-02	1.546E-01	1.363E-02	0.635
		117.00		2.430E-02	1.741E-01	2.885E-01	2.123E-02	0.084
	+	209.75		1.842E+00	1.009E+00	1.214E+00	7.974E-02	1.518
		228.18		5.584E-02	2.085E-01	3.359E-01	2.229E-02	0.166
	+	277.60		2.774E-01	1.965E-01	2.829E-01	1.882E-02	0.980
		798.80		4.679E-03	1.342E-01	1.944E-01	1.303E-02	0.024
		1036.00		-3.162E-01	2.784E-01	3.924E-01	2.885E-02	-0.806
		1062.04		-3.373E-01	2.403E-01	3.320E-01	2.366E-02	-1.016
		1078.86	*	9.423E-03	1.286E-01	2.102E-01	1.465E-02	0.045
	+	278.00		1.141E+00	8.080E-01	1.169E+00	7.773E-02	0.976
		287.40		5.246E-01	1.048E+00	1.812E+00	1.200E-01	0.290
CM-247		402.60	*	2.037E-02	3.342E-02	5.726E-02	3.232E-03	0.356
		252.85		1.207E-01	7.218E-01	1.235E+00	8.247E-02	0.098
		333.44		1.130E-01	1.834E-01	2.443E-01	1.547E-02	0.462
CF-249		387.95	*	1.003E-02	3.391E-02	5.719E-02	3.249E-03	0.175
		176.60	*	-1.895E-02	1.153E-01	1.845E-01	1.181E-02	-0.103
CF-251		227.00		-3.653E-01	3.472E-01	5.172E-01	3.431E-02	-0.706
		285.00		-9.708E-01	1.543E+00	2.512E+00	1.665E-01	-0.387

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                                     DETECTOR DATA
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344001
* Acquisition date   : 18-FEB-2010 15:59:06 Detector SN#      :
* Detector ID        : GAM04                      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 02:00:01.24             Half life ratio  : 8.000
*****
*
*                                     SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G246344001             Analyst initials: MXR1
* Batch Number       : 950787                 Sample Quantity : 1.4200E+02 GRAM
* Recovery           : 1.00000                Carrier Weight  : 0.00000
*****
*
*                                     QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 5-MAY-2009 14:25:41 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	2.520E+01	2.348E+00	5.208E-01	0.000E+00
CD-109	2.648E+00	1.111E+00	1.182E+00	0.000E+00
SN-126	2.595E-01	1.088E-01	1.167E-01	0.000E+00
BA-137M	6.976E-02	5.650E-02	5.721E-02	0.000E+00
CS-137	7.374E-02	5.973E-02	6.048E-02	0.000E+00
HG-203	6.481E-02	4.501E-02	5.925E-02	0.000E+00
TL-208	3.933E-01	8.243E-02	4.936E-02	0.000E+00
BI-211	3.409E+00	4.198E-01	3.027E-01	0.000E+00
PB-212	1.386E+00	1.456E-01	8.428E-02	0.000E+00
PO-212	1.386E+00	1.456E-01	8.428E-02	0.000E+00
BI-214	9.257E-01	1.455E-01	9.421E-02	0.000E+00
PO-214	1.186E+00	1.581E-01	9.792E-02	0.000E+00
PO-214	1.186E+00	1.581E-01	9.792E-02	0.000E+00
PO-216	1.386E+00	1.456E-01	8.428E-02	0.000E+00
PO-218	1.186E+00	1.581E-01	9.792E-02	0.000E+00
RA-224	4.278E+00	9.799E-01	9.591E-01	0.000E+00
RA-226	9.257E-01	1.455E-01	9.421E-02	0.000E+00
AC-228	1.289E+00	3.158E-01	1.869E-01	0.000E+00
RA-228	1.289E+00	3.158E-01	1.869E-01	0.000E+00
TH-228	1.410E+00	1.481E-01	8.573E-02	0.000E+00
TH-230	9.257E-01	1.455E-01	9.421E-02	0.000E+00
TH-232	1.289E+00	3.158E-01	1.869E-01	0.000E+00
TH-234	5.027E+00	2.861E+00	2.667E+00	0.000E+00
U-234	9.257E-01	1.455E-01	9.421E-02	0.000E+00
NP-237	7.621E-01	3.548E-01	3.493E-01	0.000E+00
U-238	5.027E+00	2.861E+00	2.667E+00	0.000E+00
AM-243	3.043E-01	7.957E-02	9.617E-02	0.000E+00
ANH-511	1.943E-01	5.777E-02	3.647E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)
---------	-------------------------------------	--------------------------	--------------------

BE-7	2.882E-02	2.734E-01	4.720E-01	0.000E+00	NOT IDENT.
NA-22	1.689E-02	3.928E-02	7.042E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.258E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.617E-02	2.240E-02	4.333E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.283E-02	7.829E-02	0.000E+00	FAIL ABUN
SC-46	5.296E-03	3.603E-02	6.232E-02	0.000E+00	FAIL ABUN
V-48	-1.605E-02	6.313E-02	1.035E-01	0.000E+00	NOT IDENT.
CR-51	-8.350E-02	3.239E-01	5.651E-01	0.000E+00	NOT IDENT.
MN-52	-8.648E-03	2.525E-01	4.268E-01	0.000E+00	NOT IDENT.
MN-54	6.410E-03	3.512E-02	6.119E-02	0.000E+00	NOT IDENT.
CO-56	-5.065E-03	3.435E-02	5.805E-02	0.000E+00	NOT IDENT.
CO-57	1.777E-02	2.243E-02	4.108E-02	0.000E+00	NOT IDENT.
CO-58	-3.413E-04	3.416E-02	5.877E-02	0.000E+00	NOT IDENT.
FE-59	-6.280E-02	9.047E-02	1.399E-01	0.000E+00	NOT IDENT.
CO-60	-9.271E-03	3.492E-02	5.786E-02	0.000E+00	NOT IDENT.
ZN-65	1.086E-02	9.186E-02	1.343E-01	0.000E+00	NOT IDENT.
GE-68	4.588E-01	1.080E+00	1.890E+00	0.000E+00	NOT IDENT.
AS-73	1.241E+00	1.330E+00	2.562E+00	0.000E+00	NOT IDENT.
AS-74	6.387E-02	8.456E-02	1.510E-01	0.000E+00	NOT IDENT.
SE-75	-1.283E-02	3.999E-02	6.554E-02	0.000E+00	NOT IDENT.
BR-77	-1.626E+01	1.617E+01	2.501E+01	0.000E+00	FAIL ABUN
SR-82	-3.621E-01	3.847E-01	6.129E-01	0.000E+00	NOT IDENT.
RB-83	-6.608E-02	6.059E-02	9.301E-02	0.000E+00	NOT IDENT.
RB-84	1.573E-02	6.306E-02	1.103E-01	0.000E+00	NOT IDENT.
KR-85	3.142E+00	7.031E+00	1.092E+01	0.000E+00	NOT IDENT.
SR-85	1.646E-02	3.684E-02	5.723E-02	0.000E+00	NOT IDENT.
RB-86	3.428E-01	7.200E-01	1.268E+00	0.000E+00	NOT IDENT.
Y-88	9.171E-03	3.588E-02	6.198E-02	0.000E+00	NOT IDENT.
ZR-88	9.855E-03	2.632E-02	4.698E-02	0.000E+00	NOT IDENT.
Y-91	-1.132E+00	1.967E+01	3.234E+01	0.000E+00	NOT IDENT.
NB-94	1.900E-02	3.120E-02	5.676E-02	0.000E+00	NOT IDENT.
NB-95	1.017E-02	4.391E-02	6.777E-02	0.000E+00	NOT IDENT.
NB-95M	7.303E-02	1.240E-01	1.934E-01	0.000E+00	NOT IDENT.
ZR-95	7.670E-03	6.724E-02	1.176E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.098E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.264E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.910E-01	1.634E+01	2.827E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.485E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.185E-02	2.912E-02	5.071E-02	0.000E+00	NOT IDENT.
RH-102	-1.037E-02	2.409E-02	3.980E-02	0.000E+00	NOT IDENT.
RU-103	8.024E-03	3.423E-02	5.951E-02	0.000E+00	FAIL ABUN
RH-106	6.625E-02	3.021E-01	5.136E-01	0.000E+00	FAIL ABUN
RU-106	6.625E-02	3.021E-01	5.136E-01	0.000E+00	FAIL ABUN
AG-108M	-2.659E-03	2.747E-02	4.710E-02	0.000E+00	NOT IDENT.
AG-110M	1.729E-02	3.406E-02	5.501E-02	0.000E+00	NOT IDENT.
IN-111	-4.534E-01	1.806E+00	2.648E+00	0.000E+00	NOT IDENT.
IN-113M	4.301E-03	3.787E-02	6.648E-02	0.000E+00	NOT IDENT.
SN-113	4.301E-03	3.787E-02	6.648E-02	0.000E+00	NOT IDENT.
IN-114M	9.485E-02	1.748E-01	2.771E-01	0.000E+00	NOT IDENT.
CD-115	-1.385E+00	1.692E+01	2.850E+01	0.000E+00	NOT IDENT.
SN-117M	-1.924E-03	5.308E-02	9.233E-02	0.000E+00	NOT IDENT.
SB-122	2.297E+00	2.973E+00	5.330E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.814E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.133E-02	2.540E-02	4.333E-02	0.000E+00	NOT IDENT.
I-124	1.641E-01	8.808E-01	1.316E+00	0.000E+00	NOT IDENT.
SB-124	-5.385E-02	6.929E-02	9.669E-02	0.000E+00	FAIL ABUN
SB-125	6.854E-02	8.562E-02	1.555E-01	0.000E+00	FAIL ABUN
TE-125M	5.579E+00	8.217E+00	1.485E+01	0.000E+00	NOT IDENT.
I-126	-1.656E-02	1.987E-01	3.008E-01	0.000E+00	NOT IDENT.
SB-126	9.721E-02	1.423E-01	2.493E-01	0.000E+00	FAIL ABUN
SB-127	5.720E-01	1.727E+00	3.098E+00	0.000E+00	FAIL ABUN
XE-127	-2.995E-02	4.354E-02	7.182E-02	0.000E+00	NOT IDENT.
I-131	-7.937E-02	1.151E-01	1.923E-01	0.000E+00	NOT IDENT.
TE-132	2.500E-01	9.557E-01	1.640E+00	0.000E+00	NOT IDENT.
BA-133	3.271E-03	3.810E-02	5.933E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.677E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.927E-02	9.175E-02	0.000E+00	FAIL ABUN
CS-135	6.006E-02	1.498E-01	2.440E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.303E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.764E-02	1.174E-01	2.060E-01	0.000E+00	FAIL ABUN
CE-139	-3.077E-02	2.556E-02	4.164E-02	0.000E+00	NOT IDENT.
BA-140	1.964E-02	2.583E-01	4.399E-01	0.000E+00	NOT IDENT.
LA-140	1.289E-03	7.286E-02	1.228E-01	0.000E+00	FAIL ABUN
CE-141	3.093E-02	5.655E-02	1.014E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.579E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.246E-02	1.807E-01	3.126E-01	0.000E+00	NOT IDENT.
PM-144	1.564E-02	2.855E-02	5.201E-02	0.000E+00	NOT IDENT.

PR-144	1.061E+00	1.937E+00	3.528E+00	0.000E+00	NOT IDENT.
PM-146	1.235E-02	3.848E-02	6.768E-02	0.000E+00	NOT IDENT.
ND-147	-1.151E-01	5.558E-01	9.255E-01	0.000E+00	FAIL ABUN
PM-149	-4.793E+01	1.473E+02	2.586E+02	0.000E+00	NOT IDENT.
EU-152	-5.327E-02	8.653E-02	1.412E-01	0.000E+00	FAIL ABUN
GD-153	-3.208E-02	7.791E-02	1.228E-01	0.000E+00	FAIL ABUN
EU-154	4.556E-02	1.095E-01	1.959E-01	0.000E+00	NOT IDENT.
EU-155	5.003E-02	9.594E-02	1.754E-01	0.000E+00	FAIL ABUN
TB-160	2.053E-02	1.216E-01	2.111E-01	0.000E+00	FAIL ABUN
HO-166M	-1.847E-02	5.304E-02	8.987E-02	0.000E+00	FAIL ABUN
TM-171	2.547E+01	3.320E+01	5.699E+01	0.000E+00	NOT IDENT.
LU-176	-2.817E-02	2.288E-02	3.435E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.748E+00	2.193E+00	0.000E+00	FAIL ABUN
LU-177M	-5.697E-02	1.740E-01	2.563E-01	0.000E+00	NOT IDENT.
HF-181	2.110E-02	3.497E-02	6.275E-02	0.000E+00	NOT IDENT.
W-181	-1.455E-01	4.493E-01	7.325E-01	0.000E+00	NOT IDENT.
TA-182	7.566E-02	1.740E-01	3.118E-01	0.000E+00	FAIL ABUN
RE-183	8.214E-02	9.918E-02	1.786E-01	0.000E+00	FAIL ABUN
RE-184	3.245E-02	1.901E-01	3.461E-01	0.000E+00	NOT IDENT.
OS-185	-4.407E-03	3.777E-02	6.584E-02	0.000E+00	NOT IDENT.
RE-188	1.956E-02	1.521E-01	2.669E-01	0.000E+00	NOT IDENT.
W-188	-5.626E+00	7.200E+00	1.066E+01	0.000E+00	FAIL ABUN
IR-192	-1.109E-02	2.914E-02	5.052E-02	0.000E+00	FAIL ABUN
AU-195	8.306E-02	1.998E-01	3.654E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.405E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.932E+00	8.985E+00	1.542E+01	0.000E+00	NOT IDENT.
TL-202	7.238E-02	6.857E-02	1.266E-01	0.000E+00	NOT IDENT.
BI-207	5.955E-02	5.118E-02	9.474E-02	0.000E+00	FAIL ABUN
TL-207	1.884E-01	5.823E-01	9.318E-01	0.000E+00	FAIL ABUN
PO-209	4.283E+00	6.392E+00	1.159E+01	0.000E+00	NOT IDENT.
BI-210	7.550E+00	7.951E+00	1.524E+01	0.000E+00	NOT IDENT.
PB-210	7.550E+00	7.951E+00	1.524E+01	0.000E+00	NOT IDENT.
PO-210	7.550E+00	7.946E+00	1.524E+01	0.000E+00	NOT IDENT.
PB-211	-7.577E-01	1.082E+00	1.388E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.867E-01	6.055E-01	0.000E+00	FAIL ABUN
PO-215	1.884E-01	5.823E-01	9.318E-01	0.000E+00	FAIL ABUN
RN-219	1.103E-01	3.687E-01	6.526E-01	0.000E+00	FAIL ABUN
RN-220	-1.182E+00	2.176E+01	3.659E+01	0.000E+00	NOT IDENT.
RA-223	1.884E-01	5.823E-01	9.318E-01	0.000E+00	FAIL ABUN
AC-227	-3.587E-02	3.094E-01	5.547E-01	0.000E+00	FAIL ABUN
TH-227	-3.587E-02	3.094E-01	5.547E-01	0.000E+00	FAIL ABUN
TH-229	-2.110E-01	4.351E-01	7.279E-01	0.000E+00	FAIL ABUN
PA-231	8.363E-01	1.277E+00	2.353E+00	0.000E+00	FAIL ABUN
TH-231	1.884E-01	5.823E-01	9.318E-01	0.000E+00	FAIL ABUN
U-231	2.422E-01	1.428E+00	2.330E+00	0.000E+00	FAIL ABUN
PA-233	4.845E-02	5.364E-02	9.988E-02	0.000E+00	FAIL ABUN
PA-234	2.048E-01	2.570E-01	4.665E-01	0.000E+00	FAIL ABUN
PA-234M	2.661E+00	4.353E+00	7.741E+00	0.000E+00	NOT IDENT.
U-235	1.186E-01	1.882E-01	3.350E-01	0.000E+00	FAIL ABUN
NP-236	-2.309E-02	7.087E-02	1.216E-01	0.000E+00	NOT IDENT.
NP-239	2.362E-02	1.659E-01	2.970E-01	0.000E+00	FAIL ABUN
AM-241	6.544E-02	2.125E-01	3.605E-01	0.000E+00	NOT IDENT.
CM-243	9.814E-02	8.804E-02	1.642E-01	0.000E+00	FAIL ABUN
AM-246	9.423E-03	1.260E-01	2.125E-01	0.000E+00	NOT IDENT.
CM-247	2.037E-02	3.275E-02	5.913E-02	0.000E+00	FAIL ABUN
CF-249	1.003E-02	3.323E-02	5.910E-02	0.000E+00	NOT IDENT.
CF-251	-1.895E-02	1.130E-01	1.938E-01	0.000E+00	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344001.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 15:59:06
Sample ID          : G246344001      Sample quantity   : 1.42000E+02 GRAM
Detector name      : GAM04           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.24  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity      : 5.00000
Batch ID           : 950787           Detector SN#     :
Matrix Spike ID    :                  LCS ID           : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1093	10.67*	1.075E+00	2.520E+01	2.520E+01	9.51
CD-109	88.03	182	3.72*	5.005E+00	2.581E+00	2.648E+00	42.79
SN-126	64.28	150	9.60	2.080E+00	1.990E+00	1.990E+00	57.27
	86.94	182	8.90	5.005E+00	1.079E+00	1.079E+00	58.88
	87.57	182	37.00*	5.005E+00	2.595E-01	2.595E-01	42.79
BA-137M	661.65	52	89.98*	2.208E+00	6.969E-02	6.976E-02	82.64
CS-137	661.65	52	85.12*	2.208E+00	7.366E-02	7.374E-02	82.64
HG-203	70.83	-----	4.75	3.109E+00	-----	Line Not Found	-----
	72.87	-----	8.00	3.384E+00	-----	Line Not Found	-----
	82.60	140	3.55	4.692E+00	2.225E+00	2.874E+00	54.46
	279.20	63	77.30*	4.322E+00	5.018E-02	6.481E-02	70.86
TL-208	277.35	63	6.80	4.322E+00	5.704E-01	5.704E-01	71.38
	510.84	201	21.60	2.730E+00	8.995E-01	8.995E-01	31.46
	583.14	308	84.20*	2.455E+00	3.933E-01	3.933E-01	21.38
	860.37	-----	12.46	1.744E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	3.384E+00	-----	Line Not Found	-----
	351.07	605	12.94*	3.626E+00	3.409E+00	3.409E+00	12.57
PB-212	74.81	276	10.70	3.634E+00	1.877E+00	1.877E+00	28.27
	77.11	500	18.00	3.918E+00	1.874E+00	1.874E+00	18.53
	87.30	182	8.00	5.005E+00	1.200E+00	1.200E+00	43.94
	238.63	1129	44.60*	4.826E+00	1.386E+00	1.386E+00	10.72
	300.09	67	3.41	4.077E+00	1.265E+00	1.265E+00	85.64
PO-212	74.81	276	10.70	3.634E+00	1.877E+00	1.877E+00	28.27
	77.11	500	18.00	3.918E+00	1.874E+00	1.874E+00	18.53
	87.30	182	8.00	5.005E+00	1.200E+00	1.200E+00	43.94
	115.19	-----	0.60	6.408E+00	-----	Line Not Found	-----
	238.63	1129	44.60*	4.826E+00	1.386E+00	1.386E+00	10.72
	300.09	67	3.41	4.077E+00	1.265E+00	1.265E+00	85.64
BI-214	609.31	384	46.30*	2.367E+00	9.257E-01	9.257E-01	16.04
	1120.29	107	15.10	1.357E+00	1.381E+00	1.381E+00	26.61
	1764.49	66	15.80	9.528E-01	1.156E+00	1.156E+00	39.85
PB-214	74.81	276	6.21	3.634E+00	3.234E+00	3.235E+00	27.69

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	77.11	500	10.50	3.918E+00	3.213E+00	3.213E+00	20.04
	87.30	182	4.67	5.005E+00	2.056E+00	2.056E+00	43.48
	241.98	306	7.49	4.784E+00	2.256E+00	2.256E+00	24.04
	295.21	385	19.20	4.133E+00	1.282E+00	1.282E+00	20.24
	351.92	605	37.20*	3.626E+00	1.186E+00	1.186E+00	13.61
	74.81	276	6.21	3.634E+00	3.234E+00	3.235E+00	27.69
	77.11	500	10.50	3.918E+00	3.213E+00	3.213E+00	20.04
	87.30	182	4.67	5.005E+00	2.056E+00	2.056E+00	43.48
	241.98	306	7.49	4.784E+00	2.256E+00	2.256E+00	24.04
	295.21	385	19.20	4.133E+00	1.282E+00	1.282E+00	20.24
PO-216	351.92	605	37.20*	3.626E+00	1.186E+00	1.186E+00	13.61
	74.81	276	10.70	3.634E+00	1.877E+00	1.877E+00	28.27
	77.11	500	18.00	3.918E+00	1.874E+00	1.874E+00	18.53
	87.30	182	8.00	5.005E+00	1.200E+00	1.200E+00	43.94
	238.63	1129	44.60*	4.826E+00	1.386E+00	1.386E+00	10.72
PO-218	300.09	67	3.41	4.077E+00	1.265E+00	1.265E+00	85.64
	74.81	276	6.21	3.634E+00	3.234E+00	3.235E+00	27.69
	77.11	500	10.50	3.918E+00	3.213E+00	3.213E+00	20.04
	87.30	182	4.67	5.005E+00	2.056E+00	2.056E+00	43.48
	241.98	306	7.49	4.784E+00	2.256E+00	2.256E+00	24.04
RA-224	295.21	385	19.20	4.133E+00	1.282E+00	1.282E+00	20.24
	351.92	605	37.20*	3.626E+00	1.186E+00	1.186E+00	13.61
	240.98	306	3.95*	4.784E+00	4.278E+00	4.278E+00	23.37
	609.31	384	46.30*	2.367E+00	9.257E-01	9.257E-01	16.04
	1120.29	107	15.10	1.357E+00	1.381E+00	1.381E+00	26.61
AC-228	1764.49	66	15.80	9.528E-01	1.156E+00	1.156E+00	39.85
	338.32	270	11.40	3.736E+00	1.678E+00	1.678E+00	46.24
	911.07	223	27.70*	1.652E+00	1.289E+00	1.289E+00	25.00
	969.11	159	16.60	1.559E+00	1.626E+00	1.626E+00	31.77
	338.32	270	11.40	3.736E+00	1.678E+00	1.678E+00	46.24
RA-228	911.07	223	27.70*	1.652E+00	1.289E+00	1.289E+00	25.00
	969.11	159	16.60	1.559E+00	1.626E+00	1.626E+00	31.77
	74.81	276	10.70	3.634E+00	1.877E+00	1.910E+00	26.70
	77.11	500	18.00	3.918E+00	1.874E+00	1.907E+00	18.53
	87.30	182	8.00	5.005E+00	1.200E+00	1.221E+00	42.79
TH-228	238.63	1129	44.60*	4.826E+00	1.386E+00	1.410E+00	10.72
	300.09	67	3.41	4.077E+00	1.265E+00	1.287E+00	103.64
	609.31	384	46.30*	2.367E+00	9.257E-01	9.257E-01	16.04
	1120.29	107	15.10	1.357E+00	1.381E+00	1.381E+00	26.61
	1764.49	66	15.80	9.528E-01	1.156E+00	1.156E+00	39.85
TH-232	338.32	270	11.40	3.736E+00	1.678E+00	1.678E+00	22.57
	911.07	223	27.70*	1.652E+00	1.289E+00	1.289E+00	25.00
	969.11	159	16.60	1.559E+00	1.626E+00	1.626E+00	31.77
	63.29	150	3.80*	2.080E+00	5.027E+00	5.027E+00	58.08
	92.38	504	5.41	5.456E+00	4.509E+00	4.509E+00	25.56
U-234	609.31	384	46.30*	2.367E+00	9.257E-01	9.257E-01	16.04
	1120.29	107	15.10	1.357E+00	1.381E+00	1.381E+00	26.61
	1764.49	66	15.80	9.528E-01	1.156E+00	1.156E+00	39.85
NP-237	86.50	182	12.60*	5.005E+00	7.621E-01	7.621E-01	47.50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	-----	2.60	5.678E+00	-----	Line Not Found	-----
U-238	63.29	150	3.80*	2.080E+00	5.027E+00	5.027E+00	58.08
	92.38	504	5.41	5.456E+00	4.509E+00	4.509E+00	20.01
AM-243	74.67	276	66.00*	3.634E+00	3.043E-01	3.043E-01	26.68
	86.72	182	0.34	5.005E+00	2.858E+01	2.858E+01	42.79
	117.66	-----	0.55	6.445E+00	-----	Line Not Found	-----
	142.18	-----	0.13	6.417E+00	-----	Line Not Found	-----
ANH-511	511.00	201	100.00*	2.730E+00	1.943E-01	1.943E-01	30.34

Flag: "*" = Keyline

Total number of lines in spectrum 33
Number of unidentified lines 1
Number of lines tentatively identified by NID 32 96.97%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.520E+01	2.520E+01	0.240E+01	9.51	
CD-109	464.00D	1.03	2.581E+00	2.648E+00	1.133E+00	42.79	
SN-126	1.00E+05Y	1.00	2.595E-01	2.595E-01	1.110E-01	42.79	
BA-137M	30.17Y	1.00	6.969E-02	6.976E-02	5.765E-02	82.64	
CS-137	30.17Y	1.00	7.366E-02	7.374E-02	6.094E-02	82.64	
HG-203	46.60D	1.29	5.018E-02	6.481E-02	4.593E-02	70.86	
TL-208	1.41E+10Y	1.00	3.933E-01	3.933E-01	0.841E-01	21.38	
BI-211	7.04E+08Y	1.00	3.409E+00	3.409E+00	0.428E+00	12.57	
PB-212	1.41E+10Y	1.00	1.386E+00	1.386E+00	0.149E+00	10.72	
PO-212	1.41E+10Y	1.00	1.386E+00	1.386E+00	0.149E+00	10.72	
BI-214	1600.00Y	1.00	9.257E-01	9.257E-01	1.485E-01	16.04	
PB-214	1600.00Y	1.00	1.186E+00	1.186E+00	0.161E+00	13.61	
PO-214	1600.00Y	1.00	1.186E+00	1.186E+00	0.161E+00	13.61	
PO-216	1.41E+10Y	1.00	1.386E+00	1.386E+00	0.149E+00	10.72	
PO-218	1600.00Y	1.00	1.186E+00	1.186E+00	0.161E+00	13.61	
RA-224	1.41E+10Y	1.00	4.278E+00	4.278E+00	0.100E+01	23.37	
RA-226	1600.00Y	1.00	9.257E-01	9.257E-01	1.485E-01	16.04	
AC-228	1.41E+10Y	1.00	1.289E+00	1.289E+00	0.322E+00	25.00	
RA-228	1.41E+10Y	1.00	1.289E+00	1.289E+00	0.322E+00	25.00	
TH-228	1.91Y	1.02	1.386E+00	1.410E+00	0.151E+00	10.72	
TH-230	4.47E+09Y	1.00	9.257E-01	9.257E-01	1.485E-01	16.04	
TH-232	1.41E+10Y	1.00	1.289E+00	1.289E+00	0.322E+00	25.00	
TH-234	4.47E+09Y	1.00	5.027E+00	5.027E+00	2.920E+00	58.08	
U-234	4.47E+09Y	1.00	9.257E-01	9.257E-01	1.485E-01	16.04	
NP-237	2.14E+06Y	1.00	7.621E-01	7.621E-01	3.620E-01	47.50	
U-238	4.47E+09Y	1.00	5.027E+00	5.027E+00	2.920E+00	58.08	
AM-243	7380.00Y	1.00	3.043E-01	3.043E-01	0.812E-01	26.68	
ANH-511	1.00E+09Y	1.00	1.943E-01	1.943E-01	0.589E-01	30.34	
Total Activity :			6.430E+01	6.441E+01			

Grand Total Activity : 6.430E+01 6.441E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	89.91	128	295	0.98	179.86	163	29	1.77E-02	46.5	5.25E+00	T
0	185.76	287	434	1.52	371.59	365	13	3.99E-02	32.6	5.70E+00	T
0	209.61	121	273	0.96	419.28	415	10	1.68E-02	54.4	5.28E+00	T
0	270.53	106	226	1.13	541.13	536	11	1.47E-02	58.6	4.41E+00	T
0	327.76	89	134	0.99	655.60	651	10	1.24E-02	52.7	3.82E+00	T
0	410.66	20	102	0.86	821.40	816	8	2.77E-03	****	3.23E+00	T
0	462.99	78	79	1.60	926.08	922	9	1.09E-02	47.1	2.95E+00	T
0	727.39	84	61	1.50	1454.87	1450	11	1.16E-02	42.2	2.03E+00	T
0	768.83	48	53	1.74	1537.75	1533	9	6.69E-03	62.7	1.93E+00	
0	795.48	64	51	1.99	1591.04	1586	11	8.88E-03	50.3	1.88E+00	T
2	964.62	60	36	2.06	1929.29	1921	26	8.34E-03	47.8	1.57E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344001.CNF;1
* Acquisition date   : 18-FEB-2010 15:59:06  Detector SN#      :
* Detector ID        : GAM04                  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 02:00:01.24          Half life ratio  : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 1-FEB-2010 12:00:00.  Nuclide Library : SOLID
* Sample ID          : G246344001            Analyst initials: MXR1
* Batch Number       : 950787                Sample Quantity : 1.42000E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 5-MAY-2009 14:25:41.36MS 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	2.520E+01	2.396E+00	5.185E-01	3.685E-02	48.612
CD-109	2.648E+00	1.133E+00	1.110E+00	1.334E-01	2.387
SN-126	2.595E-01	1.110E-01	1.096E-01	1.314E-02	2.369
BA-137M	6.976E-02	5.765E-02	5.598E-02	2.730E-03	1.246
CS-137	7.374E-02	6.094E-02	5.918E-02	2.903E-03	1.246
HG-203	6.481E-02	4.593E-02	5.693E-02	3.964E-03	1.138
TL-208	3.933E-01	8.411E-02	4.817E-02	3.031E-03	8.166
BI-211	3.409E+00	4.284E-01	2.922E-01	1.974E-02	11.664
PB-212	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
PO-212	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
BI-214	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
PB-214	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
PO-214	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
PO-216	1.386E+00	1.486E-01	8.072E-02	6.483E-03	17.173
PO-218	1.186E+00	1.614E-01	9.454E-02	8.065E-03	12.541
RA-224	4.278E+00	9.999E-01	9.189E-01	6.126E-02	4.656
RA-226	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
AC-228	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997
TH-228	1.410E+00	1.511E-01	8.211E-02	6.594E-03	17.173
TH-230	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
TH-232	1.289E+00	3.222E-01	1.842E-01	2.008E-02	6.997
TH-234	5.027E+00	2.920E+00	2.488E+00	4.922E-01	2.021
U-234	9.257E-01	1.485E-01	9.203E-02	6.763E-03	10.059
NP-237	7.621E-01	3.620E-01	3.278E-01	7.809E-02	2.325
U-238	5.027E+00	2.920E+00	2.488E+00	4.922E-01	2.021
AM-243	3.043E-01	8.120E-02	8.999E-02	1.031E-02	3.382
ANH-511	1.943E-01	5.894E-02	3.550E-02	1.985E-03	5.474

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.882E-02		2.790E-01	4.587E-01	3.038E-02	0.063
NA-22	1.689E-02		4.008E-02	6.990E-02	4.570E-03	0.242
NA-24	1.429E+00		3.193E+00	Half-Life too short		
AL-26	1.617E-02		2.286E-02	4.335E-02	2.571E-03	0.373
TI-44	3.459E-01	+	6.411E-02	7.333E-02	8.432E-03	4.718
SC-46	5.296E-03		3.676E-02	6.138E-02	4.964E-03	0.086
V-48	-1.605E-02		6.442E-02	1.021E-01	7.913E-03	-0.157
CR-51	-8.350E-02		3.305E-01	5.446E-01	3.835E-02	-0.153
MN-52	-8.648E-03		2.577E-01	4.248E-01	2.899E-02	-0.020
MN-54	6.410E-03		3.584E-02	6.018E-02	4.355E-03	0.107
CO-56	-5.065E-03		3.505E-02	5.711E-02	4.237E-03	-0.089
CO-57	1.777E-02		2.289E-02	3.881E-02	2.694E-03	0.458
CO-58	-3.413E-04		3.486E-02	5.776E-02	3.988E-03	-0.006
FE-59	-6.280E-02		9.232E-02	1.385E-01	1.058E-02	-0.454
CO-60	-9.271E-03		3.563E-02	5.749E-02	3.939E-03	-0.161
ZN-65	1.086E-02		9.373E-02	1.330E-01	8.796E-03	0.082
GE-68	4.588E-01		1.103E+00	1.870E+00	1.306E-01	0.245
AS-73	1.241E+00		1.357E+00	2.382E+00	3.116E-01	0.521
AS-74	6.387E-02		8.628E-02	1.474E-01	7.781E-03	0.433
SE-75	-1.283E-02		4.081E-02	6.291E-02	4.232E-03	-0.204
BR-77	-1.626E+01		1.650E+01	2.435E+01	1.356E+00	-0.668
SR-82	-3.621E-01		3.926E-01	6.019E-01	3.841E-02	-0.602
RB-83	-6.608E-02		6.183E-02	9.055E-02	5.043E-03	-0.730
RB-84	1.573E-02		6.434E-02	1.086E-01	8.648E-03	0.145
KR-85	3.142E+00		7.175E+00	1.063E+01	5.939E-01	0.296
SR-85	1.646E-02		3.759E-02	5.570E-02	3.111E-03	0.296
RB-86	3.428E-01		7.347E-01	1.254E+00	8.765E-02	0.273
Y-88	9.171E-03		3.661E-02	6.203E-02	3.620E-03	0.148
ZR-88	9.855E-03		2.686E-02	4.546E-02	2.559E-03	0.217
Y-91	-1.132E+00		2.007E+01	3.206E+01	1.965E+00	-0.035
NB-94	1.900E-02		3.184E-02	5.562E-02	2.996E-03	0.342
NB-95	1.017E-02		4.481E-02	6.653E-02	4.146E-03	0.153
NB-95M	7.303E-02		1.266E-01	1.852E-01	1.520E-02	0.394

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	7.670E-03		6.861E-02	1.154E-01	8.403E-03	0.066
NB-97	3.603E-01		3.621E-01	Half-Life too short		
ZR-97	9.451E+00		6.451E+00	Half-Life too short		
MO-99	-6.910E-01		1.667E+01	2.773E+01	3.830E+00	-0.025
TC-99M	-5.002E+12		4.839E+12	Half-Life too short		
RH-101	2.185E-02		2.971E-02	4.838E-02	3.151E-03	0.452
RH-102	-1.037E-02		2.458E-02	3.867E-02	2.187E-03	-0.268
RU-103	8.024E-03		3.493E-02	5.788E-02	7.272E-03	0.139
RH-106	6.625E-02		3.083E-01	5.019E-01	5.734E-02	0.132
RU-106	6.625E-02		3.082E-01	5.019E-01	2.579E-02	0.132
AG-108M	-2.659E-03		2.803E-02	4.568E-02	2.823E-03	-0.058
AG-110M	1.729E-02		3.476E-02	5.383E-02	2.876E-03	0.321
IN-111	-4.534E-01		1.843E+00	2.538E+00	1.693E-01	-0.179
IN-113M	4.301E-03		3.864E-02	6.433E-02	3.876E-03	0.067
SN-113	4.301E-03		3.864E-02	6.433E-02	3.876E-03	0.067
IN-114M	9.485E-02		1.784E-01	2.641E-01	1.710E-02	0.359
CD-115	-1.385E+00		1.727E+01	2.775E+01	1.540E+00	-0.050
SN-117M	-1.924E-03		5.416E-02	8.770E-02	5.610E-03	-0.022
SB-122	2.297E+00		3.034E+00	5.198E+00	2.820E-01	0.442
I-123	-3.041E+01		3.477E+01	Half-Life too short		
TE-123M	-1.133E-02		2.592E-02	4.116E-02	2.661E-03	-0.275
I-124	1.641E-01		8.988E-01	1.285E+00	6.740E-02	0.128
SB-124	-5.385E-02		7.070E-02	9.658E-02	6.562E-03	-0.558
SB-125	6.854E-02		8.736E-02	1.507E-01	8.922E-03	0.455
TE-125M	5.579E+00		8.385E+00	1.400E+01	1.391E+00	0.398
I-126	-1.656E-02		2.028E-01	2.944E-01	1.452E-02	-0.056
SB-126	9.721E-02		1.452E-01	2.444E-01	1.373E-02	0.398
SB-127	5.720E-01		1.763E+00	3.034E+00	2.980E-01	0.189
XE-127	-2.995E-02		4.443E-02	6.856E-02	4.482E-03	-0.437
I-131	-7.937E-02		1.175E-01	1.858E-01	1.241E-02	-0.427
TE-132	2.500E-01		9.752E-01	1.570E+00	2.377E-01	0.159
BA-133	3.271E-03		3.888E-02	5.730E-02	6.713E-03	0.057
I-133	-7.831E-03		1.366E-02	Half-Life too short		
CS-134	1.192E-01	+	6.048E-02	9.014E-02	6.075E-03	1.322
CS-135	6.006E-02		1.528E-01	2.343E-01	1.953E-02	0.256
I-135	2.653E+11		4.746E+11	Half-Life too short		
CS-136	5.764E-02		1.198E-01	2.036E-01	1.564E-02	0.283
CE-139	-3.077E-02		2.608E-02	3.959E-02	2.515E-03	-0.777
BA-140	1.964E-02		2.635E-01	4.286E-01	1.392E-01	0.046
LA-140	1.289E-03		7.435E-02	1.225E-01	8.067E-03	0.011
CE-141	3.093E-02		5.770E-02	9.616E-02	6.455E-03	0.322
CE-143	1.746E-03		2.847E-04	Half-Life too short		
CE-144	-7.246E-02		1.843E-01	2.959E-01	4.314E-02	-0.245
PM-144	1.564E-02		2.913E-02	5.095E-02	2.708E-03	0.307
PR-144	1.061E+00		1.976E+00	3.456E+00	1.835E-01	0.307
PM-146	1.235E-02		3.927E-02	6.570E-02	5.607E-03	0.188
ND-147	-1.151E-01		5.671E-01	9.014E-01	1.209E-01	-0.128
PM-149	-4.793E+01		1.503E+02	2.486E+02	3.615E+01	-0.193

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-5.327E-02		8.830E-02	1.363E-01	9.433E-03	-0.391
GD-153	-3.208E-02		7.950E-02	1.155E-01	1.134E-02	-0.278
EU-154	4.556E-02		1.117E-01	1.945E-01	1.908E-02	0.234
EU-155	5.003E-02		9.790E-02	1.653E-01	1.440E-02	0.303
TB-160	2.053E-02		1.240E-01	2.078E-01	1.648E-02	0.099
HO-166M	-1.847E-02		5.412E-02	8.808E-02	4.848E-03	-0.210
TM-171	2.547E+01		3.388E+01	5.321E+01	6.221E+00	0.479
LU-176	-2.817E-02		2.334E-02	3.307E-02	2.159E-03	-0.852
LU-177	3.256E+00	+	1.784E+00	2.095E+00	1.375E-01	1.554
LU-177M	-5.697E-02		1.775E-01	2.483E-01	1.405E-02	-0.229
HF-181	2.110E-02		3.568E-02	6.099E-02	3.443E-03	0.346
W-181	-1.455E-01		4.585E-01	6.836E-01	8.057E-02	-0.213
TA-182	7.566E-02		1.776E-01	3.092E-01	1.924E-02	0.245
RE-183	8.214E-02		1.012E-01	1.697E-01	1.081E-02	0.484
RE-184	3.245E-02		1.940E-01	3.319E-01	2.216E-02	0.098
OS-185	-4.407E-03		3.854E-02	6.440E-02	3.210E-03	-0.068
RE-188	1.956E-02		1.552E-01	2.534E-01	1.627E-02	0.077
W-188	-5.626E+00		7.346E+00	1.025E+01	6.775E-01	-0.549
IR-192	-1.109E-02		2.974E-02	4.867E-02	3.160E-03	-0.228
AU-195	8.306E-02		2.039E-01	3.438E-01	3.288E-02	0.242
TL-200	-4.737E-05		7.170E-04	Half-Life too short		
TL-201	-1.932E+00		9.169E+00	1.466E+01	9.322E-01	-0.132
TL-202	7.238E-02		6.997E-02	1.228E-01	6.966E-03	0.589
BI-207	5.955E-02		5.223E-02	9.366E-02	6.661E-03	0.636
TL-207	1.884E-01		5.942E-01	8.982E-01	1.504E-01	0.210
PO-209	4.283E+00		6.522E+00	1.142E+01	9.370E-01	0.375
BI-210	7.550E+00		8.113E+00	1.413E+01	1.232E+00	0.534
PB-210	7.550E+00		8.113E+00	1.413E+01	1.232E+00	0.534
PO-210	7.550E+00		8.108E+00	1.413E+01	1.098E+00	0.534
PB-211	-7.577E-01		1.105E+00	1.345E+00	8.380E-01	-0.564
BI-212	9.202E-01	+	3.946E-01	5.938E-01	4.538E-02	1.550
PO-215	1.884E-01		5.942E-01	8.982E-01	1.504E-01	0.210
RN-219	1.103E-01		3.762E-01	6.318E-01	8.555E-02	0.175
RN-220	-1.182E+00		2.220E+01	3.566E+01	1.954E+00	-0.033
RA-223	1.884E-01		5.942E-01	8.982E-01	1.504E-01	0.210
AC-227	-3.587E-02		3.157E-01	5.321E-01	7.634E-02	-0.067
TH-227	-3.587E-02		3.157E-01	5.321E-01	9.163E-02	-0.067
TH-229	-2.110E-01		4.440E-01	6.942E-01	4.505E-02	-0.304
PA-231	8.363E-01		1.303E+00	2.262E+00	3.200E-01	0.370
TH-231	1.884E-01		5.942E-01	8.982E-01	1.504E-01	0.210
U-231	2.422E-01		1.457E+00	2.191E+00	2.215E-01	0.111
PA-233	4.845E-02		5.473E-02	9.620E-02	6.560E-03	0.504
PA-234	2.048E-01		2.623E-01	4.601E-01	8.502E-02	0.445
PA-234M	2.661E+00		4.442E+00	7.643E+00	6.968E-01	0.348
U-235	1.186E-01		1.920E-01	3.176E-01	5.264E-02	0.374
NP-236	-2.309E-02		7.232E-02	1.155E-01	7.374E-03	-0.200
NP-239	2.362E-02		1.692E-01	2.804E-01	2.063E-02	0.084
AM-241	6.544E-02		2.168E-01	3.358E-01	4.240E-02	0.195

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.814E-02		8.983E-02	1.546E-01	1.363E-02	0.635
AM-246	9.423E-03		1.286E-01	2.102E-01	1.465E-02	0.045
CM-247	2.037E-02		3.342E-02	5.726E-02	3.232E-03	0.356
CF-249	1.003E-02		3.391E-02	5.719E-02	3.249E-03	0.175
CF-251	-1.895E-02		1.153E-01	1.845E-01	1.181E-02	-0.103

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G246344001            *
* Acquisition date   : 18-FEB-2010 15:59:06 Detector SN#      :              *
* Detector ID        : GAM04                      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 02:00:01.24             Half life ratio : 8.000        *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID          : G246344001              Analyst initials: MXR1          *
* Batch Number       : 950787                  Sample Quantity : 1.4200E+02 GRAM   *
* Recovery           : 1.00000                  Carrier Weight  : 0.00000        *
*****
*                                     QC DATA                                *
*
* CALIB. DATE/TIME   : 5-MAY-2009 14:25:41 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	DLC (pCi/GRAM)	TPU
K-40	2.520E+01	2.348E+00	2.605E-01	1.198E+00
CD-109	2.648E+00	1.111E+00	5.914E-01	5.666E-01
SN-126	2.595E-01	1.088E-01	5.840E-02	5.552E-02
BA-137M	6.976E-02	5.650E-02	2.862E-02	2.883E-02
CS-137	7.374E-02	5.973E-02	3.026E-02	3.047E-02
HG-203	6.481E-02	4.501E-02	2.964E-02	2.296E-02
TL-208	3.933E-01	8.243E-02	2.469E-02	4.205E-02
BI-211	3.409E+00	4.198E-01	1.514E-01	2.142E-01
PB-212	1.386E+00	1.456E-01	4.216E-02	7.429E-02
PO-212	1.386E+00	1.456E-01	4.216E-02	7.429E-02
BI-214	9.257E-01	1.455E-01	4.713E-02	7.423E-02
PB-214	1.186E+00	1.581E-01	4.899E-02	8.068E-02
PO-214	1.186E+00	1.581E-01	4.899E-02	8.068E-02
PO-216	1.386E+00	1.456E-01	4.216E-02	7.429E-02
PO-218	1.186E+00	1.581E-01	4.899E-02	8.068E-02
RA-224	4.278E+00	9.799E-01	4.799E-01	5.000E-01
RA-226	9.257E-01	1.455E-01	4.713E-02	7.423E-02
AC-228	1.289E+00	3.158E-01	9.352E-02	1.611E-01
RA-228	1.289E+00	3.158E-01	9.352E-02	1.611E-01
TH-228	1.410E+00	1.481E-01	4.289E-02	7.557E-02
TH-230	9.257E-01	1.455E-01	4.713E-02	7.423E-02
TH-232	1.289E+00	3.158E-01	9.352E-02	1.611E-01
TH-234	5.027E+00	2.861E+00	1.334E+00	1.460E+00
U-234	9.257E-01	1.455E-01	4.713E-02	7.423E-02
NP-237	7.621E-01	3.548E-01	1.747E-01	1.810E-01
U-238	5.027E+00	2.861E+00	1.334E+00	1.460E+00
AM-243	3.043E-01	7.957E-02	4.811E-02	4.060E-02
ANH-511	1.943E-01	5.777E-02	1.825E-02	2.947E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
---------	-------------------------------------	---------------	--------------------	-----

BE-7	2.882E-02	2.734E-01	2.361E-01	1.395E-01	NOT IDENT.
NA-22	1.689E-02	3.928E-02	3.523E-02	2.004E-02	NOT IDENT.
NA-24	1.429E+06	6.258E+06	0.000E+00	3.193E+06	SHORT HLIF
AL-26	1.617E-02	2.240E-02	2.168E-02	1.143E-02	NOT IDENT.
TI-44	3.459E-01	6.283E-02	3.917E-02	3.206E-02	FAIL ABUN
SC-46	5.296E-03	3.603E-02	3.118E-02	1.838E-02	FAIL ABUN
V-48	-1.605E-02	6.313E-02	5.177E-02	3.221E-02	NOT IDENT.
CR-51	-8.350E-02	3.239E-01	2.827E-01	1.652E-01	NOT IDENT.
MN-52	-8.648E-03	2.525E-01	2.135E-01	1.288E-01	NOT IDENT.
MN-54	6.410E-03	3.512E-02	3.061E-02	1.792E-02	NOT IDENT.
CO-56	-5.065E-03	3.435E-02	2.904E-02	1.752E-02	NOT IDENT.
CO-57	1.777E-02	2.243E-02	2.055E-02	1.144E-02	NOT IDENT.
CO-58	-3.413E-04	3.416E-02	2.940E-02	1.743E-02	NOT IDENT.
FE-59	-6.280E-02	9.047E-02	7.002E-02	4.616E-02	NOT IDENT.
CO-60	-9.271E-03	3.492E-02	2.895E-02	1.782E-02	NOT IDENT.
ZN-65	1.086E-02	9.186E-02	6.721E-02	4.687E-02	NOT IDENT.
GE-68	4.588E-01	1.080E+00	9.458E-01	5.513E-01	NOT IDENT.
AS-73	1.241E+00	1.330E+00	1.282E+00	6.784E-01	NOT IDENT.
AS-74	6.387E-02	8.456E-02	7.552E-02	4.314E-02	NOT IDENT.
SE-75	-1.283E-02	3.999E-02	3.279E-02	2.040E-02	NOT IDENT.
BR-77	-1.626E+01	1.617E+01	1.251E+01	8.250E+00	FAIL ABUN
SR-82	-3.621E-01	3.847E-01	3.067E-01	1.963E-01	NOT IDENT.
RB-83	-6.608E-02	6.059E-02	4.653E-02	3.091E-02	NOT IDENT.
RB-84	1.573E-02	6.306E-02	5.518E-02	3.217E-02	NOT IDENT.
KR-85	3.142E+00	7.031E+00	5.466E+00	3.587E+00	NOT IDENT.
SR-85	1.646E-02	3.684E-02	2.863E-02	1.879E-02	NOT IDENT.
RB-86	3.428E-01	7.200E-01	6.342E-01	3.674E-01	NOT IDENT.
Y-88	9.171E-03	3.588E-02	3.101E-02	1.831E-02	NOT IDENT.
ZR-88	9.855E-03	2.632E-02	2.350E-02	1.343E-02	NOT IDENT.
Y-91	-1.132E+00	1.967E+01	1.618E+01	1.004E+01	NOT IDENT.
NB-94	1.900E-02	3.120E-02	2.840E-02	1.592E-02	NOT IDENT.
NB-95	1.017E-02	4.391E-02	3.391E-02	2.241E-02	NOT IDENT.
NB-95M	7.303E-02	1.240E-01	9.677E-02	6.328E-02	NOT IDENT.
ZR-95	7.670E-03	6.724E-02	5.883E-02	3.431E-02	NOT IDENT.
NB-97	3.603E+05	7.098E+05	0.000E+00	3.621E+05	SHORT HLIF
ZR-97	9.451E+06	1.264E+07	0.000E+00	6.451E+06	SHORT HLIF
MO-99	-6.910E-01	1.634E+01	1.414E+01	8.335E+00	NOT IDENT.
TC-99M	-5.002E+18	9.485E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.185E-02	2.912E-02	2.537E-02	1.486E-02	NOT IDENT.
RH-102	-1.037E-02	2.409E-02	1.991E-02	1.229E-02	NOT IDENT.
RU-103	8.024E-03	3.423E-02	2.977E-02	1.746E-02	FAIL ABUN
RH-106	6.625E-02	3.021E-01	2.570E-01	1.542E-01	FAIL ABUN
RU-106	6.625E-02	3.021E-01	2.570E-01	1.541E-01	FAIL ABUN
AG-108M	-2.659E-03	2.747E-02	2.357E-02	1.402E-02	NOT IDENT.
AG-110M	1.729E-02	3.406E-02	2.752E-02	1.738E-02	NOT IDENT.
IN-111	-4.534E-01	1.806E+00	1.325E+00	9.214E-01	NOT IDENT.
IN-113M	4.301E-03	3.787E-02	3.326E-02	1.932E-02	NOT IDENT.
SN-113	4.301E-03	3.787E-02	3.326E-02	1.932E-02	NOT IDENT.
IN-114M	9.485E-02	1.748E-01	1.386E-01	8.920E-02	NOT IDENT.
CD-115	-1.385E+00	1.692E+01	1.426E+01	8.633E+00	NOT IDENT.
SN-117M	-1.924E-03	5.308E-02	4.619E-02	2.708E-02	NOT IDENT.
SB-122	2.297E+00	2.973E+00	2.667E+00	1.517E+00	NOT IDENT.
I-123	-3.041E+07	6.814E+07	0.000E+00	3.477E+07	SHORT HLIF
TE-123M	-1.133E-02	2.540E-02	2.168E-02	1.296E-02	NOT IDENT.
I-124	1.641E-01	8.808E-01	6.584E-01	4.494E-01	NOT IDENT.
SB-124	-5.385E-02	6.929E-02	4.837E-02	3.535E-02	FAIL ABUN
SB-125	6.854E-02	8.562E-02	7.777E-02	4.368E-02	FAIL ABUN
TE-125M	5.579E+00	8.217E+00	7.432E+00	4.193E+00	NOT IDENT.
I-126	-1.656E-02	1.987E-01	1.505E-01	1.014E-01	NOT IDENT.
SB-126	9.721E-02	1.423E-01	1.247E-01	7.262E-02	FAIL ABUN
SB-127	5.720E-01	1.727E+00	1.550E+00	8.813E-01	FAIL ABUN
XE-127	-2.995E-02	4.354E-02	3.593E-02	2.221E-02	NOT IDENT.
I-131	-7.937E-02	1.151E-01	9.622E-02	5.873E-02	NOT IDENT.
TE-132	2.500E-01	9.557E-01	8.206E-01	4.876E-01	NOT IDENT.
BA-133	3.271E-03	3.810E-02	2.968E-02	1.944E-02	FAIL ABUN
I-133	-7.831E+03	2.677E+04	0.000E+00	1.366E+04	SHORT HLIF
CS-134	1.192E-01	5.927E-02	4.590E-02	3.024E-02	FAIL ABUN
CS-135	6.006E-02	1.498E-01	1.221E-01	7.642E-02	NOT IDENT.
I-135	2.653E+17	9.303E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.764E-02	1.174E-01	1.031E-01	5.989E-02	FAIL ABUN
CE-139	-3.077E-02	2.556E-02	2.083E-02	1.304E-02	NOT IDENT.
BA-140	1.964E-02	2.583E-01	2.201E-01	1.318E-01	NOT IDENT.
LA-140	1.289E-03	7.286E-02	6.143E-02	3.717E-02	FAIL ABUN
CE-141	3.093E-02	5.655E-02	5.074E-02	2.885E-02	NOT IDENT.
CE-143	1.746E+03	5.579E+02	0.000E+00	2.847E+02	SHORT HLIF
CE-144	-7.246E-02	1.807E-01	1.564E-01	9.217E-02	NOT IDENT.
PM-144	1.564E-02	2.855E-02	2.602E-02	1.456E-02	NOT IDENT.

PR-144	1.061E+00	1.937E+00	1.765E+00	9.880E-01	NOT IDENT.
PM-146	1.235E-02	3.848E-02	3.386E-02	1.963E-02	NOT IDENT.
ND-147	-1.151E-01	5.558E-01	4.630E-01	2.836E-01	FAIL ABUN
PM-149	-4.793E+01	1.473E+02	1.294E+02	7.515E+01	NOT IDENT.
EU-152	-5.327E-02	8.653E-02	7.066E-02	4.415E-02	FAIL ABUN
GD-153	-3.208E-02	7.791E-02	6.146E-02	3.975E-02	FAIL ABUN
EU-154	4.556E-02	1.095E-01	9.803E-02	5.586E-02	NOT IDENT.
EU-155	5.003E-02	9.594E-02	8.777E-02	4.895E-02	FAIL ABUN
TB-160	2.053E-02	1.216E-01	1.056E-01	6.202E-02	FAIL ABUN
HO-166M	-1.847E-02	5.304E-02	4.496E-02	2.706E-02	FAIL ABUN
TM-171	2.547E+01	3.320E+01	2.851E+01	1.694E+01	NOT IDENT.
LU-176	-2.817E-02	2.288E-02	1.718E-02	1.167E-02	FAIL ABUN
LU-177	3.256E+00	1.748E+00	1.097E+00	8.920E-01	FAIL ABUN
LU-177M	-5.697E-02	1.740E-01	1.282E-01	8.877E-02	NOT IDENT.
HF-181	2.110E-02	3.497E-02	3.139E-02	1.784E-02	NOT IDENT.
W-181	-1.455E-01	4.493E-01	3.665E-01	2.292E-01	NOT IDENT.
TA-182	7.566E-02	1.740E-01	1.560E-01	8.879E-02	FAIL ABUN
RE-183	8.214E-02	9.918E-02	8.935E-02	5.060E-02	FAIL ABUN
RE-184	3.245E-02	1.901E-01	1.731E-01	9.699E-02	NOT IDENT.
OS-185	-4.407E-03	3.777E-02	3.294E-02	1.927E-02	NOT IDENT.
RE-188	1.956E-02	1.521E-01	1.335E-01	7.758E-02	NOT IDENT.
W-188	-5.626E+00	7.200E+00	5.333E+00	3.673E+00	FAIL ABUN
IR-192	-1.109E-02	2.914E-02	2.528E-02	1.487E-02	FAIL ABUN
AU-195	8.306E-02	1.998E-01	1.828E-01	1.019E-01	FAIL ABUN
TL-200	-4.737E+01	1.405E+03	0.000E+00	7.170E+02	SHORT HLIF
TL-201	-1.932E+00	8.985E+00	7.715E+00	4.584E+00	NOT IDENT.
TL-202	7.238E-02	6.857E-02	6.334E-02	3.498E-02	NOT IDENT.
BI-207	5.955E-02	5.118E-02	4.740E-02	2.611E-02	FAIL ABUN
TL-207	1.884E-01	5.823E-01	4.662E-01	2.971E-01	FAIL ABUN
PO-209	4.283E+00	6.392E+00	5.799E+00	3.261E+00	NOT IDENT.
BI-210	7.550E+00	7.951E+00	7.627E+00	4.057E+00	NOT IDENT.
PB-210	7.550E+00	7.951E+00	7.627E+00	4.057E+00	NOT IDENT.
PO-210	7.550E+00	7.946E+00	7.627E+00	4.054E+00	NOT IDENT.
PB-211	-7.577E-01	1.082E+00	6.946E-01	5.523E-01	NOT IDENT.
BI-212	9.202E-01	3.867E-01	3.029E-01	1.973E-01	FAIL ABUN
PO-215	1.884E-01	5.823E-01	4.662E-01	2.971E-01	FAIL ABUN
RN-219	1.103E-01	3.687E-01	3.265E-01	1.881E-01	FAIL ABUN
RN-220	-1.182E+00	2.176E+01	1.830E+01	1.110E+01	NOT IDENT.
RA-223	1.884E-01	5.823E-01	4.662E-01	2.971E-01	FAIL ABUN
AC-227	-3.587E-02	3.094E-01	2.775E-01	1.579E-01	FAIL ABUN
TH-227	-3.587E-02	3.094E-01	2.775E-01	1.579E-01	FAIL ABUN
TH-229	-2.110E-01	4.351E-01	3.642E-01	2.220E-01	FAIL ABUN
PA-231	8.363E-01	1.277E+00	1.177E+00	6.513E-01	FAIL ABUN
TH-231	1.884E-01	5.823E-01	4.662E-01	2.971E-01	FAIL ABUN
U-231	2.422E-01	1.428E+00	1.166E+00	7.286E-01	FAIL ABUN
PA-233	4.845E-02	5.364E-02	4.997E-02	2.736E-02	FAIL ABUN
PA-234	2.048E-01	2.570E-01	2.334E-01	1.311E-01	FAIL ABUN
PA-234M	2.661E+00	4.353E+00	3.873E+00	2.221E+00	NOT IDENT.
U-235	1.186E-01	1.882E-01	1.676E-01	9.602E-02	FAIL ABUN
NP-236	-2.309E-02	7.087E-02	6.081E-02	3.616E-02	NOT IDENT.
NP-239	2.362E-02	1.659E-01	1.486E-01	8.462E-02	FAIL ABUN
AM-241	6.544E-02	2.125E-01	1.804E-01	1.084E-01	NOT IDENT.
CM-243	9.814E-02	8.804E-02	8.213E-02	4.492E-02	FAIL ABUN
AM-246	9.423E-03	1.260E-01	1.063E-01	6.430E-02	NOT IDENT.
CM-247	2.037E-02	3.275E-02	2.958E-02	1.671E-02	FAIL ABUN
CF-249	1.003E-02	3.323E-02	2.957E-02	1.695E-02	NOT IDENT.
CF-251	-1.895E-02	1.130E-01	9.697E-02	5.767E-02	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON , SC 29417                          *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT            *
*****

```

ENERGY	MDA COUNTS
--------	------------

46.50	172.4009
46.50	172.4009
46.50	172.4009
48.70	210.4628
49.72	189.5453
51.35	218.9892
52.39	194.4517
52.97	198.2418
53.15	187.0314
53.44	185.4390
54.07	174.4212
56.28	238.6226
56.28	238.6246
57.37	0.0000
57.53	213.3570
57.53	213.3582
57.60	204.9451
57.98	204.8835
57.98	204.8835
59.32	222.8366
59.32	222.8366
59.40	222.8821
59.54	222.9616
59.72	244.3083
60.01	244.4887
61.10	238.5012
61.14	238.5251
61.30	238.6214
63.00	252.5719
63.29	252.7522
63.29	252.7522
63.58	252.9321
64.28	269.9266
65.12	278.5499
65.20	278.6036
65.20	278.6036
66.05	262.9879
66.72	253.9503
66.83	254.0177
66.91	247.3094
67.20	240.7166
67.20	240.7166
67.75	269.7358
67.85	269.7997
68.90	304.1326
68.90	304.1326
69.30	313.9275
69.67	295.1566
70.82	297.2968
70.82	297.2968
70.83	297.3034
72.80	304.6581
72.87	304.7056
72.87	304.7056
74.67	305.9239
74.81	306.0189
74.81	306.0189
74.81	306.0189
74.81	306.0189
74.81	306.0189
74.81	306.0189
74.97	306.1258
75.28	306.3345
75.70	306.6161
77.11	307.5545
77.11	307.5545

77.11	307.5545
77.11	307.5545
77.11	307.5545
77.11	307.5545
77.11	307.5545
78.38	308.3927
79.62	311.4299
79.80	311.5479
79.80	311.5479
80.11	297.8338
80.18	297.8770
80.30	297.9513
80.30	297.9513
80.57	298.1211
81.00	298.3889
81.07	298.4313
81.07	298.4313
81.07	298.4313
81.07	298.4313
82.60	299.3799
83.37	274.6291
83.78	274.8609
83.78	274.8609
83.78	274.8609
83.78	274.8609
84.21	275.1016
84.90	275.4874
85.43	275.7805
86.29	276.2575
86.50	276.3727
86.54	276.3951
86.59	276.4220
86.72	276.4938
86.79	276.5312
86.94	276.6149
87.30	276.8138
87.30	276.8138
87.30	276.8138
87.30	276.8138
87.30	276.8138
87.30	276.8138
87.30	276.8138
87.57	276.9619
87.88	277.1308
88.03	277.2131
88.36	277.3940
88.47	277.4538
89.95	278.2568
91.11	278.8819
92.29	279.5144
92.38	279.5623
92.38	279.5623
93.35	280.0782
94.00	280.4236
94.67	270.7459
94.67	270.7488
94.90	273.7319
94.90	273.7319
94.90	273.7319
94.90	273.7319
95.87	265.6143
95.87	265.6143
96.73	291.9240
97.43	282.2210
98.44	234.2739
98.44	234.2739
98.88	260.8345
99.55	275.6078
99.55	275.6078
99.86	296.9745
100.00	297.0497
100.10	297.1061
103.18	283.2255
103.76	257.3010
105.00	281.2153
105.31	264.8170
108.00	290.5059
109.28	230.3647

111.00	325.4190
111.00	325.4190
111.76	279.5668
112.95	292.9470
115.19	285.1230
116.30	258.8627
117.00	259.1574
117.00	259.1574
117.66	266.3929
121.11	246.8794
121.62	241.0772
121.78	245.1396
122.06	245.2480
122.32	258.3674
122.32	258.3674
122.32	258.3674
122.32	258.3674
123.07	273.7109
127.23	298.6911
129.76	262.3645
131.20	316.7385
133.02	275.8629
133.54	280.1529
135.34	261.4896
136.00	257.6525
136.25	255.7017
136.48	259.8795
140.51	275.8052
140.51	0.0000
142.18	262.0202
142.65	252.9030
143.76	258.4686
144.24	247.2637
144.24	247.2637
144.24	247.2637
144.24	247.2637
145.22	226.8841
145.44	254.9337
147.16	279.4366
152.43	247.9744
152.70	237.5990
153.22	240.9076
154.21	238.0794
154.21	238.0794
154.21	238.0794
154.21	238.0794
155.03	258.2920
156.02	259.6837
158.56	253.1714
159.00	0.0000
159.00	268.0947
160.31	269.6120
161.27	256.1871
162.32	240.6333
162.64	241.7931
163.35	226.0937
163.89	226.2497
165.85	258.7635
167.43	213.4013
171.28	239.0926
171.86	248.9214
172.10	248.9946
176.55	250.3587
176.60	250.3752
181.06	253.8951
184.41	226.5838
185.71	226.9308
186.00	227.0070
190.27	202.3618
192.34	203.3939
193.63	227.9160
197.04	231.0068
198.01	199.1711
198.60	221.4457
200.40	223.0007
201.83	232.2442
202.84	248.0780
205.31	210.8235

208.36	256.8498
208.81	251.9348
209.75	214.0823
209.75	214.0823
210.97	193.5992
215.65	195.1266
216.55	220.1486
218.09	208.0669
222.10	203.2560
223.80	197.9236
226.40	206.4347
227.00	219.1133
227.08	217.9896
227.20	218.0168
228.16	196.5199
228.18	196.5234
228.18	196.5234
231.56	0.0000
235.69	203.7596
236.00	202.0935
236.00	202.0935
238.63	199.7303
238.63	199.7303
238.63	199.7303
238.63	199.7303
239.00	199.8025
240.98	200.1879
241.98	173.7427
241.98	173.7427
241.98	173.7427
244.69	198.5850
245.39	195.2310
247.94	175.9040
248.90	167.9019
249.79	180.2971
252.40	157.0511
252.85	155.3625
252.85	155.3625
254.15	0.0000
256.20	160.2505
256.20	160.2505
260.50	148.5125
260.90	148.5663
262.80	158.5697
264.65	165.6376
268.24	166.6507
268.79	169.5837
269.46	162.5558
269.46	162.5558
269.46	162.5558
269.46	162.5558
271.23	157.0991
273.65	132.3906
276.40	155.4276
277.35	162.2582
277.60	150.8042
277.60	150.8042
278.00	158.9370
278.60	150.9349
279.20	142.3850
279.53	145.3034
280.46	135.3430
281.68	155.6640
283.67	135.3561
284.30	144.4604
285.00	168.9380
285.90	156.4117
286.10	150.1082
286.10	150.1082
287.40	137.6016
288.45	0.0000
290.67	167.0336
290.80	167.0504
291.72	164.2721
293.26	0.0000
293.70	151.6851
295.21	151.8758
295.21	151.8758

295.21	151.8758
295.96	178.7196
296.50	164.2017
297.23	164.3033
298.57	164.4846
299.80	164.6521
299.80	164.6521
300.09	150.0539
300.09	150.0539
300.09	150.0539
300.09	150.0539
300.12	150.0564
301.29	150.2015
302.84	129.1168
303.76	130.6840
303.91	127.7621
304.40	124.8749
304.40	124.8749
304.84	124.9205
306.84	159.4716
308.46	131.7365
311.98	115.4804
316.51	131.6624
318.01	132.7467
319.02	122.6321
319.41	120.8118
320.08	129.2435
323.87	108.9243
323.87	108.9243
323.87	108.9243
323.87	108.9243
325.23	118.0024
328.77	130.3088
333.44	110.2327
334.20	133.8607
334.20	133.8607
334.30	133.8694
338.28	134.8393
338.28	134.8393
338.28	134.8393
338.28	134.8393
338.32	134.8437
338.32	134.8437
338.32	134.8437
340.50	125.4321
340.57	125.4382
344.27	136.3931
345.85	102.4151
350.59	0.0000
351.07	124.8958
351.92	107.6376
351.92	107.6376
351.92	107.6376
355.39	0.0000
356.01	97.8313
364.48	116.3085
366.43	100.1057
367.43	102.1036
367.94	0.0000
369.80	101.3102
374.96	101.6771
383.85	112.0485
387.95	98.6837
388.63	98.7284
391.69	101.8719
391.69	101.8719
392.90	98.0331
398.62	122.0284
400.65	111.3533
401.10	119.2719
401.81	111.4396
402.60	104.5896
404.84	134.3896
410.95	106.3543
411.60	100.0479
413.65	108.1310
414.70	99.4537
415.30	111.4309

415.76	107.4825
417.63	0.0000
418.52	109.6677
423.70	131.0380
427.08	113.2742
427.89	100.2945
432.53	93.5463
433.93	90.6070
439.47	82.8371
439.56	82.8421
439.89	78.8177
443.98	106.3667
444.90	104.4003
445.03	104.4082
445.03	104.4082
445.03	104.4082
453.90	90.7043
463.38	67.2356
468.07	82.2229
473.00	106.1685
475.06	83.5918
475.35	75.3481
476.78	68.1793
477.59	77.5131
477.96	75.4628
482.03	64.2421
484.57	80.9386
487.03	87.2877
490.36	0.0000
492.35	72.9597
497.08	68.9739
507.63	0.0000
510.53	0.0000
510.84	62.1316
511.00	62.1374
511.85	62.1662
511.85	62.1662
513.99	89.4556
513.99	89.4556
520.41	89.9805
520.65	86.8172
527.90	70.1492
528.96	0.0000
529.64	82.9821
529.87	0.0000
531.02	78.7831
537.32	79.0473
543.00	82.4987
546.56	0.0000
549.76	68.8125
552.65	63.5320
555.20	65.7712
563.23	67.1257
563.90	63.8993
568.70	70.5681
569.32	73.8500
569.50	74.9423
569.67	71.6900
573.80	62.0428
574.00	64.2270
574.64	74.0471
578.91	78.5698
579.30	0.0000
583.14	65.6122
585.48	80.5786
591.81	82.3677
592.07	82.3769
593.00	83.5146
595.88	60.5222
600.56	72.7917
602.52	0.0000
602.71	67.1271
602.71	67.1271
603.60	72.4587
604.41	68.9508
604.70	76.0332
609.31	67.3405

609.31	67.3405
609.31	67.3405
609.31	67.3405
610.33	72.6929
612.46	63.8930
614.37	83.4915
618.01	73.4041
621.84	75.7633
621.84	75.7633
631.29	61.5511
633.02	73.9217
633.10	73.9237
634.78	65.0146
635.90	80.7495
636.97	85.2773
645.85	73.0068
646.12	72.1152
656.30	60.3743
657.75	63.4341
657.90	0.0000
661.65	81.7009
661.65	81.7009
664.57	0.0000
666.33	72.7754
666.33	72.7754
675.00	56.6189
677.61	59.4268
685.20	65.1272
692.80	74.5453
695.00	64.4834
696.49	58.9945
696.49	58.9945
697.00	57.1638
697.49	63.6313
698.33	71.9558
698.50	79.3421
699.00	91.3550
702.63	74.8617
706.10	74.0469
706.58	0.0000
706.67	87.0257
709.31	70.4410
711.68	72.3671
713.82	55.7168
717.42	66.9621
720.50	54.7095
721.93	0.0000
722.20	57.4662
722.78	68.3561
722.78	68.3561
722.89	68.3579
722.95	68.3597
723.30	71.4782
724.18	73.0588
727.18	59.7656
733.00	57.7252
735.90	54.3580
739.58	58.1946
742.81	56.3921
744.21	52.6627
747.13	59.3163
751.79	76.4082
752.31	75.4805
753.82	49.0915
755.35	64.2364
756.15	68.9829
756.87	69.9477
763.93	69.5145
765.79	69.5664
766.42	69.5825
766.84	61.6865
776.49	83.8342
778.00	56.2401
778.57	52.4393
778.89	55.3067
783.80	57.3237
785.46	54.4923
792.07	51.1185

795.84	49.5942
796.30	49.6030
798.80	52.8542
801.93	67.3494
805.60	49.1379
810.29	63.7039
810.76	53.0959
815.85	61.9047
817.79	64.8539
818.51	45.5072
819.60	39.7137
826.30	46.6113
828.27	0.0000
831.60	65.1909
831.96	72.0109
834.83	67.2177
836.80	0.0000
846.75	52.8372
848.13	53.8439
856.28	0.0000
856.80	77.5843
860.37	50.1508
867.32	44.3628
867.82	47.3285
871.10	34.5514
873.19	27.6616
874.81	36.5736
875.33	0.0000
876.40	53.4081
879.36	45.5440
880.27	41.5970
880.51	41.6011
881.50	45.5789
883.24	51.5557
884.67	55.5502
889.25	50.6725
896.60	40.8418
898.02	47.8395
899.00	51.8438
903.28	39.9395
911.07	47.0562
911.07	47.0562
911.07	47.0562
919.63	37.2970
920.93	42.1928
925.00	48.2883
925.24	44.2675
926.50	49.3194
935.52	44.4232
937.48	63.6475
944.10	47.5898
946.00	36.4746
949.00	54.7673
962.29	32.2589
964.01	43.8293
966.15	43.8598
968.20	43.8902
969.11	43.9028
969.11	43.9028
969.11	43.9028
977.42	43.5106
980.50	39.9683
983.50	41.0332
989.30	38.0271
996.32	66.9551
1001.03	49.5188
1001.68	46.4337
1004.76	60.9403
1021.30	0.0000
1024.50	0.0000
1034.80	54.2217
1036.00	57.3713
1037.82	43.8354
1038.57	34.4502
1038.76	0.0000
1045.16	48.1203
1046.59	49.1871
1048.07	49.2100

1050.47	53.4379
1050.47	53.4379
1062.04	74.6575
1063.62	42.0820
1076.63	35.9108
1077.35	38.0320
1078.86	43.3343
1085.78	34.9513
1099.22	59.5492
1112.02	49.0996
1112.84	46.7108
1115.52	48.0828
1120.29	50.2886
1120.29	50.2886
1120.29	50.2886
1120.29	50.2886
1120.51	50.2932
1121.28	50.3047
1124.00	0.0000
1129.67	60.3506
1131.51	0.0000
1147.95	0.0000
1167.94	53.1511
1173.22	57.5754
1175.09	49.9980
1177.93	65.2676
1189.05	64.3786
1204.90	66.8528
1205.75	0.0000
1213.00	69.1985
1221.42	50.4592
1230.97	45.9920
1235.34	77.3555
1236.41	0.0000
1238.25	55.2979
1246.25	50.7994
1260.41	0.0000
1271.85	37.1956
1274.45	38.1522
1274.54	38.1522
1291.56	41.1265
1298.22	0.0000
1312.09	33.8276
1325.50	23.5718
1325.50	23.5718
1332.49	33.0596
1333.61	28.3447
1360.21	31.3873
1362.66	0.0000
1365.15	29.5216
1368.21	25.7322
1368.53	0.0000
1376.25	25.7827
1384.27	33.4890
1394.10	22.0594
1395.20	26.8630
1407.95	25.0214
1434.06	20.3361
1436.60	23.2549
1457.56	0.0000
1460.81	23.3887
1489.15	11.7715
1509.49	16.7537
1596.49	14.0672
1620.62	12.1206
1678.03	0.0000
1691.02	17.4275
1691.02	17.4275
1706.46	0.0000
1750.46	0.0000
1764.49	10.4057
1764.49	10.4057
1764.49	10.4057
1764.49	10.4057
1770.23	10.7151
1771.40	40.6377
1791.20	0.0000
1808.65	5.2482

1836.01

14.7736

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246344001

Total Uranium Activity	1.5010E+01	ug/g
Total Uranium Counting Unc.	8.5125E+00	ug/g
Total Uranium Tpu	4.3431E-06	ug/g
Total Uranium Mda	3.9706E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 950787          SAMPLE ID   : G246344001
*  ANALYST       : MXR1            DETECTOR    : GAM04
*  SAMPLE DATE   : 1-FEB-2010 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 18-FEB-2010 15:59:06.21  SAMPLE ALQT: 142.000 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.456E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.234E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 2.417E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.164E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 18:57:59.80

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344002.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:57:34
Sample ID          : G246344002      Sample quantity   : 1.34540E+02 GRAM
Detector name      : GAM18           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.72  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000        Sensitivity      : 5.00000
Batch ID           : 950787          Detector SN#     :
Matrix Spike ID    :                  LCS ID           : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.50*	79	572	1.49	126.14	122	9	1.09E-02	57.3	
2	3	74.97	508	482	1.22	149.06	142	19	7.05E-02	8.4	2.75E+00
3	3	77.24	679	391	0.99	153.60	142	19	9.43E-02	6.1	
4	0	87.40	243	486	1.15	173.91	171	7	3.38E-02	16.3	
5	0	93.66*	193	1041	1.32	186.43	180	13	2.68E-02	37.1	
6	0	128.94*	58	374	1.07	256.95	254	7	8.02E-03	57.6	
7	0	186.03*	279	488	1.41	371.09	366	11	3.87E-02	17.1	
8	0	209.49*	165	418	1.18	418.00	413	12	2.29E-02	26.3	
9	2	238.72*	1703	231	1.18	476.44	469	18	2.36E-01	2.9	1.91E+00
10	2	241.78	430	208	1.61	482.57	469	18	5.98E-02	7.9	
11	0	270.04	129	278	2.24	539.06	535	10	1.80E-02	25.6	
12	0	295.34*	540	257	1.31	589.65	584	12	7.50E-02	7.6	
13	0	300.44	163	222	1.45	599.84	596	11	2.26E-02	19.3	
14	0	328.22*	97	178	1.01	655.38	651	9	1.35E-02	27.5	
15	0	338.16	375	314	1.23	675.27	668	14	5.20E-02	11.3	
16	0	351.93*	931	193	1.28	702.80	697	11	1.29E-01	4.5	
17	0	462.51	155	192	1.69	923.88	916	16	2.15E-02	21.5	
18	0	510.69*	226	194	1.82	1020.21	1012	18	3.14E-02	18.1	
19	0	583.12*	574	145	1.57	1165.04	1158	15	7.97E-02	6.3	
20	0	609.22*	737	126	1.67	1217.22	1210	13	1.02E-01	4.9	
21	0	661.64*	84	138	2.18	1322.03	1317	14	1.17E-02	31.9	
22	0	727.08*	129	97	1.69	1452.88	1448	11	1.80E-02	17.6	
23	0	767.24	53	150	1.28	1533.18	1526	14	7.41E-03	50.6	
24	0	794.82*	77	63	1.55	1588.33	1583	11	1.07E-02	24.0	
25	0	860.66*	86	48	1.24	1719.98	1716	11	1.19E-02	19.1	
26	0	910.93*	463	114	1.86	1820.51	1811	19	6.44E-02	7.3	
27	0	969.14*	224	190	1.78	1936.90	1928	19	3.11E-02	17.4	
28	0	1120.03	180	127	2.05	2238.62	2231	19	2.49E-02	16.9	
29	0	1237.75	73	66	2.13	2474.04	2468	11	1.02E-02	24.4	
30	0	1376.38	54	48	3.10	2751.27	2742	21	7.45E-03	34.9	
31	0	1407.40	43	38	0.75	2813.30	2804	19	5.93E-03	37.9	
32	0	1460.02	1722	51	2.14	2918.53	2907	22	2.39E-01	2.6	
33	0	1729.82	38	19	2.18	3458.10	3446	19	5.25E-03	32.1	
34	0	1763.55*	154	18	2.83	3525.55	3512	25	2.14E-02	11.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 18:58:02

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344002.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 1-FEB-2010 12:00:00   Acquisition date : 18-FEB-2010 16:57:34
Sample ID        : G246344002             Sample quantity  : 134.54 GRAM
Sample type       : SOLID                  Sample geometry   :
Detector name     : GAMMA18                Detector geometry: CAN
Elapsed live time : 0 02:00:00.00          Elapsed real time: 0 02:00:01.72   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	+	1460.81	*	2.378E+01	2.195E+00	4.182E-01	3.173E-02	56.876
NB-95	+	765.79	*	5.621E-02	5.714E-02	4.760E-02	4.354E-03	1.181
CD-109	+	88.03	*	2.902E+00	9.836E-01	1.388E+00	1.283E-01	2.090
SN-126	+	64.28		7.337E-01	8.479E-01	8.566E-01	1.266E-01	0.856
	+	86.94		1.182E+00	6.238E-01	5.228E-01	2.168E-01	2.261
	+	87.57	*	2.843E-01	9.637E-02	1.294E-01	1.192E-02	2.197
BA-137M	+	661.65	*	7.268E-02	4.676E-02	4.193E-02	3.196E-03	1.733
CS-137	+	661.65	*	7.683E-02	4.943E-02	4.433E-02	3.387E-03	1.733
TL-208		277.35		3.798E-01	3.107E-01	5.285E-01	5.551E-02	0.719
	+	510.84		6.783E-01	2.554E-01	1.572E-01	1.671E-02	4.315
	+	583.14	*	4.832E-01	7.182E-02	4.466E-02	3.501E-03	10.821
	+	860.37		6.578E-01	2.622E-01	2.937E-01	3.286E-02	2.240
BI-211		72.87		4.695E+00	2.871E+00	4.954E+00	4.091E-01	0.948
	+	351.07	*	3.682E+00	4.049E-01	2.469E-01	1.585E-02	14.912
PB-212	+	74.81		2.684E+00	5.636E-01	4.977E-01	6.238E-02	5.393
	+	77.11		2.003E+00	2.969E-01	2.785E-01	2.360E-02	7.193
	+	87.30		1.315E+00	4.647E-01	6.008E-01	8.160E-02	2.189
	+	238.63	*	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
	+	300.09		2.224E+00	8.769E-01	7.528E-01	6.182E-02	2.954
PO-212	+	74.81		2.684E+00	5.636E-01	4.977E-01	6.238E-02	5.393
	+	77.11		2.003E+00	2.969E-01	2.785E-01	2.360E-02	7.193
	+	87.30		1.315E+00	4.647E-01	6.008E-01	8.160E-02	2.189
		115.19		-4.552E-01	3.119E+00	4.993E+00	3.146E-01	-0.091
	+	238.63	*	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
	+	300.09		2.224E+00	8.769E-01	7.528E-01	6.182E-02	2.954
BI-214	+	609.31	*	1.164E+00	1.549E-01	8.047E-02	7.188E-03	14.471
	+	1120.29		1.421E+00	4.981E-01	3.435E-01	3.288E-02	4.137
	+	1764.49		1.603E+00	3.805E-01	2.219E-01	1.349E-02	7.223
PB-214	+	74.81		4.625E+00	9.347E-01	8.576E-01	9.574E-02	5.393
	+	77.11		3.434E+00	5.723E-01	4.774E-01	5.440E-02	7.193
	+	87.30		2.253E+00	7.831E-01	1.029E+00	1.235E-01	2.189
	+	241.98		2.376E+00	4.214E-01	3.970E-01	3.139E-02	5.985
	+	295.21		1.299E+00	2.257E-01	1.639E-01	1.391E-02	7.925
	+	351.92	*	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.625E+00	9.347E-01	8.576E-01	9.574E-02	5.393
	+	77.11		3.434E+00	5.723E-01	4.774E-01	5.440E-02	7.193
	+	87.30		2.253E+00	7.831E-01	1.029E+00	1.235E-01	2.189
	+	241.98		2.376E+00	4.214E-01	3.970E-01	3.139E-02	5.985
	+	295.21		1.299E+00	2.257E-01	1.639E-01	1.391E-02	7.925
	+	351.92	*	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885
PO-216	+	74.81		2.684E+00	5.636E-01	4.977E-01	6.238E-02	5.393
	+	77.11		2.003E+00	2.969E-01	2.785E-01	2.360E-02	7.193
	+	87.30		1.315E+00	4.647E-01	6.008E-01	8.160E-02	2.189
	+	238.63	*	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
	+	300.09		2.224E+00	8.769E-01	7.528E-01	6.182E-02	2.954
PO-218	+	74.81		4.625E+00	9.347E-01	8.576E-01	9.574E-02	5.393
	+	77.11		3.434E+00	5.723E-01	4.774E-01	5.440E-02	7.193
	+	87.30		2.253E+00	7.831E-01	1.029E+00	1.235E-01	2.189
	+	241.98		2.376E+00	4.214E-01	3.970E-01	3.139E-02	5.985
	+	295.21		1.299E+00	2.257E-01	1.639E-01	1.391E-02	7.925
	+	351.92	*	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885
RA-224	+	240.98	*	4.505E+00	7.581E-01	8.050E-01	4.485E-02	5.596
RA-226	+	609.31	*	1.164E+00	1.549E-01	8.047E-02	7.188E-03	14.471
	+	1120.29		1.421E+00	4.981E-01	3.435E-01	3.288E-02	4.137
	+	1764.49		1.603E+00	3.805E-01	2.219E-01	1.349E-02	7.223
AC-228	+	338.32		1.642E+00	7.655E-01	2.960E-01	1.207E-01	5.548
	+	911.07	*	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905
	+	969.11		1.427E+00	6.029E-01	3.179E-01	7.613E-02	4.488
RA-228	+	338.32		1.642E+00	7.655E-01	2.960E-01	1.207E-01	5.548
	+	911.07	*	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905
	+	969.11		1.427E+00	6.029E-01	3.179E-01	7.613E-02	4.488
TH-228	+	74.81		2.731E+00	5.143E-01	5.063E-01	4.267E-02	5.393
	+	77.11		2.038E+00	3.021E-01	2.833E-01	2.401E-02	7.193
	+	87.30		1.338E+00	4.534E-01	6.111E-01	5.617E-02	2.189
	+	238.63	*	1.595E+00	1.465E-01	7.205E-02	5.147E-03	22.142
	+	300.09		2.262E+00	1.593E+00	7.659E-01	4.513E-01	2.954
TH-230	+	609.31	*	1.164E+00	1.549E-01	8.046E-02	7.188E-03	14.471
	+	1120.29		1.421E+00	4.981E-01	3.435E-01	3.288E-02	4.137
	+	1764.49		1.603E+00	3.805E-01	2.219E-01	1.349E-02	7.223
TH-232	+	338.32		1.642E+00	3.831E-01	2.960E-01	1.712E-02	5.548
	+	911.07	*	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905
	+	969.11		1.427E+00	6.029E-01	3.179E-01	7.613E-02	4.488
TH-234	+	63.29	*	1.854E+00	2.150E+00	2.140E+00	3.772E-01	0.866
	+	92.38		1.421E+00	1.084E+00	7.439E-01	1.341E-01	1.910
U-234	+	609.31	*	1.164E+00	1.549E-01	8.046E-02	7.188E-03	14.471
	+	1120.29		1.421E+00	4.981E-01	3.435E-01	3.288E-02	4.137
	+	1764.49		1.603E+00	3.805E-01	2.219E-01	1.349E-02	7.223
NP-237	+	86.50	*	8.349E-01	3.313E-01	3.695E-01	8.337E-02	2.259
	+	95.87		2.007E-01	8.774E-01	1.290E+00	3.151E-01	0.156
U-238	+	63.29	*	1.854E+00	2.150E+00	2.140E+00	3.772E-01	0.866
	+	92.38		1.421E+00	1.060E+00	7.439E-01	6.323E-02	1.910
AM-243	+	74.67	*	4.352E-01	8.182E-02	8.101E-02	6.760E-03	5.372
	+	86.72		3.131E+01	1.061E+01	1.389E+01	1.270E+00	2.254

Sample ID : G246344002

Acquisition date : 18-FEB-2010 16:57:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-1.210E+00	3.375E+00	5.349E+00	3.290E-01	-0.226
		142.18		-1.800E+00	1.536E+01	2.428E+01	1.337E+00	-0.074
ANH-511	+	511.00	*	1.465E-01	5.379E-02	3.396E-02	2.243E-03	4.314

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.242E-01	2.513E-01	4.260E-01	3.087E-02	0.292
NA-22		1274.54	*	-5.970E-03	3.782E-02	6.139E-02	4.177E-03	-0.097
NA-24		1368.53	*	2.887E+00	3.782E-02	Half-Life too short		
AL-26		1129.67		-7.404E-01	1.365E+00	1.808E+00	1.208E-01	-0.409
		1808.65	*	-3.893E-03	1.949E-02	3.084E-02	1.801E-03	-0.126
TI-44		67.85		-4.196E-02	5.185E-02	7.470E-02	6.007E-03	-0.562
	+	78.38	*	3.697E-01	5.480E-02	7.531E-02	6.439E-03	4.908
SC-46		889.25	*	4.366E-03	2.956E-02	4.886E-02	5.450E-03	0.089
	+	1120.51		2.475E-01	8.520E-02	1.044E-01	7.212E-03	2.371
V-48		944.10		-2.660E-01	7.725E-01	1.221E+00	1.293E-01	-0.218
		983.50	*	4.998E-02	5.905E-02	1.017E-01	1.005E-02	0.492
		1312.09		-4.608E-02	6.888E-02	1.059E-01	7.712E-03	-0.435
CR-51		320.08	*	-1.447E-01	2.994E-01	4.691E-01	3.020E-02	-0.309
MN-52		744.21		-3.061E-02	2.234E-01	3.675E-01	3.241E-02	-0.083
		848.13		-3.252E+00	6.821E+00	1.079E+01	1.129E+00	-0.301
		935.52		4.997E-01	2.696E-01	4.854E-01	5.206E-02	1.029
		1246.25		-2.657E+00	7.275E+00	1.114E+01	7.164E-01	-0.239
		1333.61		1.026E+00	4.970E+00	8.283E+00	6.257E-01	0.124
		1434.06	*	1.247E-02	2.220E-01	3.627E-01	2.673E-02	0.034
MN-54		834.83	*	1.327E-02	3.083E-02	5.198E-02	5.325E-03	0.255
CO-56		846.75	*	2.317E-03	3.062E-02	5.054E-02	5.276E-03	0.046
		977.42		-1.157E+00	2.752E+00	3.618E+00	3.619E-01	-0.320
		1037.82		7.334E-02	2.315E-01	3.964E-01	3.673E-02	0.185
		1175.09		-5.766E-01	1.674E+00	2.698E+00	1.497E-01	-0.214
	+	1238.25		1.655E-01	8.152E-02	1.335E-01	8.901E-03	1.239
		1360.21		-5.216E-01	7.905E-01	1.143E+00	8.586E-02	-0.457
		1771.40		-2.339E-02	2.030E-01	2.760E-01	1.668E-02	-0.085
CO-57		122.06	*	2.424E-02	2.252E-02	3.762E-02	2.228E-03	0.644
		136.48		3.510E-02	1.743E-01	2.799E-01	1.832E-02	0.125
CO-58		810.76	*	-2.457E-03	2.841E-02	4.651E-02	4.592E-03	-0.053
FE-59		142.65		-1.032E+00	2.556E+00	3.915E+00	2.154E-01	-0.264
		192.34		5.147E-01	8.102E-01	1.341E+00	1.555E-01	0.384
		1099.22	*	-5.406E-03	7.293E-02	1.208E-01	9.943E-03	-0.045
		1291.56		4.930E-02	9.275E-02	1.590E-01	1.336E-02	0.310
CO-60		1173.22		-1.183E-02	3.271E-02	5.266E-02	2.910E-03	-0.225
		1332.49	*	1.715E-04	3.139E-02	5.213E-02	3.938E-03	0.003
ZN-65		1115.52	*	4.527E-02	8.602E-02	1.283E-01	9.038E-03	0.353
GE-68		1077.35	*	-3.749E-01	9.792E-01	1.588E+00	1.262E-01	-0.236
AS-73		53.44	*	-2.553E-01	1.050E+00	1.751E+00	1.388E-01	-0.146
AS-74		595.88	*	-2.733E-02	7.520E-02	1.186E-01	8.524E-03	-0.230
		634.78		-1.386E-01	3.032E-01	4.719E-01	3.513E-02	-0.294

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		-3.867E+00	5.458E+00	7.906E+00	7.830E-01	-0.489
		96.73		-6.913E-01	7.777E-01	1.071E+00	1.412E-01	-0.645
		121.11		1.700E-02	1.229E-01	1.983E-01	1.852E-02	0.086
		136.00		1.517E-02	3.248E-02	5.277E-02	3.005E-03	0.287
		198.60		2.043E-01	1.485E+00	2.454E+00	1.665E-01	0.083
		264.65	*	-5.203E-02	3.960E-02	5.519E-02	3.156E-03	-0.943
		279.53		1.034E-02	9.281E-02	1.518E-01	9.380E-03	0.068
		303.91		9.487E-01	1.832E+00	2.682E+00	2.551E-01	0.354
		400.65		-1.761E-03	1.973E-01	3.300E-01	3.006E-02	-0.005
BR-77	+	87.88		1.150E+03	3.897E+02	5.619E+02	5.192E+01	2.046
		200.40		2.828E+01	2.430E+02	4.070E+02	2.192E+01	0.069
	+	239.00		4.632E+02	3.714E+01	5.755E+01	3.201E+00	8.049
		249.79		-5.818E+00	9.864E+01	1.615E+02	9.055E+00	-0.036
		281.68		2.052E+01	1.356E+02	2.221E+02	1.267E+01	0.092
		297.23		6.332E+02	1.190E+02	1.793E+02	1.029E+01	3.532
		303.76		1.555E+02	2.837E+02	4.166E+02	2.397E+01	0.373
		439.47		-1.006E+01	1.928E+02	3.192E+02	1.946E+01	-0.032
		484.57		-1.390E+02	3.290E+02	5.284E+02	3.392E+01	-0.263
		520.65	*	-3.977E+00	1.438E+01	2.312E+01	1.542E+00	-0.172
		574.64		-1.797E+02	3.138E+02	4.756E+02	3.349E+01	-0.378
		578.91		1.199E+01	1.424E+02	2.009E+02	1.420E+01	0.060
		585.48		2.378E+03	4.094E+02	7.066E+02	5.028E+01	3.365
		755.35		2.389E+02	2.299E+02	4.052E+02	3.642E+01	0.590
		817.79		2.351E+01	1.830E+02	3.042E+02	3.032E+01	0.077
SR-82		698.33		-1.596E+01	2.743E+01	4.414E+01	3.593E+00	-0.362
		776.49	*	-4.754E-01	3.045E-01	4.417E-01	4.113E-02	-1.076
		1395.20		-4.763E+00	7.675E+00	1.149E+01	8.564E-01	-0.414
RB-83		520.41	*	-1.060E-02	5.279E-02	8.532E-02	5.691E-03	-0.124
		529.64		-1.131E-02	7.918E-02	1.282E-01	8.635E-03	-0.088
		552.65		1.357E-02	1.421E-01	2.330E-01	1.606E-02	0.058
RB-84		881.50	*	3.894E-04	5.024E-02	8.222E-02	9.062E-03	0.005
KR-85		513.99	*	1.311E+01	6.431E+00	1.041E+01	6.899E-01	1.259
SR-85		513.99	*	6.870E-02	3.371E-02	5.458E-02	3.616E-03	1.259
RB-86		1076.63	*	-1.543E-02	6.578E-01	1.096E+00	8.721E-02	-0.014
Y-88		898.02		-1.189E-02	3.348E-02	5.320E-02	6.030E-03	-0.224
		1836.01	*	9.639E-03	2.439E-02	4.235E-02	2.412E-03	0.228
ZR-88		392.90	*	-5.486E-03	2.371E-02	3.925E-02	2.258E-03	-0.140
Y-91		1204.90	*	-1.451E+00	1.525E+01	2.502E+01	1.479E+00	-0.058
NB-94		702.63	*	1.523E-02	2.513E-02	4.341E-02	3.562E-03	0.351
		871.10		-1.041E-02	2.364E-02	3.721E-02	4.036E-03	-0.280
NB-95M		235.69	*	5.347E-02	1.154E-01	1.710E-01	1.255E-02	0.313
ZR-95		724.18		1.028E-01	8.947E-02	1.394E-01	1.293E-02	0.737
		756.15	*	2.987E-02	5.495E-02	9.422E-02	9.271E-03	0.317
NB-97		657.90	*	3.669E-01	5.495E-02	Half-Life	too short	
		1024.50		5.915E+01	5.495E-02	Half-Life	too short	
ZR-97		254.15		-1.324E+01	5.495E-02	Half-Life	too short	
		355.39		-1.018E+01	5.495E-02	Half-Life	too short	
		507.63	*	3.236E+01	5.495E-02	Half-Life	too short	
		602.52		-6.289E+00	5.495E-02	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
	1021.30			-1.786E+01	5.495E-02	Half-Life	too short	
	1147.95			4.838E+00	5.495E-02	Half-Life	too short	
	1362.66			-1.175E+01	5.495E-02	Half-Life	too short	
	1750.46			-3.758E+00	5.495E-02	Half-Life	too short	
MO-99	140.51			1.485E+01	3.880E+01	6.156E+01	1.655E+01	0.241
	181.06			1.736E+01	2.594E+01	3.946E+01	6.699E+00	0.440
	366.43			-1.101E+01	1.023E+02	1.713E+02	9.899E+00	-0.064
	739.58	*		8.553E+00	1.397E+01	2.410E+01	3.677E+00	0.355
	778.00			-6.610E+01	4.270E+01	6.180E+01	5.770E+00	-1.070
TC-99M	140.51	*		4.106E+12	4.270E+01	Half-Life	too short	
RH-101	127.23			1.810E-02	3.054E-02	4.439E-02	2.564E-03	0.408
	198.01	*		3.879E-03	2.699E-02	4.462E-02	2.398E-03	0.087
	325.23			-5.543E-02	1.911E-01	2.622E-01	1.515E-02	-0.211
RH-102	418.52			3.675E-02	2.114E-01	3.558E-01	2.114E-02	0.103
	475.06	*		-3.069E-02	2.267E-02	3.425E-02	2.175E-03	-0.896
	631.29			3.966E-02	4.311E-02	7.348E-02	5.453E-03	0.540
	697.49			1.216E-03	5.549E-02	9.281E-02	7.545E-03	0.013
	766.84	+		1.384E-01	1.407E-01	1.603E-01	1.469E-02	0.864
	1046.59			-8.727E-02	8.467E-02	1.298E-01	1.120E-02	-0.672
	1112.84			2.993E-02	2.053E-01	2.965E-01	2.105E-02	0.101
RU-103	497.08	*		6.276E-03	2.941E-02	4.900E-02	6.362E-03	0.128
	610.33	+		1.304E+01	2.455E+00	2.381E+00	3.817E-01	5.479
RH-106	511.85	+		7.347E-01	2.697E-01	3.522E-01	2.328E-02	2.086
	621.84	*		-1.347E-01	2.427E-01	3.748E-01	4.716E-02	-0.359
	1050.47			1.837E+00	1.653E+00	2.978E+00	2.544E-01	0.617
RU-106	511.85	+		7.347E-01	2.697E-01	3.522E-01	2.328E-02	2.086
	621.84	*		-1.347E-01	2.424E-01	3.748E-01	2.758E-02	-0.359
	1050.47			1.837E+00	1.653E+00	2.978E+00	2.544E-01	0.617
AG-108M	433.93	*		-1.021E-02	2.451E-02	3.977E-02	2.598E-03	-0.257
	614.37			3.538E-02	3.200E-02	4.908E-02	3.781E-03	0.721
	722.95			-6.278E-03	3.500E-02	4.933E-02	4.362E-03	-0.127
AG-110M	657.75	*		1.408E-02	2.860E-02	4.330E-02	3.415E-03	0.325
	677.61			2.131E-01	2.251E-01	3.981E-01	3.229E-02	0.535
	706.67			-5.721E-02	1.580E-01	2.576E-01	2.192E-02	-0.222
	763.93			7.745E-02	1.360E-01	2.043E-01	1.910E-02	0.379
	884.67			1.420E-02	3.428E-02	5.793E-02	6.541E-03	0.245
	937.48			-4.979E-02	9.212E-02	1.436E-01	1.572E-02	-0.347
	1384.27			1.125E-01	1.320E-01	2.072E-01	1.606E-02	0.543
IN-111	171.28			4.277E-01	1.357E+00	2.313E+00	1.217E-01	0.185
	245.39	*		-8.457E-01	1.683E+00	2.196E+00	1.227E-01	-0.385
IN-113M	391.69	*		1.576E-02	3.385E-02	5.803E-02	3.560E-03	0.272
SN-113	391.69	*		1.576E-02	3.385E-02	5.803E-02	3.560E-03	0.272
IN-114M	190.27	*		9.544E-02	1.685E-01	2.556E-01	1.365E-02	0.373
CD-115	260.90			1.921E+02	2.062E+02	3.507E+02	1.980E+01	0.548
	492.35			-3.196E+01	5.254E+01	8.261E+01	5.348E+00	-0.387
	527.90	*		-1.680E-01	1.520E+01	2.484E+01	1.670E+00	-0.007
SN-117M	156.02			3.543E-01	2.083E+00	3.552E+00	1.897E-01	0.100
	158.56	*		2.047E-02	5.003E-02	8.592E-02	4.567E-03	0.238
SB-122	563.90	*		1.383E+00	2.760E+00	4.623E+00	3.222E-01	0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123	692.80			-2.352E+01	5.530E+01	8.990E+01	7.248E+00	-0.262
	159.00	*		4.626E+01	5.530E+01	Half-Life too short		
	528.96			-3.191E+03	5.530E+01	Half-Life too short		
TE-123M	159.00	*		1.638E-02	2.356E-02	4.082E-02	2.202E-03	0.401
I-124	602.71	*		-2.187E-01	8.559E-01	1.165E+00	8.426E-02	-0.188
	722.78			-1.029E+00	5.164E+00	7.264E+00	6.173E-01	-0.142
	1325.50			-4.739E+01	4.034E+01	5.601E+01	4.180E+00	-0.846
	1376.25	+		8.166E+01	5.727E+01	6.551E+01	4.905E+00	1.247
	1509.49			1.675E+01	1.716E+01	3.124E+01	2.238E+00	0.536
	1691.02			2.536E+00	3.947E+00	7.071E+00	4.561E-01	0.359
SB-124	602.71			-9.209E-03	3.603E-02	4.906E-02	3.548E-03	-0.188
	645.85			-2.210E-01	3.920E-01	6.031E-01	4.889E-02	-0.366
	709.31			-4.420E-01	2.163E+00	3.562E+00	2.956E-01	-0.124
	713.82			6.291E-01	1.294E+00	2.217E+00	2.629E-01	0.284
	722.78			-6.283E-02	3.151E-01	4.433E-01	3.851E-02	-0.142
	968.20	+		1.505E+01	5.456E+00	5.996E+00	6.097E-01	2.510
	1045.16			-1.261E+00	1.805E+00	2.848E+00	2.466E-01	-0.443
	1325.50			-3.089E+00	2.630E+00	3.651E+00	2.724E-01	-0.846
	1368.21			8.892E-01	1.330E+00	2.056E+00	2.630E-01	0.432
	1436.60			-6.316E-01	2.938E+00	4.652E+00	3.425E-01	-0.136
	1691.02	*		3.651E-02	5.682E-02	1.018E-01	7.022E-03	0.359
SB-125	427.89	*		-6.972E-02	6.902E-02	1.081E-01	6.752E-03	-0.645
	463.38	+		9.189E-01	4.013E-01	4.457E-01	3.195E-02	2.061
	600.56			3.230E-02	1.410E-01	2.252E-01	1.794E-02	0.143
	635.90			-1.644E-01	2.143E-01	3.253E-01	2.683E-02	-0.505
TE-125M	109.28	*		-5.240E+00	8.641E+00	1.350E+01	1.188E+00	-0.388
I-126	388.63			-3.751E-02	1.740E-01	2.886E-01	1.659E-02	-0.130
	666.33	*		-5.738E-02	1.695E-01	2.375E-01	1.826E-02	-0.242
	753.82			2.886E-01	1.231E+00	2.073E+00	1.858E-01	0.139
SB-126	223.80			-1.824E+00	3.625E+00	5.875E+00	3.229E-01	-0.310
	278.60			3.189E+00	2.311E+00	3.974E+00	2.265E-01	0.802
	296.50	+		1.454E+01	2.356E+00	3.312E+00	1.901E-01	4.388
	414.70			-5.535E-02	6.273E-02	9.944E-02	5.881E-03	-0.557
	415.30			-5.862E+00	5.212E+00	8.131E+00	4.813E-01	-0.721
	555.20			-1.667E+00	3.213E+00	5.038E+00	3.481E-01	-0.331
	573.80			-3.324E-01	9.240E-01	1.466E+00	1.031E-01	-0.227
	593.00			-4.378E-02	7.874E-01	1.270E+00	9.099E-02	-0.034
	656.30			-1.503E+00	3.163E+00	4.376E+00	3.320E-01	-0.343
	666.33			-2.409E-02	7.118E-02	9.972E-02	7.666E-03	-0.242
	675.00			-1.220E+00	1.640E+00	2.609E+00	2.038E-01	-0.467
	695.00			1.857E-02	6.500E-02	1.105E-01	8.940E-03	0.168
	697.00			-5.807E-02	2.211E-01	3.632E-01	2.950E-02	-0.160
	720.50	*		4.500E-02	1.312E-01	2.018E-01	1.708E-02	0.223
	856.80			2.150E-01	4.162E-01	6.195E-01	6.570E-02	0.347
	989.30			-8.634E-01	1.094E+00	1.648E+00	1.612E-01	-0.524
	1034.80			4.815E+00	7.602E+00	1.286E+01	1.142E+00	0.374
	1213.00			4.169E-01	4.179E+00	6.940E+00	4.173E-01	0.060
SB-127	61.10			4.735E+00	9.264E+01	1.392E+02	1.554E+01	0.034
	252.40			7.322E-01	4.984E+00	8.216E+00	3.426E+00	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	290.80			3.049E+00	2.734E+01	3.910E+01	3.868E+00	0.078
	411.60			2.150E+00	1.336E+01	2.248E+01	3.353E+00	0.096
	444.90			2.833E+00	1.046E+01	1.761E+01	2.048E+00	0.161
	473.00			-7.830E-01	1.842E+00	2.960E+00	3.578E-01	-0.265
	543.00			-1.484E+00	1.844E+01	2.993E+01	4.172E+00	-0.050
	603.60			-2.802E+00	1.507E+01	2.064E+01	2.523E+00	-0.136
	685.20	*		-3.453E-01	1.457E+00	2.399E+00	2.770E-01	-0.144
	698.50			-9.048E+00	1.688E+01	2.718E+01	4.357E+00	-0.333
	722.20			-1.707E+01	3.655E+01	4.998E+01	5.852E+00	-0.342
	783.80			1.075E+01	4.391E+00	7.898E+00	1.070E+00	1.361
XE-127	57.60			-1.567E+00	6.762E+00	1.123E+01	8.656E-01	-0.140
	145.22			3.838E-01	6.501E-01	1.034E+00	5.654E-02	0.371
	172.10			1.608E-03	1.015E-01	1.712E-01	9.010E-03	0.009
	202.84	*		6.549E-03	3.952E-02	6.628E-02	3.578E-03	0.099
	374.96			-1.740E-02	1.551E-01	2.594E-01	1.496E-02	-0.067
I-131	80.18			2.909E+00	5.291E+00	7.984E+00	6.973E-01	0.364
	284.30			-7.535E-01	1.412E+00	2.234E+00	1.428E-01	-0.337
	364.48	*		2.562E-02	9.804E-02	1.674E-01	1.084E-02	0.153
	636.97			-9.790E-01	1.445E+00	2.208E+00	1.773E-01	-0.443
	722.89			-1.315E+00	7.055E+00	9.937E+00	8.518E-01	-0.132
TE-132	49.72			-1.151E+01	4.000E+01	6.677E+01	7.221E+00	-0.172
	111.76			8.360E+00	4.057E+01	6.599E+01	6.563E+00	0.127
	116.30			5.564E+00	3.820E+01	6.184E+01	6.033E+00	0.090
	228.16	*		5.896E-01	8.804E-01	1.487E+00	2.185E-01	0.397
BA-133	53.15			-2.749E-01	4.459E+00	7.484E+00	5.939E-01	-0.037
	79.62			1.005E+00	1.258E+00	1.909E+00	2.906E-01	0.527
	81.00			-1.048E-01	9.969E-02	1.376E-01	2.192E-02	-0.762
	276.40			2.378E-01	3.158E-01	5.123E-01	6.617E-02	0.464
	302.84			8.723E-02	1.298E-01	1.913E-01	2.226E-02	0.456
	356.01	*		-1.727E-02	3.804E-02	5.085E-02	5.874E-03	-0.340
	383.85			5.703E-02	2.248E-01	3.821E-01	4.144E-02	0.149
I-133	510.53	+		7.929E+00	2.248E-01	Half-Life	too short	
	529.87	*		2.944E-03	2.248E-01	Half-Life	too short	
	706.58			-5.497E-01	2.248E-01	Half-Life	too short	
	856.28			8.689E-01	2.248E-01	Half-Life	too short	
	875.33			1.450E-01	2.248E-01	Half-Life	too short	
	1236.41	+		6.264E+00	2.248E-01	Half-Life	too short	
	1298.22			-1.266E+00	2.248E-01	Half-Life	too short	
CS-134	475.35			-1.988E+00	1.479E+00	2.235E+00	1.420E-01	-0.889
	563.23			1.719E-01	2.761E-01	4.660E-01	3.293E-02	0.369
	569.32			-2.510E-02	1.588E-01	2.526E-01	1.806E-02	-0.099
	604.70			1.134E-02	3.022E-02	4.349E-02	3.161E-03	0.261
	795.84	*		9.111E-02	4.454E-02	6.957E-02	6.729E-03	1.310
	801.93			1.992E-01	3.489E-01	5.482E-01	5.348E-02	0.363
	1038.57			1.172E+00	2.844E+00	4.901E+00	4.312E-01	0.239
	1167.94			5.366E-01	1.815E+00	3.070E+00	1.741E-01	0.175
	1365.15			-2.895E-01	8.995E-01	1.350E+00	1.074E-01	-0.214
CS-135	268.24	*		2.787E-01	1.400E-01	2.223E-01	1.680E-02	1.254
I-135	288.45			9.243E+11	1.400E-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
		417.63		3.581E+12	1.400E-01	Half-Life	too short	
		546.56		-7.518E+11	1.400E-01	Half-Life	too short	
		836.80		2.497E+12	1.400E-01	Half-Life	too short	
		1038.76		9.741E+11	1.400E-01	Half-Life	too short	
		1124.00		1.233E+13	1.400E-01	Half-Life	too short	
		1131.51		4.613E+11	1.400E-01	Half-Life	too short	
		1260.41	*	3.189E+11	1.400E-01	Half-Life	too short	
		1457.56		1.821E+14	1.400E-01	Half-Life	too short	
		1678.03		5.772E+11	1.400E-01	Half-Life	too short	
		1706.46		-1.996E+12	1.400E-01	Half-Life	too short	
		1791.20		-5.525E+11	1.400E-01	Half-Life	too short	
CS-136		66.91		-5.555E-01	9.702E-01	1.412E+00	2.132E-01	-0.393
	+	86.29		4.142E+00	1.458E+00	2.016E+00	2.658E-01	2.055
		153.22		2.139E-01	5.914E-01	1.016E+00	6.996E-02	0.211
		163.89		-3.203E-01	9.583E-01	1.583E+00	1.082E-01	-0.202
		176.55		-1.350E-01	3.273E-01	5.422E-01	3.287E-02	-0.249
		273.65		-6.605E-01	4.789E-01	6.216E-01	4.051E-02	-1.063
		340.57		5.357E-01	1.378E-01	2.322E-01	1.430E-02	2.307
		818.51		1.216E-02	6.127E-02	1.024E-01	1.022E-02	0.119
		1048.07	*	3.920E-03	8.750E-02	1.468E-01	1.316E-02	0.027
		1235.34		1.100E+00	6.071E-01	9.742E-01	1.002E-01	1.130
CE-139		165.85	*	-4.182E-03	2.385E-02	4.004E-02	2.102E-03	-0.104
BA-140		162.64		-2.963E-01	6.761E-01	1.113E+00	6.748E-02	-0.266
		304.84		4.890E-01	1.246E+00	1.800E+00	4.910E-01	0.272
		423.70		3.683E-01	1.576E+00	2.651E+00	8.434E-01	0.139
		537.32	*	-4.741E-02	2.266E-01	3.642E-01	1.191E-01	-0.130
LA-140	+	328.77		5.937E-01	3.282E-01	4.855E-01	3.146E-02	1.223
		432.53		4.841E-01	1.691E+00	2.857E+00	1.894E-01	0.169
		487.03		5.502E-02	1.194E-01	2.018E-01	1.439E-02	0.273
		751.79		-1.666E-01	1.415E+00	2.328E+00	2.288E-01	-0.072
		815.85		-2.131E-01	2.675E-01	4.123E-01	4.456E-02	-0.517
		867.82		5.613E-01	1.201E+00	1.782E+00	1.988E-01	0.315
		919.63		2.170E-01	2.512E+00	3.688E+00	4.659E-01	0.059
		925.24		5.803E-01	9.077E-01	1.551E+00	1.757E-01	0.374
		1596.49	*	-4.720E-02	7.233E-02	1.110E-01	7.615E-03	-0.425
CE-141		145.44	*	4.645E-02	5.755E-02	9.409E-02	5.372E-03	0.494
CE-143		57.37		-4.529E-04	5.755E-02	Half-Life	too short	
		231.56		1.408E-03	5.755E-02	Half-Life	too short	
		293.26	*	1.992E-03	5.755E-02	Half-Life	too short	
	+	350.59		8.370E-02	5.755E-02	Half-Life	too short	
		490.36		8.535E-04	5.755E-02	Half-Life	too short	
		664.57		4.150E-03	5.755E-02	Half-Life	too short	
		721.93		-1.439E-03	5.755E-02	Half-Life	too short	
CE-144		80.11		1.129E+00	2.045E+00	3.087E+00	2.673E-01	0.366
		133.54	*	-1.631E-01	1.842E-01	2.650E-01	3.747E-02	-0.616
PM-144		476.78		-2.436E-02	5.219E-02	8.369E-02	6.211E-03	-0.291
		618.01		1.610E-02	2.484E-02	4.172E-02	3.176E-03	0.386
		696.49	*	5.384E-03	2.526E-02	4.275E-02	3.471E-03	0.126
		778.57		-2.222E+00	1.705E+00	2.531E+00	2.366E-01	-0.878

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	696.49	*		3.652E-01	1.714E+00	2.900E+00	2.354E-01	0.126
	1489.15			-1.043E+01	9.527E+00	1.324E+01	9.568E-01	-0.788
PM-146	453.90	*		-6.596E-04	3.574E-02	5.578E-02	4.963E-03	-0.012
	633.02			3.928E-01	1.092E+00	1.786E+00	6.627E-01	0.220
	735.90			-4.318E-02	1.052E-01	1.685E-01	4.824E-02	-0.256
	747.13			-3.199E-02	6.577E-02	1.052E-01	1.492E-02	-0.304
ND-147	91.11			-9.413E-02	4.464E-01	5.303E-01	4.988E-02	-0.178
	319.41			-1.454E+00	2.873E+00	4.494E+00	2.596E-01	-0.324
	439.89			-1.503E-01	4.828E+00	8.002E+00	4.883E-01	-0.019
	531.02	*		2.412E-01	4.757E-01	8.009E-01	1.117E-01	0.301
PM-149	285.90	*		-8.918E+01	1.372E+02	2.146E+02	3.037E+01	-0.416
EU-152	121.78			5.203E-02	6.540E-02	1.081E-01	8.330E-03	0.481
	244.69			2.973E-02	3.132E-01	4.265E-01	2.382E-02	0.070
	344.27	*		1.073E-02	8.900E-02	1.254E-01	8.181E-03	0.086
	443.98			-2.196E-01	7.064E-01	1.151E+00	7.052E-02	-0.191
	778.89			-2.543E-01	1.971E-01	2.932E-01	2.741E-02	-0.867
	867.32			2.749E-01	6.375E-01	9.423E-01	1.016E-01	0.292
	964.01			4.100E-01	2.891E-01	4.465E-01	4.573E-02	0.918
	1085.78			1.164E-02	2.995E-01	5.007E-01	3.880E-02	0.023
	1112.02			2.115E-01	2.790E-01	4.275E-01	3.043E-02	0.495
+	1407.95			2.966E-01	2.258E-01	2.675E-01	1.987E-02	1.109
GD-153	69.67			-3.678E-02	1.766E+00	2.602E+00	2.112E-01	-0.014
	83.37			1.601E+01	1.625E+01	2.273E+01	2.019E+00	0.704
	97.43	*		-6.187E-02	7.923E-02	1.103E-01	8.620E-03	-0.561
	103.18			-8.931E-02	9.499E-02	1.480E-01	1.068E-02	-0.603
EU-154	123.07			7.457E-03	4.677E-02	7.547E-02	7.138E-03	0.099
	247.94			2.073E-01	2.892E-01	4.890E-01	4.606E-02	0.424
	591.81			9.175E-02	4.765E-01	7.607E-01	8.091E-02	0.121
	723.30			-3.222E-02	1.523E-01	2.141E-01	2.018E-02	-0.151
	756.87			6.219E-01	5.761E-01	1.014E+00	1.244E-01	0.613
	873.19			-2.364E-03	2.054E-01	3.359E-01	4.678E-02	-0.007
	996.32			-1.424E-01	3.065E-01	4.765E-01	8.713E-02	-0.299
	1004.76			-1.368E-01	1.764E-01	2.666E-01	3.278E-02	-0.513
	1274.45	*		7.564E-03	1.040E-01	1.717E-01	1.715E-02	0.044
EU-155	48.70			-1.478E+00	3.326E+00	5.525E+00	4.191E-01	-0.268
	60.01			3.883E-01	5.580E+00	8.404E+00	6.413E-01	0.046
+	86.54			3.427E-01	1.162E-01	1.678E-01	1.546E-02	2.042
	105.31	*		1.058E-01	9.722E-02	1.635E-01	1.169E-02	0.647
TB-160	86.79			9.332E-01	3.163E-01	4.590E-01	4.199E-02	2.033
	197.04			-2.206E-01	4.649E-01	7.505E-01	4.031E-02	-0.294
	215.65			6.615E-02	6.680E-01	9.800E-01	5.349E-02	0.067
	298.57			3.174E-01	1.222E-01	1.621E-01	9.312E-03	1.957
	879.36	*		-3.027E-02	9.718E-02	1.546E-01	1.699E-02	-0.196
	962.29			6.060E-01	5.181E-01	7.910E-01	8.126E-02	0.766
	966.15			1.212E+00	2.848E-01	4.619E-01	4.714E-02	2.624
	1177.93			-5.847E-02	2.734E-01	4.452E-01	2.486E-02	-0.131
	1271.85			3.246E-01	5.931E-01	1.013E+00	6.846E-02	0.320
HO-166M	80.57			-9.802E-02	2.682E-01	3.881E-01	3.372E-02	-0.253
	184.41			1.043E-01	3.437E-02	5.652E-02	3.003E-03	1.846

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		280.46		-3.037E-02	7.163E-02	1.143E-01	6.522E-03	-0.266
		410.95		1.507E-01	1.844E-01	3.201E-01	1.884E-02	0.471
		711.68	*	2.210E-02	4.589E-02	7.872E-02	6.562E-03	0.281
		752.31		1.506E-01	2.026E-01	3.519E-01	3.146E-02	0.428
		810.29		-2.082E-02	4.254E-02	6.744E-02	6.640E-03	-0.309
		51.35		-3.276E+01	4.017E+01	6.555E+01	5.196E+00	-0.500
		52.39		6.631E+00	1.957E+01	3.334E+01	2.649E+00	0.199
		59.40		4.928E+00	2.991E+01	4.529E+01	3.439E+00	0.109
		66.72	*	-1.350E+01	3.119E+01	4.582E+01	3.664E+00	-0.295
		88.36		6.743E-01	2.286E-01	3.283E-01	3.014E-02	2.054
LU-176	+	201.83		-2.832E-02	2.367E-02	3.763E-02	2.030E-03	-0.752
		306.84	*	2.945E-03	2.176E-02	3.103E-02	1.786E-03	0.095
LU-177		401.10		-5.215E-03	5.137E+00	8.593E+00	4.995E-01	-0.001
		112.95		3.413E-01	1.776E+00	2.886E+00	1.859E-01	0.118
LU-177M	+	208.36	*	3.421E+00	1.812E+00	1.949E+00	1.057E-01	1.755
		52.97		1.003E+00	2.003E+00	3.429E+00	2.722E-01	0.293
		54.07		2.589E-01	1.040E+00	1.763E+00	1.394E-01	0.147
		61.30		2.466E-01	1.658E+00	2.503E+00	1.934E-01	0.098
		121.62		2.394E-01	3.370E-01	5.557E-01	3.296E-02	0.431
		147.16		-2.375E-01	5.747E-01	8.946E-01	4.868E-02	-0.265
		171.86		-1.495E-01	4.001E-01	6.653E-01	3.502E-02	-0.225
		218.09		6.565E-02	6.750E-01	1.124E+00	6.147E-02	0.058
	+	268.79		1.801E+00	9.266E-01	1.170E+00	6.632E-02	1.540
		319.02		-1.018E-01	1.986E-01	3.106E-01	1.793E-02	-0.328
		367.43		-4.201E-01	6.583E-01	1.071E+00	6.183E-02	-0.392
HF-181		413.65	*	-1.057E-01	1.338E-01	2.136E-01	1.262E-02	-0.495
		56.28		-5.403E-01	1.113E+00	1.832E+00	1.427E-01	-0.295
		57.53		-1.117E-01	5.665E-01	9.422E-01	7.266E-02	-0.118
		65.20		-3.640E-01	1.112E+00	1.645E+00	1.305E-01	-0.221
		133.02		-7.188E-02	6.627E-02	8.807E-02	4.982E-03	-0.816
		136.25		1.219E-01	3.905E-01	6.302E-01	3.529E-02	0.193
		345.85		1.475E-02	1.842E-01	2.586E-01	1.496E-02	0.057
W-181		482.03	*	-1.699E-02	3.503E-02	5.611E-02	3.591E-03	-0.303
		56.28		-2.065E-01	4.261E-01	7.015E-01	5.465E-02	-0.294
		57.53		-4.262E-02	2.171E-01	3.610E-01	2.784E-02	-0.118
TA-182		65.20	*	-1.384E-01	4.228E-01	6.254E-01	4.961E-02	-0.221
		67.75		-3.746E-02	1.231E-01	1.818E-01	1.461E-02	-0.206
		100.10		2.235E-01	1.605E-01	2.730E-01	2.053E-02	0.819
		152.43		-2.537E-01	3.022E-01	4.602E-01	2.476E-02	-0.551
		222.10		8.560E-02	2.745E-01	4.603E-01	2.527E-02	0.186
		1001.68		1.527E+00	1.703E+00	2.859E+00	2.729E-01	0.534
	+	1121.28		6.803E-01	2.342E-01	2.866E-01	1.975E-02	2.374
		1189.05		-1.177E-01	2.404E-01	3.834E-01	2.192E-02	-0.307
		1221.42	*	1.509E-02	1.564E-01	2.595E-01	1.588E-02	0.058
RE-183		1230.97		2.135E-02	4.188E-01	5.918E-01	3.691E-02	0.036
		57.98		-9.302E-02	2.172E-01	3.579E-01	2.749E-02	-0.260
		59.32		1.625E-02	1.253E-01	1.895E-01	1.440E-02	0.086
		67.20		-1.028E-03	2.216E-01	3.321E-01	2.662E-02	-0.003
		162.32	*	-6.808E-02	9.097E-02	1.481E-01	7.817E-03	-0.460

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-184	+	208.81		2.530E+00	1.340E+00	1.454E+00	7.892E-02	1.740
		291.72		7.786E-02	8.358E-01	1.194E+00	6.839E-02	0.065
		57.98		-3.386E-01	7.909E-01	1.303E+00	1.001E-01	-0.260
		59.32		5.910E-02	4.559E-01	6.893E-01	5.237E-02	0.086
		67.20		-3.741E-03	8.065E-01	1.209E+00	9.687E-02	-0.003
		161.27		-2.060E-01	2.882E-01	4.751E-01	2.513E-02	-0.433
		216.55		-2.827E-04	2.168E-01	3.477E-01	1.900E-02	-0.001
		252.85	*	-4.065E-02	1.874E-01	3.045E-01	1.710E-02	-0.134
		318.01		1.039E-02	3.467E-01	5.597E-01	3.230E-02	0.019
		792.07		7.016E-01	9.021E-01	1.369E+00	1.308E-01	0.513
OS-185		903.28		8.319E-01	9.148E-01	1.393E+00	1.564E-01	0.597
		920.93		-1.470E-01	3.560E-01	5.306E-01	5.815E-02	-0.277
		59.72		9.306E-02	3.342E-01	5.088E-01	3.870E-02	0.183
		61.14		1.220E-02	1.837E-01	2.763E-01	2.132E-02	0.044
		69.30		-1.446E-01	3.247E-01	4.689E-01	3.799E-02	-0.308
		592.07		1.778E-01	1.928E+00	3.140E+00	2.248E-01	0.057
		646.12	*	-1.805E-02	3.278E-02	5.047E-02	3.795E-03	-0.358
		717.42		-6.732E-02	7.036E-01	1.165E+00	9.811E-02	-0.058
		874.81		3.647E-02	4.044E-01	6.670E-01	7.276E-02	0.055
		880.27		2.333E-01	5.309E-01	8.998E-01	9.898E-02	0.259
RE-188		155.03	*	9.373E-02	1.444E-01	2.501E-01	1.338E-02	0.375
		477.96		2.631E+00	2.393E+00	4.183E+00	2.665E-01	0.629
		633.10		6.035E-01	2.241E+00	3.671E+00	2.729E-01	0.164
W-188	+	63.58		7.607E+01	8.740E+01	9.937E+01	7.808E+00	0.766
		227.08		-2.570E+00	1.059E+01	1.734E+01	9.559E-01	-0.148
IR-192		290.67	*	4.908E-01	6.625E+00	9.452E+00	5.414E-01	0.052
	+	295.96		1.010E+00	1.641E-01	2.360E-01	1.376E-02	4.280
		308.46		-8.638E-03	7.559E-02	1.214E-01	7.071E-03	-0.071
		316.51	*	-1.218E-02	2.744E-02	4.316E-02	2.503E-03	-0.282
		468.07		2.342E-04	5.713E-02	8.187E-02	5.834E-03	0.003
		604.41		1.332E-01	4.096E-01	5.870E-01	7.133E-02	0.227
		612.46		1.856E+00	7.756E-01	1.237E+00	1.085E-01	1.500
AU-195		65.12		-5.720E-02	1.955E-01	2.897E-01	2.296E-02	-0.197
		66.83		-6.476E-02	1.050E-01	1.528E-01	1.223E-02	-0.424
	+	75.70		1.419E+00	2.669E-01	4.299E-01	3.611E-02	3.302
		98.88	*	1.680E-01	2.256E-01	3.392E-01	2.595E-02	0.495
TL-200	+	129.76		2.576E+00	2.973E+00	4.356E+00	2.492E-01	0.591
		367.94	*	-6.447E-04	2.973E+00	Half-Life	too short	
		579.30		7.010E-03	2.973E+00	Half-Life	too short	
		828.27		-1.688E-04	2.973E+00	Half-Life	too short	
TL-201		1205.75		-1.390E-03	2.973E+00	Half-Life	too short	
		68.90		-3.410E+00	8.352E+00	1.209E+01	9.776E-01	-0.282
		70.82		-9.628E-01	4.575E+00	6.676E+00	5.451E-01	-0.144
		80.30		-2.191E+00	8.014E+00	1.165E+01	1.010E+00	-0.188
TL-202		135.34		1.783E+01	3.340E+01	5.442E+01	3.056E+00	0.328
		167.43	*	-6.830E+00	9.028E+00	1.482E+01	7.778E-01	-0.461
		68.90		-2.145E-01	5.255E-01	7.607E-01	6.150E-02	-0.282
		70.82		-6.040E-02	2.870E-01	4.188E-01	3.420E-02	-0.144
		80.30		-1.375E-01	5.029E-01	7.314E-01	6.341E-02	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HG-203		439.56	*	-3.900E-03	5.706E-02	9.438E-02	5.754E-03	-0.041
		70.83		-2.307E-01	1.140E+00	1.664E+00	2.217E-01	-0.139
		72.87		9.633E-01	5.968E-01	1.017E+00	1.318E-01	0.948
		82.60		-6.799E-01	1.170E+00	1.671E+00	2.318E-01	-0.407
BI-207		279.20	*	3.479E-02	3.505E-02	5.942E-02	3.604E-03	0.585
		72.80		2.358E-01	1.661E-01	2.855E-01	2.357E-02	0.826
	+	74.97		7.812E-01	1.469E-01	2.151E-01	1.798E-02	3.632
		84.90		2.683E-01	1.893E-01	2.897E-01	2.607E-02	0.926
		569.67		-1.922E-03	2.447E-02	3.912E-02	2.742E-03	-0.049
		1063.62	*	1.182E-02	3.940E-02	6.720E-02	5.548E-03	0.176
TL-207		1770.23		1.501E-01	3.599E-01	5.497E-01	3.325E-02	0.273
		81.07		-2.393E-01	2.175E-01	3.024E-01	2.637E-02	-0.791
		83.78		1.964E-01	1.275E-01	1.960E-01	1.747E-02	1.002
	+	94.90		6.863E-01	5.121E-01	3.587E-01	2.920E-02	1.913
		122.32		1.652E+00	1.549E+00	2.584E+00	1.755E-01	0.639
		144.24		3.815E-01	6.025E-01	9.600E-01	6.699E-02	0.397
		154.21		3.421E-01	3.224E-01	5.649E-01	3.759E-02	0.606
	+	269.46		4.177E-01	2.151E-01	2.803E-01	1.665E-02	1.490
		323.87	*	6.351E-02	5.704E-01	8.077E-01	1.333E-01	0.079
	+	338.28		6.858E+00	1.710E+00	2.002E+00	2.107E-01	3.426
		445.03		4.448E-01	1.677E+00	2.824E+00	2.955E-01	0.158
		260.50		7.794E+00	8.003E+00	1.363E+01	7.692E-01	0.572
PO-209		262.80		-6.295E+00	2.195E+01	3.544E+01	2.003E+00	-0.178
		896.60	*	-1.985E+00	5.822E+00	9.257E+00	1.044E+00	-0.214
BI-210		46.50	*	-1.400E+00	5.106E+00	8.557E+00	6.621E-01	-0.164
PB-210		46.50	*	-1.400E+00	5.106E+00	8.557E+00	6.621E-01	-0.164
PO-210		46.50	*	-1.400E+00	5.105E+00	8.557E+00	5.692E-01	-0.164
PB-211		404.84	*	-6.415E-01	8.468E-01	1.195E+00	7.450E-01	-0.537
BI-212		427.08		-1.433E+00	1.760E+00	2.396E+00	1.481E+00	-0.598
		831.96		-3.117E-01	9.724E-01	1.531E+00	9.631E-01	-0.204
	+	727.18	*	9.169E-01	3.362E-01	5.144E-01	5.123E-02	1.782
		785.46		2.418E+00	1.426E+00	2.565E+00	2.424E-01	0.943
PO-215		1620.62		1.157E+00	1.118E+00	2.019E+00	1.365E-01	0.573
		81.07		-2.393E-01	2.175E-01	3.024E-01	2.637E-02	-0.791
		83.78		1.964E-01	1.275E-01	1.960E-01	1.747E-02	1.002
	+	94.90		6.863E-01	5.121E-01	3.587E-01	2.920E-02	1.913
		122.32		1.652E+00	1.549E+00	2.584E+00	1.755E-01	0.639
		144.24		3.815E-01	6.025E-01	9.600E-01	6.699E-02	0.397
		154.21		3.421E-01	3.224E-01	5.649E-01	3.759E-02	0.606
	+	269.46		4.177E-01	2.151E-01	2.803E-01	1.665E-02	1.490
		323.87	*	6.351E-02	5.704E-01	8.077E-01	1.333E-01	0.079
	+	338.28		6.858E+00	1.710E+00	2.002E+00	2.107E-01	3.426
		445.03		4.448E-01	1.677E+00	2.824E+00	2.955E-01	0.158
	+	271.23		5.360E-01	2.775E-01	3.572E-01	2.863E-02	1.501
RN-219		401.81	*	2.019E-02	3.210E-01	5.386E-01	7.332E-02	0.037
RN-220		549.76	*	9.386E+00	1.835E+01	3.093E+01	2.126E+00	0.303
RA-223		81.07		-2.393E-01	2.175E-01	3.024E-01	2.637E-02	-0.791
		83.78		1.964E-01	1.275E-01	1.960E-01	1.747E-02	1.002
	+	94.90		6.863E-01	5.121E-01	3.587E-01	2.920E-02	1.913

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		1.652E+00	1.549E+00	2.584E+00	1.755E-01	0.639
		144.24		3.815E-01	6.025E-01	9.600E-01	6.699E-02	0.397
		154.21		3.421E-01	3.224E-01	5.649E-01	3.759E-02	0.606
	+	269.46		4.177E-01	2.151E-01	2.803E-01	1.665E-02	1.490
		323.87	*	6.351E-02	5.704E-01	8.077E-01	1.333E-01	0.079
	+	338.28		6.858E+00	1.710E+00	2.002E+00	2.107E-01	3.426
		445.03		4.448E-01	1.677E+00	2.824E+00	2.955E-01	0.158
		79.80		8.870E-01	1.589E+00	2.386E+00	5.132E-01	0.372
		236.00		5.030E-01	2.281E-01	3.563E-01	3.676E-02	1.412
		256.20	*	1.790E-02	3.071E-01	5.046E-01	7.009E-02	0.035
TH-227		286.10		-8.672E-01	1.189E+00	1.854E+00	2.135E-01	-0.468
	+	299.80		4.121E+00	1.725E+00	2.074E+00	3.374E-01	1.987
		304.40		7.922E-01	1.638E+00	2.387E+00	4.126E-01	0.332
		334.20		1.481E+00	2.162E+00	2.954E+00	5.415E-01	0.501
		79.80		8.870E-01	1.589E+00	2.386E+00	5.197E-01	0.372
	+	94.00		5.491E+00	4.241E+00	3.593E+00	7.774E-01	1.528
		236.00		5.030E-01	2.265E-01	3.563E-01	3.171E-02	1.412
		256.20	*	1.790E-02	3.071E-01	5.046E-01	8.498E-02	0.035
		286.10		-8.672E-01	1.469E+00	1.854E+00	1.857E+00	-0.468
	+	299.80		4.121E+00	1.725E+00	2.074E+00	3.374E-01	1.987
TH-229		304.40		7.922E-01	1.638E+00	2.387E+00	4.126E-01	0.332
		334.20		1.481E+00	2.162E+00	2.954E+00	5.415E-01	0.501
		85.43		1.695E-01	1.918E-01	2.882E-01	2.605E-02	0.588
	+	88.47		3.882E-01	1.316E-01	1.886E-01	1.728E-02	2.058
		100.00		2.179E-01	1.640E-01	2.786E-01	2.098E-02	0.782
		193.63	*	-7.043E-02	4.035E-01	6.703E-01	3.589E-02	-0.105
	+	210.97		1.941E+00	1.028E+00	1.083E+00	5.889E-02	1.792
	PA-231	283.67	*	-5.735E-01	1.227E+00	1.945E+00	2.674E-01	-0.295
	+	301.29		1.648E+00	6.586E-01	8.647E-01	9.014E-02	1.906
	TH-231	81.07		-2.393E-01	2.175E-01	3.024E-01	2.637E-02	-0.791
U-231		83.78		1.964E-01	1.275E-01	1.960E-01	1.747E-02	1.002
	+	94.90		6.863E-01	5.121E-01	3.587E-01	2.920E-02	1.913
		122.32		1.652E+00	1.549E+00	2.584E+00	1.755E-01	0.639
		144.24		3.815E-01	6.025E-01	9.600E-01	6.699E-02	0.397
		154.21		3.421E-01	3.224E-01	5.649E-01	3.759E-02	0.606
	+	269.46		4.177E-01	2.151E-01	2.803E-01	1.665E-02	1.490
		323.87	*	6.351E-02	5.704E-01	8.077E-01	1.333E-01	0.079
	+	338.28		6.858E+00	1.710E+00	2.002E+00	2.107E-01	3.426
		445.03		4.448E-01	1.677E+00	2.824E+00	2.955E-01	0.158
	+	84.21		1.210E+01	7.682E+00	1.182E+01	1.057E+00	1.024
PA-233		92.29		7.655E+00	5.711E+00	5.450E+00	4.639E-01	1.405
		95.87	*	3.211E-01	1.402E+00	2.063E+00	1.653E-01	0.156
		108.00		-1.495E+00	2.640E+00	4.139E+00	2.814E-01	-0.361
	+	75.28		2.279E+01	5.172E+00	6.344E+00	9.651E-01	3.593
	+	86.59		5.566E+00	2.357E+00	2.729E+00	7.364E-01	2.040
	+	300.12		1.149E+00	4.692E-01	5.799E-01	7.780E-02	1.981
		311.98	*	1.107E-02	4.979E-02	8.130E-02	4.980E-03	0.136
		340.50		2.516E+00	8.245E-01	1.031E+00	2.368E-01	2.440
		398.62		3.743E-01	1.565E+00	2.646E+00	6.841E-01	0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		-9.868E-01	1.235E+00	1.941E+00	4.003E-01	-0.508
		63.00		2.161E+00	2.498E+00	2.876E+00	4.335E-01	0.751
	+	94.67		4.896E-01	3.679E-01	2.721E-01	3.291E-02	1.799
		98.44		2.507E-02	9.262E-02	1.348E-01	7.501E-02	0.186
		99.86		5.134E-01	4.138E-01	7.012E-01	5.290E-02	0.732
		111.00		-7.304E-02	1.645E-01	2.607E-01	2.796E-02	-0.280
		131.20		4.991E-02	1.019E-01	1.484E-01	8.449E-03	0.336
		152.70		-4.867E-02	2.817E-01	4.417E-01	6.917E-02	-0.110
	+	186.00		5.090E+00	2.328E+00	2.229E+00	6.790E-01	2.284
		226.40		-1.935E-01	3.254E-01	5.240E-01	5.982E-02	-0.369
		227.20		9.465E-03	3.503E-01	5.799E-01	3.196E-02	0.016
		248.90		1.844E-01	6.550E-01	1.087E+00	2.331E-01	0.170
		293.70		5.042E+00	1.104E+00	1.387E+00	2.227E-01	3.636
		369.80		-1.537E-01	6.162E-01	1.022E+00	2.128E-01	-0.150
		568.70		-2.462E-01	7.874E-01	1.239E+00	8.677E-02	-0.199
		569.50		-1.269E-02	2.174E-01	3.480E-01	2.438E-02	-0.036
		574.00		-5.397E-01	1.179E+00	1.857E+00	1.307E-01	-0.291
		699.00		-9.749E-02	5.388E-01	8.894E-01	1.678E-01	-0.110
		706.10		-2.617E-01	8.121E-01	1.315E+00	5.852E-01	-0.199
		733.00		2.289E-02	2.960E-01	4.273E-01	9.489E-02	0.054
		742.81		2.057E-01	1.000E+00	1.669E+00	1.122E+00	0.123
	+	796.30		1.767E+00	9.753E-01	1.355E+00	3.711E-01	1.304
		805.60		6.847E-01	7.880E-01	1.328E+00	4.114E-01	0.516
		819.60		4.803E-01	9.288E-01	1.557E+00	5.972E-01	0.309
		826.30		-4.544E-01	6.628E-01	9.824E-01	4.426E-01	-0.463
		831.60		-4.398E-01	5.206E-01	7.783E-01	2.361E-01	-0.565
		876.40		2.661E-02	5.715E-01	9.379E-01	9.663E-01	0.028
		880.51		5.588E-02	1.907E-01	3.196E-01	3.517E-02	0.175
		883.24		-9.130E-02	2.115E-01	3.183E-01	2.151E-01	-0.287
		899.00		-5.234E-01	7.156E-01	1.042E+00	4.618E-01	-0.502
		925.00		4.746E-01	8.479E-01	1.441E+00	1.570E-01	0.329
		926.50		-4.312E-02	1.325E-01	2.093E-01	5.470E-02	-0.206
		946.00	*	-6.621E-03	2.340E-01	3.794E-01	7.485E-02	-0.017
		949.00		1.218E-01	3.452E-01	5.755E-01	6.044E-02	0.212
		980.50		2.921E-01	5.633E-01	9.483E-01	9.432E-02	0.308
		1394.10		-5.776E-01	8.775E-01	1.172E+00	7.614E-01	-0.493
PA-234M	+	766.42		1.455E+01	1.648E+01	1.666E+01	8.466E+00	0.873
		1001.03	*	5.785E+00	3.799E+00	6.587E+00	7.105E-01	0.878
U-235		89.95		-1.367E+00	1.606E+00	1.688E+00	5.223E-01	-0.810
	+	93.35		1.708E+00	1.353E+00	1.209E+00	3.378E-01	1.413
		105.00		1.296E+00	1.015E+00	1.603E+00	4.719E-01	0.808
		143.76	*	1.189E-02	1.909E-01	2.979E-01	4.825E-02	0.040
		163.35		-1.564E-01	3.805E-01	6.255E-01	1.115E-01	-0.250
	+	185.71		1.885E-01	6.507E-02	8.276E-02	4.402E-03	2.278
NP-236		205.31		8.796E-03	4.676E-01	6.820E-01	1.218E-01	0.013
	+	94.67		3.714E-01	2.771E-01	2.067E-01	1.689E-02	1.796
		98.44		1.890E-02	6.923E-02	1.019E-01	7.846E-03	0.186
		111.00		-5.525E-02	1.244E-01	1.972E-01	1.297E-02	-0.280
		160.31	*	5.995E-03	6.396E-02	1.086E-01	5.755E-03	0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.130E-01	1.459E-01	2.331E-01	1.766E-02	0.485
		117.00	*	5.798E-02	1.651E-01	2.693E-01	1.667E-02	0.215
	+	209.75		1.955E+00	1.036E+00	1.138E+00	6.182E-02	1.718
		228.18		1.253E-01	1.839E-01	3.120E-01	1.721E-02	0.402
		277.60		1.832E-01	1.491E-01	2.551E-01	1.453E-02	0.718
AM-241		334.30		8.293E-01	1.216E+00	1.673E+00	9.673E-02	0.496
		59.54	*	3.916E-02	1.733E-01	2.632E-01	2.183E-02	0.149
	CM-243	99.55		1.163E-01	1.501E-01	2.399E-01	1.818E-02	0.485
		103.76	*	-4.519E-02	8.757E-02	1.391E-01	9.953E-03	-0.325
		117.00		5.966E-02	1.699E-01	2.771E-01	1.715E-02	0.215
	+	209.75		1.928E+00	1.021E+00	1.122E+00	6.095E-02	1.718
		228.18		1.266E-01	1.859E-01	3.153E-01	1.739E-02	0.402
		277.60		1.848E-01	1.503E-01	2.572E-01	1.465E-02	0.718
	AM-246	798.80		-1.170E-01	1.308E-01	1.684E-01	1.627E-02	-0.695
		1036.00		7.358E-02	2.247E-01	3.848E-01	3.407E-02	0.191
		1062.04		-6.312E-02	1.669E-01	2.707E-01	2.244E-02	-0.233
		1078.86	*	-3.653E-02	1.072E-01	1.741E-01	1.377E-02	-0.210
	CM-247	278.00		8.820E-01	6.151E-01	1.060E+00	6.041E-02	0.832
		287.40		1.730E-01	9.368E-01	1.536E+00	8.787E-02	0.113
		402.60	*	9.722E-03	2.788E-02	4.744E-02	2.763E-03	0.205
CF-249		252.85		-1.512E-01	6.973E-01	1.133E+00	6.362E-02	-0.134
		333.44		7.796E-02	2.018E-01	2.126E-01	1.230E-02	0.367
		387.95	*	-8.148E-03	3.085E-02	5.106E-02	2.935E-03	-0.160
CF-251		176.60	*	-4.149E-02	1.011E-01	1.675E-01	8.845E-03	-0.248
		227.00		-1.037E-01	3.102E-01	5.059E-01	2.788E-02	-0.205
		285.00		-1.343E+00	1.365E+00	2.104E+00	1.203E-01	-0.638

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344002      *
* Acquisition date   : 18-FEB-2010 16:57:34 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 02:00:01.72             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID          : G246344002                 Analyst initials: MXR1        *
* Batch Number       : 950787                     Sample Quantity : 1.3454E+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 :                  *
*****

```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.378E+01	2.151E+00	4.190E-01	0.000E+00
NB-95	5.621E-02	5.599E-02	4.827E-02	0.000E+00
CD-109	2.902E+00	9.639E-01	1.463E+00	0.000E+00
SN-126	2.843E-01	9.444E-02	1.364E-01	0.000E+00
BA-137M	7.268E-02	4.583E-02	4.264E-02	0.000E+00
CS-137	7.683E-02	4.845E-02	4.507E-02	0.000E+00
TL-208	4.832E-01	7.039E-02	4.552E-02	0.000E+00
BI-211	3.682E+00	3.968E-01	2.540E-01	0.000E+00
PB-212	1.568E+00	1.412E-01	7.335E-02	0.000E+00
PO-212	1.568E+00	1.412E-01	7.335E-02	0.000E+00
BI-214	1.164E+00	1.518E-01	8.195E-02	0.000E+00
PB-214	1.281E+00	1.528E-01	8.852E-02	0.000E+00
PO-214	1.281E+00	1.528E-01	8.852E-02	0.000E+00
PO-216	1.568E+00	1.412E-01	7.335E-02	0.000E+00
PO-218	1.281E+00	1.528E-01	8.852E-02	0.000E+00
RA-224	4.505E+00	7.430E-01	8.336E-01	0.000E+00
RA-226	1.164E+00	1.518E-01	8.195E-02	0.000E+00
AC-228	1.679E+00	3.256E-01	1.714E-01	0.000E+00
RA-228	1.679E+00	3.256E-01	1.714E-01	0.000E+00
TH-228	1.595E+00	1.436E-01	7.462E-02	0.000E+00
TH-230	1.164E+00	1.518E-01	8.195E-02	0.000E+00
TH-232	1.679E+00	3.256E-01	1.714E-01	0.000E+00
TH-234	1.854E+00	2.107E+00	2.267E+00	0.000E+00
U-234	1.164E+00	1.518E-01	8.195E-02	0.000E+00
NP-237	8.349E-01	3.247E-01	3.895E-01	0.000E+00
U-238	1.854E+00	2.107E+00	2.267E+00	0.000E+00
AM-243	4.352E-01	8.018E-02	8.560E-02	0.000E+00
ANH-511	1.465E-01	5.271E-02	3.470E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)
---------	-------------------------------------	--------------------------	--------------------

BE-7	1.242E-01	2.463E-01	4.358E-01	0.000E+00	NOT IDENT.
NA-22	-5.970E-03	3.706E-02	6.168E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.354E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.893E-03	1.910E-02	3.078E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.370E-02	7.952E-02	0.000E+00	FAIL ABUN
SC-46	4.366E-03	2.897E-02	4.942E-02	0.000E+00	FAIL ABUN
V-48	4.998E-02	5.787E-02	1.026E-01	0.000E+00	NOT IDENT.
CR-51	-1.447E-01	2.934E-01	4.833E-01	0.000E+00	NOT IDENT.
MN-52	1.247E-02	2.176E-01	3.636E-01	0.000E+00	NOT IDENT.
MN-54	1.327E-02	3.021E-02	5.264E-02	0.000E+00	NOT IDENT.
CO-56	2.317E-03	3.000E-02	5.116E-02	0.000E+00	FAIL ABUN
CO-57	2.424E-02	2.207E-02	3.942E-02	0.000E+00	NOT IDENT.
CO-58	-2.457E-03	2.784E-02	4.712E-02	0.000E+00	NOT IDENT.
FE-59	-5.406E-03	7.147E-02	1.217E-01	0.000E+00	NOT IDENT.
CO-60	1.715E-04	3.076E-02	5.232E-02	0.000E+00	NOT IDENT.
ZN-65	4.527E-02	8.430E-02	1.292E-01	0.000E+00	NOT IDENT.
GE-68	-3.749E-01	9.597E-01	1.600E+00	0.000E+00	NOT IDENT.
AS-73	-2.553E-01	1.029E+00	1.861E+00	0.000E+00	NOT IDENT.
AS-74	-2.733E-02	7.369E-02	1.209E-01	0.000E+00	NOT IDENT.
SE-75	-5.203E-02	3.880E-02	5.705E-02	0.000E+00	NOT IDENT.
BR-77	-3.977E+00	1.409E+01	2.361E+01	0.000E+00	FAIL ABUN
SR-82	-4.754E-01	2.984E-01	4.478E-01	0.000E+00	NOT IDENT.
RB-83	-1.060E-02	5.173E-02	8.715E-02	0.000E+00	NOT IDENT.
RB-84	3.894E-04	4.923E-02	8.317E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.302E+00	1.064E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.303E-02	5.575E-02	0.000E+00	NOT IDENT.
RB-86	-1.543E-02	6.446E-01	1.104E+00	0.000E+00	NOT IDENT.
Y-88	9.639E-03	2.390E-02	4.225E-02	0.000E+00	NOT IDENT.
ZR-88	-5.486E-03	2.324E-02	4.030E-02	0.000E+00	NOT IDENT.
Y-91	-1.451E+00	1.495E+01	2.517E+01	0.000E+00	NOT IDENT.
NB-94	1.523E-02	2.462E-02	4.410E-02	0.000E+00	NOT IDENT.
NB-95M	5.347E-02	1.131E-01	1.772E-01	0.000E+00	NOT IDENT.
ZR-95	2.987E-02	5.385E-02	9.558E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.116E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.282E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.553E+00	1.369E+01	2.446E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.054E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.879E-03	2.645E-02	4.636E-02	0.000E+00	NOT IDENT.
RH-102	-3.069E-02	2.222E-02	3.503E-02	0.000E+00	FAIL ABUN
RU-103	6.276E-03	2.882E-02	5.009E-02	0.000E+00	FAIL ABUN
RH-106	-1.347E-01	2.379E-01	3.816E-01	0.000E+00	FAIL ABUN
RU-106	-1.347E-01	2.375E-01	3.816E-01	0.000E+00	FAIL ABUN
AG-108M	-1.021E-02	2.402E-02	4.075E-02	0.000E+00	NOT IDENT.
AG-110M	1.408E-02	2.803E-02	4.404E-02	0.000E+00	NOT IDENT.
IN-111	-8.457E-01	1.650E+00	2.274E+00	0.000E+00	NOT IDENT.
IN-113M	1.576E-02	3.317E-02	5.958E-02	0.000E+00	NOT IDENT.
SN-113	1.576E-02	3.317E-02	5.958E-02	0.000E+00	NOT IDENT.
IN-114M	9.544E-02	1.651E-01	2.657E-01	0.000E+00	NOT IDENT.
CD-115	-1.680E-01	1.490E+01	2.537E+01	0.000E+00	NOT IDENT.
SN-117M	2.047E-02	4.903E-02	8.962E-02	0.000E+00	NOT IDENT.
SB-122	1.383E+00	2.705E+00	4.715E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.520E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.638E-02	2.309E-02	4.257E-02	0.000E+00	NOT IDENT.
I-124	-2.187E-01	8.387E-01	1.187E+00	0.000E+00	FAIL ABUN
SB-124	3.651E-02	5.569E-02	1.017E-01	0.000E+00	FAIL ABUN
SB-125	-6.972E-02	6.764E-02	1.108E-01	0.000E+00	FAIL ABUN
TE-125M	-5.240E+00	8.468E+00	1.418E+01	0.000E+00	NOT IDENT.
I-126	-5.738E-02	1.661E-01	2.415E-01	0.000E+00	NOT IDENT.
SB-126	4.500E-02	1.286E-01	2.049E-01	0.000E+00	FAIL ABUN
SB-127	-3.453E-01	1.427E+00	2.438E+00	0.000E+00	NOT IDENT.
XE-127	6.549E-03	3.873E-02	6.884E-02	0.000E+00	NOT IDENT.
I-131	2.562E-02	9.608E-02	1.721E-01	0.000E+00	NOT IDENT.
TE-132	5.896E-01	8.628E-01	1.541E+00	0.000E+00	NOT IDENT.
BA-133	-1.727E-02	3.728E-02	5.230E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.325E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.365E-02	7.051E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.372E-01	2.298E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.176E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.920E-03	8.575E-02	1.480E-01	0.000E+00	FAIL ABUN
CE-139	-4.182E-03	2.338E-02	4.174E-02	0.000E+00	NOT IDENT.
BA-140	-4.741E-02	2.220E-01	3.718E-01	0.000E+00	NOT IDENT.
LA-140	-4.720E-02	7.088E-02	1.110E-01	0.000E+00	FAIL ABUN
CE-141	4.645E-02	5.640E-02	9.830E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.838E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.631E-01	1.806E-01	2.773E-01	0.000E+00	NOT IDENT.
PM-144	5.384E-03	2.476E-02	4.344E-02	0.000E+00	NOT IDENT.
PR-144	3.652E-01	1.680E+00	2.947E+00	0.000E+00	NOT IDENT.

PM-146	-6.596E-04	3.502E-02	5.712E-02	0.000E+00	NOT IDENT.
ND-147	2.412E-01	4.662E-01	8.177E-01	0.000E+00	NOT IDENT.
PM-149	-8.918E+01	1.344E+02	2.216E+02	0.000E+00	NOT IDENT.
EU-152	1.073E-02	8.722E-02	1.290E-01	0.000E+00	FAIL ABUN
GD-153	-6.187E-02	7.764E-02	1.160E-01	0.000E+00	NOT IDENT.
EU-154	7.564E-03	1.019E-01	1.725E-01	0.000E+00	NOT IDENT.
EU-155	1.058E-01	9.528E-02	1.717E-01	0.000E+00	FAIL ABUN
TB-160	-3.027E-02	9.524E-02	1.564E-01	0.000E+00	FAIL ABUN
HO-166M	2.210E-02	4.497E-02	7.995E-02	0.000E+00	NOT IDENT.
TM-171	-1.350E+01	3.056E+01	4.851E+01	0.000E+00	NOT IDENT.
LU-176	2.945E-03	2.132E-02	3.199E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.776E+00	2.024E+00	0.000E+00	FAIL ABUN
LU-177M	-1.057E-01	1.311E-01	2.191E-01	0.000E+00	FAIL ABUN
HF-181	-1.699E-02	3.433E-02	5.739E-02	0.000E+00	NOT IDENT.
W-181	-1.384E-01	4.144E-01	6.624E-01	0.000E+00	NOT IDENT.
TA-182	1.509E-02	1.533E-01	2.610E-01	0.000E+00	FAIL ABUN
RE-183	-6.808E-02	8.915E-02	1.544E-01	0.000E+00	FAIL ABUN
RE-184	-4.065E-02	1.837E-01	3.150E-01	0.000E+00	NOT IDENT.
OS-185	-1.805E-02	3.213E-02	5.134E-02	0.000E+00	NOT IDENT.
RE-188	9.373E-02	1.415E-01	2.610E-01	0.000E+00	NOT IDENT.
W-188	4.908E-01	6.493E+00	9.755E+00	0.000E+00	FAIL ABUN
IR-192	-1.218E-02	2.690E-02	4.448E-02	0.000E+00	FAIL ABUN
AU-195	1.680E-01	2.211E-01	3.567E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.220E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-6.830E+00	8.847E+00	1.544E+01	0.000E+00	NOT IDENT.
TL-202	-3.900E-03	5.592E-02	9.669E-02	0.000E+00	NOT IDENT.
HG-203	3.479E-02	3.434E-02	6.137E-02	0.000E+00	NOT IDENT.
BI-207	1.182E-02	3.861E-02	6.775E-02	0.000E+00	FAIL ABUN
TL-207	6.351E-02	5.590E-01	8.321E-01	0.000E+00	FAIL ABUN
PO-209	-1.985E+00	5.706E+00	9.361E+00	0.000E+00	NOT IDENT.
BI-210	-1.400E+00	5.003E+00	9.115E+00	0.000E+00	NOT IDENT.
PB-210	-1.400E+00	5.003E+00	9.115E+00	0.000E+00	NOT IDENT.
PO-210	-1.400E+00	5.003E+00	9.115E+00	0.000E+00	NOT IDENT.
PB-211	-6.415E-01	8.299E-01	1.226E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.295E-01	5.222E-01	0.000E+00	FAIL ABUN
PO-215	6.351E-02	5.590E-01	8.321E-01	0.000E+00	FAIL ABUN
RN-219	2.019E-02	3.146E-01	5.527E-01	0.000E+00	FAIL ABUN
RN-220	9.386E+00	1.798E+01	3.156E+01	0.000E+00	NOT IDENT.
RA-223	6.351E-02	5.590E-01	8.321E-01	0.000E+00	FAIL ABUN
AC-227	1.790E-02	3.010E-01	5.220E-01	0.000E+00	FAIL ABUN
TH-227	1.790E-02	3.010E-01	5.220E-01	0.000E+00	FAIL ABUN
TH-229	-7.043E-02	3.954E-01	6.967E-01	0.000E+00	FAIL ABUN
PA-231	-5.735E-01	1.202E+00	2.009E+00	0.000E+00	FAIL ABUN
TH-231	6.351E-02	5.590E-01	8.321E-01	0.000E+00	FAIL ABUN
U-231	3.211E-01	1.374E+00	2.171E+00	0.000E+00	FAIL ABUN
PA-233	1.107E-02	4.879E-02	8.380E-02	0.000E+00	FAIL ABUN
PA-234	-6.621E-03	2.293E-01	3.833E-01	0.000E+00	FAIL ABUN
PA-234M	5.785E+00	3.723E+00	6.647E+00	0.000E+00	FAIL ABUN
U-235	1.189E-02	1.871E-01	3.113E-01	0.000E+00	FAIL ABUN
NP-236	5.995E-03	6.268E-02	1.133E-01	0.000E+00	FAIL ABUN
NP-239	5.798E-02	1.618E-01	2.824E-01	0.000E+00	FAIL ABUN
AM-241	3.916E-02	1.699E-01	2.792E-01	0.000E+00	NOT IDENT.
CM-243	-4.519E-02	8.581E-02	1.461E-01	0.000E+00	FAIL ABUN
AM-246	-3.653E-02	1.050E-01	1.755E-01	0.000E+00	NOT IDENT.
CM-247	9.722E-03	2.732E-02	4.868E-02	0.000E+00	NOT IDENT.
CF-249	-8.148E-03	3.023E-02	5.242E-02	0.000E+00	NOT IDENT.
CF-251	-4.149E-02	9.907E-02	1.744E-01	0.000E+00	NOT IDENT.


```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                   *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344002.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:57:34
Sample ID          : G246344002      Sample quantity   : 1.34540E+02 GRAM
Detector name      : GAM18            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:01.72  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials : MXR1
Abundance limit    : 75.00000          Sensitivity      : 5.00000
Batch ID           : 950787            Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1722	10.67*	1.893E+00	2.378E+01	2.378E+01	9.23
NB-95	765.79	53	99.81*	3.199E+00	4.663E-02	5.621E-02	101.65
CD-109	88.03	243	3.72*	6.458E+00	2.828E+00	2.902E+00	33.90
SN-126	64.28	79	9.60	3.116E+00	7.337E-01	7.337E-01	115.57
	86.94	243	8.90	6.458E+00	1.182E+00	1.182E+00	52.77
	87.57	243	37.00*	6.458E+00	2.843E-01	2.843E-01	33.90
BA-137M	661.65	84	89.98*	3.587E+00	7.260E-02	7.268E-02	64.34
CS-137	661.65	84	85.12*	3.587E+00	7.675E-02	7.683E-02	64.34
TL-208	277.35	-----	6.80	6.258E+00	-----	Line Not Found	-----
	510.84	226	21.60	4.311E+00	6.783E-01	6.783E-01	37.64
	583.14	574	84.20*	3.934E+00	4.832E-01	4.832E-01	14.86
	860.37	86	12.46	2.914E+00	6.578E-01	6.578E-01	39.86
BI-211	72.87	-----	1.27	4.622E+00	-----	Line Not Found	-----
	351.07	931	12.94*	5.451E+00	3.682E+00	3.682E+00	11.00
PB-212	74.81	508	10.70	4.932E+00	2.684E+00	2.684E+00	21.00
	77.11	679	18.00	5.252E+00	2.003E+00	2.003E+00	14.82
	87.30	243	8.00	6.458E+00	1.315E+00	1.315E+00	35.34
	238.63	1703	44.60*	6.792E+00	1.568E+00	1.568E+00	9.19
	300.09	163	3.41	5.980E+00	2.224E+00	2.224E+00	39.44
PO-212	74.81	508	10.70	4.932E+00	2.684E+00	2.684E+00	21.00
	77.11	679	18.00	5.252E+00	2.003E+00	2.003E+00	14.82
	87.30	243	8.00	6.458E+00	1.315E+00	1.315E+00	35.34
	115.19	-----	0.60	8.058E+00	-----	Line Not Found	-----
	238.63	1703	44.60*	6.792E+00	1.568E+00	1.568E+00	9.19
	300.09	163	3.41	5.980E+00	2.224E+00	2.224E+00	39.44
BI-214	609.31	737	46.30*	3.812E+00	1.164E+00	1.164E+00	13.30
	1120.29	180	15.10	2.334E+00	1.421E+00	1.421E+00	35.06
	1764.49	154	15.80	1.695E+00	1.603E+00	1.603E+00	23.74
PB-214	74.81	508	6.21	4.932E+00	4.625E+00	4.625E+00	20.21
	77.11	679	10.50	5.252E+00	3.434E+00	3.434E+00	16.67
	87.30	243	4.67	6.458E+00	2.253E+00	2.253E+00	34.76
	241.98	430	7.49	6.747E+00	2.376E+00	2.376E+00	17.74

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	295.21	540	19.20	6.039E+00	1.299E+00	1.299E+00	17.37
	351.92	931	37.20*	5.451E+00	1.281E+00	1.281E+00	12.17
	74.81	508	6.21	4.932E+00	4.625E+00	4.625E+00	20.21
	77.11	679	10.50	5.252E+00	3.434E+00	3.434E+00	16.67
	87.30	243	4.67	6.458E+00	2.253E+00	2.253E+00	34.76
PO-216	241.98	430	7.49	6.747E+00	2.376E+00	2.376E+00	17.74
	295.21	540	19.20	6.039E+00	1.299E+00	1.299E+00	17.37
	351.92	931	37.20*	5.451E+00	1.281E+00	1.281E+00	12.17
	74.81	508	10.70	4.932E+00	2.684E+00	2.684E+00	21.00
	77.11	679	18.00	5.252E+00	2.003E+00	2.003E+00	14.82
PO-218	87.30	243	8.00	6.458E+00	1.315E+00	1.315E+00	35.34
	238.63	1703	44.60*	6.792E+00	1.568E+00	1.568E+00	9.19
	300.09	163	3.41	5.980E+00	2.224E+00	2.224E+00	39.44
	74.81	508	6.21	4.932E+00	4.625E+00	4.625E+00	20.21
	77.11	679	10.50	5.252E+00	3.434E+00	3.434E+00	16.67
RA-224	87.30	243	4.67	6.458E+00	2.253E+00	2.253E+00	34.76
	241.98	430	7.49	6.747E+00	2.376E+00	2.376E+00	17.74
	295.21	540	19.20	6.039E+00	1.299E+00	1.299E+00	17.37
	351.92	931	37.20*	5.451E+00	1.281E+00	1.281E+00	12.17
	240.98	430	3.95*	6.747E+00	4.505E+00	4.505E+00	16.83
RA-226	609.31	737	46.30*	3.812E+00	1.164E+00	1.164E+00	13.30
	1120.29	180	15.10	2.334E+00	1.421E+00	1.421E+00	35.06
	1764.49	154	15.80	1.695E+00	1.603E+00	1.603E+00	23.74
	338.32	375	11.40	5.582E+00	1.642E+00	1.642E+00	46.61
	911.07	463	27.70*	2.780E+00	1.679E+00	1.679E+00	19.79
TH-228	969.11	224	16.60	2.638E+00	1.427E+00	1.427E+00	42.25
	338.32	375	11.40	5.582E+00	1.642E+00	1.642E+00	46.61
	911.07	463	27.70*	2.780E+00	1.679E+00	1.679E+00	19.79
	969.11	224	16.60	2.638E+00	1.427E+00	1.427E+00	42.25
	74.81	508	10.70	4.932E+00	2.684E+00	2.731E+00	18.84
TH-230	77.11	679	18.00	5.252E+00	2.003E+00	2.038E+00	14.82
	87.30	243	8.00	6.458E+00	1.315E+00	1.338E+00	33.90
	238.63	1703	44.60*	6.792E+00	1.568E+00	1.595E+00	9.19
	300.09	163	3.41	5.980E+00	2.224E+00	2.262E+00	70.43
	609.31	737	46.30*	3.812E+00	1.164E+00	1.164E+00	13.30
TH-232	1120.29	180	15.10	2.334E+00	1.421E+00	1.421E+00	35.06
	1764.49	154	15.80	1.695E+00	1.603E+00	1.603E+00	23.74
	338.32	375	11.40	5.582E+00	1.642E+00	1.642E+00	23.33
	911.07	463	27.70*	2.780E+00	1.679E+00	1.679E+00	19.79
	969.11	224	16.60	2.638E+00	1.427E+00	1.427E+00	42.25
TH-234	63.29	79	3.80*	3.116E+00	1.854E+00	1.854E+00	115.97
	92.38	193	5.41	7.015E+00	1.421E+00	1.421E+00	76.28
	609.31	737	46.30*	3.812E+00	1.164E+00	1.164E+00	13.30
	1120.29	180	15.10	2.334E+00	1.421E+00	1.421E+00	35.06
	1764.49	154	15.80	1.695E+00	1.603E+00	1.603E+00	23.74
NP-237	86.50	243	12.60*	6.458E+00	8.349E-01	8.349E-01	39.68
	95.87	-----	2.60	7.180E+00	-----	Line Not Found	-----
	63.29	79	3.80*	3.116E+00	1.854E+00	1.854E+00	115.97
	92.38	193	5.41	7.015E+00	1.421E+00	1.421E+00	74.61

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	508	66.00*	4.932E+00	4.352E-01	4.352E-01	18.80
	86.72	243	0.34	6.458E+00	3.131E+01	3.131E+01	33.90
	117.66	-----	0.55	8.112E+00	-----	Line Not Found	-----
	142.18	-----	0.13	8.232E+00	-----	Line Not Found	-----
ANH-511	511.00	226	100.00*	4.311E+00	1.465E-01	1.465E-01	36.71

Flag: "*" = Keyline

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.378E+01	2.378E+01	0.220E+01	9.23	
NB-95	64.02D	1.21	4.663E-02	5.621E-02	5.714E-02	101.65	
CD-109	464.00D	1.03	2.828E+00	2.902E+00	0.984E+00	33.90	
SN-126	1.00E+05Y	1.00	2.843E-01	2.843E-01	0.964E-01	33.90	
BA-137M	30.17Y	1.00	7.260E-02	7.268E-02	4.676E-02	64.34	
CS-137	30.17Y	1.00	7.675E-02	7.683E-02	4.943E-02	64.34	
TL-208	1.41E+10Y	1.00	4.832E-01	4.832E-01	0.718E-01	14.86	
BI-211	7.04E+08Y	1.00	3.682E+00	3.682E+00	0.405E+00	11.00	
PB-212	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.144E+00	9.19	
PO-212	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.144E+00	9.19	
BI-214	1600.00Y	1.00	1.164E+00	1.164E+00	0.155E+00	13.30	
PB-214	1600.00Y	1.00	1.281E+00	1.281E+00	0.156E+00	12.17	
PO-214	1600.00Y	1.00	1.281E+00	1.281E+00	0.156E+00	12.17	
PO-216	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.144E+00	9.19	
PO-218	1600.00Y	1.00	1.281E+00	1.281E+00	0.156E+00	12.17	
RA-224	1.41E+10Y	1.00	4.505E+00	4.505E+00	0.758E+00	16.83	
RA-226	1600.00Y	1.00	1.164E+00	1.164E+00	0.155E+00	13.30	
AC-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.332E+00	19.79	
RA-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.332E+00	19.79	
TH-228	1.91Y	1.02	1.568E+00	1.595E+00	0.147E+00	9.19	
TH-230	4.47E+09Y	1.00	1.164E+00	1.164E+00	0.155E+00	13.30	
TH-232	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.332E+00	19.79	
TH-234	4.47E+09Y	1.00	1.854E+00	1.854E+00	2.150E+00	115.97	
U-234	4.47E+09Y	1.00	1.164E+00	1.164E+00	0.155E+00	13.30	
NP-237	2.14E+06Y	1.00	8.349E-01	8.349E-01	3.313E-01	39.68	
U-238	4.47E+09Y	1.00	1.854E+00	1.854E+00	2.150E+00	115.97	
AM-243	7380.00Y	1.00	4.352E-01	4.352E-01	0.818E-01	18.80	
ANH-511	1.00E+09Y	1.00	1.465E-01	1.465E-01	0.538E-01	36.71	

Total Activity : 6.070E+01 6.081E+01

Grand Total Activity : 6.070E+01 6.081E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.94	58	374	1.07	256.95	254	7	8.02E-03	****	8.25E+00	T
0	186.03	279	488	1.41	371.09	366	11	3.87E-02	34.1	7.65E+00	T
0	209.49	165	418	1.18	418.00	413	12	2.29E-02	52.7	7.25E+00	T
0	270.04	129	278	2.24	539.06	535	10	1.80E-02	51.1	6.35E+00	T
0	328.22	97	178	1.01	655.38	651	9	1.35E-02	54.9	5.68E+00	T
0	462.51	155	192	1.69	923.88	916	16	2.15E-02	43.1	4.60E+00	T
0	727.08	129	97	1.69	1452.88	1448	11	1.80E-02	35.3	3.34E+00	T
0	794.82	77	63	1.55	1588.33	1583	11	1.07E-02	47.9	3.11E+00	T
0	1237.75	73	66	2.13	2474.04	2468	11	1.02E-02	48.8	2.15E+00	T
0	1376.38	54	48	3.10	2751.27	2742	21	7.45E-03	69.7	1.98E+00	T
0	1407.40	43	38	0.75	2813.30	2804	19	5.93E-03	75.8	1.94E+00	T
0	1729.82	38	19	2.18	3458.10	3446	19	5.25E-03	64.2	1.71E+00	

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344002.CNF;1  *
* Acquisition date   : 18-FEB-2010 16:57:34  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 02:00:01.72             Half life ratio : 8.00000      *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 1-FEB-2010 12:00:00.   Nuclide Library : SOLID          *
* Sample ID          : G246344002             Analyst initials: MXR1          *
* Batch Number       : 950787                 Sample Quantity : 1.34540E+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	2.378E+01	2.195E+00	4.182E-01	3.173E-02	56.876
NB-95	5.621E-02	5.714E-02	4.760E-02	4.354E-03	1.181
CD-109	2.902E+00	9.836E-01	1.388E+00	1.283E-01	2.090
SN-126	2.843E-01	9.637E-02	1.294E-01	1.192E-02	2.197
BA-137M	7.268E-02	4.676E-02	4.193E-02	3.196E-03	1.733
CS-137	7.683E-02	4.943E-02	4.433E-02	3.387E-03	1.733
TL-208	4.832E-01	7.182E-02	4.466E-02	3.501E-03	10.821
BI-211	3.682E+00	4.049E-01	2.469E-01	1.585E-02	14.912
PB-212	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
PO-212	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
BI-214	1.164E+00	1.549E-01	8.047E-02	7.188E-03	14.471
PB-214	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885
PO-214	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885
PO-216	1.568E+00	1.441E-01	7.083E-02	5.060E-03	22.142
PO-218	1.281E+00	1.559E-01	8.606E-02	7.119E-03	14.885
RA-224	4.505E+00	7.581E-01	8.050E-01	4.485E-02	5.596
RA-226	1.164E+00	1.549E-01	8.047E-02	7.188E-03	14.471
AC-228	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905
TH-228	1.595E+00	1.465E-01	7.205E-02	5.147E-03	22.142
TH-230	1.164E+00	1.549E-01	8.046E-02	7.188E-03	14.471
TH-232	1.679E+00	3.323E-01	1.696E-01	2.247E-02	9.905
TH-234	1.854E+00	2.150E+00	2.140E+00	3.772E-01	0.866
U-234	1.164E+00	1.549E-01	8.046E-02	7.188E-03	14.471
NP-237	8.349E-01	3.313E-01	3.695E-01	8.337E-02	2.259
U-238	1.854E+00	2.150E+00	2.140E+00	3.772E-01	0.866
AM-243	4.352E-01	8.182E-02	8.101E-02	6.760E-03	5.372
ANH-511	1.465E-01	5.379E-02	3.396E-02	2.243E-03	4.314

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.242E-01		2.513E-01	4.260E-01	3.087E-02	0.292
NA-22	-5.970E-03		3.782E-02	6.139E-02	4.177E-03	-0.097
NA-24	2.887E+00		2.732E+00	Half-Life too short		
AL-26	-3.893E-03		1.949E-02	3.084E-02	1.801E-03	-0.126
TI-44	3.697E-01	+	5.480E-02	7.531E-02	6.439E-03	4.908
SC-46	4.366E-03		2.956E-02	4.886E-02	5.450E-03	0.089
V-48	4.998E-02		5.905E-02	1.017E-01	1.005E-02	0.492
CR-51	-1.447E-01		2.994E-01	4.691E-01	3.020E-02	-0.309
MN-52	1.247E-02		2.220E-01	3.627E-01	2.673E-02	0.034
MN-54	1.327E-02		3.083E-02	5.198E-02	5.325E-03	0.255
CO-56	2.317E-03		3.062E-02	5.054E-02	5.276E-03	0.046
CO-57	2.424E-02		2.252E-02	3.762E-02	2.228E-03	0.644
CO-58	-2.457E-03		2.841E-02	4.651E-02	4.592E-03	-0.053
FE-59	-5.406E-03		7.293E-02	1.208E-01	9.943E-03	-0.045
CO-60	1.715E-04		3.139E-02	5.213E-02	3.938E-03	0.003
ZN-65	4.527E-02		8.602E-02	1.283E-01	9.038E-03	0.353
GE-68	-3.749E-01		9.792E-01	1.588E+00	1.262E-01	-0.236
AS-73	-2.553E-01		1.050E+00	1.751E+00	1.388E-01	-0.146
AS-74	-2.733E-02		7.520E-02	1.186E-01	8.524E-03	-0.230
SE-75	-5.203E-02		3.960E-02	5.519E-02	3.156E-03	-0.943
BR-77	-3.977E+00		1.438E+01	2.312E+01	1.542E+00	-0.172
SR-82	-4.754E-01		3.045E-01	4.417E-01	4.113E-02	-1.076
RB-83	-1.060E-02		5.279E-02	8.532E-02	5.691E-03	-0.124
RB-84	3.894E-04		5.024E-02	8.222E-02	9.062E-03	0.005
KR-85	1.311E+01		6.431E+00	1.041E+01	6.899E-01	1.259
SR-85	6.870E-02		3.371E-02	5.458E-02	3.616E-03	1.259
RB-86	-1.543E-02		6.578E-01	1.096E+00	8.721E-02	-0.014
Y-88	9.639E-03		2.439E-02	4.235E-02	2.412E-03	0.228
ZR-88	-5.486E-03		2.371E-02	3.925E-02	2.258E-03	-0.140
Y-91	-1.451E+00		1.525E+01	2.502E+01	1.479E+00	-0.058
NB-94	1.523E-02		2.513E-02	4.341E-02	3.562E-03	0.351
NB-95M	5.347E-02		1.154E-01	1.710E-01	1.255E-02	0.313
ZR-95	2.987E-02		5.495E-02	9.422E-02	9.271E-03	0.317

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	3.669E-01		3.120E-01	Half-Life too short		
ZR-97	3.236E+01		6.541E+00	Half-Life too short		
MO-99	8.553E+00		1.397E+01	2.410E+01	3.677E+00	0.355
TC-99M	4.106E+12		5.375E+12	Half-Life too short		
RH-101	3.879E-03		2.699E-02	4.462E-02	2.398E-03	0.087
RH-102	-3.069E-02		2.267E-02	3.425E-02	2.175E-03	-0.896
RU-103	6.276E-03		2.941E-02	4.900E-02	6.362E-03	0.128
RH-106	-1.347E-01		2.427E-01	3.748E-01	4.716E-02	-0.359
RU-106	-1.347E-01		2.424E-01	3.748E-01	2.758E-02	-0.359
AG-108M	-1.021E-02		2.451E-02	3.977E-02	2.598E-03	-0.257
AG-110M	1.408E-02		2.860E-02	4.330E-02	3.415E-03	0.325
IN-111	-8.457E-01		1.683E+00	2.196E+00	1.227E-01	-0.385
IN-113M	1.576E-02		3.385E-02	5.803E-02	3.560E-03	0.272
SN-113	1.576E-02		3.385E-02	5.803E-02	3.560E-03	0.272
IN-114M	9.544E-02		1.685E-01	2.556E-01	1.365E-02	0.373
CD-115	-1.680E-01		1.520E+01	2.484E+01	1.670E+00	-0.007
SN-117M	2.047E-02		5.003E-02	8.592E-02	4.567E-03	0.238
SB-122	1.383E+00		2.760E+00	4.623E+00	3.222E-01	0.299
I-123	4.626E+01		3.326E+01	Half-Life too short		
TE-123M	1.638E-02		2.356E-02	4.082E-02	2.202E-03	0.401
I-124	-2.187E-01		8.559E-01	1.165E+00	8.426E-02	-0.188
SB-124	3.651E-02		5.682E-02	1.018E-01	7.022E-03	0.359
SB-125	-6.972E-02		6.902E-02	1.081E-01	6.752E-03	-0.645
TE-125M	-5.240E+00		8.641E+00	1.350E+01	1.188E+00	-0.388
I-126	-5.738E-02		1.695E-01	2.375E-01	1.826E-02	-0.242
SB-126	4.500E-02		1.312E-01	2.018E-01	1.708E-02	0.223
SB-127	-3.453E-01		1.457E+00	2.399E+00	2.770E-01	-0.144
XE-127	6.549E-03		3.952E-02	6.628E-02	3.578E-03	0.099
I-131	2.562E-02		9.804E-02	1.674E-01	1.084E-02	0.153
TE-132	5.896E-01		8.804E-01	1.487E+00	2.185E-01	0.397
BA-133	-1.727E-02		3.804E-02	5.085E-02	5.874E-03	-0.340
I-133	2.944E-03		1.186E-02	Half-Life too short		
CS-134	9.111E-02	+	4.454E-02	6.957E-02	6.729E-03	1.310
CS-135	2.787E-01		1.400E-01	2.223E-01	1.680E-02	1.254
I-135	3.189E+11		4.172E+11	Half-Life too short		
CS-136	3.920E-03		8.750E-02	1.468E-01	1.316E-02	0.027
CE-139	-4.182E-03		2.385E-02	4.004E-02	2.102E-03	-0.104
BA-140	-4.741E-02		2.266E-01	3.642E-01	1.191E-01	-0.130
LA-140	-4.720E-02		7.233E-02	1.110E-01	7.615E-03	-0.425
CE-141	4.645E-02		5.755E-02	9.409E-02	5.372E-03	0.494
CE-143	1.992E-03		2.979E-04	Half-Life too short		
CE-144	-1.631E-01		1.842E-01	2.650E-01	3.747E-02	-0.616
PM-144	5.384E-03		2.526E-02	4.275E-02	3.471E-03	0.126
PR-144	3.652E-01		1.714E+00	2.900E+00	2.354E-01	0.126
PM-146	-6.596E-04		3.574E-02	5.578E-02	4.963E-03	-0.012
ND-147	2.412E-01		4.757E-01	8.009E-01	1.117E-01	0.301
PM-149	-8.918E+01		1.372E+02	2.146E+02	3.037E+01	-0.416
EU-152	1.073E-02		8.900E-02	1.254E-01	8.181E-03	0.086

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-6.187E-02		7.923E-02	1.103E-01	8.620E-03	-0.561
EU-154	7.564E-03		1.040E-01	1.717E-01	1.715E-02	0.044
EU-155	1.058E-01		9.722E-02	1.635E-01	1.169E-02	0.647
TB-160	-3.027E-02		9.718E-02	1.546E-01	1.699E-02	-0.196
HO-166M	2.210E-02		4.589E-02	7.872E-02	6.562E-03	0.281
TM-171	-1.350E+01		3.119E+01	4.582E+01	3.664E+00	-0.295
LU-176	2.945E-03		2.176E-02	3.103E-02	1.786E-03	0.095
LU-177	3.421E+00	+	1.812E+00	1.949E+00	1.057E-01	1.755
LU-177M	-1.057E-01		1.338E-01	2.136E-01	1.262E-02	-0.495
HF-181	-1.699E-02		3.503E-02	5.611E-02	3.591E-03	-0.303
W-181	-1.384E-01		4.228E-01	6.254E-01	4.961E-02	-0.221
TA-182	1.509E-02		1.564E-01	2.595E-01	1.588E-02	0.058
RE-183	-6.808E-02		9.097E-02	1.481E-01	7.817E-03	-0.460
RE-184	-4.065E-02		1.874E-01	3.045E-01	1.710E-02	-0.134
OS-185	-1.805E-02		3.278E-02	5.047E-02	3.795E-03	-0.358
RE-188	9.373E-02		1.444E-01	2.501E-01	1.338E-02	0.375
W-188	4.908E-01		6.625E+00	9.452E+00	5.414E-01	0.052
IR-192	-1.218E-02		2.744E-02	4.316E-02	2.503E-03	-0.282
AU-195	1.680E-01		2.256E-01	3.392E-01	2.595E-02	0.495
TL-200	-6.447E-04		6.224E-04	Half-Life too short		
TL-201	-6.830E+00		9.028E+00	1.482E+01	7.778E-01	-0.461
TL-202	-3.900E-03		5.706E-02	9.438E-02	5.754E-03	-0.041
HG-203	3.479E-02		3.505E-02	5.942E-02	3.604E-03	0.585
BI-207	1.182E-02		3.940E-02	6.720E-02	5.548E-03	0.176
TL-207	6.351E-02		5.704E-01	8.077E-01	1.333E-01	0.079
PO-209	-1.985E+00		5.822E+00	9.257E+00	1.044E+00	-0.214
BI-210	-1.400E+00		5.106E+00	8.557E+00	6.621E-01	-0.164
PB-210	-1.400E+00		5.106E+00	8.557E+00	6.621E-01	-0.164
PO-210	-1.400E+00		5.105E+00	8.557E+00	5.692E-01	-0.164
PB-211	-6.415E-01		8.468E-01	1.195E+00	7.450E-01	-0.537
BI-212	9.169E-01	+	3.362E-01	5.144E-01	5.123E-02	1.782
PO-215	6.351E-02		5.704E-01	8.077E-01	1.333E-01	0.079
RN-219	2.019E-02		3.210E-01	5.386E-01	7.332E-02	0.037
RN-220	9.386E+00		1.835E+01	3.093E+01	2.126E+00	0.303
RA-223	6.351E-02		5.704E-01	8.077E-01	1.333E-01	0.079
AC-227	1.790E-02		3.071E-01	5.046E-01	7.009E-02	0.035
TH-227	1.790E-02		3.071E-01	5.046E-01	8.498E-02	0.035
TH-229	-7.043E-02		4.035E-01	6.703E-01	3.589E-02	-0.105
PA-231	-5.735E-01		1.227E+00	1.945E+00	2.674E-01	-0.295
TH-231	6.351E-02		5.704E-01	8.077E-01	1.333E-01	0.079
U-231	3.211E-01		1.402E+00	2.063E+00	1.653E-01	0.156
PA-233	1.107E-02		4.979E-02	8.130E-02	4.980E-03	0.136
PA-234	-6.621E-03		2.340E-01	3.794E-01	7.485E-02	-0.017
PA-234M	5.785E+00		3.799E+00	6.587E+00	7.105E-01	0.878
U-235	1.189E-02		1.909E-01	2.979E-01	4.825E-02	0.040
NP-236	5.995E-03		6.396E-02	1.086E-01	5.755E-03	0.055
NP-239	5.798E-02		1.651E-01	2.693E-01	1.667E-02	0.215
AM-241	3.916E-02		1.733E-01	2.632E-01	2.183E-02	0.149

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.519E-02		8.757E-02	1.391E-01	9.953E-03	-0.325
AM-246	-3.653E-02		1.072E-01	1.741E-01	1.377E-02	-0.210
CM-247	9.722E-03		2.788E-02	4.744E-02	2.763E-03	0.205
CF-249	-8.148E-03		3.085E-02	5.106E-02	2.935E-03	-0.160
CF-251	-4.149E-02		1.011E-01	1.675E-01	8.845E-03	-0.248

VAX/VMS Nuclide Identification Report Generated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246344002             *
* Acquisition date   : 18-FEB-2010 16:57:34 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 02:00:01.72 Half life ratio : 8.000   *
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID          : G246344002 Analyst initials: MXR1       *
* Batch Number       : 950787 Sample Quantity : 1.3454E+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     :               *
*****

```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.378E+01	2.151E+00	2.096E-01	1.098E+00
NB-95	5.621E-02	5.599E-02	2.415E-02	2.857E-02
CD-109	2.902E+00	9.639E-01	7.319E-01	4.918E-01
SN-126	2.843E-01	9.444E-02	6.822E-02	4.819E-02
BA-137M	7.268E-02	4.583E-02	2.133E-02	2.338E-02
CS-137	7.683E-02	4.845E-02	2.255E-02	2.472E-02
TL-208	4.832E-01	7.039E-02	2.277E-02	3.591E-02
BI-211	3.682E+00	3.968E-01	1.271E-01	2.025E-01
PB-212	1.568E+00	1.412E-01	3.670E-02	7.203E-02
PO-212	1.568E+00	1.412E-01	3.670E-02	7.203E-02
BI-214	1.164E+00	1.518E-01	4.100E-02	7.745E-02
PB-214	1.281E+00	1.528E-01	4.428E-02	7.796E-02
PO-214	1.281E+00	1.528E-01	4.428E-02	7.796E-02
PO-216	1.568E+00	1.412E-01	3.670E-02	7.203E-02
PO-218	1.281E+00	1.528E-01	4.428E-02	7.796E-02
RA-224	4.505E+00	7.430E-01	4.170E-01	3.791E-01
RA-226	1.164E+00	1.518E-01	4.100E-02	7.745E-02
AC-228	1.679E+00	3.256E-01	8.575E-02	1.661E-01
RA-228	1.679E+00	3.256E-01	8.575E-02	1.661E-01
TH-228	1.595E+00	1.436E-01	3.733E-02	7.327E-02
TH-230	1.164E+00	1.518E-01	4.100E-02	7.745E-02
TH-232	1.679E+00	3.256E-01	8.575E-02	1.661E-01
TH-234	1.854E+00	2.107E+00	1.134E+00	1.075E+00
U-234	1.164E+00	1.518E-01	4.100E-02	7.745E-02
NP-237	8.349E-01	3.247E-01	1.949E-01	1.657E-01
U-238	1.854E+00	2.107E+00	1.134E+00	1.075E+00
AM-243	4.352E-01	8.018E-02	4.283E-02	4.091E-02
ANH-511	1.465E-01	5.271E-02	1.736E-02	2.689E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
---------	-------------------------------------	---------------	--------------------	-----

BE-7	1.242E-01	2.463E-01	2.180E-01	1.256E-01	NOT IDENT.
NA-22	-5.970E-03	3.706E-02	3.086E-02	1.891E-02	NOT IDENT.
NA-24	2.887E+06	5.354E+06	0.000E+00	2.732E+06	SHORT HLIF
AL-26	-3.893E-03	1.910E-02	1.540E-02	9.743E-03	NOT IDENT.
TI-44	3.697E-01	5.370E-02	3.978E-02	2.740E-02	FAIL ABUN
SC-46	4.366E-03	2.897E-02	2.472E-02	1.478E-02	FAIL ABUN
V-48	4.998E-02	5.787E-02	5.134E-02	2.952E-02	NOT IDENT.
CR-51	-1.447E-01	2.934E-01	2.418E-01	1.497E-01	NOT IDENT.
MN-52	1.247E-02	2.176E-01	1.819E-01	1.110E-01	NOT IDENT.
MN-54	1.327E-02	3.021E-02	2.633E-02	1.541E-02	NOT IDENT.
CO-56	2.317E-03	3.000E-02	2.560E-02	1.531E-02	FAIL ABUN
CO-57	2.424E-02	2.207E-02	1.972E-02	1.126E-02	NOT IDENT.
CO-58	-2.457E-03	2.784E-02	2.357E-02	1.420E-02	NOT IDENT.
FE-59	-5.406E-03	7.147E-02	6.088E-02	3.646E-02	NOT IDENT.
CO-60	1.715E-04	3.076E-02	2.618E-02	1.569E-02	NOT IDENT.
ZN-65	4.527E-02	8.430E-02	6.465E-02	4.301E-02	NOT IDENT.
GE-68	-3.749E-01	9.597E-01	8.007E-01	4.896E-01	NOT IDENT.
AS-73	-2.553E-01	1.029E+00	9.309E-01	5.252E-01	NOT IDENT.
AS-74	-2.733E-02	7.369E-02	6.048E-02	3.760E-02	NOT IDENT.
SE-75	-5.203E-02	3.880E-02	2.854E-02	1.980E-02	NOT IDENT.
BR-77	-3.977E+00	1.409E+01	1.181E+01	7.188E+00	FAIL ABUN
SR-82	-4.754E-01	2.984E-01	2.240E-01	1.522E-01	NOT IDENT.
RB-83	-1.060E-02	5.173E-02	4.360E-02	2.639E-02	NOT IDENT.
RB-84	3.894E-04	4.923E-02	4.161E-02	2.512E-02	NOT IDENT.
KR-85	1.311E+01	6.302E+00	5.322E+00	3.216E+00	NOT IDENT.
SR-85	6.870E-02	3.303E-02	2.789E-02	1.685E-02	NOT IDENT.
RB-86	-1.543E-02	6.446E-01	5.524E-01	3.289E-01	NOT IDENT.
Y-88	9.639E-03	2.390E-02	2.114E-02	1.220E-02	NOT IDENT.
ZR-88	-5.486E-03	2.324E-02	2.016E-02	1.186E-02	NOT IDENT.
Y-91	-1.451E+00	1.495E+01	1.259E+01	7.627E+00	NOT IDENT.
NB-94	1.523E-02	2.462E-02	2.206E-02	1.256E-02	NOT IDENT.
NB-95M	5.347E-02	1.131E-01	8.864E-02	5.769E-02	NOT IDENT.
ZR-95	2.987E-02	5.385E-02	4.782E-02	2.747E-02	NOT IDENT.
NB-97	3.669E+05	6.116E+05	0.000E+00	3.120E+05	SHORT HLIF
ZR-97	3.236E+07	1.282E+07	0.000E+00	6.541E+06	SHORT HLIF
MO-99	8.553E+00	1.369E+01	1.223E+01	6.987E+00	NOT IDENT.
TC-99M	4.106E+18	1.054E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.879E-03	2.645E-02	2.320E-02	1.349E-02	NOT IDENT.
RH-102	-3.069E-02	2.222E-02	1.753E-02	1.134E-02	FAIL ABUN
RU-103	6.276E-03	2.882E-02	2.506E-02	1.470E-02	FAIL ABUN
RH-106	-1.347E-01	2.379E-01	1.909E-01	1.214E-01	FAIL ABUN
RU-106	-1.347E-01	2.375E-01	1.909E-01	1.212E-01	FAIL ABUN
AG-108M	-1.021E-02	2.402E-02	2.039E-02	1.225E-02	NOT IDENT.
AG-110M	1.408E-02	2.803E-02	2.203E-02	1.430E-02	NOT IDENT.
IN-111	-8.457E-01	1.650E+00	1.137E+00	8.417E-01	NOT IDENT.
IN-113M	1.576E-02	3.317E-02	2.981E-02	1.692E-02	NOT IDENT.
SN-113	1.576E-02	3.317E-02	2.981E-02	1.692E-02	NOT IDENT.
IN-114M	9.544E-02	1.651E-01	1.330E-01	8.425E-02	NOT IDENT.
CD-115	-1.680E-01	1.490E+01	1.269E+01	7.601E+00	NOT IDENT.
SN-117M	2.047E-02	4.903E-02	4.484E-02	2.502E-02	NOT IDENT.
SB-122	1.383E+00	2.705E+00	2.359E+00	1.380E+00	NOT IDENT.
I-123	4.626E+07	6.520E+07	0.000E+00	3.326E+07	SHORT HLIF
TE-123M	1.638E-02	2.309E-02	2.130E-02	1.178E-02	NOT IDENT.
I-124	-2.187E-01	8.387E-01	5.939E-01	4.279E-01	FAIL ABUN
SB-124	3.651E-02	5.569E-02	5.089E-02	2.841E-02	FAIL ABUN
SB-125	-6.972E-02	6.764E-02	5.541E-02	3.451E-02	FAIL ABUN
TE-125M	-5.240E+00	8.468E+00	7.092E+00	4.320E+00	NOT IDENT.
I-126	-5.738E-02	1.661E-01	1.208E-01	8.476E-02	NOT IDENT.
SB-126	4.500E-02	1.286E-01	1.025E-01	6.562E-02	FAIL ABUN
SB-127	-3.453E-01	1.427E+00	1.220E+00	7.283E-01	NOT IDENT.
XE-127	6.549E-03	3.873E-02	3.444E-02	1.976E-02	NOT IDENT.
I-131	2.562E-02	9.608E-02	8.611E-02	4.902E-02	NOT IDENT.
TE-132	5.896E-01	8.628E-01	7.709E-01	4.402E-01	NOT IDENT.
BA-133	-1.727E-02	3.728E-02	2.616E-02	1.902E-02	NOT IDENT.
I-133	2.944E+03	2.325E+04	0.000E+00	1.186E+04	SHORT HLIF
CS-134	9.111E-02	4.365E-02	3.527E-02	2.227E-02	FAIL ABUN
CS-135	2.787E-01	1.372E-01	1.149E-01	6.999E-02	NOT IDENT.
I-135	3.189E+17	8.176E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.920E-03	8.575E-02	7.406E-02	4.375E-02	FAIL ABUN
CE-139	-4.182E-03	2.338E-02	2.088E-02	1.193E-02	NOT IDENT.
BA-140	-4.741E-02	2.220E-01	1.860E-01	1.133E-01	NOT IDENT.
LA-140	-4.720E-02	7.088E-02	5.555E-02	3.616E-02	FAIL ABUN
CE-141	4.645E-02	5.640E-02	4.918E-02	2.878E-02	NOT IDENT.
CE-143	1.992E+03	5.838E+02	0.000E+00	2.979E+02	SHORT HLIF
CE-144	-1.631E-01	1.806E-01	1.387E-01	9.212E-02	NOT IDENT.
PM-144	5.384E-03	2.476E-02	2.173E-02	1.263E-02	NOT IDENT.
PR-144	3.652E-01	1.680E+00	1.474E+00	8.569E-01	NOT IDENT.

PM-146	-6.596E-04	3.502E-02	2.858E-02	1.787E-02	NOT IDENT.
ND-147	2.412E-01	4.662E-01	4.091E-01	2.379E-01	NOT IDENT.
PM-149	-8.918E+01	1.344E+02	1.109E+02	6.859E+01	NOT IDENT.
EU-152	1.073E-02	8.722E-02	6.453E-02	4.450E-02	FAIL ABUN
GD-153	-6.187E-02	7.764E-02	5.802E-02	3.961E-02	NOT IDENT.
EU-154	7.564E-03	1.019E-01	8.628E-02	5.200E-02	NOT IDENT.
EU-155	1.058E-01	9.528E-02	8.591E-02	4.861E-02	FAIL ABUN
TB-160	-3.027E-02	9.524E-02	7.827E-02	4.859E-02	FAIL ABUN
HO-166M	2.210E-02	4.497E-02	4.000E-02	2.294E-02	NOT IDENT.
TM-171	-1.350E+01	3.056E+01	2.427E+01	1.559E+01	NOT IDENT.
LU-176	2.945E-03	2.132E-02	1.600E-02	1.088E-02	FAIL ABUN
LU-177	3.421E+00	1.776E+00	1.012E+00	9.060E-01	FAIL ABUN
LU-177M	-1.057E-01	1.311E-01	1.096E-01	6.689E-02	FAIL ABUN
HF-181	-1.699E-02	3.433E-02	2.871E-02	1.752E-02	NOT IDENT.
W-181	-1.384E-01	4.144E-01	3.314E-01	2.114E-01	NOT IDENT.
TA-182	1.509E-02	1.533E-01	1.306E-01	7.821E-02	FAIL ABUN
RE-183	-6.808E-02	8.915E-02	7.725E-02	4.549E-02	FAIL ABUN
RE-184	-4.065E-02	1.837E-01	1.576E-01	9.372E-02	NOT IDENT.
OS-185	-1.805E-02	3.213E-02	2.569E-02	1.639E-02	NOT IDENT.
RE-188	9.373E-02	1.415E-01	1.306E-01	7.221E-02	NOT IDENT.
W-188	4.908E-01	6.493E+00	4.881E+00	3.313E+00	FAIL ABUN
IR-192	-1.218E-02	2.690E-02	2.225E-02	1.372E-02	FAIL ABUN
AU-195	1.680E-01	2.211E-01	1.785E-01	1.128E-01	FAIL ABUN
TL-200	-6.447E+02	1.220E+03	0.000E+00	6.224E+02	SHORT HLIF
TL-201	-6.830E+00	8.847E+00	7.725E+00	4.514E+00	NOT IDENT.
TL-202	-3.900E-03	5.592E-02	4.838E-02	2.853E-02	NOT IDENT.
HG-203	3.479E-02	3.434E-02	3.070E-02	1.752E-02	NOT IDENT.
BI-207	1.182E-02	3.861E-02	3.389E-02	1.970E-02	FAIL ABUN
TL-207	6.351E-02	5.590E-01	4.163E-01	2.852E-01	FAIL ABUN
PO-209	-1.985E+00	5.706E+00	4.683E+00	2.911E+00	NOT IDENT.
BI-210	-1.400E+00	5.003E+00	4.560E+00	2.553E+00	NOT IDENT.
PB-210	-1.400E+00	5.003E+00	4.560E+00	2.553E+00	NOT IDENT.
PO-210	-1.400E+00	5.003E+00	4.560E+00	2.553E+00	NOT IDENT.
PB-211	-6.415E-01	8.299E-01	6.134E-01	4.234E-01	NOT IDENT.
BI-212	9.169E-01	3.295E-01	2.613E-01	1.681E-01	FAIL ABUN
PO-215	6.351E-02	5.590E-01	4.163E-01	2.852E-01	FAIL ABUN
RN-219	2.019E-02	3.146E-01	2.765E-01	1.605E-01	FAIL ABUN
RN-220	9.386E+00	1.798E+01	1.579E+01	9.174E+00	NOT IDENT.
RA-223	6.351E-02	5.590E-01	4.163E-01	2.852E-01	FAIL ABUN
AC-227	1.790E-02	3.010E-01	2.611E-01	1.535E-01	FAIL ABUN
TH-227	1.790E-02	3.010E-01	2.611E-01	1.536E-01	FAIL ABUN
TH-229	-7.043E-02	3.954E-01	3.486E-01	2.017E-01	FAIL ABUN
PA-231	-5.735E-01	1.202E+00	1.005E+00	6.134E-01	FAIL ABUN
TH-231	6.351E-02	5.590E-01	4.163E-01	2.852E-01	FAIL ABUN
U-231	3.211E-01	1.374E+00	1.086E+00	7.009E-01	FAIL ABUN
PA-233	1.107E-02	4.879E-02	4.193E-02	2.490E-02	FAIL ABUN
PA-234	-6.621E-03	2.293E-01	1.918E-01	1.170E-01	FAIL ABUN
PA-234M	5.785E+00	3.723E+00	3.325E+00	1.899E+00	FAIL ABUN
U-235	1.189E-02	1.871E-01	1.557E-01	9.547E-02	FAIL ABUN
NP-236	5.995E-03	6.268E-02	5.668E-02	3.198E-02	FAIL ABUN
NP-239	5.798E-02	1.618E-01	1.413E-01	8.254E-02	FAIL ABUN
AM-241	3.916E-02	1.699E-01	1.397E-01	8.666E-02	NOT IDENT.
CM-243	-4.519E-02	8.581E-02	7.310E-02	4.378E-02	FAIL ABUN
AM-246	-3.653E-02	1.050E-01	8.780E-02	5.358E-02	NOT IDENT.
CM-247	9.722E-03	2.732E-02	2.435E-02	1.394E-02	NOT IDENT.
CF-249	-8.148E-03	3.023E-02	2.623E-02	1.542E-02	NOT IDENT.
CF-251	-4.149E-02	9.907E-02	8.725E-02	5.055E-02	NOT IDENT.

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD       *
*               CHARLESTON ,SC 29417  *
*               GAMMA SPECTROSCOPY     *
*               BACKGROUND REPORT      *
*****

```

ENERGY	MDA COUNTS
46.50	341.1263
46.50	341.1263
46.50	341.1263
48.70	335.2852
49.72	326.7869
51.35	356.9040
52.39	308.4484
52.97	305.4972
53.15	333.9116
53.44	343.3887
54.07	321.3812
56.28	340.5913
56.28	340.5951
57.37	0.0000
57.53	318.1004
57.53	318.1022
57.60	319.1050
57.98	329.7293
57.98	329.7293
59.32	308.5016
59.32	308.5016
59.40	308.5885
59.54	308.7402
59.72	310.3329
60.01	324.6411
61.10	341.3229
61.14	341.3702
61.30	341.5584
63.00	372.2894
63.29	372.6531
63.29	372.6531
63.58	373.0157
64.28	423.1106
65.12	404.3558
65.20	404.4625
65.20	404.4625
66.05	405.5914
66.72	392.1608
66.83	408.0524
66.91	408.1567
67.20	378.4365
67.20	378.4365
67.75	399.2093
67.85	428.0681
68.90	422.2940
68.90	422.2940
69.30	421.3852
69.67	401.6526
70.82	416.1425
70.82	416.1425
70.83	416.1557
72.80	403.6080
72.87	403.6945
72.87	403.6945
74.67	405.8898
74.81	406.0597
74.81	406.0597
74.81	406.0597
74.81	406.0597
74.81	406.0597
74.81	406.0597
74.81	406.0597
74.97	406.2528
75.28	406.6286
75.70	407.1352
77.11	408.8238
77.11	408.8238

77.11	408.8238
77.11	408.8238
77.11	408.8238
77.11	408.8238
77.11	408.8238
78.38	410.3330
79.62	382.5236
79.80	387.1872
79.80	387.1872
80.11	387.5284
80.18	387.6057
80.30	438.4407
80.30	438.4407
80.57	438.7772
81.00	472.1822
81.07	472.2762
81.07	472.2762
81.07	472.2762
81.07	472.2762
82.60	480.3027
83.37	401.1027
83.78	393.0273
83.78	393.0273
83.78	393.0273
83.78	393.0273
84.21	390.4760
84.90	395.7425
85.43	447.7420
86.29	521.5587
86.50	521.8527
86.54	521.9078
86.59	521.9786
86.72	528.2314
86.79	528.3270
86.94	528.5420
87.30	570.4030
87.30	570.4030
87.30	570.4030
87.30	570.4030
87.30	570.4030
87.30	570.4030
87.30	570.4030
87.57	570.8123
87.88	639.4945
88.03	639.7509
88.36	594.5721
88.47	594.7446
89.95	642.9872
91.11	601.9308
92.29	459.5977
92.38	459.7047
92.38	459.7047
93.35	460.8408
94.00	461.6011
94.67	462.3729
94.67	462.3798
94.90	462.6461
94.90	462.6461
94.90	462.6461
94.90	462.6461
95.87	331.0412
95.87	331.0412
96.73	395.6096
97.43	388.4888
98.44	359.7330
98.44	359.7330
98.88	342.8959
99.55	340.0038
99.55	340.0038
99.86	321.2158
100.00	321.3250
100.10	321.4047
103.18	389.1572
103.76	383.3519
105.00	325.1523
105.31	340.2266
108.00	387.1276
109.28	385.0452

111.00	379.0197
111.00	379.0197
111.76	353.8480
112.95	356.9368
115.19	356.5221
116.30	355.2072
117.00	329.6324
117.00	329.6324
117.66	362.7825
121.11	348.9754
121.62	329.5731
121.78	329.6829
122.06	318.8793
122.32	319.0504
122.32	319.0504
122.32	319.0504
122.32	319.0504
123.07	361.4193
127.23	320.0471
129.76	345.1253
131.20	341.0695
133.02	377.6958
133.54	355.1206
135.34	299.2249
136.00	299.6023
136.25	308.7940
136.48	315.7198
140.51	331.8153
140.51	0.0000
142.18	377.4570
142.65	393.8132
143.76	376.2638
144.24	338.7050
144.24	338.7050
144.24	338.7050
144.24	338.7050
145.22	351.9635
145.44	352.1067
147.16	379.7503
152.43	396.1444
152.70	364.8578
153.22	348.2743
154.21	333.9738
154.21	333.9738
154.21	333.9738
154.21	333.9738
155.03	355.5183
156.02	368.4375
158.56	346.2001
159.00	0.0000
159.00	336.7353
160.31	341.0254
161.27	363.7580
162.32	353.7339
162.64	338.8049
163.35	339.2061
163.89	335.0557
165.85	337.0370
167.43	357.6303
171.28	328.2976
171.86	356.5885
172.10	340.4684
176.55	338.3284
176.60	338.3539
181.06	317.9903
184.41	372.6438
185.71	349.5786
186.00	349.7318
190.27	315.0058
192.34	310.8560
193.63	326.6430
197.04	322.6312
198.01	311.8098
198.60	310.1933
200.40	331.7241
201.83	380.5551
202.84	331.9225
205.31	318.8375

208.36	330.8615
208.81	292.7335
209.75	293.1106
209.75	293.1106
210.97	281.5501
215.65	283.3357
216.55	292.9275
218.09	289.6683
222.10	278.5852
223.80	308.3877
226.40	315.2843
227.00	309.6671
227.08	309.6985
227.20	302.9070
228.16	286.6492
228.18	286.6559
228.18	286.6559
231.56	0.0000
235.69	322.3808
236.00	324.0862
236.00	324.0862
238.63	273.5995
238.63	273.5995
238.63	273.5995
238.63	273.5995
239.00	273.7237
240.98	274.3912
241.98	238.8940
241.98	238.8940
241.98	238.8940
244.69	255.6621
245.39	260.6766
247.94	239.6218
248.90	247.9272
249.79	261.2537
252.40	239.8902
252.85	256.1530
252.85	256.1530
254.15	0.0000
256.20	254.1262
256.20	254.1262
260.50	244.2041
260.90	240.2457
262.80	264.2365
264.65	283.5371
268.24	203.6646
268.79	203.7917
269.46	233.5477
269.46	233.5477
269.46	233.5477
269.46	233.5477
271.23	219.1805
273.65	313.9592
276.40	253.3525
277.35	242.6550
277.60	242.7193
277.60	242.7193
278.00	234.5247
278.60	240.9103
279.20	245.2224
279.53	271.2949
280.46	278.8572
281.68	245.8849
283.67	240.1495
284.30	234.0420
285.00	237.3566
285.90	228.1655
286.10	228.2121
286.10	228.2121
287.40	203.3720
288.45	0.0000
290.67	218.8037
290.80	218.8354
291.72	219.0481
293.26	0.0000
293.70	233.0098
295.21	214.7776
295.21	214.7776

295.21	214.7776
295.96	214.9450
296.50	139.7082
297.23	139.8129
298.57	140.0083
299.80	140.1855
299.80	140.1855
300.09	140.2278
300.09	140.2278
300.09	140.2278
300.09	140.2278
300.12	140.2319
301.29	197.4096
302.84	209.6555
303.76	191.0863
303.91	191.1137
304.40	194.6238
304.40	194.6238
304.84	193.0049
306.84	193.3939
308.46	198.2111
311.98	191.3848
316.51	203.0461
318.01	187.1228
319.02	194.8865
319.41	193.8775
320.08	196.1708
323.87	186.2364
323.87	186.2364
323.87	186.2364
323.87	186.2364
325.23	195.1934
328.77	204.6015
333.44	180.0432
334.20	182.3680
334.20	182.3680
334.30	182.3857
338.28	210.6374
338.28	210.6374
338.28	210.6374
338.28	210.6374
338.32	210.6462
338.32	210.6462
338.32	210.6462
340.50	169.7438
340.57	169.7555
344.27	193.4031
345.85	199.0133
350.59	0.0000
351.07	180.7693
351.92	180.9102
351.92	180.9102
351.92	180.9102
355.39	0.0000
356.01	181.1268
364.48	150.8728
366.43	159.2766
367.43	171.1913
367.94	0.0000
369.80	165.1908
374.96	176.8687
383.85	165.3486
387.95	188.0401
388.63	181.6911
391.69	161.8109
391.69	161.8109
392.90	177.7078
398.62	162.7359
400.65	175.1117
401.10	177.9737
401.81	181.8044
402.60	165.1273
404.84	212.1586
410.95	157.7850
411.60	168.2036
413.65	181.6537
414.70	175.2106
415.30	178.1219

415.76	170.6442
417.63	0.0000
418.52	150.2271
423.70	147.9905
427.08	167.3998
427.89	171.3120
432.53	139.4468
433.93	157.7631
439.47	144.0234
439.56	144.0326
439.89	141.1878
443.98	148.3641
444.90	136.8969
445.03	137.8749
445.03	137.8749
445.03	137.8749
445.03	137.8749
453.90	156.4924
463.38	128.0128
468.07	138.9032
473.00	148.5743
475.06	172.4387
475.35	171.4894
476.78	155.8765
477.59	135.2357
477.96	124.4096
482.03	163.3826
484.57	155.7351
487.03	137.1223
490.36	0.0000
492.35	136.6271
497.08	112.0561
507.63	0.0000
510.53	0.0000
510.84	127.2336
511.00	127.2466
511.85	127.3189
511.85	127.3189
513.99	134.9186
513.99	134.9186
520.41	132.1011
520.65	132.1233
527.90	120.4919
528.96	0.0000
529.64	124.7164
529.87	0.0000
531.02	114.5949
537.32	138.6881
543.00	129.9067
546.56	0.0000
549.76	100.4338
552.65	106.8374
555.20	119.4725
563.23	122.1530
563.90	129.5128
568.70	134.0844
569.32	137.2782
569.50	133.0988
569.67	133.1143
573.80	143.9537
574.00	145.0213
574.64	148.3493
578.91	137.0173
579.30	0.0000
583.14	129.9668
585.48	137.5537
591.81	114.4665
592.07	116.8455
593.00	120.0956
595.88	128.8166
600.56	130.4698
602.52	0.0000
602.71	146.0725
602.71	146.0725
603.60	142.5814
604.41	133.7341
604.70	137.3223
609.31	119.8045

609.31	119.8045
609.31	119.8045
609.31	119.8045
610.33	123.4537
612.46	155.8467
614.37	98.6312
618.01	113.2108
621.84	123.1790
621.84	123.1790
631.29	106.4530
633.02	113.0771
633.10	115.2569
634.78	126.2491
635.90	131.7707
636.97	127.4917
645.85	119.3518
646.12	117.1802
656.30	119.5558
657.75	100.7567
657.90	0.0000
661.65	108.5940
661.65	108.5940
664.57	0.0000
666.33	120.1973
666.33	120.1973
675.00	122.3374
677.61	93.7341
685.20	113.6726
692.80	125.3415
695.00	116.1188
696.49	113.3956
696.49	113.3956
697.00	121.8618
697.49	114.3924
698.33	136.9522
698.50	136.9641
699.00	128.5546
702.63	112.8101
706.10	132.7842
706.58	0.0000
706.67	127.1722
709.31	124.5100
711.68	109.5477
713.82	112.5019
717.42	121.2292
720.50	103.8659
721.93	0.0000
722.20	118.8032
722.78	115.5830
722.78	115.5830
722.89	115.5880
722.95	115.5904
723.30	125.3828
724.18	125.4365
727.18	95.1680
733.00	89.9869
735.90	99.3979
739.58	86.1713
742.81	96.8554
744.21	100.7574
747.13	103.7834
751.79	104.9772
752.31	92.4805
753.82	103.1512
755.35	91.6505
756.15	100.3713
756.87	87.8545
763.93	96.3133
765.79	94.7363
766.42	117.3468
766.84	117.3689
776.49	126.6701
778.00	120.9071
778.57	118.0139
778.89	119.0066
783.80	79.1922
785.46	95.8866
792.07	105.9917

795.84	97.7476
796.30	91.0252
798.80	131.6304
801.93	94.6387
805.60	88.8702
810.29	94.9941
810.76	87.0977
815.85	101.1824
817.79	90.3502
818.51	87.3984
819.60	82.4731
826.30	107.6331
828.27	0.0000
831.60	127.8620
831.96	114.8947
834.83	119.0387
836.80	0.0000
846.75	95.5238
848.13	105.6430
856.28	0.0000
856.80	72.7104
860.37	67.6202
867.32	64.3409
867.82	64.3551
871.10	79.2489
873.19	73.2173
874.81	70.2143
875.33	0.0000
876.40	71.2789
879.36	75.4453
880.27	64.2548
880.51	67.3213
881.50	72.4517
883.24	81.6943
884.67	67.4381
889.25	81.8994
896.60	98.5762
898.02	102.7445
899.00	112.0359
903.28	84.7249
911.07	101.2260
911.07	101.2260
911.07	101.2260
919.63	76.1812
920.93	87.1104
925.00	69.5940
925.24	67.5232
926.50	88.3445
935.52	74.0580
937.48	111.6956
944.10	96.2882
946.00	90.0750
949.00	84.9386
962.29	108.4152
964.01	115.7210
966.15	137.5326
968.20	115.1516
969.11	115.1938
969.11	115.1938
969.11	115.1938
977.42	92.6901
980.50	77.4838
983.50	71.1957
989.30	93.7166
996.32	107.8447
1001.03	66.3190
1001.68	78.1031
1004.76	110.3281
1021.30	0.0000
1024.50	0.0000
1034.80	72.5615
1036.00	79.8691
1037.82	76.2029
1038.57	75.2934
1038.76	0.0000
1045.16	85.7238
1046.59	95.0914
1048.07	79.2843

1050.47	62.5484
1050.47	62.5484
1062.04	85.3030
1063.62	81.5989
1076.63	89.5131
1077.35	97.0726
1078.86	89.5827
1085.78	84.1266
1099.22	93.0645
1112.02	81.7873
1112.84	96.8378
1115.52	106.9531
1120.29	87.0391
1120.29	87.0391
1120.29	87.0391
1120.29	87.0391
1120.51	87.0454
1121.28	87.0676
1124.00	0.0000
1129.67	80.5986
1131.51	0.0000
1147.95	0.0000
1167.94	81.6240
1173.22	91.4985
1175.09	92.5283
1177.93	93.5893
1189.05	106.6430
1204.90	110.1328
1205.75	0.0000
1213.00	110.4180
1221.42	109.7186
1230.97	102.3641
1235.34	97.2925
1236.41	0.0000
1238.25	100.3589
1246.25	92.9720
1260.41	0.0000
1271.85	80.3153
1274.45	94.4426
1274.54	100.4743
1291.56	58.5725
1298.22	0.0000
1312.09	75.1872
1325.50	71.4014
1325.50	71.4014
1332.49	59.2825
1333.61	55.2110
1360.21	47.3926
1362.66	0.0000
1365.15	44.5367
1368.21	28.9131
1368.53	0.0000
1376.25	50.7141
1384.27	34.4908
1394.10	42.6473
1395.20	40.5792
1407.95	42.8103
1434.06	38.9112
1436.60	45.2526
1457.56	0.0000
1460.81	42.3703
1489.15	50.1604
1509.49	36.6137
1596.49	44.1470
1620.62	30.8936
1678.03	0.0000
1691.02	20.6180
1691.02	20.6180
1706.46	0.0000
1750.46	0.0000
1764.49	20.9692
1764.49	20.9692
1764.49	20.9692
1764.49	20.9692
1770.23	17.7745
1771.40	24.8912
1791.20	0.0000
1808.65	18.1516

1836.01

18.2609

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246344002

Total Uranium Activity	5.5198E+00	ug/g
Total Uranium Counting Unc.	6.2676E+00	ug/g
Total Uranium Tpu	3.1978E-06	ug/g
Total Uranium Mda	3.3751E+00	ug/g


```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G246344002
*  ANALYST       : MXR1                             DETECTOR    : GAM18
*  SAMPLE DATE   : 1-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 16:57:34.26          SAMPLE ALQT  : 134.540 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.615E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.212E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 2.351E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.140E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 18:58:56.21

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344003.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:58:19
Sample ID          : G246344003          Sample quantity  : 1.43810E+02 GRAM
Detector name      : GAM19              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           : 950787             Detector SN#      :
Matrix Spike ID    :                   LCS ID             : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.02*	74	493	1.79	125.90	121	9	1.02E-02	56.7	
2	1	74.71	480	593	1.47	149.27	144	17	6.66E-02	10.6	1.49E+00
3	1	77.16	692	446	1.21	154.16	144	17	9.62E-02	6.5	
4	0	87.00	173	618	1.14	173.83	171	8	2.40E-02	26.0	
5	3	90.18	133	258	0.99	180.19	178	13	1.85E-02	18.4	2.20E+00
6	3	93.07*	271	492	1.54	185.96	178	13	3.76E-02	17.1	
7	0	186.02*	172	353	1.26	371.71	367	10	2.39E-02	22.8	
8	0	208.93	121	344	1.33	417.50	413	11	1.68E-02	31.2	
9	4	238.47*	1242	242	1.30	476.54	471	17	1.73E-01	3.7	1.62E+00
10	4	241.09	268	365	1.97	481.77	471	17	3.72E-02	19.7	
11	0	269.89	113	257	1.20	539.33	535	11	1.57E-02	29.1	
12	0	294.98	415	225	1.60	589.49	583	12	5.76E-02	8.7	
13	0	299.68	148	130	1.98	598.88	595	9	2.06E-02	16.2	
14	0	328.65	67	290	0.87	656.78	650	16	9.37E-03	57.6	
15	0	337.94*	240	221	1.53	675.35	669	13	3.33E-02	14.7	
16	0	351.69*	618	200	1.46	702.84	696	12	8.58E-02	6.1	
17	0	463.19	123	151	1.71	925.73	919	15	1.71E-02	23.4	
18	0	510.58*	134	163	2.17	1020.47	1011	20	1.86E-02	27.7	
19	0	567.38*	170	186	2.27	1134.02	1127	18	2.37E-02	20.6	
20	0	583.14*	395	117	1.27	1165.53	1160	13	5.49E-02	7.7	
21	0	609.19*	455	140	1.61	1217.61	1212	15	6.33E-02	7.4	
22	0	726.96	125	135	1.79	1453.09	1444	18	1.73E-02	23.6	
23	0	860.78	52	67	1.79	1720.68	1715	12	7.27E-03	34.5	
24	0	911.47*	315	65	1.36	1822.07	1816	14	4.38E-02	7.9	
25	0	964.25	85	62	1.38	1927.62	1920	13	1.19E-02	21.9	
26	0	969.09	189	51	1.71	1937.29	1933	12	2.63E-02	10.4	
27	0	1120.38	133	63	1.87	2239.90	2234	14	1.84E-02	15.2	
28	0	1460.81	1615	40	1.90	2920.97	2913	17	2.24E-01	2.6	
29	0	1730.00	21	15	2.44	3459.67	3449	15	2.92E-03	45.7	
30	0	1764.48*	99	0	2.20	3528.68	3521	17	1.38E-02	10.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 18:58:59

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344003.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 1-FEB-2010 12:00:00   Acquisition date : 18-FEB-2010 16:58:19
Sample ID        : G246344003             Sample quantity  : 143.81 GRAM
Sample type      : SOLID                   Sample geometry   :
Detector name    : GAMMA19                 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	+	1460.81	*	3.382E+01	3.087E+00	4.934E-01	3.675E-02	68.542
CD-109	+	88.03	*	2.050E+00	1.080E+00	1.252E+00	1.121E-01	1.638
SN-126	+	64.28		5.577E-01	6.377E-01	7.695E-01	1.124E-01	0.725
	+	86.94		8.352E-01	5.546E-01	5.707E-01	2.363E-01	1.463
	+	87.57	*	2.009E-01	1.058E-01	1.347E-01	1.202E-02	1.491
TL-208		277.35		7.736E-01	3.748E-01	6.573E-01	6.936E-02	1.177
	+	510.84		5.688E-01	3.209E-01	2.037E-01	2.080E-02	2.793
	+	583.14	*	4.798E-01	8.086E-02	5.762E-02	3.918E-03	8.326
	+	860.37		5.972E-01	4.155E-01	4.784E-01	4.283E-02	1.248
BI-211		72.87		1.015E+01	3.624E+00	5.631E+00	4.412E-01	1.803
	+	351.07	*	3.290E+00	4.558E-01	3.351E-01	2.140E-02	9.819
PB-212	+	74.81		2.314E+00	5.647E-01	5.230E-01	6.413E-02	4.425
	+	77.11		1.893E+00	2.882E-01	2.976E-01	2.404E-02	6.361
	+	87.30		9.291E-01	4.981E-01	6.142E-01	8.220E-02	1.513
	+	238.63	*	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
	+	300.09		2.662E+00	8.896E-01	1.171E+00	9.672E-02	2.273
PO-212	+	74.81		2.314E+00	5.647E-01	5.230E-01	6.413E-02	4.425
	+	77.11		1.893E+00	2.882E-01	2.976E-01	2.404E-02	6.361
	+	87.30		9.291E-01	4.981E-01	6.142E-01	8.220E-02	1.513
		115.19		-1.719E+00	3.470E+00	5.516E+00	3.512E-01	-0.312
	+	238.63	*	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
	+	300.09		2.662E+00	8.896E-01	1.171E+00	9.672E-02	2.273
BI-214	+	609.31	*	1.042E+00	1.752E-01	1.058E-01	8.320E-03	9.844
	+	1120.29		1.575E+00	4.989E-01	4.567E-01	4.177E-02	3.448
	+	1764.49		1.592E+00	3.502E-01	2.832E-01	1.716E-02	5.620
PB-214	+	74.81		3.987E+00	9.462E-01	9.011E-01	9.784E-02	4.425
	+	77.11		3.245E+00	5.526E-01	5.102E-01	5.665E-02	6.361
	+	87.30		1.592E+00	8.472E-01	1.052E+00	1.238E-01	1.513
	+	241.98		1.872E+00	7.524E-01	5.298E-01	4.225E-02	3.534
	+	295.21		1.307E+00	2.543E-01	1.826E-01	1.558E-02	7.159
	+	351.92	*	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
PO-214	+	74.81		3.987E+00	9.462E-01	9.011E-01	9.784E-02	4.425
	+	77.11		3.245E+00	5.526E-01	5.102E-01	5.665E-02	6.361
	+	87.30		1.592E+00	8.472E-01	1.052E+00	1.238E-01	1.513

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		1.872E+00	7.524E-01	5.298E-01	4.225E-02	3.534
	+	295.21		1.307E+00	2.543E-01	1.826E-01	1.558E-02	7.159
	+	351.92	*	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
	+	74.81		2.314E+00	5.647E-01	5.230E-01	6.413E-02	4.425
	+	77.11		1.893E+00	2.882E-01	2.976E-01	2.404E-02	6.361
	+	87.30		9.291E-01	4.981E-01	6.142E-01	8.220E-02	1.513
PO-218	+	238.63	*	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
	+	300.09		2.662E+00	8.896E-01	1.171E+00	9.672E-02	2.273
	+	74.81		3.987E+00	9.462E-01	9.011E-01	9.784E-02	4.425
	+	77.11		3.245E+00	5.526E-01	5.102E-01	5.665E-02	6.361
	+	87.30		1.592E+00	8.472E-01	1.052E+00	1.238E-01	1.513
	+	241.98		1.872E+00	7.524E-01	5.298E-01	4.225E-02	3.534
RA-224	+	295.21		1.307E+00	2.543E-01	1.826E-01	1.558E-02	7.159
	+	351.92	*	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
	+	240.98	*	3.550E+00	1.413E+00	1.041E+00	5.900E-02	3.409
RA-226	+	609.31	*	1.042E+00	1.752E-01	1.058E-01	8.320E-03	9.844
	+	1120.29		1.575E+00	4.989E-01	4.567E-01	4.177E-02	3.448
	+	1764.49		1.592E+00	3.502E-01	2.832E-01	1.716E-02	5.620
AC-228	+	338.32		1.406E+00	7.057E-01	3.553E-01	1.448E-01	3.957
	+	911.07	*	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
	+	969.11		1.800E+00	5.594E-01	3.429E-01	7.949E-02	5.248
RA-228	+	338.32		1.406E+00	7.057E-01	3.553E-01	1.448E-01	3.957
	+	911.07	*	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
	+	969.11		1.800E+00	5.594E-01	3.429E-01	7.949E-02	5.248
TH-228	+	74.81		2.354E+00	5.314E-01	5.320E-01	4.265E-02	4.425
	+	77.11		1.926E+00	2.932E-01	3.027E-01	2.446E-02	6.361
	+	87.30		9.452E-01	4.978E-01	6.248E-01	5.557E-02	1.513
TH-230	+	238.63	*	1.474E+00	1.521E-01	9.313E-02	6.722E-03	15.827
	+	300.09		2.708E+00	1.821E+00	1.191E+00	7.021E-01	2.273
	+	609.31	*	1.042E+00	1.752E-01	1.058E-01	8.319E-03	9.844
TH-232	+	1120.29		1.575E+00	4.988E-01	4.566E-01	4.177E-02	3.448
	+	1764.49		1.592E+00	3.502E-01	2.832E-01	1.716E-02	5.620
	+	338.32		1.406E+00	4.198E-01	3.553E-01	2.054E-02	3.957
TH-234	+	911.07	*	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
	+	969.11		1.800E+00	5.594E-01	3.429E-01	7.949E-02	5.248
	+	63.29	*	1.409E+00	1.617E+00	2.003E+00	3.505E-01	0.703
U-234	+	92.38		2.042E+00	7.875E-01	7.425E-01	1.333E-01	2.750
	+	609.31	*	1.042E+00	1.752E-01	1.058E-01	8.319E-03	9.844
	+	1120.29		1.575E+00	4.988E-01	4.566E-01	4.177E-02	3.448
NP-237	+	1764.49		1.592E+00	3.502E-01	2.832E-01	1.716E-02	5.620
	+	86.50	*	5.899E-01	3.337E-01	3.765E-01	8.449E-02	1.567
	+	95.87		-4.067E-01	1.081E+00	1.515E+00	3.697E-01	-0.268
U-238	+	63.29	*	1.409E+00	1.617E+00	2.003E+00	3.505E-01	0.703
	+	92.38		2.042E+00	7.175E-01	7.425E-01	6.201E-02	2.750
AM-243	+	74.67	*	3.752E-01	8.458E-02	8.503E-02	6.743E-03	4.412
	+	86.72		2.212E+01	1.165E+01	1.409E+01	1.245E+00	1.570
	+	117.66		-2.154E+00	3.658E+00	5.816E+00	3.613E-01	-0.370
ANH-511	+	142.18		1.683E-01	1.788E+01	2.902E+01	1.615E+00	0.006
	+	511.00	*	1.229E-01	6.856E-02	4.401E-02	2.597E-03	2.792

Sample ID : G246344003

Acquisition date : 18-FEB-2010 16:58:19

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.287E-02	3.054E-01	5.080E-01	3.448E-02	0.045
NA-22		1274.54	*	-7.434E-03	4.596E-02	7.525E-02	5.020E-03	-0.099
NA-24		1368.53	*	-7.590E-01	4.596E-02	Half-Life too short		
AL-26		1129.67		-1.194E+00	1.572E+00	2.376E+00	1.466E-01	-0.502
		1808.65	*	-2.007E-02	2.729E-02	3.750E-02	2.189E-03	-0.535
TI-44		67.85		-2.573E-03	5.011E-02	7.220E-02	5.512E-03	-0.036
	+	78.38	*	3.494E-01	5.320E-02	7.893E-02	6.443E-03	4.426
SC-46		889.25	*	-3.901E-03	3.567E-02	5.691E-02	4.945E-03	-0.069
	+	1120.51		2.742E-01	8.496E-02	1.300E-01	8.201E-03	2.109
V-48		944.10		-2.643E-01	1.062E+00	1.671E+00	1.408E-01	-0.158
		983.50	*	-9.990E-03	7.653E-02	1.213E-01	9.753E-03	-0.082
		1312.09		3.033E-02	8.981E-02	1.536E-01	1.093E-02	0.197
CR-51		320.08	*	-1.076E-01	3.593E-01	5.931E-01	3.838E-02	-0.182
MN-52		744.21		3.088E-01	3.079E-01	5.384E-01	3.661E-02	0.573
		848.13		6.001E+00	8.513E+00	1.459E+01	1.186E+00	0.411
		935.52		-3.352E-02	3.230E-01	5.148E-01	4.376E-02	-0.065
		1246.25		-1.662E+00	9.619E+00	1.577E+01	9.967E-01	-0.105
		1333.61		-8.227E-01	6.577E+00	1.076E+01	7.925E-01	-0.076
		1434.06	*	-4.026E-02	2.759E-01	4.465E-01	3.220E-02	-0.090
MN-54		834.83	*	-1.591E-02	3.840E-02	6.002E-02	4.774E-03	-0.265
CO-56		846.75	*	-5.341E-03	4.071E-02	6.509E-02	5.281E-03	-0.082
		977.42		3.019E-01	3.140E+00	4.795E+00	3.885E-01	0.063
		1037.82		-4.126E-02	2.856E-01	4.725E-01	3.758E-02	-0.087
		1175.09		6.758E-01	2.269E+00	3.871E+00	2.129E-01	0.175
		1238.25		1.291E-01	9.290E-02	1.682E-01	1.105E-02	0.767
		1360.21		7.653E-01	9.275E-01	1.678E+00	1.231E-01	0.456
		1771.40		-6.128E-02	2.122E-01	2.681E-01	1.616E-02	-0.229
CO-57		122.06	*	-2.985E-03	2.527E-02	4.094E-02	2.443E-03	-0.073
		136.48		-7.133E-02	2.156E-01	3.456E-01	2.281E-02	-0.206
CO-58		810.76	*	-4.696E-02	3.773E-02	5.351E-02	4.101E-03	-0.878
FE-59		142.65		2.488E-01	2.841E+00	4.623E+00	2.570E-01	0.054
		192.34		4.505E-01	1.026E+00	1.623E+00	1.885E-01	0.278
		1099.22	*	1.430E-04	9.368E-02	1.567E-01	1.176E-02	0.001
		1291.56		-1.077E-01	1.294E-01	1.973E-01	1.633E-02	-0.546
CO-60		1173.22		-1.335E-02	4.445E-02	7.229E-02	3.961E-03	-0.185
		1332.49	*	6.897E-03	3.992E-02	6.728E-02	4.958E-03	0.103
ZN-65		1115.52	*	-8.357E-02	1.011E-01	1.305E-01	8.343E-03	-0.640
GE-68		1077.35	*	-2.293E-01	1.288E+00	2.125E+00	1.470E-01	-0.108
AS-73		53.44	*	3.739E-01	7.714E-01	1.295E+00	9.580E-02	0.289
AS-74		595.88	*	7.515E-02	9.025E-02	1.571E-01	9.304E-03	0.479
		634.78		-2.199E-03	3.455E-01	5.654E-01	3.323E-02	-0.004
SE-75		66.05		-5.084E+00	5.387E+00	7.434E+00	7.136E-01	-0.684
		96.73		-5.713E-01	8.752E-01	1.209E+00	1.591E-01	-0.472
		121.11		1.503E-02	1.364E-01	2.230E-01	2.089E-02	0.067
		136.00		-4.516E-03	4.091E-02	6.614E-02	3.809E-03	-0.068
		198.60		-4.146E-01	1.829E+00	2.913E+00	1.989E-01	-0.142
		264.65	*	-3.520E-03	4.757E-02	6.961E-02	4.048E-03	-0.051
		279.53		-2.173E-02	1.046E-01	1.744E-01	1.092E-02	-0.125
		303.91		4.635E-01	2.154E+00	3.200E+00	3.056E-01	0.145

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		9.864E-02	2.341E-01	3.994E-01	3.586E-02	0.247
		87.88		8.124E+02	4.278E+02	6.232E+02	5.577E+01	1.304
		200.40		1.146E+02	2.970E+02	4.853E+02	2.640E+01	0.236
	+	239.00		4.281E+02	3.977E+01	6.601E+01	3.734E+00	6.485
		249.79		-7.089E+01	1.204E+02	1.864E+02	1.063E+01	-0.380
		281.68		-2.602E+02	1.565E+02	2.415E+02	1.400E+01	-1.077
		297.23		5.833E+02	1.553E+02	2.128E+02	1.237E+01	2.740
		303.76		6.715E+01	3.333E+02	4.947E+02	2.878E+01	0.136
		439.47		1.691E+02	2.433E+02	4.209E+02	2.417E+01	0.402
		484.57		-4.587E+01	3.874E+02	6.357E+02	3.724E+01	-0.072
		520.65	*	-3.538E+00	1.748E+01	2.841E+01	1.680E+00	-0.125
		574.64		-1.531E+02	4.393E+02	6.034E+02	3.581E+01	-0.254
		578.91		-2.176E+01	1.732E+02	2.434E+02	1.444E+01	-0.089
		585.48		2.040E+03	4.428E+02	8.017E+02	4.754E+01	2.544
		755.35		2.415E+02	2.825E+02	4.911E+02	3.407E+01	0.492
		817.79		6.262E+01	2.437E+02	4.033E+02	3.118E+01	0.155
		698.33		-1.355E+01	3.469E+01	5.485E+01	3.427E+00	-0.247
		776.49	*	-1.810E-01	3.862E-01	6.012E-01	4.329E-02	-0.301
		1395.20		-1.131E+01	1.067E+01	1.506E+01	1.097E+00	-0.751
RB-83	*	520.41		-2.418E-02	6.558E-02	1.023E-01	6.045E-03	-0.237
		529.64		-5.470E-02	1.031E-01	1.636E-01	9.687E-03	-0.334
		552.65		-2.166E-02	1.905E-01	3.110E-01	1.845E-02	-0.070
RB-84	*	881.50		-1.172E-02	7.272E-02	1.156E-01	9.924E-03	-0.101
KR-85	*	513.99		8.369E+00	7.391E+00	1.163E+01	6.870E-01	0.719
SR-85	*	513.99		4.386E-02	3.874E-02	6.098E-02	3.601E-03	0.719
RB-86	*	1076.63		-2.612E-01	8.692E-01	1.419E+00	9.833E-02	-0.184
Y-88		898.02		7.976E-03	4.202E-02	6.892E-02	6.100E-03	0.116
		1836.01	*	-1.706E-03	2.904E-02	4.671E-02	2.666E-03	-0.037
ZR-88	*	392.90		9.286E-03	2.901E-02	4.923E-02	2.741E-03	0.189
Y-91	*	1204.90		4.995E+00	1.965E+01	3.334E+01	1.947E+00	0.150
NB-94	*	702.63		-4.772E-03	3.247E-02	5.234E-02	3.296E-03	-0.091
		871.10		-2.551E-02	3.617E-02	5.468E-02	4.615E-03	-0.467
NB-95	*	765.79		-2.631E-03	4.469E-02	7.142E-02	5.047E-03	-0.037
NB-95M	*	235.69		4.812E-01	1.600E-01	2.529E-01	1.873E-02	1.903
ZR-95		724.18		1.768E-01	1.078E-01	1.756E-01	1.318E-02	1.007
	*	756.15		3.491E-02	6.876E-02	1.163E-01	9.314E-03	0.300
NB-97	*	657.90		1.338E-01	6.876E-02	Half-Life too short		
		1024.50		-8.493E+01	6.876E-02	Half-Life too short		
ZR-97		254.15		3.517E+01	6.876E-02	Half-Life too short		
		355.39		5.657E+00	6.876E-02	Half-Life too short		
	*	507.63		2.947E+01	6.876E-02	Half-Life too short		
		602.52		4.714E+00	6.876E-02	Half-Life too short		
		1021.30		3.328E+01	6.876E-02	Half-Life too short		
		1147.95		-1.201E+01	6.876E-02	Half-Life too short		
		1362.66		-8.618E+00	6.876E-02	Half-Life too short		
		1750.46		-8.659E+00	6.876E-02	Half-Life too short		
MO-99		140.51		-1.753E-01	4.586E+01	7.389E+01	1.988E+01	-0.002
		181.06		-1.141E+01	3.224E+01	4.435E+01	7.532E+00	-0.257
		366.43		2.476E+01	1.288E+02	2.175E+02	1.238E+01	0.114

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		-1.133E+01	1.905E+01	2.933E+01	4.165E+00	-0.386
	778.00			-6.296E+01	5.582E+01	8.123E+01	5.866E+00	-0.775
TC-99M	140.51	*		-4.852E+10	5.582E+01	Half-Life	too short	
RH-101	127.23			2.511E-02	3.276E-02	5.467E-02	3.191E-03	0.459
	198.01	*		-2.448E-02	3.362E-02	5.238E-02	2.842E-03	-0.467
	325.23			7.812E-02	2.250E-01	3.368E-01	1.955E-02	0.232
RH-102	418.52			-5.966E-02	2.648E-01	4.341E-01	2.462E-02	-0.137
	475.06	*		-1.054E-02	2.719E-02	4.384E-02	2.559E-03	-0.240
	631.29			1.747E-03	5.147E-02	8.452E-02	4.972E-03	0.021
	697.49			7.412E-03	7.248E-02	1.191E-01	7.432E-03	0.062
	766.84			8.649E-02	1.134E-01	1.916E-01	1.357E-02	0.451
	1046.59			-2.901E-02	1.037E-01	1.693E-01	1.239E-02	-0.171
	1112.84			2.799E-01	2.266E-01	3.932E-01	2.524E-02	0.712
RU-103	497.08	*		-1.628E-02	4.051E-02	6.507E-02	8.252E-03	-0.250
	610.33	+		1.167E+01	2.503E+00	2.773E+00	4.287E-01	4.208
RH-106	511.85	+		6.161E-01	3.438E-01	3.968E-01	2.342E-02	1.553
	621.84	*		-1.195E-01	2.990E-01	4.741E-01	5.587E-02	-0.252
	1050.47			-1.889E-01	2.109E+00	3.506E+00	2.548E-01	-0.054
RU-106	511.85	+		6.161E-01	3.438E-01	3.968E-01	2.342E-02	1.553
	621.84	*		-1.195E-01	2.987E-01	4.741E-01	2.795E-02	-0.252
	1050.47			-1.889E-01	2.109E+00	3.506E+00	2.548E-01	-0.054
AG-108M	433.93	*		-1.242E-02	3.034E-02	4.906E-02	3.055E-03	-0.253
	614.37			1.067E-02	4.098E-02	5.973E-02	3.817E-03	0.179
	722.95			3.580E-02	4.356E-02	6.689E-02	4.669E-03	0.535
AG-110M	657.75	*		4.286E-03	3.198E-02	5.285E-02	3.279E-03	0.081
	677.61			-9.637E-02	3.094E-01	4.931E-01	3.131E-02	-0.195
	706.67			6.604E-02	2.089E-01	3.484E-01	2.322E-02	0.190
	763.93			-1.983E-01	1.624E-01	2.363E-01	1.734E-02	-0.839
	884.67			1.715E-02	4.478E-02	7.498E-02	6.676E-03	0.229
	937.48			-3.027E-02	1.071E-01	1.676E-01	1.475E-02	-0.181
	1384.27			2.454E-02	1.488E-01	2.509E-01	1.903E-02	0.098
IN-111	171.28			2.430E-01	1.649E+00	2.678E+00	1.406E-01	0.091
	245.39	*		2.314E-01	2.044E+00	2.870E+00	1.632E-01	0.081
IN-113M	391.69	*		8.653E-04	4.266E-02	7.118E-02	4.247E-03	0.012
SN-113	391.69	*		8.653E-04	4.266E-02	7.118E-02	4.247E-03	0.012
IN-114M	190.27	*		5.450E-02	2.107E-01	3.007E-01	1.616E-02	0.181
CD-115	260.90			2.548E+01	2.466E+02	3.955E+02	2.271E+01	0.064
	492.35			2.450E+01	6.696E+01	1.133E+02	6.654E+00	0.216
	527.90	*		-1.089E+01	2.015E+01	3.131E+01	1.853E+00	-0.348
SN-117M	156.02			1.891E+00	2.573E+00	4.277E+00	2.292E-01	0.442
	158.56	*		-6.701E-03	6.283E-02	1.012E-01	5.387E-03	-0.066
SB-122	563.90	*		6.238E+00	3.956E+00	6.436E+00	3.820E-01	0.969
	692.80			2.466E+01	7.099E+01	1.189E+02	7.349E+00	0.207
I-123	159.00	*		-2.213E+01	7.099E+01	Half-Life	too short	
	528.96			-1.864E+03	7.099E+01	Half-Life	too short	
TE-123M	159.00	*		-7.833E-03	2.940E-02	4.706E-02	2.541E-03	-0.166
I-124	602.71	*		4.880E-01	1.026E+00	1.526E+00	9.029E-02	0.320
	722.78			4.765E+00	6.396E+00	9.755E+00	6.378E-01	0.489
	1325.50			-2.855E+01	5.054E+01	7.886E+01	5.743E+00	-0.362

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1376.25		6.174E+01	4.219E+01	8.000E+01	5.852E+00	0.772
		1509.49		2.455E+01	1.943E+01	3.714E+01	2.612E+00	0.661
		1691.02		-2.673E+00	4.421E+00	6.306E+00	4.033E-01	-0.424
		602.71		2.054E-02	4.319E-02	6.422E-02	3.802E-03	0.320
		645.85		-3.960E-02	4.608E-01	7.485E-01	4.936E-02	-0.053
		709.31		2.004E+00	2.867E+00	4.905E+00	3.128E-01	0.409
		713.82		-3.693E-01	1.652E+00	2.644E+00	2.798E-01	-0.140
		722.78		2.908E-01	3.903E-01	5.953E-01	4.037E-02	0.489
	+	968.20		1.898E+01	4.226E+00	7.143E+00	5.854E-01	2.657
		1045.16		5.355E-01	2.223E+00	3.807E+00	2.793E-01	0.141
		1325.50		-1.860E+00	3.294E+00	5.139E+00	3.743E-01	-0.362
		1368.21		-1.155E-01	1.630E+00	2.672E+00	3.390E-01	-0.043
		1436.60		9.333E-01	3.430E+00	5.865E+00	4.227E-01	0.159
		1691.02 *		-3.847E-02	6.364E-02	9.077E-02	6.217E-03	-0.424
SB-125		427.89 *		-3.673E-02	8.207E-02	1.323E-01	7.879E-03	-0.278
	+	463.38		1.026E+00	4.859E-01	5.665E-01	3.836E-02	1.811
		600.56		-5.387E-02	1.680E-01	2.692E-01	1.834E-02	-0.200
		635.90		-3.988E-02	2.384E-01	3.847E-01	2.638E-02	-0.104
TE-125M		109.28 *		-3.197E+00	9.710E+00	1.565E+01	1.384E+00	-0.204
I-126		388.63		9.535E-02	2.243E-01	3.823E-01	2.134E-02	0.249
		666.33 *		1.524E-01	1.905E-01	3.296E-01	1.936E-02	0.462
SB-126		753.82		2.825E-01	1.630E+00	2.686E+00	1.858E-01	0.105
		223.80		9.587E-02	4.545E+00	7.291E+00	4.069E-01	0.013
		278.60		2.417E+00	2.640E+00	4.613E+00	2.671E-01	0.524
		296.50		1.366E+01	2.646E+00	3.837E+00	2.231E-01	3.559
		414.70		1.919E-02	7.685E-02	1.298E-01	7.341E-03	0.148
		415.30		7.318E-01	6.451E+00	1.080E+01	6.114E-01	0.068
		555.20		-1.061E+00	4.283E+00	6.925E+00	4.110E-01	-0.153
		573.80		4.871E-01	1.266E+00	1.872E+00	1.111E-01	0.260
		593.00		-8.872E-01	9.872E-01	1.507E+00	8.931E-02	-0.589
		656.30		-2.995E+00	3.606E+00	5.502E+00	3.210E-01	-0.544
SB-127		666.33		6.398E-02	7.999E-02	1.384E-01	8.131E-03	0.462
		675.00		-4.604E-01	2.152E+00	3.456E+00	2.065E-01	-0.133
		695.00		2.323E-02	8.337E-02	1.389E-01	8.621E-03	0.167
		697.00		4.689E-02	2.897E-01	4.782E-01	2.980E-02	0.098
		720.50 *		-6.458E-02	1.765E-01	2.375E-01	1.546E-02	-0.272
		856.80		5.519E-01	5.982E-01	9.233E-01	7.615E-02	0.598
		989.30		6.278E-01	1.426E+00	2.383E+00	1.901E-01	0.263
		1034.80		-2.265E+00	9.500E+00	1.560E+01	1.164E+00	-0.145
		1213.00		3.118E+00	5.298E+00	9.197E+00	5.456E-01	0.339
		61.10		7.903E+01	8.295E+01	1.247E+02	1.376E+01	0.634
		252.40		-2.506E+00	6.428E+00	9.924E+00	4.140E+00	-0.252
		290.80		-2.180E+01	3.418E+01	4.785E+01	4.756E+00	-0.456
		411.60		-2.968E+00	1.676E+01	2.758E+01	4.088E+00	-0.108
		444.90		-1.209E+01	1.320E+01	2.045E+01	2.339E+00	-0.591
		473.00		9.183E-01	2.225E+00	3.780E+00	4.474E-01	0.243
		543.00		5.009E+00	2.248E+01	3.760E+01	5.085E+00	0.133
		603.60		1.691E+01	1.761E+01	2.728E+01	3.134E+00	0.620
		685.20 *		-4.095E-02	1.988E+00	3.240E+00	3.354E-01	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		-7.497E+00	2.132E+01	3.379E+01	5.121E+00	-0.222
		722.20		1.244E+01	4.678E+01	6.778E+01	7.035E+00	0.184
		783.80		8.770E+00	5.602E+00	9.950E+00	1.210E+00	0.881
		57.60		-1.707E-01	6.610E+00	9.565E+00	7.166E-01	-0.018
		145.22		1.785E-02	7.350E-01	1.180E+00	6.512E-02	0.015
		172.10		4.837E-04	1.230E-01	1.986E-01	1.044E-02	0.002
I-131		202.84	*	-6.007E-03	5.193E-02	7.656E-02	4.177E-03	-0.078
		374.96		1.221E-01	1.983E-01	3.418E-01	1.932E-02	0.357
		80.18		2.064E+00	5.961E+00	8.701E+00	7.278E-01	0.237
		284.30		-2.413E-01	1.619E+00	2.705E+00	1.750E-01	-0.089
TE-132		364.48	*	4.420E-02	1.222E-01	2.084E-01	1.335E-02	0.212
		636.97		-3.934E-02	1.613E+00	2.635E+00	1.734E-01	-0.015
		722.89		6.968E+00	8.765E+00	1.343E+01	8.908E-01	0.519
		49.72		-3.810E+01	2.758E+01	4.290E+01	4.448E+00	-0.888
BA-133		111.76		-3.554E+01	4.635E+01	7.279E+01	7.273E+00	-0.488
		116.30		-3.045E+01	4.234E+01	6.655E+01	6.521E+00	-0.457
		228.16	*	7.798E-02	1.072E+00	1.723E+00	2.538E-01	0.045
		53.15		2.308E+00	3.255E+00	5.503E+00	4.064E-01	0.419
I-133		79.62		2.893E+00	1.502E+00	2.236E+00	3.359E-01	1.294
		81.00		-1.213E-01	1.110E-01	1.499E-01	2.358E-02	-0.809
		276.40		8.228E-01	3.948E-01	6.518E-01	8.445E-02	1.262
		302.84		1.546E-01	1.439E-01	2.251E-01	2.626E-02	0.687
I-133	+	356.01	*	4.310E-02	4.313E-02	6.739E-02	7.767E-03	0.640
		383.85		2.697E-03	2.900E-01	4.838E-01	5.211E-02	0.006
		510.53		6.651E+00	2.900E-01	Half-Life	too short	
		529.87	*	-1.145E-02	2.900E-01	Half-Life	too short	
CS-134		706.58		6.905E-01	2.900E-01	Half-Life	too short	
		856.28		8.932E-01	2.900E-01	Half-Life	too short	
		875.33		9.418E-01	2.900E-01	Half-Life	too short	
		1236.41		5.184E+00	2.900E-01	Half-Life	too short	
CS-134		1298.22		-3.558E-02	2.900E-01	Half-Life	too short	
		475.35		-8.277E-01	1.761E+00	2.822E+00	1.648E-01	-0.293
		563.23		2.328E-01	4.036E-01	6.067E-01	3.674E-02	0.384
		569.32		7.160E-01	2.619E-01	4.722E-01	2.883E-02	1.516
I-135		604.70		2.182E-02	3.527E-02	5.319E-02	3.164E-03	0.410
		795.84	*	7.325E-02	4.519E-02	8.196E-02	6.163E-03	0.894
		801.93		-7.101E-02	4.066E-01	6.382E-01	4.838E-02	-0.111
		1038.57		-1.679E-03	3.548E+00	5.949E+00	4.412E-01	0.000
CS-135		1167.94		1.825E-01	2.412E+00	4.047E+00	2.253E-01	0.045
		1365.15		-4.003E-01	1.095E+00	1.726E+00	1.344E-01	-0.232
		268.24	*	2.913E-01	1.783E-01	2.846E-01	2.171E-02	1.024
		288.45		3.837E+12	1.783E-01	Half-Life	too short	
I-135		417.63		-2.396E+12	1.783E-01	Half-Life	too short	
		546.56		-1.785E+10	1.783E-01	Half-Life	too short	
		836.80		3.607E+12	1.783E-01	Half-Life	too short	
		1038.76		1.709E+11	1.783E-01	Half-Life	too short	
I-135		1124.00		4.365E+12	1.783E-01	Half-Life	too short	
		1131.51		-1.452E+12	1.783E-01	Half-Life	too short	
		1260.41	*	2.683E+11	1.783E-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
CS-136		1457.56		1.073E+14	1.783E-01	Half-Life	too short	
		1678.03		-1.247E+12	1.783E-01	Half-Life	too short	
		1706.46		1.849E+12	1.783E-01	Half-Life	too short	
		1791.20		-1.273E+12	1.783E-01	Half-Life	too short	
		66.91		-9.580E-01	9.678E-01	1.323E+00	1.971E-01	-0.724
	+	86.29		2.927E+00	1.566E+00	2.283E+00	2.962E-01	1.282
		153.22		8.323E-02	7.593E-01	1.234E+00	8.528E-02	0.067
		163.89		4.732E-01	1.165E+00	1.914E+00	1.305E-01	0.247
		176.55		1.459E-01	4.061E-01	6.647E-01	4.032E-02	0.219
		273.65		-1.014E+00	5.845E-01	7.610E-01	5.022E-02	-1.333
		340.57		3.512E-01	1.607E-01	2.640E-01	1.623E-02	1.330
		818.51		-1.953E-02	8.278E-02	1.313E-01	1.018E-02	-0.149
		1048.07	*	-4.269E-02	1.067E-01	1.720E-01	1.330E-02	-0.248
		1235.34		4.616E-01	6.457E-01	1.125E+00	1.150E-01	0.410
BA-137M		661.65	*	-1.224E-02	3.546E-02	5.647E-02	3.288E-03	-0.217
CS-137		661.65	*	-1.293E-02	3.748E-02	5.969E-02	3.491E-03	-0.217
CE-139		165.85	*	-2.295E-02	3.009E-02	4.706E-02	2.457E-03	-0.488
BA-140		162.64		4.681E-01	8.251E-01	1.364E+00	8.252E-02	0.343
LA-140		304.84		-1.060E-01	1.485E+00	2.161E+00	5.898E-01	-0.049
		423.70		1.569E+00	1.944E+00	3.287E+00	1.044E+00	0.477
		537.32	*	-9.921E-02	2.858E-01	4.568E-01	1.487E-01	-0.217
	+	328.77		5.489E-01	6.332E-01	5.691E-01	3.697E-02	0.965
		432.53		6.203E-01	2.104E+00	3.560E+00	2.255E-01	0.174
		487.03		7.194E-02	1.453E-01	2.479E-01	1.641E-02	0.290
		751.79		-1.430E-01	1.891E+00	3.055E+00	2.448E-01	-0.047
		815.85		1.194E-01	3.525E-01	5.875E-01	5.172E-02	0.203
		867.82		-2.449E-01	1.673E+00	2.402E+00	2.129E-01	-0.102
		919.63		3.539E+00	3.082E+00	5.230E+00	5.576E-01	0.677
		925.24		-3.085E-01	1.197E+00	1.878E+00	1.715E-01	-0.164
		1596.49	*	-6.888E-02	8.791E-02	1.265E-01	8.561E-03	-0.544
CE-141		145.44	*	-3.576E-03	6.702E-02	1.073E-01	6.177E-03	-0.033
CE-143		57.37		-2.146E-04	6.702E-02	Half-Life	too short	
CE-144		231.56		1.121E-03	6.702E-02	Half-Life	too short	
		293.26	*	2.664E-03	6.702E-02	Half-Life	too short	
	+	350.59		7.481E-02	6.702E-02	Half-Life	too short	
		490.36		-3.124E-03	6.702E-02	Half-Life	too short	
		664.57		5.271E-04	6.702E-02	Half-Life	too short	
		721.93		8.683E-04	6.702E-02	Half-Life	too short	
		80.11		9.808E-01	2.309E+00	3.380E+00	2.801E-01	0.290
		133.54	*	7.126E-03	2.098E-01	3.413E-01	4.834E-02	0.021
PM-144		476.78		1.452E-02	6.291E-02	1.057E-01	7.376E-03	0.137
		618.01		3.587E-03	3.161E-02	4.933E-02	3.081E-03	0.073
		696.49	*	1.758E-02	3.340E-02	5.659E-02	3.526E-03	0.311
		778.57		-3.255E+00	2.267E+00	3.190E+00	2.307E-01	-1.020
PR-144		696.49	*	1.192E+00	2.266E+00	3.839E+00	2.390E-01	0.311
PM-146		1489.15		2.413E+00	1.028E+01	1.753E+01	1.243E+00	0.138
		453.90	*	-1.404E-02	4.047E-02	6.557E-02	5.647E-03	-0.214
		633.02		-6.200E-03	1.263E+00	2.067E+00	7.615E-01	-0.003
		735.90		-5.560E-02	1.410E-01	2.134E-01	5.994E-02	-0.261

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13		-4.424E-02	9.293E-02	1.450E-01	1.888E-02	-0.305
		91.11		5.897E-01	2.240E-01	5.813E-01	5.369E-02	1.014
		319.41		-9.818E-01	3.493E+00	5.773E+00	3.357E-01	-0.170
		439.89		2.200E+00	6.231E+00	1.057E+01	6.073E-01	0.208
PM-149	*	531.02		4.213E-02	6.202E-01	1.027E+00	1.394E-01	0.041
		285.90		2.167E+01	1.645E+02	2.784E+02	3.949E+01	0.078
		121.78		1.621E-03	7.301E-02	1.189E-01	9.208E-03	0.014
		244.69		2.293E-01	3.693E-01	5.357E-01	3.044E-02	0.428
EU-152	*	344.27		-1.150E-01	1.493E-01	1.565E-01	1.019E-02	-0.735
		443.98		-4.513E-01	8.764E-01	1.405E+00	8.086E-02	-0.321
		778.89		-2.805E-01	2.552E-01	3.724E-01	2.693E-02	-0.753
		867.32		-6.344E-02	9.186E-01	1.268E+00	1.063E-01	-0.050
	+	964.01		9.335E-01	4.151E-01	5.806E-01	4.782E-02	1.608
		1085.78		-1.172E-01	3.961E-01	6.462E-01	4.397E-02	-0.181
		1112.02		2.938E-01	3.195E-01	5.515E-01	3.548E-02	0.533
		1407.95		1.294E-01	1.563E-01	2.846E-01	2.067E-02	0.455
GD-153		69.67		8.157E-01	1.784E+00	2.623E+00	2.018E-01	0.311
		83.37		8.842E+00	1.928E+01	2.397E+01	2.048E+00	0.369
		97.43	*	7.173E-03	8.877E-02	1.277E-01	9.929E-03	0.056
		103.18		-3.643E-02	1.104E-01	1.783E-01	1.291E-02	-0.204
EU-154		123.07		-1.033E-02	5.181E-02	8.365E-02	7.936E-03	-0.123
		247.94		-2.148E-01	3.824E-01	5.701E-01	5.404E-02	-0.377
		591.81		-3.896E-01	5.671E-01	8.788E-01	8.657E-02	-0.443
		723.30		2.117E-01	1.808E-01	2.868E-01	2.209E-02	0.738
		756.87		-1.217E-01	7.324E-01	1.173E+00	1.272E-01	-0.104
		873.19		4.309E-02	3.126E-01	5.108E-01	6.200E-02	0.084
		996.32		-4.082E-01	3.801E-01	5.349E-01	9.322E-02	-0.763
		1004.76		-9.578E-02	2.171E-01	3.515E-01	3.885E-02	-0.273
EU-155	*	1274.45		-1.758E-02	1.276E-01	2.093E-01	2.072E-02	-0.084
		48.70		-1.267E-01	2.140E+00	3.533E+00	2.478E-01	-0.036
		60.01		7.007E-01	4.989E+00	7.270E+00	5.469E-01	0.096
		86.54		2.421E-01	1.276E-01	1.875E-01	1.670E-02	1.291
TB-160	+	105.31	*	9.285E-03	1.155E-01	1.878E-01	1.351E-02	0.049
		86.79		6.594E-01	3.472E-01	5.060E-01	4.476E-02	1.303
		197.04		1.305E-01	5.703E-01	9.261E-01	5.018E-02	0.141
		215.65		-4.031E-01	7.654E-01	1.152E+00	6.376E-02	-0.350
	+	298.57		3.952E-01	1.300E-01	2.104E-01	1.224E-02	1.878
		879.36	*	-3.020E-02	1.452E-01	2.300E-01	1.967E-02	-0.131
		962.29		1.308E+00	6.370E-01	1.063E+00	8.776E-02	1.230
		966.15		1.165E+00	3.080E-01	4.848E-01	3.983E-02	2.403
HO-166M		1177.93		-1.128E-01	3.884E-01	6.332E-01	3.503E-02	-0.178
		1271.85		-1.611E-01	7.191E-01	1.170E+00	7.750E-02	-0.138
		80.57		-2.026E-01	3.007E-01	4.196E-01	3.491E-02	-0.483
		184.41		9.040E-02	4.170E-02	6.582E-02	3.511E-03	1.373
		280.46		-1.266E-01	8.077E-02	1.255E-01	7.271E-03	-1.008
		410.95		1.266E-01	2.319E-01	3.976E-01	2.243E-02	0.318
		711.68	*	-2.110E-02	6.229E-02	9.889E-02	6.335E-03	-0.213
		752.31		5.431E-03	2.669E-01	4.347E-01	2.999E-02	0.012
		810.29		-7.565E-02	5.688E-02	8.009E-02	6.113E-03	-0.945

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-1.379E+01	2.759E+01	4.477E+01	3.265E+00	-0.308
		52.39		1.048E+01	1.422E+01	2.407E+01	1.770E+00	0.436
		59.40		5.744E+00	2.670E+01	3.906E+01	2.938E+00	0.147
		66.72	*	-3.699E+01	3.153E+01	4.307E+01	3.274E+00	-0.859
LU-176	+	88.36		4.765E-01	2.509E-01	3.717E-01	3.311E-02	1.282
		201.83		-1.455E-02	2.844E-02	4.469E-02	2.435E-03	-0.325
		306.84	*	-8.788E-04	2.276E-02	3.816E-02	2.219E-03	-0.023
		401.10		3.113E+00	6.079E+00	1.042E+01	5.840E-01	0.299
LU-177		112.95		-2.051E-01	2.004E+00	3.236E+00	2.107E-01	-0.063
	+	208.36	*	3.103E+00	1.945E+00	2.423E+00	1.330E-01	1.281
LU-177M		52.97		1.016E+00	1.484E+00	2.508E+00	1.851E-01	0.405
		54.07		5.006E-02	7.895E-01	1.307E+00	9.695E-02	0.038
		61.30		9.650E-01	1.510E+00	2.246E+00	1.690E-01	0.430
		121.62		2.615E-02	3.784E-01	6.175E-01	3.692E-02	0.042
		147.16		-6.130E-01	6.612E-01	1.032E+00	5.664E-02	-0.594
		171.86		4.961E-02	4.818E-01	7.812E-01	4.103E-02	0.064
		218.09		9.293E-01	8.475E-01	1.423E+00	7.898E-02	0.653
	+	268.79		2.026E+00	1.184E+00	1.500E+00	8.648E-02	1.351
		319.02		-1.147E-01	2.429E-01	3.974E-01	2.309E-02	-0.289
		367.43		-2.373E-01	8.274E-01	1.358E+00	7.725E-02	-0.175
		413.65	*	-9.993E-02	1.698E-01	2.725E-01	1.541E-02	-0.367
HF-181		56.28		-2.278E-01	8.964E-01	1.467E+00	1.095E-01	-0.155
		57.53		-2.104E-02	5.529E-01	7.997E-01	5.990E-02	-0.026
		65.20		1.923E-01	1.054E+00	1.534E+00	1.161E-01	0.125
		133.02		-3.996E-02	7.015E-02	1.115E-01	6.379E-03	-0.358
		136.25		-1.011E-01	4.862E-01	7.831E-01	4.436E-02	-0.129
		345.85		-4.584E-02	2.303E-01	3.304E-01	1.904E-02	-0.139
		482.03	*	-4.474E-02	4.140E-02	6.327E-02	3.703E-03	-0.707
W-181		56.28		-9.289E-02	3.434E-01	5.616E-01	4.194E-02	-0.165
		57.53		-8.137E-03	2.119E-01	3.064E-01	2.295E-02	-0.027
		65.20	*	7.311E-02	4.006E-01	5.832E-01	4.413E-02	0.125
TA-182		67.75		-5.233E-02	1.226E-01	1.738E-01	1.326E-02	-0.301
		100.10		6.811E-02	1.853E-01	3.021E-01	2.270E-02	0.225
		152.43		7.802E-02	3.477E-01	5.678E-01	3.072E-02	0.137
		222.10		-1.481E-01	3.572E-01	5.618E-01	3.130E-02	-0.264
		1001.68		2.050E+00	2.080E+00	3.699E+00	2.902E-01	0.554
	+	1121.28		7.539E-01	2.336E-01	3.601E-01	2.267E-02	2.093
		1189.05		1.390E-01	3.181E-01	5.472E-01	3.096E-02	0.254
		1221.42	*	-7.216E-02	2.088E-01	3.369E-01	2.032E-02	-0.214
		1230.97		-3.222E-01	4.583E-01	7.184E-01	4.412E-02	-0.448
RE-183		57.98		1.377E-01	2.055E-01	3.069E-01	2.301E-02	0.449
		59.32		2.110E-02	1.118E-01	1.634E-01	1.229E-02	0.129
		67.20		-2.277E-01	2.247E-01	3.094E-01	2.356E-02	-0.736
		162.32	*	1.454E-02	1.109E-01	1.802E-01	9.491E-03	0.081
	+	208.81		2.295E+00	1.439E+00	1.771E+00	9.726E-02	1.296
		291.72		-2.558E-01	1.050E+00	1.514E+00	8.796E-02	-0.169
RE-184		57.98		5.015E-01	7.480E-01	1.117E+00	8.378E-02	0.449
		59.32		7.674E-02	4.067E-01	5.942E-01	4.469E-02	0.129
		67.20		-8.286E-01	8.178E-01	1.126E+00	8.575E-02	-0.736

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		5.080E-03	3.606E-01	5.834E-01	3.082E-02	0.009
		216.55		-7.946E-03	2.612E-01	4.184E-01	2.318E-02	-0.019
		252.85	*	6.323E-02	2.301E-01	3.726E-01	2.130E-02	0.170
		318.01		-1.512E-01	4.327E-01	7.131E-01	4.145E-02	-0.212
		792.07		-1.875E-01	1.006E+00	1.570E+00	1.162E-01	-0.119
		903.28		-2.397E-01	9.749E-01	1.489E+00	1.306E-01	-0.161
		920.93		1.053E-01	4.404E-01	7.253E-01	6.257E-02	0.145
		59.72		9.910E-02	2.990E-01	4.397E-01	3.308E-02	0.225
		61.14		1.598E-01	1.641E-01	2.476E-01	1.863E-02	0.646
		69.30		2.546E-01	3.196E-01	4.761E-01	3.657E-02	0.535
		592.07		-1.383E+00	2.364E+00	3.703E+00	2.194E-01	-0.373
		646.12	*	-7.985E-03	3.876E-02	6.232E-02	3.650E-03	-0.128
		717.42		-1.464E-01	8.929E-01	1.395E+00	9.029E-02	-0.105
		874.81		8.672E-01	6.322E-01	1.127E+00	9.574E-02	0.769
RE-188		880.27		-4.113E-01	8.111E-01	1.248E+00	1.069E-01	-0.330
		155.03	*	1.213E-01	1.804E-01	2.991E-01	1.607E-02	0.406
		477.96		9.488E-02	2.900E+00	4.810E+00	2.811E-01	0.020
W-188	+	633.10		-2.931E-02	2.603E+00	4.259E+00	2.504E-01	-0.007
		63.58		5.783E+01	6.572E+01	8.450E+01	6.373E+00	0.684
IR-192		227.08		2.735E+00	1.302E+01	2.105E+01	1.179E+00	0.130
	*	290.67		-2.940E+00	8.146E+00	1.164E+01	6.763E-01	-0.252
	+	295.96		1.016E+00	1.876E-01	2.748E-01	1.622E-02	3.699
		308.46		-2.494E-02	9.008E-02	1.491E-01	8.773E-03	-0.167
	*	316.51		1.743E-02	3.373E-02	5.799E-02	3.388E-03	0.301
		468.07		2.204E-02	7.185E-02	1.062E-01	7.120E-03	0.208
AU-195		604.41		3.674E-01	4.826E-01	7.357E-01	8.395E-02	0.499
		612.46		1.480E+00	8.226E-01	1.344E+00	1.029E-01	1.101
		65.12		3.807E-02	1.850E-01	2.695E-01	2.039E-02	0.141
		66.83		-8.404E-02	1.033E-01	1.436E-01	1.092E-02	-0.585
	+	75.70		1.224E+00	2.759E-01	4.592E-01	3.669E-02	2.665
	*	98.88		2.248E-01	2.409E-01	3.780E-01	2.885E-02	0.595
TL-200		129.76		3.547E+00	2.921E+00	4.940E+00	2.857E-01	0.718
	*	367.94		-8.683E-04	2.921E+00	Half-Life	too short	
		579.30		6.052E-04	2.921E+00	Half-Life	too short	
		828.27		1.425E-02	2.921E+00	Half-Life	too short	
TL-201		1205.75		1.973E-03	2.921E+00	Half-Life	too short	
		68.90		6.330E+00	8.164E+00	1.215E+01	9.319E-01	0.521
		70.82		3.597E+00	4.642E+00	6.903E+00	5.344E-01	0.521
		80.30		1.831E+00	8.696E+00	1.262E+01	1.048E+00	0.145
		135.34		-1.331E+01	4.197E+01	6.733E+01	3.825E+00	-0.198
TL-202	*	167.43		-4.439E+00	1.095E+01	1.738E+01	9.080E-01	-0.255
		68.90		3.982E-01	5.136E-01	7.646E-01	5.862E-02	0.521
		70.82		2.257E-01	2.912E-01	4.330E-01	3.352E-02	0.521
		80.30		1.149E-01	5.457E-01	7.922E-01	6.575E-02	0.145
HG-203	*	439.56		5.136E-02	7.215E-02	1.250E-01	7.176E-03	0.411
		70.83		8.731E-01	1.161E+00	1.720E+00	2.247E-01	0.508
		72.87		2.083E+00	7.722E-01	1.155E+00	1.468E-01	1.803
		82.60		-7.966E-02	1.735E+00	1.791E+00	2.446E-01	-0.044
	*	279.20		2.236E-02	3.971E-02	6.849E-02	4.211E-03	0.327

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		5.789E-01	2.089E-01	3.248E-01	2.544E-02	1.782
	+	74.97		6.735E-01	1.518E-01	2.303E-01	1.830E-02	2.925
		84.90		3.163E-01	2.142E-01	3.227E-01	2.800E-02	0.980
		569.67		1.075E-01	3.787E-02	7.043E-02	4.181E-03	1.526
		1063.62	*	-3.213E-02	5.277E-02	8.334E-02	5.918E-03	-0.386
TL-207		1770.23		2.845E-02	4.076E-01	5.825E-01	3.514E-02	0.049
		81.07		-2.740E-01	2.420E-01	3.299E-01	2.757E-02	-0.831
		83.78		7.757E-02	1.627E-01	2.024E-01	1.737E-02	0.383
		94.90		6.752E-01	2.654E-01	4.138E-01	3.331E-02	1.632
		122.32		1.073E-01	1.714E+00	2.797E+00	1.910E-01	0.038
		144.24		1.554E-01	6.957E-01	1.125E+00	7.900E-02	0.138
		154.21		-1.903E-01	4.141E-01	6.585E-01	4.395E-02	-0.289
	+	269.46		4.701E-01	2.748E-01	3.485E-01	2.102E-02	1.349
		323.87	*	5.032E-02	6.625E-01	9.724E-01	1.606E-01	0.052
	+	338.28		5.870E+00	1.828E+00	2.302E+00	2.422E-01	2.550
PO-209		445.03		-1.284E+00	2.067E+00	3.281E+00	3.362E-01	-0.391
		260.50		-3.589E+00	9.701E+00	1.518E+01	8.716E-01	-0.236
		262.80		-9.114E-01	2.646E+01	4.213E+01	2.422E+00	-0.022
		896.60	*	3.795E+00	7.365E+00	1.242E+01	1.092E+00	0.306
BI-210		46.50	*	4.031E+00	3.074E+00	5.254E+00	4.005E-01	0.767
PB-210		46.50	*	4.031E+00	3.074E+00	5.254E+00	4.005E-01	0.767
PO-210		46.50	*	4.031E+00	3.070E+00	5.254E+00	3.424E-01	0.767
PB-211		404.84	*	-3.250E-01	9.280E-01	1.477E+00	9.207E-01	-0.220
BI-212		427.08		-9.097E-01	1.927E+00	2.965E+00	1.832E+00	-0.307
		831.96		-6.528E-01	1.255E+00	1.827E+00	1.143E+00	-0.357
	+	727.18	*	1.300E+00	6.226E-01	6.702E-01	5.580E-02	1.939
		785.46		2.573E+00	1.857E+00	3.300E+00	2.413E-01	0.780
		1620.62		-1.345E-01	1.065E+00	1.709E+00	1.141E-01	-0.079
PO-215		81.07		-2.740E-01	2.420E-01	3.299E-01	2.757E-02	-0.831
		83.78		7.757E-02	1.627E-01	2.024E-01	1.737E-02	0.383
		94.90		6.752E-01	2.654E-01	4.138E-01	3.331E-02	1.632
		122.32		1.073E-01	1.714E+00	2.797E+00	1.910E-01	0.038
		144.24		1.554E-01	6.957E-01	1.125E+00	7.900E-02	0.138
		154.21		-1.903E-01	4.141E-01	6.585E-01	4.395E-02	-0.289
	+	269.46		4.701E-01	2.748E-01	3.485E-01	2.102E-02	1.349
		323.87	*	5.032E-02	6.625E-01	9.724E-01	1.606E-01	0.052
	+	338.28		5.870E+00	1.828E+00	2.302E+00	2.422E-01	2.550
		445.03		-1.284E+00	2.067E+00	3.281E+00	3.362E-01	-0.391
RN-219	+	271.23		6.031E-01	3.541E-01	4.473E-01	3.616E-02	1.348
		401.81	*	2.005E-01	3.747E-01	6.418E-01	8.680E-02	0.312
RN-220		549.76	*	7.419E+00	2.483E+01	4.174E+01	2.477E+00	0.178
RA-223		81.07		-2.740E-01	2.420E-01	3.299E-01	2.757E-02	-0.831
		83.78		7.757E-02	1.627E-01	2.024E-01	1.737E-02	0.383
		94.90		6.752E-01	2.654E-01	4.138E-01	3.331E-02	1.632
		122.32		1.073E-01	1.714E+00	2.797E+00	1.910E-01	0.038
		144.24		1.554E-01	6.957E-01	1.125E+00	7.900E-02	0.138
		154.21		-1.903E-01	4.141E-01	6.585E-01	4.395E-02	-0.289
	+	269.46		4.701E-01	2.748E-01	3.485E-01	2.102E-02	1.349
		323.87	*	5.032E-02	6.625E-01	9.724E-01	1.606E-01	0.052

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28		5.870E+00	1.828E+00	2.302E+00	2.422E-01	2.550
		445.03		-1.284E+00	2.067E+00	3.281E+00	3.362E-01	-0.391
		79.80		2.129E+00	1.840E+00	2.693E+00	5.753E-01	0.790
		236.00		1.897E+00	3.694E-01	5.552E-01	5.755E-02	3.417
		256.20	*	-3.417E-02	3.789E-01	6.020E-01	8.387E-02	-0.057
		286.10		2.625E-01	1.436E+00	2.436E+00	2.816E-01	0.108
TH-227	+	299.80		4.934E+00	1.788E+00	2.588E+00	4.216E-01	1.907
		304.40		4.021E-01	1.918E+00	2.846E+00	4.925E-01	0.141
		334.20		1.543E+00	3.498E+00	3.640E+00	6.673E-01	0.424
		79.80		2.129E+00	1.842E+00	2.693E+00	5.828E-01	0.790
	+	94.00		7.891E+00	3.190E+00	3.702E+00	7.995E-01	2.132
		236.00		1.897E+00	3.559E-01	5.552E-01	4.973E-02	3.417
TH-229		256.20	*	-3.417E-02	3.789E-01	6.020E-01	1.016E-01	-0.057
		286.10		2.625E-01	1.459E+00	2.436E+00	2.440E+00	0.108
	+	299.80		4.934E+00	1.788E+00	2.588E+00	4.216E-01	1.907
		304.40		4.021E-01	1.918E+00	2.846E+00	4.925E-01	0.141
		334.20		1.543E+00	3.498E+00	3.640E+00	6.673E-01	0.424
		85.43		5.339E-01	2.207E-01	3.384E-01	2.952E-02	1.578
PA-231	+	88.47		2.743E-01	1.444E-01	2.133E-01	1.896E-02	1.286
		100.00		6.654E-02	1.898E-01	3.093E-01	2.327E-02	0.215
		193.63	*	-4.193E-02	5.193E-01	8.329E-01	4.494E-02	-0.050
		210.97		1.369E+00	8.213E-01	1.261E+00	6.941E-02	1.086
		283.67	*	-4.997E-01	1.394E+00	2.303E+00	3.173E-01	-0.217
		301.29		1.376E+00	6.273E-01	1.019E+00	1.066E-01	1.350
TH-231		81.07		-2.740E-01	2.420E-01	3.299E-01	2.757E-02	-0.831
		83.78		7.757E-02	1.627E-01	2.024E-01	1.737E-02	0.383
		94.90		6.752E-01	2.654E-01	4.138E-01	3.331E-02	1.632
		122.32		1.073E-01	1.714E+00	2.797E+00	1.910E-01	0.038
		144.24		1.554E-01	6.957E-01	1.125E+00	7.900E-02	0.138
		154.21		-1.903E-01	4.141E-01	6.585E-01	4.395E-02	-0.289
U-231	+	269.46		4.701E-01	2.748E-01	3.485E-01	2.102E-02	1.349
		323.87	*	5.032E-02	6.625E-01	9.724E-01	1.606E-01	0.052
	+	338.28		5.870E+00	1.828E+00	2.302E+00	2.422E-01	2.550
		445.03		-1.284E+00	2.067E+00	3.281E+00	3.362E-01	-0.391
		84.21		5.354E+00	9.021E+00	1.239E+01	1.067E+00	0.432
	+	92.29		1.100E+01	3.866E+00	5.549E+00	4.641E-01	1.983
PA-233		95.87	*	-6.507E-01	1.723E+00	2.424E+00	1.925E-01	-0.268
		108.00		-7.533E-03	3.023E+00	4.933E+00	3.383E-01	-0.002
	+	75.28		1.965E+01	5.085E+00	7.096E+00	1.064E+00	2.769
	+	86.59		3.933E+00	2.299E+00	3.040E+00	8.174E-01	1.294
	+	300.12		1.376E+00	4.822E-01	7.179E-01	9.652E-02	1.916
		311.98	*	-3.685E-03	6.218E-02	1.041E-01	6.426E-03	-0.035
PA-234		340.50		1.689E+00	7.993E-01	1.170E+00	2.686E-01	1.444
		398.62		-2.130E+00	1.947E+00	2.888E+00	7.453E-01	-0.738
		415.76		2.736E-01	1.516E+00	2.547E+00	5.234E-01	0.107
	+	63.00		1.642E+00	1.879E+00	2.449E+00	3.655E-01	0.671
		94.67		6.354E-01	2.029E-01	3.074E-01	3.698E-02	2.067
		98.44		7.877E-02	1.074E-01	1.533E-01	8.531E-02	0.514
		99.86		1.771E-01	4.798E-01	7.822E-01	5.896E-02	0.226

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00	1.350E-01	1.843E-01	3.076E-01	3.312E-02	0.439
		131.20	-3.248E-02	1.097E-01	1.763E-01	1.015E-02	-0.184
		152.70	-2.869E-02	3.339E-01	5.388E-01	8.442E-02	-0.053
	+	186.00	3.819E+00	2.094E+00	2.399E+00	7.310E-01	1.592
		226.40	3.869E-02	3.989E-01	6.420E-01	7.357E-02	0.060
		227.20	7.584E-02	4.309E-01	6.959E-01	3.896E-02	0.109
		248.90	-2.745E-01	8.014E-01	1.254E+00	2.691E-01	-0.219
	+	293.70	6.274E+00	1.491E+00	1.677E+00	2.697E-01	3.741
		369.80	-6.494E-02	7.656E-01	1.272E+00	2.644E-01	-0.051
	+	568.70	5.672E+00	2.365E+00	2.536E+00	1.505E-01	2.237
		569.50	9.003E-01	3.561E-01	6.386E-01	3.791E-02	1.410
		574.00	6.224E-01	1.617E+00	2.392E+00	1.420E-01	0.260
		699.00	-3.889E-01	7.046E-01	1.095E+00	1.986E-01	-0.355
		706.10	1.039E-02	1.054E+00	1.719E+00	7.599E-01	0.006
		733.00	-1.138E-02	4.007E-01	5.614E-01	1.208E-01	-0.020
		742.81	2.149E+00	1.954E+00	2.420E+00	1.621E+00	0.888
		796.30	1.174E+00	9.396E-01	1.583E+00	4.228E-01	0.742
		805.60	1.150E-01	9.634E-01	1.576E+00	4.788E-01	0.073
		819.60	-1.594E-01	1.200E+00	1.918E+00	7.259E-01	-0.083
		826.30	-2.574E-01	7.915E-01	1.229E+00	5.483E-01	-0.209
		831.60	-4.386E-01	6.197E-01	9.172E-01	2.719E-01	-0.478
		876.40	5.781E-01	1.069E+00	1.512E+00	1.554E+00	0.382
		880.51	-1.412E-01	2.892E-01	4.458E-01	3.820E-02	-0.317
		883.24	-1.505E-02	2.698E-01	4.328E-01	2.909E-01	-0.035
		899.00	1.762E-01	8.211E-01	1.344E+00	5.882E-01	0.131
		925.00	-3.104E-01	1.108E+00	1.735E+00	1.490E-01	-0.179
		926.50	-1.806E-01	1.779E-01	2.455E-01	6.203E-02	-0.735
		946.00	* 3.030E-01	3.190E-01	5.468E-01	1.021E-01	0.554
		949.00	-1.822E-02	4.779E-01	7.662E-01	6.420E-02	-0.024
		980.50	2.648E-02	7.063E-01	1.138E+00	9.188E-02	0.023
PA-234M		1394.10	-2.526E-01	1.020E+00	1.607E+00	1.044E+00	-0.157
		766.42	1.036E+01	1.280E+01	1.994E+01	1.007E+01	0.520
U-235	+	1001.03	* 2.067E+00	4.581E+00	7.863E+00	7.320E-01	0.263
	+	89.95	2.058E+00	9.888E-01	1.876E+00	5.793E-01	1.097
	+	93.35	2.455E+00	1.083E+00	1.176E+00	3.281E-01	2.088
		105.00	5.838E-01	1.123E+00	1.832E+00	5.393E-01	0.319
		143.76	* 1.656E-02	2.155E-01	3.468E-01	5.623E-02	0.048
		163.35	1.650E-01	4.658E-01	7.622E-01	1.358E-01	0.216
	+	185.71	1.414E-01	6.492E-02	8.905E-02	4.758E-03	1.588
		205.31	-3.430E-02	5.790E-01	8.088E-01	1.446E-01	-0.042
NP-236		94.67	4.841E-01	1.479E-01	2.333E-01	1.885E-02	2.075
		98.44	5.957E-02	7.422E-02	1.159E-01	8.894E-03	0.514
		111.00	1.021E-01	1.391E-01	2.326E-01	1.546E-02	0.439
		160.31	* -4.626E-02	8.031E-02	1.268E-01	6.718E-03	-0.365
NP-239		99.55	9.089E-02	1.592E-01	2.612E-01	1.977E-02	0.348
		117.00	* -1.457E-01	1.875E-01	2.944E-01	1.841E-02	-0.495
	+	209.75	1.773E+00	1.112E+00	1.346E+00	7.401E-02	1.318
		228.18	1.579E-02	2.248E-01	3.612E-01	2.024E-02	0.044
		277.60	3.405E-01	1.761E-01	3.126E-01	1.809E-02	1.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		8.218E-01	1.975E+00	2.054E+00	1.189E-01	0.400
AM-241		59.54	*	4.124E-02	1.550E-01	2.272E-01	1.871E-02	0.181
CM-243		99.55		9.354E-02	1.639E-01	2.688E-01	2.034E-02	0.348
		103.76	*	1.013E-02	1.015E-01	1.651E-01	1.188E-02	0.061
		117.00		-1.500E-01	1.930E-01	3.029E-01	1.894E-02	-0.495
	+	209.75		1.748E+00	1.096E+00	1.327E+00	7.297E-02	1.318
		228.18		1.595E-02	2.271E-01	3.650E-01	2.046E-02	0.044
		277.60		3.433E-01	1.776E-01	3.152E-01	1.824E-02	1.089
AM-246		798.80		-2.387E-01	1.449E-01	2.004E-01	1.500E-02	-1.191
		1036.00		-4.897E-02	2.808E-01	4.636E-01	3.453E-02	-0.106
		1062.04		-1.836E-01	2.331E-01	3.623E-01	2.580E-02	-0.507
		1078.86	*	9.636E-02	1.426E-01	2.513E-01	1.733E-02	0.384
CM-247		278.00		1.047E+00	7.157E-01	1.275E+00	7.381E-02	0.821
		287.40		3.535E-01	1.224E+00	1.977E+00	1.147E-01	0.179
		402.60	*	2.785E-02	3.440E-02	5.985E-02	3.357E-03	0.465
CF-249		252.85		2.352E-01	8.560E-01	1.386E+00	7.923E-02	0.170
		333.44		9.586E-02	2.577E-01	2.664E-01	1.543E-02	0.360
		387.95	*	7.247E-03	3.933E-02	6.622E-02	3.698E-03	0.109
CF-251		176.60	*	4.688E-02	1.255E-01	2.056E-01	1.086E-02	0.228
		227.00		8.431E-02	3.827E-01	6.193E-01	3.467E-02	0.136
		285.00		2.480E-01	1.610E+00	2.729E+00	1.583E-01	0.091

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344003      *
* Acquisition date   : 18-FEB-2010 16:58:19 Detector SN#      :              *
* Detector ID        : GAM19 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       : 1-FEB-2010 12:00:00 Nuclide Library : SOLID      *
* Sample ID         : G246344003 Analyst initials: MXR1          *
* Batch Number      : 950787 Sample Quantity : 1.4381E+02 GRAM   *
* Recovery          : 1.00000 Carrier Weight  : 0.00000         *
*****
*
*                                     QC DATA                              *
*
* Standard Weight   : 0.00000                                             *
* CALIB. DATE/TIME  : 12-MAR-2009 10:24:54 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	3.382E+01	3.025E+00	4.959E-01	0.000E+00
CD-109	2.050E+00	1.058E+00	1.337E+00	0.000E+00
SN-126	2.009E-01	1.037E-01	1.439E-01	0.000E+00
TL-208	4.798E-01	7.924E-02	5.912E-02	0.000E+00
BI-211	3.290E+00	4.467E-01	3.477E-01	0.000E+00
PB-212	1.449E+00	1.465E-01	9.577E-02	0.000E+00
PO-212	1.449E+00	1.465E-01	9.577E-02	0.000E+00
BI-214	1.042E+00	1.717E-01	1.085E-01	0.000E+00
PB-214	1.145E+00	1.660E-01	1.115E-01	0.000E+00
PO-214	1.145E+00	1.660E-01	1.115E-01	0.000E+00
PO-216	1.449E+00	1.465E-01	9.577E-02	0.000E+00
PO-218	1.145E+00	1.660E-01	1.115E-01	0.000E+00
RA-224	3.550E+00	1.385E+00	1.089E+00	0.000E+00
RA-226	1.042E+00	1.717E-01	1.085E-01	0.000E+00
AC-228	1.702E+00	3.249E-01	1.948E-01	0.000E+00
RA-228	1.702E+00	3.249E-01	1.948E-01	0.000E+00
TH-228	1.474E+00	1.490E-01	9.742E-02	0.000E+00
TH-230	1.042E+00	1.717E-01	1.085E-01	0.000E+00
TH-232	1.702E+00	3.249E-01	1.948E-01	0.000E+00
TH-234	1.409E+00	1.584E+00	2.154E+00	0.000E+00
U-234	1.042E+00	1.717E-01	1.085E-01	0.000E+00
NP-237	5.899E-01	3.270E-01	4.023E-01	0.000E+00
U-238	1.409E+00	1.584E+00	2.154E+00	0.000E+00
AM-243	3.752E-01	8.289E-02	9.111E-02	0.000E+00
ANH-511	1.229E-01	6.719E-02	4.528E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	2.287E-02	2.993E-01	5.235E-01	0.000E+00 NOT IDENT.
NA-22	-7.434E-03	4.504E-02	7.586E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	6.642E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.007E-02	2.674E-02	3.750E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.213E-02	8.450E-02	0.000E+00	FAIL ABUN
SC-46	-3.901E-03	3.496E-02	5.784E-02	0.000E+00	FAIL ABUN
V-48	-9.990E-03	7.500E-02	1.230E-01	0.000E+00	NOT IDENT.
CR-51	-1.076E-01	3.521E-01	6.165E-01	0.000E+00	NOT IDENT.
MN-52	-4.026E-02	2.704E-01	4.489E-01	0.000E+00	NOT IDENT.
MN-54	-1.591E-02	3.763E-02	6.108E-02	0.000E+00	NOT IDENT.
CO-56	-5.341E-03	3.990E-02	6.622E-02	0.000E+00	NOT IDENT.
CO-57	-2.985E-03	2.476E-02	4.343E-02	0.000E+00	NOT IDENT.
CO-58	-4.696E-02	3.697E-02	5.450E-02	0.000E+00	NOT IDENT.
FE-59	1.430E-04	9.180E-02	1.585E-01	0.000E+00	NOT IDENT.
CO-60	6.897E-03	3.912E-02	6.775E-02	0.000E+00	NOT IDENT.
ZN-65	-8.357E-02	9.904E-02	1.319E-01	0.000E+00	NOT IDENT.
GE-68	-2.293E-01	1.262E+00	2.150E+00	0.000E+00	NOT IDENT.
AS-73	3.739E-01	7.560E-01	1.397E+00	0.000E+00	NOT IDENT.
AS-74	7.515E-02	8.845E-02	1.611E-01	0.000E+00	NOT IDENT.
SE-75	-3.520E-03	4.662E-02	7.265E-02	0.000E+00	NOT IDENT.
BR-77	-3.538E+00	1.713E+01	2.922E+01	0.000E+00	FAIL ABUN
SR-82	-1.810E-01	3.784E-01	6.129E-01	0.000E+00	NOT IDENT.
RB-83	-2.418E-02	6.427E-02	1.052E-01	0.000E+00	NOT IDENT.
RB-84	-1.172E-02	7.126E-02	1.175E-01	0.000E+00	NOT IDENT.
KR-85	8.369E+00	7.243E+00	1.197E+01	0.000E+00	NOT IDENT.
SR-85	4.386E-02	3.796E-02	6.274E-02	0.000E+00	NOT IDENT.
RB-86	-2.612E-01	8.518E-01	1.436E+00	0.000E+00	NOT IDENT.
Y-88	-1.706E-03	2.846E-02	4.669E-02	0.000E+00	NOT IDENT.
ZR-88	9.286E-03	2.843E-02	5.095E-02	0.000E+00	NOT IDENT.
Y-91	4.995E+00	1.926E+01	3.365E+01	0.000E+00	NOT IDENT.
NB-94	-4.772E-03	3.182E-02	5.348E-02	0.000E+00	NOT IDENT.
NB-95	-2.631E-03	4.379E-02	7.283E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.568E-01	2.646E-01	0.000E+00	NOT IDENT.
ZR-95	3.491E-02	6.738E-02	1.187E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.832E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.546E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.133E+01	1.867E+01	2.993E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.244E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.448E-02	3.295E-02	5.501E-02	0.000E+00	NOT IDENT.
RH-102	-1.054E-02	2.665E-02	4.519E-02	0.000E+00	NOT IDENT.
RU-103	-1.628E-02	3.970E-02	6.699E-02	0.000E+00	FAIL ABUN
RH-106	-1.195E-01	2.930E-01	4.857E-01	0.000E+00	FAIL ABUN
RU-106	-1.195E-01	2.928E-01	4.857E-01	0.000E+00	FAIL ABUN
AG-108M	-1.242E-02	2.973E-02	5.066E-02	0.000E+00	NOT IDENT.
AG-110M	4.286E-03	3.134E-02	5.408E-02	0.000E+00	NOT IDENT.
IN-111	2.314E-01	2.003E+00	3.000E+00	0.000E+00	NOT IDENT.
IN-113M	8.653E-04	4.180E-02	7.367E-02	0.000E+00	NOT IDENT.
SN-113	8.653E-04	4.180E-02	7.367E-02	0.000E+00	NOT IDENT.
IN-114M	5.450E-02	2.065E-01	3.160E-01	0.000E+00	NOT IDENT.
CD-115	-1.089E+01	1.975E+01	3.220E+01	0.000E+00	NOT IDENT.
SN-117M	-6.701E-03	6.158E-02	1.068E-01	0.000E+00	NOT IDENT.
SB-122	6.238E+00	3.877E+00	6.609E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.142E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-7.833E-03	2.881E-02	4.965E-02	0.000E+00	NOT IDENT.
I-124	4.880E-01	1.005E+00	1.564E+00	0.000E+00	NOT IDENT.
SB-124	-3.847E-02	6.237E-02	9.091E-02	0.000E+00	FAIL ABUN
SB-125	-3.673E-02	8.042E-02	1.367E-01	0.000E+00	FAIL ABUN
TE-125M	-3.197E+00	9.516E+00	1.664E+01	0.000E+00	NOT IDENT.
I-126	1.524E-01	1.867E-01	3.371E-01	0.000E+00	NOT IDENT.
SB-126	-6.458E-02	1.730E-01	2.425E-01	0.000E+00	NOT IDENT.
SB-127	-4.095E-02	1.948E+00	3.312E+00	0.000E+00	NOT IDENT.
XE-127	-6.007E-03	5.089E-02	8.036E-02	0.000E+00	NOT IDENT.
I-131	4.420E-02	1.198E-01	2.161E-01	0.000E+00	NOT IDENT.
TE-132	7.798E-02	1.051E+00	1.804E+00	0.000E+00	NOT IDENT.
BA-133	4.310E-02	4.227E-02	6.989E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.063E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.325E-02	4.428E-02	8.351E-02	0.000E+00	NOT IDENT.
CS-135	2.913E-01	1.748E-01	2.969E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.109E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.269E-02	1.045E-01	1.742E-01	0.000E+00	FAIL ABUN
BA-137M	-1.224E-02	3.475E-02	5.778E-02	0.000E+00	NOT IDENT.
CS-137	-1.293E-02	3.673E-02	6.107E-02	0.000E+00	NOT IDENT.
CE-139	-2.295E-02	2.949E-02	4.961E-02	0.000E+00	NOT IDENT.
BA-140	-9.921E-02	2.801E-01	4.695E-01	0.000E+00	NOT IDENT.
LA-140	-6.888E-02	8.615E-02	1.269E-01	0.000E+00	FAIL ABUN
CE-141	-3.576E-03	6.568E-02	1.134E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.619E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	7.126E-03	2.056E-01	3.614E-01	0.000E+00	NOT IDENT.
PM-144	1.758E-02	3.274E-02	5.783E-02	0.000E+00	NOT IDENT.
PR-144	1.192E+00	2.221E+00	3.923E+00	0.000E+00	NOT IDENT.

PM-146	-1.404E-02	3.966E-02	6.765E-02	0.000E+00	NOT IDENT.
ND-147	4.213E-02	6.078E-01	1.056E+00	0.000E+00	FAIL ABUN
PM-149	2.167E+01	1.612E+02	2.901E+02	0.000E+00	NOT IDENT.
EU-152	-1.150E-01	1.463E-01	1.624E-01	0.000E+00	FAIL ABUN
GD-153	7.173E-03	8.700E-02	1.361E-01	0.000E+00	NOT IDENT.
EU-154	-1.758E-02	1.250E-01	2.110E-01	0.000E+00	NOT IDENT.
EU-155	9.285E-03	1.132E-01	1.998E-01	0.000E+00	FAIL ABUN
TB-160	-3.020E-02	1.423E-01	2.338E-01	0.000E+00	FAIL ABUN
HO-166M	-2.110E-02	6.104E-02	1.010E-01	0.000E+00	NOT IDENT.
TM-171	-3.699E+01	3.090E+01	4.626E+01	0.000E+00	NOT IDENT.
LU-176	-8.788E-04	2.231E-02	3.970E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.906E+00	2.542E+00	0.000E+00	FAIL ABUN
LU-177M	-9.993E-02	1.664E-01	2.817E-01	0.000E+00	FAIL ABUN
HF-181	-4.474E-02	4.057E-02	6.519E-02	0.000E+00	NOT IDENT.
W-181	7.311E-02	3.926E-01	6.266E-01	0.000E+00	NOT IDENT.
TA-182	-7.216E-02	2.046E-01	3.400E-01	0.000E+00	FAIL ABUN
RE-183	1.454E-02	1.086E-01	1.900E-01	0.000E+00	FAIL ABUN
RE-184	6.323E-02	2.255E-01	3.893E-01	0.000E+00	NOT IDENT.
OS-185	-7.985E-03	3.799E-02	6.380E-02	0.000E+00	NOT IDENT.
RE-188	1.213E-01	1.768E-01	3.157E-01	0.000E+00	NOT IDENT.
W-188	-2.940E+00	7.983E+00	1.213E+01	0.000E+00	FAIL ABUN
IR-192	1.743E-02	3.305E-02	6.030E-02	0.000E+00	FAIL ABUN
AU-195	2.248E-01	2.361E-01	4.028E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.537E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.439E+00	1.073E+01	1.832E+01	0.000E+00	NOT IDENT.
TL-202	5.136E-02	7.071E-02	1.290E-01	0.000E+00	NOT IDENT.
HG-203	2.236E-02	3.892E-02	7.140E-02	0.000E+00	NOT IDENT.
BI-207	-3.213E-02	5.171E-02	8.436E-02	0.000E+00	FAIL ABUN
TL-207	5.032E-02	6.492E-01	1.011E+00	0.000E+00	FAIL ABUN
PO-209	3.795E+00	7.218E+00	1.262E+01	0.000E+00	NOT IDENT.
BI-210	4.031E+00	3.013E+00	5.684E+00	0.000E+00	NOT IDENT.
PB-210	4.031E+00	3.013E+00	5.684E+00	0.000E+00	NOT IDENT.
PO-210	4.031E+00	3.009E+00	5.684E+00	0.000E+00	NOT IDENT.
PB-211	-3.250E-01	9.094E-01	1.528E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.101E-01	6.843E-01	0.000E+00	FAIL ABUN
PO-215	5.032E-02	6.492E-01	1.011E+00	0.000E+00	FAIL ABUN
RN-219	2.005E-01	3.672E-01	6.639E-01	0.000E+00	FAIL ABUN
RN-220	7.419E+00	2.434E+01	4.288E+01	0.000E+00	NOT IDENT.
RA-223	5.032E-02	6.492E-01	1.011E+00	0.000E+00	FAIL ABUN
AC-227	-3.417E-02	3.713E-01	6.288E-01	0.000E+00	FAIL ABUN
TH-227	-3.417E-02	3.714E-01	6.288E-01	0.000E+00	FAIL ABUN
TH-229	-4.193E-02	5.089E-01	8.752E-01	0.000E+00	FAIL ABUN
PA-231	-4.997E-01	1.366E+00	2.400E+00	0.000E+00	NOT IDENT.
TH-231	5.032E-02	6.492E-01	1.011E+00	0.000E+00	FAIL ABUN
U-231	-6.507E-01	1.688E+00	2.584E+00	0.000E+00	FAIL ABUN
PA-233	-3.685E-03	6.094E-02	1.082E-01	0.000E+00	FAIL ABUN
PA-234	3.030E-01	3.126E-01	5.550E-01	0.000E+00	FAIL ABUN
PA-234M	2.067E+00	4.489E+00	7.970E+00	0.000E+00	NOT IDENT.
U-235	1.656E-02	2.112E-01	3.667E-01	0.000E+00	FAIL ABUN
NP-236	-4.626E-02	7.870E-02	1.338E-01	0.000E+00	NOT IDENT.
NP-239	-1.457E-01	1.838E-01	3.126E-01	0.000E+00	FAIL ABUN
AM-241	4.124E-02	1.519E-01	2.446E-01	0.000E+00	NOT IDENT.
CM-243	1.013E-02	9.944E-02	1.758E-01	0.000E+00	FAIL ABUN
AM-246	9.636E-02	1.398E-01	2.543E-01	0.000E+00	NOT IDENT.
CM-247	2.785E-02	3.371E-02	6.191E-02	0.000E+00	NOT IDENT.
CF-249	7.247E-03	3.855E-02	6.855E-02	0.000E+00	NOT IDENT.
CF-251	4.688E-02	1.230E-01	2.164E-01	0.000E+00	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344003.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:58:19
Sample ID          : G246344003          Sample quantity  : 1.43810E+02 GRAM
Detector name      : GAM19              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           : 950787             Detector SN#      :
Matrix Spike ID    :                   LCS ID            : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1615	10.67*	1.169E+00	3.382E+01	3.382E+01	9.13
CD-109	88.03	173	3.72*	6.079E+00	1.998E+00	2.050E+00	52.66
SN-126	64.28	74	9.60	3.585E+00	5.577E-01	5.577E-01	114.34
	86.94	173	8.90	6.079E+00	8.352E-01	8.352E-01	66.41
	87.57	173	37.00*	6.079E+00	2.009E-01	2.009E-01	52.66
TL-208	277.35	-----	6.80	4.511E+00	-----	Line Not Found	-----
	510.84	134	21.60	2.843E+00	5.688E-01	5.688E-01	56.42
	583.14	395	84.20*	2.555E+00	4.798E-01	4.798E-01	16.85
	860.37	52	12.46	1.836E+00	5.972E-01	5.972E-01	69.58
BI-211	72.87	-----	1.27	4.857E+00	-----	Line Not Found	-----
	351.07	618	12.94*	3.788E+00	3.290E+00	3.290E+00	13.85
PB-212	74.81	480	10.70	5.057E+00	2.314E+00	2.314E+00	24.40
	77.11	692	18.00	5.304E+00	1.893E+00	1.893E+00	15.23
	87.30	173	8.00	6.079E+00	9.291E-01	9.291E-01	53.60
	238.63	1242	44.60*	5.018E+00	1.449E+00	1.449E+00	10.32
	300.09	148	3.41	4.265E+00	2.662E+00	2.662E+00	33.41
PO-212	74.81	480	10.70	5.057E+00	2.314E+00	2.314E+00	24.40
	77.11	692	18.00	5.304E+00	1.893E+00	1.893E+00	15.23
	87.30	173	8.00	6.079E+00	9.291E-01	9.291E-01	53.60
	115.19	-----	0.60	6.866E+00	-----	Line Not Found	-----
	238.63	1242	44.60*	5.018E+00	1.449E+00	1.449E+00	10.32
	300.09	148	3.41	4.265E+00	2.662E+00	2.662E+00	33.41
BI-214	609.31	455	46.30*	2.465E+00	1.042E+00	1.042E+00	16.82
	1120.29	133	15.10	1.455E+00	1.575E+00	1.575E+00	31.68
	1764.49	99	15.80	1.030E+00	1.592E+00	1.592E+00	22.00
PB-214	74.81	480	6.21	5.057E+00	3.987E+00	3.987E+00	23.73
	77.11	692	10.50	5.304E+00	3.245E+00	3.245E+00	17.03
	87.30	173	4.67	6.079E+00	1.592E+00	1.592E+00	53.22
	241.98	268	7.49	4.980E+00	1.872E+00	1.872E+00	40.19
	295.21	415	19.20	4.315E+00	1.307E+00	1.307E+00	19.46
	351.92	618	37.20*	3.788E+00	1.145E+00	1.145E+00	14.80
PO-214	74.81	480	6.21	5.057E+00	3.987E+00	3.987E+00	23.73

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-216	77.11	692	10.50	5.304E+00	3.245E+00	3.245E+00	17.03
	87.30	173	4.67	6.079E+00	1.592E+00	1.592E+00	53.22
	241.98	268	7.49	4.980E+00	1.872E+00	1.872E+00	40.19
	295.21	415	19.20	4.315E+00	1.307E+00	1.307E+00	19.46
	351.92	618	37.20*	3.788E+00	1.145E+00	1.145E+00	14.80
	74.81	480	10.70	5.057E+00	2.314E+00	2.314E+00	24.40
	77.11	692	18.00	5.304E+00	1.893E+00	1.893E+00	15.23
	87.30	173	8.00	6.079E+00	9.291E-01	9.291E-01	53.60
	238.63	1242	44.60*	5.018E+00	1.449E+00	1.449E+00	10.32
	300.09	148	3.41	4.265E+00	2.662E+00	2.662E+00	33.41
PO-218	74.81	480	6.21	5.057E+00	3.987E+00	3.987E+00	23.73
	77.11	692	10.50	5.304E+00	3.245E+00	3.245E+00	17.03
	87.30	173	4.67	6.079E+00	1.592E+00	1.592E+00	53.22
	241.98	268	7.49	4.980E+00	1.872E+00	1.872E+00	40.19
	295.21	415	19.20	4.315E+00	1.307E+00	1.307E+00	19.46
RA-224	351.92	618	37.20*	3.788E+00	1.145E+00	1.145E+00	14.80
	240.98	268	3.95*	4.980E+00	3.550E+00	3.550E+00	39.80
	609.31	455	46.30*	2.465E+00	1.042E+00	1.042E+00	16.82
RA-226	1120.29	133	15.10	1.455E+00	1.575E+00	1.575E+00	31.68
	1764.49	99	15.80	1.030E+00	1.592E+00	1.592E+00	22.00
AC-228	338.32	240	11.40	3.903E+00	1.406E+00	1.406E+00	50.20
	911.07	315	27.70*	1.746E+00	1.702E+00	1.702E+00	19.48
	969.11	189	16.60	1.654E+00	1.800E+00	1.800E+00	31.08
RA-228	338.32	240	11.40	3.903E+00	1.406E+00	1.406E+00	50.20
	911.07	315	27.70*	1.746E+00	1.702E+00	1.702E+00	19.48
	969.11	189	16.60	1.654E+00	1.800E+00	1.800E+00	31.08
TH-228	74.81	480	10.70	5.057E+00	2.314E+00	2.354E+00	22.57
	77.11	692	18.00	5.304E+00	1.893E+00	1.926E+00	15.23
	87.30	173	8.00	6.079E+00	9.291E-01	9.452E-01	52.66
	238.63	1242	44.60*	5.018E+00	1.449E+00	1.474E+00	10.32
TH-230	300.09	148	3.41	4.265E+00	2.662E+00	2.708E+00	67.25
	609.31	455	46.30*	2.465E+00	1.042E+00	1.042E+00	16.82
	1120.29	133	15.10	1.455E+00	1.575E+00	1.575E+00	31.68
	1764.49	99	15.80	1.030E+00	1.592E+00	1.592E+00	22.00
TH-232	338.32	240	11.40	3.903E+00	1.406E+00	1.406E+00	29.87
	911.07	315	27.70*	1.746E+00	1.702E+00	1.702E+00	19.48
	969.11	189	16.60	1.654E+00	1.800E+00	1.800E+00	31.08
TH-234	63.29	74	3.80*	3.585E+00	1.409E+00	1.409E+00	114.74
	92.38	271	5.41	6.401E+00	2.042E+00	2.042E+00	38.56
U-234	609.31	455	46.30*	2.465E+00	1.042E+00	1.042E+00	16.82
	1120.29	133	15.10	1.455E+00	1.575E+00	1.575E+00	31.68
	1764.49	99	15.80	1.030E+00	1.592E+00	1.592E+00	22.00
NP-237	86.50	173	12.60*	6.079E+00	5.899E-01	5.899E-01	56.56
	95.87	-----	2.60	6.515E+00	-----	Line Not Found	-----
U-238	63.29	74	3.80*	3.585E+00	1.409E+00	1.409E+00	114.74
	92.38	271	5.41	6.401E+00	2.042E+00	2.042E+00	35.14
AM-243	74.67	480	66.00*	5.057E+00	3.752E-01	3.752E-01	22.54
	86.72	173	0.34	6.079E+00	2.212E+01	2.212E+01	52.66
	117.66	-----	0.55	6.871E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	6.659E+00	-----	Line Not Found	-----
ANH-511	511.00	134	100.00*	2.843E+00	1.229E-01	1.229E-01	55.80

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246344003

Page : 4
Acquisition date : 18-FEB-2010 16:58:19

Total number of lines in spectrum 30
Number of unidentified lines 1
Number of lines tentatively identified by NID 29 96.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.382E+01	3.382E+01	0.309E+01	9.13	
CD-109	464.00D	1.03	1.998E+00	2.050E+00	1.080E+00	52.66	
SN-126	1.00E+05Y	1.00	2.009E-01	2.009E-01	1.058E-01	52.66	
TL-208	1.41E+10Y	1.00	4.798E-01	4.798E-01	0.809E-01	16.85	
BI-211	7.04E+08Y	1.00	3.290E+00	3.290E+00	0.456E+00	13.85	
PB-212	1.41E+10Y	1.00	1.449E+00	1.449E+00	0.149E+00	10.32	
PO-212	1.41E+10Y	1.00	1.449E+00	1.449E+00	0.149E+00	10.32	
BI-214	1600.00Y	1.00	1.042E+00	1.042E+00	0.175E+00	16.82	
PB-214	1600.00Y	1.00	1.145E+00	1.145E+00	0.169E+00	14.80	
PO-214	1600.00Y	1.00	1.145E+00	1.145E+00	0.169E+00	14.80	
PO-216	1.41E+10Y	1.00	1.449E+00	1.449E+00	0.149E+00	10.32	
PO-218	1600.00Y	1.00	1.145E+00	1.145E+00	0.169E+00	14.80	
RA-224	1.41E+10Y	1.00	3.550E+00	3.550E+00	1.413E+00	39.80	
RA-226	1600.00Y	1.00	1.042E+00	1.042E+00	0.175E+00	16.82	
AC-228	1.41E+10Y	1.00	1.702E+00	1.702E+00	0.332E+00	19.48	
RA-228	1.41E+10Y	1.00	1.702E+00	1.702E+00	0.332E+00	19.48	
TH-228	1.91Y	1.02	1.449E+00	1.474E+00	0.152E+00	10.32	
TH-230	4.47E+09Y	1.00	1.042E+00	1.042E+00	0.175E+00	16.82	
TH-232	1.41E+10Y	1.00	1.702E+00	1.702E+00	0.332E+00	19.48	
TH-234	4.47E+09Y	1.00	1.409E+00	1.409E+00	1.617E+00	114.74	
U-234	4.47E+09Y	1.00	1.042E+00	1.042E+00	0.175E+00	16.82	
NP-237	2.14E+06Y	1.00	5.899E-01	5.899E-01	3.337E-01	56.56	
U-238	4.47E+09Y	1.00	1.409E+00	1.409E+00	1.617E+00	114.74	
AM-243	7380.00Y	1.00	3.752E-01	3.752E-01	0.846E-01	22.54	
ANH-511	1.00E+09Y	1.00	1.229E-01	1.229E-01	0.686E-01	55.80	

Total Activity : 6.575E+01 6.582E+01

Grand Total Activity : 6.575E+01 6.582E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246344003

Page : 5
Acquisition date : 18-FEB-2010 16:58:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	90.18	133	258	0.99	180.19	178	13	1.85E-02	36.8	6.26E+00	T
0	186.02	172	353	1.26	371.71	367	10	2.39E-02	45.6	5.88E+00	T
0	208.93	121	344	1.33	417.50	413	11	1.68E-02	62.4	5.48E+00	T
0	269.89	113	257	1.20	539.33	535	11	1.57E-02	58.1	4.60E+00	T
0	328.65	67	290	0.87	656.78	650	16	9.37E-03	****	3.98E+00	T
0	463.19	123	151	1.71	925.73	919	15	1.71E-02	46.9	3.07E+00	T
0	567.38	170	186	2.27	1134.02	1127	18	2.37E-02	41.3	2.61E+00	T
0	726.96	125	135	1.79	1453.09	1444	18	1.73E-02	47.2	2.13E+00	T
0	964.25	85	62	1.38	1927.62	1920	13	1.19E-02	43.7	1.66E+00	T
0	1730.00	21	15	2.44	3459.67	3449	15	2.92E-03	91.5	1.04E+00	

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344003.CNF;1
* Acquisition date   : 18-FEB-2010 16:58:19   Detector SN#      :
* Detector ID        : GAM19                   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        : 1-FEB-2010 12:00:00.   Nuclide Library : SOLID
* Sample ID          : G246344003             Analyst initials: MXR1
* Batch Number       : 950787                 Sample Quantity  : 1.43810E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 12-MAR-2009 10:24:54.1MS 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	3.382E+01	3.087E+00	4.934E-01	3.675E-02	68.542
CD-109	2.050E+00	1.080E+00	1.252E+00	1.121E-01	1.638
SN-126	2.009E-01	1.058E-01	1.347E-01	1.202E-02	1.491
TL-208	4.798E-01	8.086E-02	5.762E-02	3.918E-03	8.326
BI-211	3.290E+00	4.558E-01	3.351E-01	2.140E-02	9.819
PB-212	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
PO-212	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
BI-214	1.042E+00	1.752E-01	1.058E-01	8.320E-03	9.844
PB-214	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
PO-214	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
PO-216	1.449E+00	1.495E-01	9.155E-02	6.608E-03	15.827
PO-218	1.145E+00	1.694E-01	1.074E-01	8.857E-03	10.654
RA-224	3.550E+00	1.413E+00	1.041E+00	5.900E-02	3.409
RA-226	1.042E+00	1.752E-01	1.058E-01	8.320E-03	9.844
AC-228	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
RA-228	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
TH-228	1.474E+00	1.521E-01	9.313E-02	6.722E-03	15.827
TH-230	1.042E+00	1.752E-01	1.058E-01	8.319E-03	9.844

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.702E+00	3.316E-01	1.917E-01	2.169E-02	8.878
TH-234	1.409E+00	1.617E+00	2.003E+00	3.505E-01	0.703
U-234	1.042E+00	1.752E-01	1.058E-01	8.319E-03	9.844
NP-237	5.899E-01	3.337E-01	3.765E-01	8.449E-02	1.567
U-238	1.409E+00	1.617E+00	2.003E+00	3.505E-01	0.703
AM-243	3.752E-01	8.458E-02	8.503E-02	6.743E-03	4.412
ANH-511	1.229E-01	6.856E-02	4.401E-02	2.597E-03	2.792

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.287E-02		3.054E-01	5.080E-01	3.448E-02	0.045
NA-22	-7.434E-03		4.596E-02	7.525E-02	5.020E-03	-0.099
NA-24	-7.590E-01		3.389E+00	Half-Life too short		
AL-26	-2.007E-02		2.729E-02	3.750E-02	2.189E-03	-0.535
TI-44	3.494E-01	+	5.320E-02	7.893E-02	6.443E-03	4.426
SC-46	-3.901E-03		3.567E-02	5.691E-02	4.945E-03	-0.069
V-48	-9.990E-03		7.653E-02	1.213E-01	9.753E-03	-0.082
CR-51	-1.076E-01		3.593E-01	5.931E-01	3.838E-02	-0.182
MN-52	-4.026E-02		2.759E-01	4.465E-01	3.220E-02	-0.090
MN-54	-1.591E-02		3.840E-02	6.002E-02	4.774E-03	-0.265
CO-56	-5.341E-03		4.071E-02	6.509E-02	5.281E-03	-0.082
CO-57	-2.985E-03		2.527E-02	4.094E-02	2.443E-03	-0.073
CO-58	-4.696E-02		3.773E-02	5.351E-02	4.101E-03	-0.878
FE-59	1.430E-04		9.368E-02	1.567E-01	1.176E-02	0.001
CO-60	6.897E-03		3.992E-02	6.728E-02	4.958E-03	0.103
ZN-65	-8.357E-02		1.011E-01	1.305E-01	8.343E-03	-0.640
GE-68	-2.293E-01		1.288E+00	2.125E+00	1.470E-01	-0.108
AS-73	3.739E-01		7.714E-01	1.295E+00	9.580E-02	0.289
AS-74	7.515E-02		9.025E-02	1.571E-01	9.304E-03	0.479
SE-75	-3.520E-03		4.757E-02	6.961E-02	4.048E-03	-0.051
BR-77	-3.538E+00		1.748E+01	2.841E+01	1.680E+00	-0.125
SR-82	-1.810E-01		3.862E-01	6.012E-01	4.329E-02	-0.301
RB-83	-2.418E-02		6.558E-02	1.023E-01	6.045E-03	-0.237
RB-84	-1.172E-02		7.272E-02	1.156E-01	9.924E-03	-0.101
KR-85	8.369E+00		7.391E+00	1.163E+01	6.870E-01	0.719
SR-85	4.386E-02		3.874E-02	6.098E-02	3.601E-03	0.719
RB-86	-2.612E-01		8.692E-01	1.419E+00	9.833E-02	-0.184
Y-88	-1.706E-03		2.904E-02	4.671E-02	2.666E-03	-0.037
ZR-88	9.286E-03		2.901E-02	4.923E-02	2.741E-03	0.189
Y-91	4.995E+00		1.965E+01	3.334E+01	1.947E+00	0.150
NB-94	-4.772E-03		3.247E-02	5.234E-02	3.296E-03	-0.091
NB-95	-2.631E-03		4.469E-02	7.142E-02	5.047E-03	-0.037
NB-95M	4.812E-01		1.600E-01	2.529E-01	1.873E-02	1.903
ZR-95	3.491E-02		6.876E-02	1.163E-01	9.314E-03	0.300
NB-97	1.338E-01		3.486E-01	Half-Life too short		
ZR-97	2.947E+01		7.889E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.133E+01		1.905E+01	2.933E+01	4.165E+00	-0.386
TC-99M	-4.852E+10		6.348E+12	Half-Life too short		
RH-101	-2.448E-02		3.362E-02	5.238E-02	2.842E-03	-0.467
RH-102	-1.054E-02		2.719E-02	4.384E-02	2.559E-03	-0.240
RU-103	-1.628E-02		4.051E-02	6.507E-02	8.252E-03	-0.250
RH-106	-1.195E-01		2.990E-01	4.741E-01	5.587E-02	-0.252
RU-106	-1.195E-01		2.987E-01	4.741E-01	2.795E-02	-0.252
AG-108M	-1.242E-02		3.034E-02	4.906E-02	3.055E-03	-0.253
AG-110M	4.286E-03		3.198E-02	5.285E-02	3.279E-03	0.081
IN-111	2.314E-01		2.044E+00	2.870E+00	1.632E-01	0.081
IN-113M	8.653E-04		4.266E-02	7.118E-02	4.247E-03	0.012
SN-113	8.653E-04		4.266E-02	7.118E-02	4.247E-03	0.012
IN-114M	5.450E-02		2.107E-01	3.007E-01	1.616E-02	0.181
CD-115	-1.089E+01		2.015E+01	3.131E+01	1.853E+00	-0.348
SN-117M	-6.701E-03		6.283E-02	1.012E-01	5.387E-03	-0.066
SB-122	6.238E+00		3.956E+00	6.436E+00	3.820E-01	0.969
I-123	-2.213E+01		4.154E+01	Half-Life too short		
TE-123M	-7.833E-03		2.940E-02	4.706E-02	2.541E-03	-0.166
I-124	4.880E-01		1.026E+00	1.526E+00	9.029E-02	0.320
SB-124	-3.847E-02		6.364E-02	9.077E-02	6.217E-03	-0.424
SB-125	-3.673E-02		8.207E-02	1.323E-01	7.879E-03	-0.278
TE-125M	-3.197E+00		9.710E+00	1.565E+01	1.384E+00	-0.204
I-126	1.524E-01		1.905E-01	3.296E-01	1.936E-02	0.462
SB-126	-6.458E-02		1.765E-01	2.375E-01	1.546E-02	-0.272
SB-127	-4.095E-02		1.988E+00	3.240E+00	3.354E-01	-0.013
XE-127	-6.007E-03		5.193E-02	7.656E-02	4.177E-03	-0.078
I-131	4.420E-02		1.222E-01	2.084E-01	1.335E-02	0.212
TE-132	7.798E-02		1.072E+00	1.723E+00	2.538E-01	0.045
BA-133	4.310E-02		4.313E-02	6.739E-02	7.767E-03	0.640
I-133	-1.145E-02		1.563E-02	Half-Life too short		
CS-134	7.325E-02		4.519E-02	8.196E-02	6.163E-03	0.894
CS-135	2.913E-01		1.783E-01	2.846E-01	2.171E-02	1.024
I-135	2.683E+11		5.658E+11	Half-Life too short		
CS-136	-4.269E-02		1.067E-01	1.720E-01	1.330E-02	-0.248
BA-137M	-1.224E-02		3.546E-02	5.647E-02	3.288E-03	-0.217
CS-137	-1.293E-02		3.748E-02	5.969E-02	3.491E-03	-0.217
CE-139	-2.295E-02		3.009E-02	4.706E-02	2.457E-03	-0.488
BA-140	-9.921E-02		2.858E-01	4.568E-01	1.487E-01	-0.217
LA-140	-6.888E-02		8.791E-02	1.265E-01	8.561E-03	-0.544
CE-141	-3.576E-03		6.702E-02	1.073E-01	6.177E-03	-0.033
CE-143	2.664E-03		3.887E-04	Half-Life too short		
CE-144	7.126E-03		2.098E-01	3.413E-01	4.834E-02	0.021
PM-144	1.758E-02		3.340E-02	5.659E-02	3.526E-03	0.311
PR-144	1.192E+00		2.266E+00	3.839E+00	2.390E-01	0.311
PM-146	-1.404E-02		4.047E-02	6.557E-02	5.647E-03	-0.214
ND-147	4.213E-02		6.202E-01	1.027E+00	1.394E-01	0.041
PM-149	2.167E+01		1.645E+02	2.784E+02	3.949E+01	0.078
EU-152	-1.150E-01		1.493E-01	1.565E-01	1.019E-02	-0.735

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	7.173E-03		8.877E-02	1.277E-01	9.929E-03	0.056
EU-154	-1.758E-02		1.276E-01	2.093E-01	2.072E-02	-0.084
EU-155	9.285E-03		1.155E-01	1.878E-01	1.351E-02	0.049
TB-160	-3.020E-02		1.452E-01	2.300E-01	1.967E-02	-0.131
HO-166M	-2.110E-02		6.229E-02	9.889E-02	6.335E-03	-0.213
TM-171	-3.699E+01		3.153E+01	4.307E+01	3.274E+00	-0.859
LU-176	-8.788E-04		2.276E-02	3.816E-02	2.219E-03	-0.023
LU-177	3.103E+00	+	1.945E+00	2.423E+00	1.330E-01	1.281
LU-177M	-9.993E-02		1.698E-01	2.725E-01	1.541E-02	-0.367
HF-181	-4.474E-02		4.140E-02	6.327E-02	3.703E-03	-0.707
W-181	7.311E-02		4.006E-01	5.832E-01	4.413E-02	0.125
TA-182	-7.216E-02		2.088E-01	3.369E-01	2.032E-02	-0.214
RE-183	1.454E-02		1.109E-01	1.802E-01	9.491E-03	0.081
RE-184	6.323E-02		2.301E-01	3.726E-01	2.130E-02	0.170
OS-185	-7.985E-03		3.876E-02	6.232E-02	3.650E-03	-0.128
RE-188	1.213E-01		1.804E-01	2.991E-01	1.607E-02	0.406
W-188	-2.940E+00		8.146E+00	1.164E+01	6.763E-01	-0.252
IR-192	1.743E-02		3.373E-02	5.799E-02	3.388E-03	0.301
AU-195	2.248E-01		2.409E-01	3.780E-01	2.885E-02	0.595
TL-200	-8.683E-04		7.844E-04	Half-Life too short		
TL-201	-4.439E+00		1.095E+01	1.738E+01	9.080E-01	-0.255
TL-202	5.136E-02		7.215E-02	1.250E-01	7.176E-03	0.411
HG-203	2.236E-02		3.971E-02	6.849E-02	4.211E-03	0.327
BI-207	-3.213E-02		5.277E-02	8.334E-02	5.918E-03	-0.386
TL-207	5.032E-02		6.625E-01	9.724E-01	1.606E-01	0.052
PO-209	3.795E+00		7.365E+00	1.242E+01	1.092E+00	0.306
BI-210	4.031E+00		3.074E+00	5.254E+00	4.005E-01	0.767
PB-210	4.031E+00		3.074E+00	5.254E+00	4.005E-01	0.767
PO-210	4.031E+00		3.070E+00	5.254E+00	3.424E-01	0.767
PB-211	-3.250E-01		9.280E-01	1.477E+00	9.207E-01	-0.220
BI-212	1.300E+00	+	6.226E-01	6.702E-01	5.580E-02	1.939
PO-215	5.032E-02		6.625E-01	9.724E-01	1.606E-01	0.052
RN-219	2.005E-01		3.747E-01	6.418E-01	8.680E-02	0.312
RN-220	7.419E+00		2.483E+01	4.174E+01	2.477E+00	0.178
RA-223	5.032E-02		6.625E-01	9.724E-01	1.606E-01	0.052
AC-227	-3.417E-02		3.789E-01	6.020E-01	8.387E-02	-0.057
TH-227	-3.417E-02		3.789E-01	6.020E-01	1.016E-01	-0.057
TH-229	-4.193E-02		5.193E-01	8.329E-01	4.494E-02	-0.050
PA-231	-4.997E-01		1.394E+00	2.303E+00	3.173E-01	-0.217
TH-231	5.032E-02		6.625E-01	9.724E-01	1.606E-01	0.052
U-231	-6.507E-01		1.723E+00	2.424E+00	1.925E-01	-0.268
PA-233	-3.685E-03		6.218E-02	1.041E-01	6.426E-03	-0.035
PA-234	3.030E-01		3.190E-01	5.468E-01	1.021E-01	0.554
PA-234M	2.067E+00		4.581E+00	7.863E+00	7.320E-01	0.263
U-235	1.656E-02		2.155E-01	3.468E-01	5.623E-02	0.048
NP-236	-4.626E-02		8.031E-02	1.268E-01	6.718E-03	-0.365
NP-239	-1.457E-01		1.875E-01	2.944E-01	1.841E-02	-0.495
AM-241	4.124E-02		1.550E-01	2.272E-01	1.871E-02	0.181

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.013E-02		1.015E-01	1.651E-01	1.188E-02	0.061
AM-246	9.636E-02		1.426E-01	2.513E-01	1.733E-02	0.384
CM-247	2.785E-02		3.440E-02	5.985E-02	3.357E-03	0.465
CF-249	7.247E-03		3.933E-02	6.622E-02	3.698E-03	0.109
CF-251	4.688E-02		1.255E-01	2.056E-01	1.086E-02	0.228

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                                     DETECTOR DATA
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246344003
* Acquisition date   : 18-FEB-2010 16:58:19 Detector SN#
* Detector ID        : GAM19 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        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G246344003 Analyst initials: MXR1
* Batch Number       : 950787 Sample Quantity : 1.4381E+02 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*
*                                     QC DATA
*
* CALIB. DATE/TIME   : 12-MAR-2009 10:24:54 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	DLC (pCi/GRAM)	TPU
K-40	3.382E+01	3.025E+00	2.481E-01	1.543E+00
CD-109	2.050E+00	1.058E+00	6.687E-01	5.399E-01
SN-126	2.009E-01	1.037E-01	7.200E-02	5.290E-02
TL-208	4.798E-01	7.924E-02	2.958E-02	4.043E-02
BI-211	3.290E+00	4.467E-01	1.739E-01	2.279E-01
PB-212	1.449E+00	1.465E-01	4.791E-02	7.474E-02
PO-212	1.449E+00	1.465E-01	4.791E-02	7.474E-02
BI-214	1.042E+00	1.717E-01	5.426E-02	8.760E-02
PB-214	1.145E+00	1.660E-01	5.576E-02	8.471E-02
PO-214	1.145E+00	1.660E-01	5.576E-02	8.471E-02
PO-216	1.449E+00	1.465E-01	4.791E-02	7.474E-02
PO-218	1.145E+00	1.660E-01	5.576E-02	8.471E-02
RA-224	3.550E+00	1.385E+00	5.448E-01	7.064E-01
RA-226	1.042E+00	1.717E-01	5.426E-02	8.760E-02
AC-228	1.702E+00	3.249E-01	9.744E-02	1.658E-01
RA-228	1.702E+00	3.249E-01	9.744E-02	1.658E-01
TH-228	1.474E+00	1.490E-01	4.874E-02	7.604E-02
TH-230	1.042E+00	1.717E-01	5.426E-02	8.760E-02
TH-232	1.702E+00	3.249E-01	9.744E-02	1.658E-01
TH-234	1.409E+00	1.584E+00	1.077E+00	8.084E-01
U-234	1.042E+00	1.717E-01	5.426E-02	8.760E-02
NP-237	5.899E-01	3.270E-01	2.013E-01	1.668E-01
U-238	1.409E+00	1.584E+00	1.077E+00	8.084E-01
AM-243	3.752E-01	8.289E-02	4.558E-02	4.229E-02
ANH-511	1.229E-01	6.719E-02	2.266E-02	3.428E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	2.287E-02	2.993E-01	2.619E-01	1.527E-01 NOT IDENT.
NA-22	-7.434E-03	4.504E-02	3.795E-02	2.298E-02 NOT IDENT.

NA-24	-7.590E+05	6.642E+06	0.000E+00	3.389E+06	SHORT HLIF
AL-26	-2.007E-02	2.674E-02	1.876E-02	1.364E-02	NOT IDENT.
TI-44	3.494E-01	5.213E-02	4.228E-02	2.660E-02	FAIL ABUN
SC-46	-3.901E-03	3.496E-02	2.894E-02	1.784E-02	FAIL ABUN
V-48	-9.990E-03	7.500E-02	6.155E-02	3.827E-02	NOT IDENT.
CR-51	-1.076E-01	3.521E-01	3.084E-01	1.796E-01	NOT IDENT.
MN-52	-4.026E-02	2.704E-01	2.246E-01	1.380E-01	NOT IDENT.
MN-54	-1.591E-02	3.763E-02	3.056E-02	1.920E-02	NOT IDENT.
CO-56	-5.341E-03	3.990E-02	3.313E-02	2.036E-02	NOT IDENT.
CO-57	-2.985E-03	2.476E-02	2.173E-02	1.263E-02	NOT IDENT.
CO-58	-4.696E-02	3.697E-02	2.727E-02	1.886E-02	NOT IDENT.
FE-59	1.430E-04	9.180E-02	7.928E-02	4.684E-02	NOT IDENT.
CO-60	6.897E-03	3.912E-02	3.390E-02	1.996E-02	NOT IDENT.
ZN-65	-8.357E-02	9.904E-02	6.601E-02	5.053E-02	NOT IDENT.
GE-68	-2.293E-01	1.262E+00	1.076E+00	6.440E-01	NOT IDENT.
AS-73	3.739E-01	7.560E-01	6.991E-01	3.857E-01	NOT IDENT.
AS-74	7.515E-02	8.845E-02	8.058E-02	4.513E-02	NOT IDENT.
SE-75	-3.520E-03	4.662E-02	3.635E-02	2.379E-02	NOT IDENT.
BR-77	-3.538E+00	1.713E+01	1.462E+01	8.738E+00	FAIL ABUN
SR-82	-1.810E-01	3.784E-01	3.066E-01	1.931E-01	NOT IDENT.
RB-83	-2.418E-02	6.427E-02	5.262E-02	3.279E-02	NOT IDENT.
RB-84	-1.172E-02	7.126E-02	5.880E-02	3.636E-02	NOT IDENT.
KR-85	8.369E+00	7.243E+00	5.989E+00	3.696E+00	NOT IDENT.
SR-85	4.386E-02	3.796E-02	3.139E-02	1.937E-02	NOT IDENT.
RB-86	-2.612E-01	8.518E-01	7.185E-01	4.346E-01	NOT IDENT.
Y-88	-1.706E-03	2.846E-02	2.336E-02	1.452E-02	NOT IDENT.
ZR-88	9.286E-03	2.843E-02	2.549E-02	1.451E-02	NOT IDENT.
Y-91	4.995E+00	1.926E+01	1.684E+01	9.827E+00	NOT IDENT.
NB-94	-4.772E-03	3.182E-02	2.676E-02	1.623E-02	NOT IDENT.
NB-95	-2.631E-03	4.379E-02	3.644E-02	2.234E-02	NOT IDENT.
NB-95M	4.812E-01	1.568E-01	1.324E-01	8.001E-02	NOT IDENT.
ZR-95	3.491E-02	6.738E-02	5.938E-02	3.438E-02	NOT IDENT.
NB-97	1.338E+05	6.832E+05	0.000E+00	3.486E+05	SHORT HLIF
ZR-97	2.947E+07	1.546E+07	0.000E+00	7.889E+06	SHORT HLIF
MO-99	-1.133E+01	1.867E+01	1.497E+01	9.527E+00	NOT IDENT.
TC-99M	-4.852E+16	1.244E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.448E-02	3.295E-02	2.752E-02	1.681E-02	NOT IDENT.
RH-102	-1.054E-02	2.665E-02	2.261E-02	1.360E-02	NOT IDENT.
RU-103	-1.628E-02	3.970E-02	3.352E-02	2.026E-02	FAIL ABUN
RH-106	-1.195E-01	2.930E-01	2.430E-01	1.495E-01	FAIL ABUN
RU-106	-1.195E-01	2.928E-01	2.430E-01	1.494E-01	FAIL ABUN
AG-108M	-1.242E-02	2.973E-02	2.534E-02	1.517E-02	NOT IDENT.
AG-110M	4.286E-03	3.134E-02	2.705E-02	1.599E-02	NOT IDENT.
IN-111	2.314E-01	2.003E+00	1.501E+00	1.022E+00	NOT IDENT.
IN-113M	8.653E-04	4.180E-02	3.685E-02	2.133E-02	NOT IDENT.
SN-113	8.653E-04	4.180E-02	3.685E-02	2.133E-02	NOT IDENT.
IN-114M	5.450E-02	2.065E-01	1.581E-01	1.054E-01	NOT IDENT.
CD-115	-1.089E+01	1.975E+01	1.611E+01	1.007E+01	NOT IDENT.
SN-117M	-6.701E-03	6.158E-02	5.343E-02	3.142E-02	NOT IDENT.
SB-122	6.238E+00	3.877E+00	3.306E+00	1.978E+00	NOT IDENT.
I-123	-2.213E+07	8.142E+07	0.000E+00	4.154E+07	SHORT HLIF
TE-123M	-7.833E-03	2.881E-02	2.484E-02	1.470E-02	NOT IDENT.
I-124	4.880E-01	1.005E+00	7.825E-01	5.130E-01	NOT IDENT.
SB-124	-3.847E-02	6.237E-02	4.548E-02	3.182E-02	FAIL ABUN
SB-125	-3.673E-02	8.042E-02	6.839E-02	4.103E-02	FAIL ABUN
TE-125M	-3.197E+00	9.516E+00	8.325E+00	4.855E+00	NOT IDENT.
I-126	1.524E-01	1.867E-01	1.687E-01	9.525E-02	NOT IDENT.
SB-126	-6.458E-02	1.730E-01	1.213E-01	8.825E-02	NOT IDENT.
SB-127	-4.095E-02	1.948E+00	1.657E+00	9.940E-01	NOT IDENT.
XE-127	-6.007E-03	5.089E-02	4.020E-02	2.597E-02	NOT IDENT.
I-131	4.420E-02	1.198E-01	1.081E-01	6.111E-02	NOT IDENT.
TE-132	7.798E-02	1.051E+00	9.027E-01	5.360E-01	NOT IDENT.
BA-133	4.310E-02	4.227E-02	3.496E-02	2.157E-02	NOT IDENT.
I-133	-1.145E+04	3.063E+04	0.000E+00	1.563E+04	SHORT HLIF
CS-134	7.325E-02	4.428E-02	4.178E-02	2.259E-02	NOT IDENT.
CS-135	2.913E-01	1.748E-01	1.486E-01	8.917E-02	NOT IDENT.
I-135	2.683E+17	1.109E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.269E-02	1.045E-01	8.714E-02	5.333E-02	FAIL ABUN
BA-137M	-1.224E-02	3.475E-02	2.890E-02	1.773E-02	NOT IDENT.
CS-137	-1.293E-02	3.673E-02	3.056E-02	1.874E-02	NOT IDENT.
CE-139	-2.295E-02	2.949E-02	2.482E-02	1.505E-02	NOT IDENT.
BA-140	-9.921E-02	2.801E-01	2.349E-01	1.429E-01	NOT IDENT.
LA-140	-6.888E-02	8.615E-02	6.349E-02	4.396E-02	FAIL ABUN
CE-141	-3.576E-03	6.568E-02	5.672E-02	3.351E-02	NOT IDENT.
CE-143	2.664E+03	7.619E+02	0.000E+00	3.887E+02	SHORT HLIF
CE-144	7.126E-03	2.056E-01	1.808E-01	1.049E-01	NOT IDENT.
PM-144	1.758E-02	3.274E-02	2.893E-02	1.670E-02	NOT IDENT.
PR-144	1.192E+00	2.221E+00	1.963E+00	1.133E+00	NOT IDENT.

PM-146	-1.404E-02	3.966E-02	3.384E-02	2.024E-02	NOT IDENT.
ND-147	4.213E-02	6.078E-01	5.284E-01	3.101E-01	FAIL ABUN
PM-149	2.167E+01	1.612E+02	1.452E+02	8.223E+01	NOT IDENT.
EU-152	-1.150E-01	1.463E-01	8.127E-02	7.465E-02	FAIL ABUN
GD-153	7.173E-03	8.700E-02	6.807E-02	4.439E-02	NOT IDENT.
EU-154	-1.758E-02	1.250E-01	1.056E-01	6.379E-02	NOT IDENT.
EU-155	9.285E-03	1.132E-01	9.997E-02	5.773E-02	FAIL ABUN
TB-160	-3.020E-02	1.423E-01	1.170E-01	7.261E-02	FAIL ABUN
HO-166M	-2.110E-02	6.104E-02	5.054E-02	3.114E-02	NOT IDENT.
TM-171	-3.699E+01	3.090E+01	2.314E+01	1.576E+01	NOT IDENT.
LU-176	-8.788E-04	2.231E-02	1.986E-02	1.138E-02	FAIL ABUN
LU-177	3.103E+00	1.906E+00	1.272E+00	9.725E-01	FAIL ABUN
LU-177M	-9.993E-02	1.664E-01	1.410E-01	8.488E-02	FAIL ABUN
HF-181	-4.474E-02	4.057E-02	3.261E-02	2.070E-02	NOT IDENT.
W-181	7.311E-02	3.926E-01	3.135E-01	2.003E-01	NOT IDENT.
TA-182	-7.216E-02	2.046E-01	1.701E-01	1.044E-01	FAIL ABUN
RE-183	1.454E-02	1.086E-01	9.506E-02	5.543E-02	FAIL ABUN
RE-184	6.323E-02	2.255E-01	1.948E-01	1.150E-01	NOT IDENT.
OS-185	-7.985E-03	3.799E-02	3.192E-02	1.938E-02	NOT IDENT.
RE-188	1.213E-01	1.768E-01	1.579E-01	9.018E-02	NOT IDENT.
W-188	-2.940E+00	7.983E+00	6.069E+00	4.073E+00	FAIL ABUN
IR-192	1.743E-02	3.305E-02	3.017E-02	1.686E-02	FAIL ABUN
AU-195	2.248E-01	2.361E-01	2.015E-01	1.205E-01	FAIL ABUN
TL-200	-8.683E+02	1.537E+03	0.000E+00	7.844E+02	SHORT HLIF
TL-201	-4.439E+00	1.073E+01	9.163E+00	5.473E+00	NOT IDENT.
TL-202	5.136E-02	7.071E-02	6.454E-02	3.607E-02	NOT IDENT.
HG-203	2.236E-02	3.892E-02	3.572E-02	1.986E-02	NOT IDENT.
BI-207	-3.213E-02	5.171E-02	4.221E-02	2.638E-02	FAIL ABUN
TL-207	5.032E-02	6.492E-01	5.056E-01	3.312E-01	FAIL ABUN
PO-209	3.795E+00	7.218E+00	6.313E+00	3.683E+00	NOT IDENT.
BI-210	4.031E+00	3.013E+00	2.844E+00	1.537E+00	NOT IDENT.
PB-210	4.031E+00	3.013E+00	2.844E+00	1.537E+00	NOT IDENT.
PO-210	4.031E+00	3.009E+00	2.844E+00	1.535E+00	NOT IDENT.
PB-211	-3.250E-01	9.094E-01	7.644E-01	4.640E-01	NOT IDENT.
BI-212	1.300E+00	6.101E-01	3.423E-01	3.113E-01	FAIL ABUN
PO-215	5.032E-02	6.492E-01	5.056E-01	3.312E-01	FAIL ABUN
RN-219	2.005E-01	3.672E-01	3.322E-01	1.873E-01	FAIL ABUN
RN-220	7.419E+00	2.434E+01	2.145E+01	1.242E+01	NOT IDENT.
RA-223	5.032E-02	6.492E-01	5.056E-01	3.312E-01	FAIL ABUN
AC-227	-3.417E-02	3.713E-01	3.146E-01	1.895E-01	FAIL ABUN
TH-227	-3.417E-02	3.714E-01	3.146E-01	1.895E-01	FAIL ABUN
TH-229	-4.193E-02	5.089E-01	4.378E-01	2.597E-01	FAIL ABUN
PA-231	-4.997E-01	1.366E+00	1.201E+00	6.970E-01	NOT IDENT.
TH-231	5.032E-02	6.492E-01	5.056E-01	3.312E-01	FAIL ABUN
U-231	-6.507E-01	1.688E+00	1.293E+00	8.614E-01	FAIL ABUN
PA-233	-3.685E-03	6.094E-02	5.416E-02	3.109E-02	FAIL ABUN
PA-234	3.030E-01	3.126E-01	2.777E-01	1.595E-01	FAIL ABUN
PA-234M	2.067E+00	4.489E+00	3.988E+00	2.290E+00	NOT IDENT.
U-235	1.656E-02	2.112E-01	1.834E-01	1.078E-01	FAIL ABUN
NP-236	-4.626E-02	7.870E-02	6.693E-02	4.015E-02	NOT IDENT.
NP-239	-1.457E-01	1.838E-01	1.564E-01	9.377E-02	FAIL ABUN
AM-241	4.124E-02	1.519E-01	1.224E-01	7.748E-02	NOT IDENT.
CM-243	1.013E-02	9.944E-02	8.794E-02	5.073E-02	FAIL ABUN
AM-246	9.636E-02	1.398E-01	1.272E-01	7.132E-02	NOT IDENT.
CM-247	2.785E-02	3.371E-02	3.097E-02	1.720E-02	NOT IDENT.
CF-249	7.247E-03	3.855E-02	3.430E-02	1.967E-02	NOT IDENT.
CF-251	4.688E-02	1.230E-01	1.083E-01	6.275E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON , SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
--------	------------

46.50	326.5312
46.50	326.5312
46.50	326.5312
48.70	380.9940
49.72	436.0895
51.35	400.7566
52.39	366.0069
52.97	374.0837
53.15	374.1609
53.44	386.0417
54.07	402.9852
56.28	422.6530
56.28	423.6376
57.37	0.0000
57.53	428.3514
57.53	428.3527
57.60	428.3842
57.98	384.4445
57.98	384.4445
59.32	408.6672
59.32	408.6672
59.40	408.7020
59.54	408.7636
59.72	408.8419
60.01	421.6006
61.10	403.1168
61.14	403.1331
61.30	430.0809
63.00	516.3794
63.29	516.5341
63.29	516.5341
63.58	532.5376
64.28	524.9897
65.12	515.9142
65.20	515.9559
65.20	515.9559
66.05	568.8341
66.72	583.5264
66.83	558.1487
66.91	572.5063
67.20	572.6711
67.20	572.6711
67.75	566.6166
67.85	542.7985
68.90	503.5247
68.90	503.5247
69.30	503.7234
69.67	526.2316
70.82	520.4320
70.82	520.4320
70.83	522.0344
72.80	564.6082
72.87	579.0432
72.87	579.0432
74.67	545.7796
74.81	545.8524
74.81	545.8524
74.81	545.8524
74.81	545.8524
74.81	545.8524
74.81	545.8524
74.97	545.9335
75.28	546.0915
75.70	546.3056
77.11	547.0208
77.11	547.0208

77.11	547.0208
77.11	547.0208
77.11	547.0208
77.11	547.0208
77.11	547.0208
78.38	508.0668
79.62	515.0781
79.80	515.1621
79.80	515.1621
80.11	534.6307
80.18	534.6631
80.30	534.7219
80.30	534.7219
80.57	591.2365
81.00	612.4160
81.07	612.4531
81.07	612.4531
81.07	612.4531
81.07	612.4531
82.60	552.7683
83.37	527.5715
83.78	527.7629
83.78	527.7629
83.78	527.7629
83.78	527.7629
84.21	535.3699
84.90	532.0547
85.43	542.0073
86.29	539.1738
86.50	558.7046
86.54	558.7236
86.59	558.7488
86.72	558.8120
86.79	558.8436
86.94	646.4000
87.30	609.3270
87.30	609.3270
87.30	609.3270
87.30	609.3270
87.30	609.3270
87.30	609.3270
87.57	630.5414
87.88	526.9408
88.03	527.0082
88.36	527.1570
88.47	527.2066
89.95	527.8691
91.11	443.8416
92.29	444.2798
92.38	444.3131
92.38	444.3131
93.35	408.8356
94.00	404.1655
94.67	414.1701
94.67	414.1716
94.90	424.0361
94.90	424.0361
94.90	424.0361
94.90	424.0361
95.87	473.3369
95.87	473.3369
96.73	449.1678
97.43	418.3703
98.44	397.9920
98.44	397.9935
98.88	384.4984
99.55	406.1896
99.55	406.1896
99.86	417.5469
100.00	419.6407
100.10	419.6751
103.18	455.5783
103.76	428.0683
105.00	418.2034
105.31	449.1376
108.00	442.8535
109.28	429.8801

111.00	376.7599
111.00	376.7599
111.76	410.0241
112.95	384.5432
115.19	370.6815
116.30	377.1982
117.00	375.3162
117.00	375.3162
117.66	364.0856
121.11	357.7078
121.62	361.9973
121.78	362.0385
122.06	365.2318
122.32	350.7284
122.32	350.7284
122.32	350.7284
122.32	350.7284
123.07	374.8645
127.23	385.3510
129.76	372.4207
131.20	423.0485
133.02	416.2303
133.54	387.0091
135.34	400.0744
136.00	393.9457
136.25	394.0115
136.48	397.2242
140.51	389.8477
140.51	0.0000
142.18	395.5421
142.65	393.5521
143.76	369.5492
144.24	361.2145
144.24	361.2145
144.24	361.2145
144.24	361.2145
145.22	361.4416
145.44	363.6051
147.16	401.0364
152.43	372.6376
152.70	388.6265
153.22	386.6278
154.21	409.1829
154.21	409.1829
154.21	409.1829
154.21	409.1829
155.03	364.7280
156.02	353.2465
158.56	370.8439
159.00	0.0000
159.00	368.8103
160.31	366.9671
161.27	350.1016
162.32	335.3690
162.64	318.3416
163.35	327.0254
163.89	318.5780
165.85	359.6173
167.43	328.8857
171.28	313.5182
171.86	317.9191
172.10	319.0362
176.55	310.1572
176.60	310.1660
181.06	328.2231
184.41	321.9126
185.71	310.6678
186.00	310.7181
190.27	307.3214
192.34	312.8796
193.63	331.5786
197.04	312.5793
198.01	350.8781
198.60	329.1881
200.40	296.7695
201.83	321.0130
202.84	304.4323
205.31	304.5319

208.36	312.0237
208.81	270.6726
209.75	233.3069
209.75	233.3069
210.97	247.4953
215.65	282.7685
216.55	273.9376
218.09	249.9283
222.10	298.9680
223.80	277.1356
226.40	267.5382
227.00	267.6176
227.08	267.6287
227.20	268.7494
228.16	267.7690
228.18	267.7708
228.18	267.7708
231.56	0.0000
235.69	284.2871
236.00	284.3301
236.00	284.3301
238.63	284.6855
238.63	284.6855
238.63	284.6855
238.63	284.6855
239.00	284.7344
240.98	285.0000
241.98	263.7497
241.98	263.7497
241.98	263.7497
244.69	231.9656
245.39	249.8894
247.94	254.0144
248.90	227.9483
249.79	236.9845
252.40	237.2691
252.85	213.8098
252.85	213.8098
254.15	0.0000
256.20	226.4686
256.20	226.4686
260.50	233.6477
260.90	213.4659
262.80	215.8945
264.65	213.0722
268.24	217.9189
268.79	198.4297
269.46	190.9702
269.46	190.9702
269.46	190.9702
269.46	190.9702
271.23	221.2148
273.65	302.7963
276.40	180.9912
277.35	185.0881
277.60	185.1081
277.60	185.1081
278.00	197.4161
278.60	206.5248
279.20	206.5777
279.53	224.7303
280.46	248.3894
281.68	243.0778
283.67	195.1718
284.30	187.9601
285.00	188.0157
285.90	193.5383
286.10	193.5565
286.10	193.5565
287.40	193.2072
288.45	0.0000
290.67	213.9584
290.80	226.1100
291.72	221.6436
293.26	0.0000
293.70	197.5153
295.21	155.0710
295.21	155.0710

295.21	155.0710
295.96	155.1188
296.50	155.1541
297.23	155.2018
298.57	155.2869
299.80	196.4919
299.80	196.4919
300.09	196.5156
300.09	196.5156
300.09	196.5156
300.09	196.5156
300.12	196.5182
301.29	166.1301
302.84	149.4584
303.76	167.8221
303.91	167.8333
304.40	169.3929
304.40	169.3929
304.84	178.5802
306.84	175.0592
308.46	177.9249
311.98	190.1181
316.51	171.1395
318.01	186.8928
319.02	179.5990
319.41	173.1782
320.08	171.3802
323.87	153.7964
323.87	153.7964
323.87	153.7964
323.87	153.7964
325.23	155.4165
328.77	151.3928
333.44	157.4554
334.20	157.5011
334.20	157.5011
334.30	157.5073
338.28	169.3472
338.28	169.3472
338.28	169.3472
338.28	169.3472
338.32	169.3494
338.32	169.3494
338.32	169.3494
340.50	170.2637
340.57	170.2682
344.27	217.0068
345.85	192.3221
350.59	0.0000
351.07	183.6847
351.92	155.4504
351.92	155.4504
351.92	155.4504
355.39	0.0000
356.01	118.3217
364.48	123.6855
366.43	130.3380
367.43	139.7639
367.94	0.0000
369.80	134.2510
374.96	141.0828
383.85	150.0213
387.95	154.0163
388.63	148.3815
391.69	142.8638
391.69	142.8638
392.90	131.5647
398.62	144.1532
400.65	122.4256
401.10	122.4445
401.81	121.5250
402.60	123.4572
404.84	156.8165
410.95	134.2839
411.60	143.8389
413.65	150.6092
414.70	121.1027
415.30	124.9425

415.76	123.0539
417.63	0.0000
418.52	128.8960
423.70	100.4242
427.08	122.5578
427.89	119.7174
432.53	111.2663
433.93	125.7117
439.47	106.7101
439.56	106.7142
439.89	115.3784
443.98	121.3073
444.90	129.0470
445.03	120.3842
445.03	120.3842
445.03	120.3842
445.03	120.3842
453.90	120.7245
463.38	119.1472
468.07	108.3257
473.00	99.0989
475.06	115.6894
475.35	114.7273
476.78	106.0235
477.59	107.0217
477.96	107.0338
482.03	125.6774
484.57	106.2750
487.03	101.4749
490.36	0.0000
492.35	106.5238
497.08	116.4622
507.63	0.0000
510.53	0.0000
510.84	106.1273
511.00	106.1319
511.85	106.1576
511.85	106.1576
513.99	98.3563
513.99	98.3563
520.41	99.6349
520.65	97.5619
527.90	105.6651
528.96	0.0000
529.64	111.6454
529.87	0.0000
531.02	103.7823
537.32	111.8910
543.00	92.2348
546.56	0.0000
549.76	94.3970
552.65	98.4489
555.20	102.4996
563.23	98.0741
563.90	84.7904
568.70	112.8703
569.32	112.8896
569.50	112.8952
569.67	112.9007
573.80	91.6890
574.00	91.6935
574.64	111.7185
578.91	103.4998
579.30	0.0000
583.14	104.2869
585.48	93.6501
591.81	95.4824
592.07	95.4894
593.00	104.5611
595.88	76.4694
600.56	103.7645
602.52	0.0000
602.71	95.7584
602.71	95.7584
603.60	82.3386
604.41	85.7180
604.70	89.0860
609.31	98.9546

609.31	98.9546
609.31	98.9546
609.31	98.9546
610.33	98.9810
612.46	89.2650
614.37	89.3103
618.01	86.0210
621.84	91.1711
621.84	91.1711
631.29	84.2847
633.02	79.2416
633.10	79.2435
634.78	76.2268
635.90	75.2321
636.97	72.2030
645.85	76.4410
646.12	77.4658
656.30	99.1219
657.75	78.7126
657.90	0.0000
661.65	102.3242
661.65	102.3242
664.57	0.0000
666.33	76.8311
666.33	76.8311
675.00	88.2865
677.61	95.5339
685.20	91.5922
692.80	82.4805
695.00	84.5875
696.49	83.5866
696.49	83.5866
697.00	87.7247
697.49	85.6708
698.33	96.0107
698.50	96.0152
699.00	102.2218
702.63	93.0081
706.10	97.2221
706.58	0.0000
706.67	89.9949
709.31	84.8748
711.68	100.4575
713.82	90.1457
717.42	82.9629
720.50	84.7531
721.93	0.0000
722.20	79.5959
722.78	69.2220
722.78	69.2220
722.89	69.2236
722.95	69.2253
723.30	64.0379
724.18	72.7070
727.18	81.0735
733.00	74.5904
735.90	75.2197
739.58	85.4754
742.81	58.4158
744.21	69.9133
747.13	91.8887
751.79	82.5778
752.31	79.4512
753.82	80.5248
755.35	61.7210
756.15	69.0567
756.87	77.4398
763.93	103.7663
765.79	98.5669
766.42	87.0446
766.84	92.2969
776.49	80.9346
778.00	89.3724
778.57	95.6944
778.89	88.3394
783.80	71.5893
785.46	74.7753
792.07	84.3770

795.84	59.1131
796.30	65.4527
798.80	108.7938
801.93	80.3307
805.60	70.8734
810.29	84.7109
810.76	80.4847
815.85	65.7297
817.79	68.9387
818.51	75.3144
819.60	70.0267
826.30	70.1266
828.27	0.0000
831.60	81.9065
831.96	81.9140
834.83	91.5430
836.80	0.0000
846.75	76.8340
848.13	59.7762
856.28	0.0000
856.80	62.3794
860.37	81.3326
867.32	64.3022
867.82	67.3704
871.10	84.7302
873.19	72.9639
874.81	59.0337
875.33	0.0000
876.40	68.7172
879.36	73.0552
880.27	77.3666
880.51	77.3719
881.50	68.7875
883.24	60.2109
884.67	50.5491
889.25	54.9022
896.60	60.3736
898.02	65.7835
899.00	62.5610
903.28	64.7739
911.07	58.3862
911.07	58.3862
911.07	58.3862
919.63	44.6771
920.93	58.5009
925.00	60.7168
925.24	60.7195
926.50	69.4109
935.52	67.3614
937.48	65.2134
944.10	79.4445
946.00	59.8783
949.00	76.2532
962.29	60.0663
964.01	87.3984
966.15	32.7876
968.20	32.8008
969.11	60.1455
969.11	60.1455
969.11	60.1455
977.42	60.2395
980.50	58.0839
983.50	62.5024
989.30	58.1797
996.32	79.1420
1001.03	60.5081
1001.68	55.9316
1004.76	78.8998
1021.30	0.0000
1024.50	0.0000
1034.80	63.6543
1036.00	60.9001
1037.82	56.3064
1038.57	56.3138
1038.76	0.0000
1045.16	49.9109
1046.59	58.2448
1048.07	57.3354

1050.47	57.3606
1050.47	57.3606
1062.04	75.0938
1063.62	71.4073
1076.63	73.4292
1077.35	73.4389
1078.86	59.5130
1085.78	69.8273
1099.22	68.1256
1112.02	56.1182
1112.84	49.8893
1115.52	80.2176
1120.29	68.3751
1120.29	68.3751
1120.29	68.3751
1120.29	68.3751
1120.51	68.3781
1121.28	68.3870
1124.00	0.0000
1129.67	66.5234
1131.51	0.0000
1147.95	0.0000
1167.94	67.0421
1173.22	75.6087
1175.09	69.0138
1177.93	86.0716
1189.05	72.9645
1204.90	77.9060
1205.75	0.0000
1213.00	73.2528
1221.42	90.5005
1230.97	84.9187
1235.34	78.2931
1236.41	0.0000
1238.25	75.4640
1246.25	77.4767
1260.41	0.0000
1271.85	60.5057
1274.45	66.2935
1274.54	67.2571
1291.56	65.5098
1298.22	0.0000
1312.09	48.3236
1325.50	54.2340
1325.50	54.2340
1332.49	44.5962
1333.61	46.5430
1360.21	26.2870
1362.66	0.0000
1365.15	33.1270
1368.21	32.1675
1368.53	0.0000
1376.25	25.3748
1384.27	31.2669
1394.10	28.3781
1395.20	39.1471
1407.95	21.5721
1434.06	28.5445
1436.60	24.6165
1457.56	0.0000
1460.81	25.6911
1489.15	19.8421
1509.49	15.9193
1596.49	29.2006
1620.62	19.1933
1678.03	0.0000
1691.02	16.3125
1691.02	16.3125
1706.46	0.0000
1750.46	0.0000
1764.49	14.4079
1764.49	14.4079
1764.49	14.4079
1764.49	14.4079
1770.23	10.5929
1771.40	12.3599
1791.20	0.0000
1808.65	17.5914

1836.01

12.4590

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246344003

Total Uranium Activity	4.1995E+00	ug/g
Total Uranium Counting Unc.	4.7147E+00	ug/g
Total Uranium Tpu	2.4055E-06	ug/g
Total Uranium Mda	3.2066E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON , SC 29417              *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G246344003
*  ANALYST       : MXR1                             DETECTOR    : GAM19
*  SAMPLE DATE   : 1-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 16:58:19.85          SAMPLE ALQT  : 143.810 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.405E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.375E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 2.877E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.398E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 18:59:50.12

```
*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                   *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344004.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:59:10
Sample ID          : G246344004      Sample quantity   : 1.18640E+02 GRAM
Detector name      : GAM23           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:01.67  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000        Sensitivity      : 5.00000
Batch ID           : 950787          Detector SN#     :
Matrix Spike ID    :                 LCS ID            : 1032-A
*****
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.88*	74	299	1.52	125.75	123	7	1.03E-02	42.5	
2	2	74.68*	318	418	1.20	149.36	145	14	4.41E-02	12.2	1.62E+00
3	2	76.98	612	397	1.09	153.95	145	14	8.49E-02	6.8	
4	1	87.06	193	343	1.32	174.13	171	23	2.68E-02	16.2	1.92E+00
5	1	89.63	147	413	1.26	179.26	171	23	2.04E-02	25.7	
6	1	92.55*	223	360	1.37	185.11	171	23	3.10E-02	17.7	
7	0	129.05	92	272	0.77	258.10	254	7	1.28E-02	31.7	
8	0	185.65*	179	238	1.48	371.31	367	8	2.48E-02	17.5	
9	0	208.85	109	298	0.86	417.70	413	10	1.51E-02	31.2	
10	3	238.34*	1147	173	1.17	476.68	471	20	1.59E-01	3.6	9.92E-01
11	3	241.32	282	242	1.95	482.63	471	20	3.92E-02	16.2	
12	0	269.76	99	213	1.11	539.53	534	11	1.38E-02	30.2	
13	3	294.86	371	124	1.36	589.72	582	23	5.16E-02	7.3	1.81E+00
14	3	299.60	101	177	1.64	599.19	582	23	1.40E-02	25.3	
15	0	337.96	210	141	1.24	675.92	671	9	2.91E-02	12.3	
16	0	351.40*	622	169	1.39	702.80	695	15	8.64E-02	6.1	
17	0	462.18	104	81	1.10	924.37	918	12	1.44E-02	19.9	
18	0	510.71*	107	185	2.16	1021.42	1011	21	1.49E-02	35.9	
19	0	582.59*	303	101	1.65	1165.19	1160	11	4.21E-02	8.8	
20	0	608.71*	386	105	1.31	1217.43	1211	14	5.36E-02	7.8	
21	0	727.47	79	96	0.92	1454.94	1449	16	1.10E-02	29.9	
22	0	794.66*	40	57	1.65	1589.32	1584	11	5.52E-03	41.6	
23	0	910.29	250	56	1.48	1820.57	1813	15	3.47E-02	9.1	
24	1	963.69	51	27	2.12	1927.37	1922	21	7.09E-03	24.8	7.03E-01
25	1	968.09	144	24	1.87	1936.19	1922	21	2.00E-02	10.9	
26	0	1119.93	94	85	2.18	2239.86	2230	22	1.31E-02	27.3	
27	0	1238.88	11	85	1.02	2477.75	2473	14	1.55E-03	188.3	
28	0	1459.50*	868	35	2.14	2919.01	2911	18	1.21E-01	3.8	
29	0	1762.92	77	0	2.03	3525.84	3519	13	1.07E-02	11.4	

Flag: "*" = Peak area was modified by background subtraction

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344004.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 1-FEB-2010 12:00:00 Acquisition date : 18-FEB-2010 16:59:10
 Sample ID : G246344004 Sample quantity : 118.64 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA23 Detector geometry: CAN
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.67 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	+	1460.81	*	2.580E+01	2.746E+00	7.851E-01	5.872E-02	32.870
CD-109	+	88.03	*	3.232E+00	1.091E+00	1.606E+00	1.568E-01	2.013
SN-126	+	64.28		9.635E-01	8.322E-01	1.101E+00	1.675E-01	0.875
	+	86.94		1.317E+00	6.937E-01	7.467E-01	3.106E-01	1.763
	+	87.57	*	3.167E-01	1.069E-01	1.583E-01	1.540E-02	2.001
TL-208		277.35		4.791E-01	4.597E-01	7.699E-01	8.135E-02	0.622
	+	510.84		6.160E-01	4.464E-01	2.388E-01	2.425E-02	2.580
	+	583.14	*	4.999E-01	9.344E-02	7.340E-02	4.765E-03	6.811
		860.37		8.995E-01	4.108E-01	7.749E-01	7.005E-02	1.161
BI-211		72.87		1.390E+01	4.787E+00	7.610E+00	6.713E-01	1.827
	+	351.07	*	4.418E+00	6.123E-01	3.601E-01	2.346E-02	12.269
PB-212	+	74.81		2.324E+00	6.392E-01	7.044E-01	9.087E-02	3.299
	+	77.11		2.503E+00	4.085E-01	3.947E-01	3.551E-02	6.341
	+	87.30		1.465E+00	5.158E-01	7.347E-01	1.024E-01	1.994
	+	238.63	*	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
	+	300.09		2.391E+00	1.228E+00	1.458E+00	1.211E-01	1.640
PO-212	+	74.81		2.324E+00	6.392E-01	7.044E-01	9.087E-02	3.299
	+	77.11		2.503E+00	4.085E-01	3.947E-01	3.551E-02	6.341
	+	87.30		1.465E+00	5.158E-01	7.347E-01	1.024E-01	1.994
		115.19		6.817E-01	4.213E+00	6.985E+00	4.456E-01	0.098
	+	238.63	*	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
	+	300.09		2.391E+00	1.228E+00	1.458E+00	1.211E-01	1.640
BI-214	+	609.31	*	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
	+	1120.29		1.572E+00	8.700E-01	5.803E-01	5.393E-02	2.709
		1764.49		1.469E+00	4.259E-01	8.971E-01	5.578E-02	1.638
PB-214	+	74.81		4.004E+00	1.078E+00	1.214E+00	1.405E-01	3.299
	+	77.11		4.291E+00	7.729E-01	6.766E-01	7.977E-02	6.341
	+	87.30		2.509E+00	8.691E-01	1.259E+00	1.560E-01	1.994
	+	241.98		2.592E+00	8.622E-01	6.043E-01	4.806E-02	4.289
	+	295.21		1.550E+00	2.632E-01	2.436E-01	2.088E-02	6.363
	+	351.92	*	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
PO-214	+	74.81		4.004E+00	1.078E+00	1.214E+00	1.405E-01	3.299
	+	77.11		4.291E+00	7.729E-01	6.766E-01	7.977E-02	6.341
	+	87.30		2.509E+00	8.691E-01	1.259E+00	1.560E-01	1.994

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		2.592E+00	8.622E-01	6.043E-01	4.806E-02	4.289
	+	295.21		1.550E+00	2.632E-01	2.436E-01	2.088E-02	6.363
	+	351.92	*	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
	+	74.81		2.324E+00	6.392E-01	7.044E-01	9.087E-02	3.299
	+	77.11		2.503E+00	4.085E-01	3.947E-01	3.551E-02	6.341
	+	87.30		1.465E+00	5.158E-01	7.347E-01	1.024E-01	1.994
PO-218	+	238.63	*	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
	+	300.09		2.391E+00	1.228E+00	1.458E+00	1.211E-01	1.640
	+	74.81		4.004E+00	1.078E+00	1.214E+00	1.405E-01	3.299
	+	77.11		4.291E+00	7.729E-01	6.766E-01	7.977E-02	6.341
	+	87.30		2.509E+00	8.691E-01	1.259E+00	1.560E-01	1.994
	+	241.98		2.592E+00	8.622E-01	6.043E-01	4.806E-02	4.289
RA-224	+	295.21		1.550E+00	2.632E-01	2.436E-01	2.088E-02	6.363
	+	351.92	*	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
	+	240.98	*	4.914E+00	1.611E+00	1.142E+00	6.434E-02	4.303
RA-226	+	609.31	*	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
	+	1120.29		1.572E+00	8.700E-01	5.803E-01	5.393E-02	2.709
AC-228	+	1764.49		1.469E+00	4.259E-01	8.971E-01	5.578E-02	1.638
	+	338.32		1.640E+00	7.816E-01	4.578E-01	1.867E-01	3.581
	+	911.07	*	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
	+	969.11		1.906E+00	6.069E-01	4.040E-01	9.407E-02	4.717
RA-228	+	338.32		1.640E+00	7.816E-01	4.578E-01	1.867E-01	3.581
	+	911.07	*	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
	+	969.11		1.906E+00	6.069E-01	4.040E-01	9.407E-02	4.717
TH-228	+	338.32		1.640E+00	7.816E-01	4.578E-01	1.867E-01	3.581
	+	911.07	*	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
	+	969.11		1.906E+00	6.069E-01	4.040E-01	9.407E-02	4.717
	+	74.81		2.364E+00	6.122E-01	7.166E-01	6.423E-02	3.299
TH-230	+	77.11		2.546E+00	4.156E-01	4.015E-01	3.613E-02	6.341
	+	87.30		1.490E+00	5.031E-01	7.474E-01	7.255E-02	1.994
	+	238.63	*	1.785E+00	1.812E-01	1.021E-01	7.339E-03	17.489
	+	300.09		2.433E+00	1.891E+00	1.483E+00	8.741E-01	1.640
	+	609.31	*	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
	+	1120.29		1.572E+00	8.700E-01	5.803E-01	5.392E-02	2.709
TH-232	+	1764.49		1.469E+00	4.259E-01	8.971E-01	5.578E-02	1.638
	+	338.32		1.640E+00	4.162E-01	4.578E-01	2.704E-02	3.581
	+	911.07	*	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
	+	969.11		1.906E+00	6.069E-01	4.040E-01	9.407E-02	4.717
TH-234	+	63.29	*	2.434E+00	2.115E+00	2.897E+00	5.220E-01	0.840
	+	92.38		2.340E+00	9.310E-01	1.024E+00	1.867E-01	2.286
U-234	+	609.31	*	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
	+	1120.29		1.572E+00	8.700E-01	5.803E-01	5.392E-02	2.709
	+	1764.49		1.469E+00	4.259E-01	8.971E-01	5.578E-02	1.638
NP-237	+	86.50	*	9.300E-01	3.680E-01	5.135E-01	1.169E-01	1.811
	+	95.87		-8.395E-01	1.301E+00	1.806E+00	4.434E-01	-0.465
U-238	+	63.29	*	2.434E+00	2.115E+00	2.897E+00	5.220E-01	0.840
	+	92.38		2.340E+00	8.535E-01	1.024E+00	9.149E-02	2.286
AM-243	+	74.67	*	3.767E-01	9.747E-02	1.146E-01	1.019E-02	3.286
	+	86.72		3.487E+01	1.178E+01	1.984E+01	1.916E+00	1.758
	+	117.66		9.802E-01	4.510E+00	7.488E+00	4.637E-01	0.131
ANH-511	+	142.18		1.364E+01	2.067E+01	3.469E+01	1.889E+00	0.393
	+	511.00	*	1.331E-01	9.579E-02	5.159E-02	2.997E-03	2.579

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.59	*		2.857E-01	4.023E-01	6.937E-01	4.715E-02	0.412
NA-22	1274.54	*		-1.486E-02	5.555E-02	8.788E-02	5.902E-03	-0.169
NA-24	1368.53	*		1.988E+00	5.555E-02	Half-Life too short		
AL-26	1129.67			5.519E-01	2.288E+00	3.341E+00	2.128E-01	0.165
	1808.65	*		-2.538E-02	3.744E-02	5.323E-02	3.199E-03	-0.477
TI-44	67.85			-5.040E-02	6.566E-02	9.835E-02	8.564E-03	-0.512
	78.38	*		4.619E-01	7.540E-02	1.031E-01	9.347E-03	4.480
SC-46	889.25	*		2.462E-03	4.194E-02	7.030E-02	6.281E-03	0.035
	1120.51	+		2.738E-01	1.504E-01	1.582E-01	1.031E-02	1.731
V-48	944.10			3.513E-01	1.090E+00	1.869E+00	1.628E-01	0.188
	983.50	*		-2.512E-02	8.857E-02	1.423E-01	1.184E-02	-0.177
	1312.09			-7.504E-03	1.124E-01	1.814E-01	1.291E-02	-0.041
CR-51	320.08	*		-5.785E-02	4.400E-01	7.324E-01	4.802E-02	-0.079
MN-52	744.21			-2.391E-01	4.093E-01	6.235E-01	3.970E-02	-0.383
	848.13			-3.674E+00	1.043E+01	1.687E+01	1.377E+00	-0.218
	935.52			2.546E-01	3.673E-01	6.500E-01	5.714E-02	0.392
	1246.25			-1.328E+01	1.424E+01	1.710E+01	1.095E+00	-0.777
	1333.61			-3.247E-03	7.069E+00	1.148E+01	8.431E-01	0.000
	1434.06	*		2.863E-01	3.611E-01	6.516E-01	4.715E-02	0.439
MN-54	834.83	*		2.647E-04	4.596E-02	7.688E-02	6.087E-03	0.003
CO-56	846.75	*		4.045E-03	4.706E-02	7.923E-02	6.446E-03	0.051
	977.42			1.698E+00	3.650E+00	6.309E+00	5.290E-01	0.269
	1037.82			3.070E-01	3.613E-01	6.466E-01	5.300E-02	0.475
	1175.09			-6.532E-01	3.011E+00	4.835E+00	2.737E-01	-0.135
	1238.25	+		5.330E-02	2.008E-01	2.223E-01	1.479E-02	0.240
	1360.21			-2.502E-02	1.142E+00	1.847E+00	1.352E-01	-0.014
	1771.40			-1.478E-01	2.732E-01	4.021E-01	2.488E-02	-0.367
CO-57	122.06	*		-5.116E-03	3.128E-02	5.111E-02	3.014E-03	-0.100
	136.48			-1.602E-02	2.479E-01	4.051E-01	2.635E-02	-0.040
CO-58	810.76	*		2.728E-02	4.668E-02	8.203E-02	6.163E-03	0.333
FE-59	142.65			2.421E+00	3.417E+00	5.619E+00	3.056E-01	0.431
	192.34			1.133E+00	1.195E+00	2.003E+00	2.317E-01	0.566
	1099.22	*		-7.949E-02	1.220E-01	1.879E-01	1.447E-02	-0.423
	1291.56			-1.970E-02	1.763E-01	2.838E-01	2.356E-02	-0.069
CO-60	1173.22			1.733E-02	5.609E-02	9.456E-02	5.334E-03	0.183
	1332.49	*		1.241E-02	4.417E-02	7.452E-02	5.471E-03	0.167
ZN-65	1115.52	*		1.222E-01	1.347E-01	2.112E-01	1.395E-02	0.578
GE-68	1077.35	*		-2.388E-01	1.535E+00	2.489E+00	1.781E-01	-0.096
AS-73	53.44	*		2.563E-03	1.374E+00	2.267E+00	2.002E-01	0.001
AS-74	595.88	*		2.944E-02	1.244E-01	2.062E-01	1.137E-02	0.143
	634.78			-5.012E-01	4.978E-01	7.380E-01	3.907E-02	-0.679
SE-75	66.05			-4.176E-01	7.214E+00	1.059E+01	1.112E+00	-0.039
	96.73			-1.150E+00	1.086E+00	1.475E+00	1.978E-01	-0.780
	121.11			-5.505E-02	1.688E-01	2.740E-01	2.555E-02	-0.201
	136.00			1.255E-02	4.681E-02	7.755E-02	4.379E-03	0.162
	198.60			1.250E+00	2.207E+00	3.612E+00	2.439E-01	0.346
	264.65	*		1.554E-02	6.058E-02	8.610E-02	5.012E-03	0.181
	279.53			-2.226E-01	1.309E-01	2.012E-01	1.265E-02	-1.107
	303.91			1.293E+00	2.733E+00	4.139E+00	3.971E-01	0.312

---- Non-Identified Nuclides ----

	Line Nuclide	Energy Ided (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65	1.334E-01	2.915E-01	4.978E-01	4.530E-02	0.268
BR-77	+	87.88	1.281E+03	4.325E+02	7.933E+02	7.741E+01	1.615
		200.40	-2.103E+02	3.688E+02	5.772E+02	3.088E+01	-0.364
	+	239.00	5.185E+02	4.722E+01	8.208E+01	4.615E+00	6.317
		249.79	-5.482E+01	1.467E+02	2.301E+02	1.308E+01	-0.238
		281.68	-1.714E+01	1.935E+02	3.247E+02	1.893E+01	-0.053
		297.23	5.482E+02	1.346E+02	2.552E+02	1.498E+01	2.148
		303.76	2.099E+02	4.235E+02	6.428E+02	3.783E+01	0.327
		439.47	1.944E+01	3.027E+02	5.028E+02	2.942E+01	0.039
		484.57	3.604E+02	4.824E+02	8.365E+02	4.891E+01	0.431
		520.65 *	2.339E+01	2.240E+01	3.878E+01	2.245E+00	0.603
		574.64	-4.933E+02	4.712E+02	7.022E+02	3.941E+01	-0.702
		578.91	3.724E+02	2.243E+02	3.680E+02	2.059E+01	1.012
		585.48	1.210E+03	5.013E+02	8.453E+02	4.704E+01	1.431
		755.35	9.527E+01	3.771E+02	6.198E+02	4.058E+01	0.154
		817.79	4.799E+01	2.956E+02	5.017E+02	3.819E+01	0.096
SR-82		698.33	1.705E+01	5.094E+01	7.807E+01	4.410E+00	0.218
		776.49 *	-2.086E-01	4.698E-01	7.584E-01	5.232E-02	-0.275
		1395.20	1.618E+00	1.364E+01	2.249E+01	1.639E+00	0.072
RB-83		520.41 *	8.242E-02	8.161E-02	1.410E-01	8.161E-03	0.585
		529.64	1.316E-03	1.172E-01	1.921E-01	1.108E-02	0.007
		552.65	3.249E-02	2.120E-01	3.512E-01	2.001E-02	0.093
RB-84		881.50 *	1.101E-02	8.780E-02	1.480E-01	1.301E-02	0.074
KR-85		513.99 *	8.936E+00	9.097E+00	1.419E+01	8.234E-01	0.630
SR-85		513.99 *	4.683E-02	4.768E-02	7.437E-02	4.316E-03	0.630
RB-86		1076.63 *	-1.128E+00	1.097E+00	1.616E+00	1.158E-01	-0.698
Y-88		898.02	1.089E-03	4.680E-02	7.810E-02	7.142E-03	0.014
		1836.01 *	3.821E-03	3.752E-02	6.336E-02	3.731E-03	0.060
ZR-88		392.90 *	-1.264E-02	3.636E-02	5.909E-02	3.411E-03	-0.214
Y-91		1204.90 *	1.315E+00	2.577E+01	4.234E+01	2.526E+00	0.031
NB-94		702.63 *	1.832E-02	4.182E-02	6.988E-02	3.993E-03	0.262
		871.10	1.766E-03	4.187E-02	7.010E-02	6.021E-03	0.025
NB-95		765.79 *	2.662E-02	5.361E-02	8.967E-02	6.026E-03	0.297
NB-95M		235.69 *	7.199E-01	2.009E-01	3.256E-01	2.402E-02	2.211
ZR-95		724.18	2.766E-01	1.314E-01	2.244E-01	1.587E-02	1.232
		756.15 *	2.699E-02	9.017E-02	1.488E-01	1.141E-02	0.181
NB-97		657.90 *	-2.709E-01	9.017E-02	Half-Life	too short	
		1024.50	2.484E+01	9.017E-02	Half-Life	too short	
ZR-97		254.15	-4.298E+00	9.017E-02	Half-Life	too short	
		355.39	-1.677E+01	9.017E-02	Half-Life	too short	
		507.63 *	6.196E+01	9.017E-02	Half-Life	too short	
		602.52	3.084E+01	9.017E-02	Half-Life	too short	
		1021.30	-8.980E+00	9.017E-02	Half-Life	too short	
		1147.95	6.941E+00	9.017E-02	Half-Life	too short	
		1362.66	-8.738E+00	9.017E-02	Half-Life	too short	
		1750.46	-2.808E+01	9.017E-02	Half-Life	too short	
MO-99		140.51	-4.737E+01	5.371E+01	8.224E+01	2.211E+01	-0.576
		181.06	-1.146E+01	3.987E+01	5.553E+01	9.410E+00	-0.206
		366.43	-1.123E+02	1.679E+02	2.682E+02	1.572E+01	-0.419

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		-2.190E+01	2.506E+01	3.668E+01	5.133E+00	-0.597
	778.00			-5.263E+01	6.999E+01	1.100E+02	7.615E+00	-0.479
TC-99M	140.51	*		-1.313E+13	6.999E+01	Half-Life	too short	
RH-101	127.23			4.239E-02	4.629E-02	6.966E-02	4.000E-03	0.609
	198.01	*		1.813E-02	3.993E-02	6.506E-02	3.468E-03	0.279
	325.23			1.709E-03	2.752E-01	4.613E-01	2.726E-02	0.004
RH-102	418.52			-8.828E-02	3.231E-01	5.253E-01	3.061E-02	-0.168
	475.06	*		7.875E-03	3.648E-02	6.095E-02	3.568E-03	0.129
	631.29			6.068E-02	6.916E-02	1.199E-01	6.374E-03	0.506
	697.49			-4.367E-02	1.107E-01	1.598E-01	9.004E-03	-0.273
	766.84			2.052E-01	1.285E-01	2.329E-01	1.569E-02	0.881
	1046.59			1.054E-01	1.320E-01	2.364E-01	1.791E-02	0.446
	1112.84			6.284E-02	3.361E-01	4.761E-01	3.159E-02	0.132
RU-103	497.08	*		4.389E-02	4.998E-02	8.685E-02	1.100E-02	0.505
	610.33			1.200E+01	2.474E+00	3.346E+00	5.115E-01	3.587
RH-106	+ 511.85			6.672E-01	4.804E-01	4.974E-01	2.889E-02	1.341
	621.84	*		1.627E-01	3.960E-01	6.638E-01	7.655E-02	0.245
	1050.47			-8.599E-01	2.684E+00	4.276E+00	3.216E-01	-0.201
RU-106	+ 511.85			6.672E-01	4.804E-01	4.974E-01	2.889E-02	1.341
	621.84	*		1.627E-01	3.956E-01	6.638E-01	3.567E-02	0.245
	1050.47			-8.599E-01	2.684E+00	4.276E+00	3.216E-01	-0.201
AG-108M	433.93	*		-4.827E-03	3.887E-02	6.377E-02	4.043E-03	-0.076
	614.37			3.127E-04	5.090E-02	7.150E-02	4.247E-03	0.004
	722.95			-4.043E-05	5.289E-02	7.339E-02	4.772E-03	-0.001
AG-110M	657.75	*		-1.145E-02	4.479E-02	7.100E-02	3.945E-03	-0.161
	677.61			-4.514E-01	3.902E-01	5.637E-01	3.226E-02	-0.801
	706.67			9.254E-02	2.458E-01	4.096E-01	2.508E-02	0.226
	763.93			-3.323E-01	2.084E-01	2.817E-01	1.972E-02	-1.180
	884.67			-3.034E-02	5.621E-02	8.847E-02	8.065E-03	-0.343
	937.48			-1.117E-01	1.244E-01	1.862E-01	1.691E-02	-0.600
	1384.27			5.664E-02	1.818E-01	3.083E-01	2.338E-02	0.184
IN-111	171.28			-1.883E-01	1.958E+00	3.171E+00	1.626E-01	-0.059
	245.39	*		1.866E+00	2.236E+00	3.326E+00	1.883E-01	0.561
IN-113M	391.69	*		-6.629E-03	5.132E-02	8.459E-02	5.211E-03	-0.078
SN-113	391.69	*		-6.629E-03	5.132E-02	8.459E-02	5.211E-03	-0.078
IN-114M	190.27	*		1.961E-01	2.530E-01	3.749E-01	1.976E-02	0.523
CD-115	260.90			-1.931E+02	3.050E+02	4.699E+02	2.699E+01	-0.411
	492.35			-1.274E+01	7.591E+01	1.231E+02	7.188E+00	-0.103
	527.90	*		4.093E+00	2.300E+01	3.824E+01	2.207E+00	0.107
SN-117M	156.02			-1.454E+00	3.037E+00	4.855E+00	2.540E-01	-0.299
	158.56	*		-1.898E-02	7.397E-02	1.193E-01	6.201E-03	-0.159
SB-122	563.90	*		-4.799E-01	4.256E+00	6.889E+00	3.897E-01	-0.070
	692.80			5.252E+01	9.359E+01	1.580E+02	8.793E+00	0.332
I-123	159.00	*		-3.718E+01	9.359E+01	Half-Life	too short	
	528.96			-7.701E+02	9.359E+01	Half-Life	too short	
TE-123M	159.00	*		-1.315E-02	3.499E-02	5.614E-02	2.962E-03	-0.234
I-124	602.71	*		2.207E-01	1.345E+00	1.924E+00	1.054E-01	0.115
	722.78			-6.220E-01	7.766E+00	1.066E+01	6.421E-01	-0.058
	1325.50			-4.352E+00	6.087E+01	9.805E+01	7.122E+00	-0.044

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1376.25		3.714E+01	5.114E+01	9.055E+01	6.617E+00	0.410
		1509.49		8.565E+00	2.688E+01	4.542E+01	3.221E+00	0.189
		1691.02		2.624E+00	5.096E+00	9.412E+00	6.144E-01	0.279
		602.71		9.288E-03	5.662E-02	8.099E-02	4.440E-03	0.115
		645.85		-1.370E-01	5.998E-01	9.520E-01	5.747E-02	-0.144
		709.31		-3.642E+00	3.469E+00	5.038E+00	2.930E-01	-0.723
		713.82		1.312E+00	2.010E+00	3.420E+00	3.509E-01	0.384
		722.78		-3.795E-02	4.739E-01	6.502E-01	4.089E-02	-0.058
	+	968.20		2.010E+01	4.686E+00	8.630E+00	7.317E-01	2.329
		1045.16		3.362E-01	3.000E+00	5.006E+00	3.800E-01	0.067
		1325.50		-2.836E-01	3.967E+00	6.390E+00	4.641E-01	-0.044
		1368.21		3.287E-01	2.154E+00	3.568E+00	4.525E-01	0.092
		1436.60		3.244E+00	4.613E+00	8.223E+00	5.946E-01	0.394
		1691.02	*	3.776E-02	7.336E-02	1.355E-01	9.444E-03	0.279
SB-125		427.89	*	-8.511E-02	1.089E-01	1.705E-01	1.037E-02	-0.499
	+	463.38		1.163E+00	4.700E-01	6.690E-01	4.558E-02	1.738
		600.56		-4.876E-02	2.313E-01	3.598E-01	2.318E-02	-0.136
		635.90		-2.073E-01	3.295E-01	5.045E-01	3.208E-02	-0.411
TE-125M		109.28	*	-9.375E-01	1.152E+01	1.895E+01	1.691E+00	-0.049
		388.63		-6.215E-02	2.627E-01	4.302E-01	2.488E-02	-0.144
		666.33	*	-2.214E-02	2.562E-01	4.117E-01	2.130E-02	-0.054
SB-126		753.82		-3.344E-01	2.155E+00	3.415E+00	2.227E-01	-0.098
		223.80		-3.233E+00	5.338E+00	8.323E+00	4.596E-01	-0.388
		278.60		-1.077E-01	3.284E+00	5.530E+00	3.217E-01	-0.019
		296.50		1.460E+01	2.474E+00	4.721E+00	2.772E-01	3.092
		414.70		-7.419E-02	9.993E-02	1.575E-01	9.164E-03	-0.471
		415.30		-8.292E+00	8.376E+00	1.296E+01	7.543E-01	-0.640
		555.20		1.171E-01	4.924E+00	8.063E+00	4.586E-01	0.015
		573.80		-9.542E-01	1.395E+00	2.147E+00	1.206E-01	-0.444
		593.00		-2.877E-01	1.382E+00	2.161E+00	1.195E-01	-0.133
		656.30		-1.845E+00	4.738E+00	7.420E+00	3.820E-01	-0.249
		666.33		-9.296E-03	1.076E-01	1.729E-01	8.945E-03	-0.054
		675.00		3.824E-01	2.629E+00	4.307E+00	2.283E-01	0.089
		695.00		-5.037E-02	1.144E-01	1.780E-01	9.968E-03	-0.283
		697.00		-3.427E-01	4.327E-01	6.002E-01	3.379E-02	-0.571
		720.50	*	-1.195E-01	1.951E-01	2.606E-01	1.561E-02	-0.458
		856.80		-1.880E-01	7.453E-01	1.221E+00	1.016E-01	-0.154
		989.30		4.180E-01	1.649E+00	2.800E+00	2.312E-01	0.149
		1034.80		-2.064E+00	1.176E+01	1.907E+01	1.473E+00	-0.108
SB-127		1213.00		1.828E-01	7.222E+00	1.180E+01	7.141E-01	0.015
		61.10		8.018E+01	1.285E+02	1.950E+02	2.311E+01	0.411
		252.40		3.357E+00	7.815E+00	1.260E+01	5.257E+00	0.266
		290.80		1.423E+01	3.731E+01	5.632E+01	5.614E+00	0.253
		411.60		1.352E+01	2.112E+01	3.623E+01	5.394E+00	0.373
		444.90		5.918E+00	1.699E+01	2.871E+01	3.296E+00	0.206
		473.00		-6.199E-01	2.973E+00	4.825E+00	5.715E-01	-0.128
		543.00		2.002E+01	2.919E+01	5.003E+01	6.722E+00	0.400
		603.60		8.467E+00	2.375E+01	3.464E+01	3.902E+00	0.244
		685.20	*	2.312E-01	2.511E+00	4.088E+00	4.084E-01	0.057

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		1.235E+01	3.121E+01	4.799E+01	7.161E+00	0.257
		722.20		-2.092E+01	5.455E+01	7.143E+01	7.188E+00	-0.293
		783.80		4.960E+00	6.471E+00	1.144E+01	1.373E+00	0.433
		57.60		-3.762E-02	9.647E+00	1.565E+01	1.371E+00	-0.002
		145.22		5.359E-01	8.658E-01	1.449E+00	7.819E-02	0.370
		172.10		-2.124E-02	1.443E-01	2.330E-01	1.197E-02	-0.091
I-131		202.84	*	-2.909E-02	6.368E-02	9.239E-02	4.960E-03	-0.315
		374.96		-2.075E-01	2.383E-01	3.746E-01	2.185E-02	-0.554
		80.18		-1.132E+01	8.101E+00	1.101E+01	1.017E+00	-1.028
		284.30		1.792E+00	2.037E+00	3.577E+00	2.326E-01	0.501
		364.48	*	-4.046E-02	1.661E-01	2.689E-01	1.762E-02	-0.150
		636.97		-4.289E-01	2.200E+00	3.507E+00	2.124E-01	-0.122
TE-132		722.89		-3.050E-01	1.064E+01	1.471E+01	9.016E-01	-0.021
		49.72		6.618E+00	5.042E+01	8.528E+01	9.604E+00	0.078
		111.76		-2.638E+01	5.510E+01	8.907E+01	8.937E+00	-0.296
		116.30		2.773E+01	5.184E+01	8.703E+01	8.527E+00	0.319
		228.16	*	1.850E-01	1.287E+00	2.063E+00	3.035E-01	0.090
		53.15		1.074E+00	5.823E+00	9.671E+00	8.530E-01	0.111
BA-133		79.62		-3.054E-01	1.837E+00	2.669E+00	4.143E-01	-0.114
		81.00		-2.340E-01	1.470E-01	1.922E-01	3.117E-02	-1.217
		276.40		6.877E-01	4.753E-01	7.800E-01	1.011E-01	0.882
		302.84		6.413E-02	1.867E-01	2.800E-01	3.276E-02	0.229
		356.01	*	-3.595E-02	5.661E-02	7.731E-02	8.970E-03	-0.465
		383.85		2.083E-01	3.402E-01	5.866E-01	6.378E-02	0.355
I-133	+	510.53		7.206E+00	3.402E-01	Half-Life	too short	
		529.87	*	-2.730E-03	3.402E-01	Half-Life	too short	
		706.58		1.026E+00	3.402E-01	Half-Life	too short	
		856.28		-4.676E+00	3.402E-01	Half-Life	too short	
		875.33		5.927E-02	3.402E-01	Half-Life	too short	
		1236.41		7.302E+00	3.402E-01	Half-Life	too short	
CS-134		1298.22		5.477E-01	3.402E-01	Half-Life	too short	
		475.35		1.934E+00	2.353E+00	4.084E+00	2.391E-01	0.473
		563.23		1.706E-01	4.146E-01	6.990E-01	4.043E-02	0.244
		569.32		1.684E-01	2.364E-01	4.064E-01	2.362E-02	0.414
		604.70		2.780E-03	4.976E-02	7.033E-02	3.871E-03	0.040
	+	795.84	*	9.607E-02	8.016E-02	1.090E-01	7.963E-03	0.881
CS-135		801.93		3.391E-01	4.818E-01	8.010E-01	5.920E-02	0.423
		1038.57		2.650E+00	4.502E+00	7.868E+00	6.039E-01	0.337
		1167.94		-5.025E-01	3.162E+00	5.103E+00	2.926E-01	-0.098
		1365.15		2.894E-01	1.427E+00	2.383E+00	1.853E-01	0.121
		268.24	*	4.520E-01	2.272E-01	3.563E-01	2.722E-02	1.269
		288.45		-5.215E+12	2.272E-01	Half-Life	too short	
I-135		417.63		-5.951E+11	2.272E-01	Half-Life	too short	
		546.56		-1.244E+12	2.272E-01	Half-Life	too short	
		836.80		1.790E+12	2.272E-01	Half-Life	too short	
		1038.76		1.882E+12	2.272E-01	Half-Life	too short	
		1124.00		-4.692E+12	2.272E-01	Half-Life	too short	
		1131.51		-9.218E+11	2.272E-01	Half-Life	too short	
		1260.41	*	3.403E+11	2.272E-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
CS-136		1457.56		2.048E+14	2.272E-01	Half-Life	too short	
		1678.03		1.985E+10	2.272E-01	Half-Life	too short	
		1706.46		-1.930E+12	2.272E-01	Half-Life	too short	
		1791.20		3.624E+11	2.272E-01	Half-Life	too short	
	+	66.91		5.225E-01	1.283E+00	1.921E+00	2.975E-01	0.272
		86.29		4.614E+00	1.619E+00	2.825E+00	3.826E-01	1.633
		153.22		7.638E-01	8.828E-01	1.488E+00	1.014E-01	0.513
		163.89		-4.538E-01	1.499E+00	2.337E+00	1.572E-01	-0.194
		176.55		-2.582E-02	4.894E-01	7.931E-01	4.731E-02	-0.033
		273.65		-8.657E-01	7.400E-01	9.350E-01	6.187E-02	-0.926
		340.57		3.524E-01	1.835E-01	3.025E-01	1.896E-02	1.165
		818.51		-5.661E-03	1.003E-01	1.671E-01	1.276E-02	-0.034
		1048.07	*	7.437E-02	1.391E-01	2.434E-01	1.940E-02	0.306
		1235.34		1.528E+00	1.049E+00	1.684E+00	1.730E-01	0.907
BA-137M		661.65	*	2.424E-02	4.669E-02	7.857E-02	4.014E-03	0.309
CS-137		661.65	*	2.562E-02	4.935E-02	8.305E-02	4.266E-03	0.309
CE-139		165.85	*	-7.904E-03	3.608E-02	5.818E-02	2.966E-03	-0.136
BA-140		162.64		-8.861E-02	1.061E+00	1.672E+00	9.937E-02	-0.053
LA-140		304.84		1.510E+00	1.857E+00	2.818E+00	7.695E-01	0.536
		423.70		1.755E+00	2.480E+00	4.196E+00	1.334E+00	0.418
	*	537.32		1.938E-01	3.468E-01	5.827E-01	1.895E-01	0.333
		328.77		7.322E-01	4.018E-01	7.273E-01	4.796E-02	1.007
		432.53		3.138E+00	2.684E+00	4.771E+00	3.076E-01	0.658
		487.03		4.462E-02	1.765E-01	2.959E-01	1.954E-02	0.151
		751.79		3.640E-01	2.427E+00	3.953E+00	3.032E-01	0.092
		815.85		-2.431E-02	4.456E-01	7.425E-01	6.453E-02	-0.033
		867.82		1.269E+00	1.893E+00	3.337E+00	2.999E-01	0.380
		919.63		-4.364E-01	3.940E+00	6.486E+00	7.069E-01	-0.067
CE-141		925.24		2.936E-01	1.492E+00	2.527E+00	2.377E-01	0.116
	*	1596.49		-1.114E-02	1.183E-01	1.947E-01	1.336E-02	-0.057
		145.44	*	1.881E-02	7.909E-02	1.305E-01	7.362E-03	0.144
	CE-143	57.37		-1.150E-03	7.909E-02	Half-Life	too short	
		231.56		-6.456E-03	7.909E-02	Half-Life	too short	
CE-144		293.26	*	3.460E-03	7.909E-02	Half-Life	too short	
	+	350.59		1.005E-01	7.909E-02	Half-Life	too short	
		490.36		-9.041E-03	7.909E-02	Half-Life	too short	
		664.57		3.060E-03	7.909E-02	Half-Life	too short	
		721.93		-1.828E-03	7.909E-02	Half-Life	too short	
PM-144		80.11		-4.280E+00	3.133E+00	4.267E+00	3.911E-01	-1.003
	*	133.54		9.561E-02	2.627E-01	4.054E-01	5.725E-02	0.236
		476.78		6.209E-02	8.458E-02	1.459E-01	1.020E-02	0.426
PR-144		618.01		-1.241E-02	3.994E-02	6.324E-02	3.649E-03	-0.196
	*	696.49		-5.492E-02	5.068E-02	6.861E-02	3.860E-03	-0.800
		778.57		-3.186E+00	2.874E+00	4.369E+00	3.031E-01	-0.729
	*	696.49		-3.726E+00	3.438E+00	4.654E+00	2.616E-01	-0.800
PM-146		1489.15		-9.949E+00	1.304E+01	1.776E+01	1.267E+00	-0.560
	*	453.90		3.295E-02	5.344E-02	8.960E-02	7.760E-03	0.368
		633.02		-6.097E-01	1.773E+00	2.772E+00	1.019E+00	-0.220
		735.90		-7.179E-02	2.214E-01	2.926E-01	8.184E-02	-0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13		7.803E-02	1.179E-01	1.997E-01	2.557E-02	0.391
		91.11		1.343E+00	4.923E-01	7.611E-01	7.483E-02	1.765
		319.41		-2.364E+00	4.253E+00	6.904E+00	4.080E-01	-0.342
		439.89		4.207E-01	7.604E+00	1.262E+01	7.389E-01	0.033
PM-149	*	531.02		-8.103E-01	7.457E-01	1.097E+00	1.481E-01	-0.739
		285.90		-3.776E+01	2.008E+02	3.350E+02	4.757E+01	-0.113
EU-152		121.78		-1.576E-02	9.029E-02	1.475E-01	1.134E-02	-0.107
		244.69		3.661E-01	4.217E-01	6.277E-01	3.551E-02	0.583
		344.27	*	-1.034E-01	1.434E-01	1.835E-01	1.216E-02	-0.564
		443.98		-3.376E-01	1.132E+00	1.831E+00	1.072E-01	-0.184
		778.89		-4.026E-01	3.276E-01	4.913E-01	3.409E-02	-0.820
		867.32		5.535E-01	1.029E+00	1.793E+00	1.527E-01	0.309
		964.01	+	7.764E-01	3.906E-01	7.173E-01	6.112E-02	1.082
		1085.78		-4.591E-01	4.915E-01	7.285E-01	5.127E-02	-0.630
GD-153		1112.02		-9.677E-02	4.816E-01	6.462E-01	4.295E-02	-0.150
		1407.95		2.865E-01	2.024E-01	3.922E-01	2.852E-02	0.730
		69.67		7.357E-01	2.390E+00	3.564E+00	3.114E-01	0.206
		83.37		2.119E+01	2.082E+01	3.167E+01	2.973E+00	0.669
EU-154		97.43	*	-5.017E-04	1.077E-01	1.566E-01	1.280E-02	-0.003
		103.18		-1.392E-01	1.309E-01	2.070E-01	1.547E-02	-0.673
		123.07		-1.364E-02	6.659E-02	1.048E-01	9.895E-03	-0.130
		247.94		3.200E-02	4.877E-01	6.851E-01	6.485E-02	0.047
		591.81		-5.484E-02	8.280E-01	1.310E+00	1.260E-01	-0.042
		723.30		1.701E-01	2.247E-01	3.423E-01	2.490E-02	0.497
		756.87		-7.950E-02	9.680E-01	1.543E+00	1.635E-01	-0.052
		873.19		-1.466E-01	3.574E-01	5.724E-01	7.012E-02	-0.256
EU-155		996.32		-3.451E-01	4.789E-01	7.330E-01	1.287E-01	-0.471
		1004.76		-9.228E-02	2.584E-01	4.121E-01	4.635E-02	-0.224
		1274.45	*	-4.001E-02	1.552E-01	2.457E-01	2.439E-02	-0.163
		48.70		-7.717E-01	4.129E+00	6.901E+00	5.566E-01	-0.112
TB-160	+	60.01		2.852E+00	7.516E+00	1.131E+01	9.825E-01	0.252
		86.54		3.817E-01	1.290E-01	2.309E-01	2.244E-02	1.653
		105.31	*	4.891E-02	1.311E-01	2.196E-01	1.619E-02	0.223
		86.79	+	1.039E+00	3.510E-01	6.224E-01	6.014E-02	1.670
	+	197.04		3.064E-01	6.921E-01	1.127E+00	6.001E-02	0.272
		215.65		6.118E-01	9.438E-01	1.565E+00	8.553E-02	0.391
		298.57	+	3.550E-01	1.811E-01	2.503E-01	1.470E-02	1.419
		879.36	*	9.819E-02	1.738E-01	3.039E-01	2.657E-02	0.323
HO-166M	+	962.29		1.462E+00	7.356E-01	1.251E+00	1.068E-01	1.168
		966.15		1.682E+00	3.623E-01	7.040E-01	5.984E-02	2.389
		1177.93		1.486E-01	4.717E-01	7.948E-01	4.521E-02	0.187
		1271.85		-8.592E-02	8.966E-01	1.446E+00	9.650E-02	-0.059
	+	80.57		-8.296E-01	4.081E-01	5.318E-01	4.890E-02	-1.560
		184.41		1.430E-01	5.057E-02	8.097E-02	4.231E-03	1.766
		280.46		-1.491E-01	1.023E-01	1.598E-01	9.307E-03	-0.933
		410.95		2.875E-01	2.939E-01	5.150E-01	2.994E-02	0.558
	*	711.68		3.585E-02	6.998E-02	1.181E-01	6.912E-03	0.304
		752.31		9.378E-02	3.449E-01	5.676E-01	3.688E-02	0.165
		810.29		1.088E-02	7.094E-02	1.204E-01	9.003E-03	0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-2.777E+01	4.997E+01	8.213E+01	7.139E+00	-0.338
		52.39		-2.955E+00	2.575E+01	4.227E+01	3.714E+00	-0.070
		59.40		3.432E+01	4.121E+01	6.333E+01	5.501E+00	0.542
LU-176		66.72	*	1.534E+01	4.184E+01	6.264E+01	5.447E+00	0.245
	+	88.36		5.508E-01	2.880E-01	4.718E-01	4.573E-02	1.167
		201.83		-3.691E-02	3.514E-02	5.364E-02	2.875E-03	-0.688
		306.84	*	-7.998E-03	2.931E-02	4.722E-02	2.782E-03	-0.169
LU-177		401.10		3.900E+00	7.683E+00	1.316E+01	7.623E-01	0.296
		112.95		-1.048E+00	2.359E+00	3.819E+00	2.504E-01	-0.274
LU-177M	+	208.36	*	3.654E+00	2.286E+00	2.969E+00	1.606E-01	1.231
		52.97		2.688E-01	2.675E+00	4.429E+00	3.904E-01	0.061
		54.07		-5.965E-01	1.388E+00	2.251E+00	1.990E-01	-0.265
		61.30		2.011E+00	2.302E+00	3.532E+00	3.068E-01	0.569
		121.62		-1.440E-01	4.683E-01	7.609E-01	4.497E-02	-0.189
		147.16		-5.369E-01	7.929E-01	1.260E+00	6.758E-02	-0.426
		171.86		-1.309E-02	5.667E-01	9.205E-01	4.726E-02	-0.014
		218.09		2.452E-01	1.070E+00	1.708E+00	9.361E-02	0.144
	+	268.79		2.358E+00	1.431E+00	1.818E+00	1.050E-01	1.297
		319.02		-2.010E-01	2.919E-01	4.699E-01	2.775E-02	-0.428
		367.43		-7.593E-01	1.070E+00	1.704E+00	9.982E-02	-0.446
		413.65	*	-5.657E-02	2.109E-01	3.436E-01	1.999E-02	-0.165
	HF-181	56.28		5.225E-03	1.479E+00	2.483E+00	2.187E-01	0.002
		57.53		-1.403E-01	8.120E-01	1.309E+00	1.147E-01	-0.107
		65.20		2.415E-01	1.469E+00	2.181E+00	1.895E-01	0.111
		133.02		3.025E-02	9.108E-02	1.334E-01	7.487E-03	0.227
		136.25		6.321E-02	5.584E-01	9.193E-01	5.102E-02	0.069
		345.85		-2.566E-01	2.739E-01	3.649E-01	2.152E-02	-0.703
		482.03	*	-6.805E-02	5.706E-02	8.322E-02	4.867E-03	-0.818
W-181		56.28		2.072E-03	5.663E-01	9.507E-01	8.371E-02	0.002
		57.53		-5.402E-02	3.111E-01	5.013E-01	4.393E-02	-0.108
TA-182		65.20	*	9.181E-02	5.585E-01	8.291E-01	7.202E-02	0.111
		67.75		-1.188E-01	1.590E-01	2.384E-01	2.075E-02	-0.498
		100.10		2.024E-01	2.343E-01	3.726E-01	2.916E-02	0.543
		152.43		3.391E-01	4.083E-01	6.882E-01	3.637E-02	0.493
		222.10		1.587E-01	4.094E-01	6.717E-01	3.701E-02	0.236
		1001.68		1.963E+00	2.514E+00	4.445E+00	3.609E-01	0.442
	+	1121.28		7.528E-01	4.136E-01	4.174E-01	2.715E-02	1.803
		1189.05		1.231E-01	3.959E-01	6.664E-01	3.867E-02	0.185
		1221.42	*	1.577E-01	2.422E-01	4.192E-01	2.573E-02	0.376
RE-183		1230.97		-2.388E-01	6.432E-01	9.624E-01	6.004E-02	-0.248
		57.98		1.484E-01	3.191E-01	5.070E-01	4.434E-02	0.293
		59.32		1.499E-01	1.732E-01	2.665E-01	2.316E-02	0.563
		67.20		9.140E-02	2.992E-01	4.466E-01	3.886E-02	0.205
		162.32	*	-5.435E-03	1.414E-01	2.232E-01	1.148E-02	-0.024
	+	208.81		2.702E+00	1.690E+00	2.210E+00	1.196E-01	1.223
		291.72		8.525E-01	1.186E+00	1.831E+00	1.073E-01	0.466
RE-184		57.98		5.403E-01	1.162E+00	1.846E+00	1.614E-01	0.293
		59.32		5.454E-01	6.299E-01	9.693E-01	8.424E-02	0.563
		67.20		3.326E-01	1.089E+00	1.625E+00	1.414E-01	0.205

Sample ID : G246344004

Acquisition date : 18-FEB-2010 16:59:10

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		3.285E-01	4.344E-01	7.292E-01	3.762E-02	0.451
		216.55		1.156E-01	3.398E-01	5.454E-01	2.984E-02	0.212
		252.85	*	3.196E-02	2.869E-01	4.622E-01	2.636E-02	0.069
		318.01		-4.375E-01	4.959E-01	7.874E-01	4.649E-02	-0.556
		792.07		1.213E+00	1.495E+00	2.345E+00	1.680E-01	0.517
		903.28		-1.251E-01	1.343E+00	1.901E+00	1.722E-01	-0.066
		920.93		-1.412E-01	5.650E-01	9.175E-01	8.183E-02	-0.154
		59.72		2.351E-01	4.590E-01	6.952E-01	6.037E-02	0.338
		61.14		1.820E-01	2.541E-01	3.876E-01	3.366E-02	0.470
		69.30		-2.615E-01	4.237E-01	6.392E-01	5.580E-02	-0.409
		592.07		6.660E-01	3.330E+00	5.371E+00	2.972E-01	0.124
		646.12	*	-7.134E-03	5.058E-02	8.094E-02	4.224E-03	-0.088
		717.42		-4.641E-01	1.039E+00	1.599E+00	9.501E-02	-0.290
		874.81		1.234E-01	7.154E-01	1.212E+00	1.049E-01	0.102
		880.27		7.726E-01	9.389E-01	1.677E+00	1.469E-01	0.461
RE-188		155.03	*	5.471E-02	2.088E-01	3.444E-01	1.807E-02	0.159
		477.96		1.399E+00	3.921E+00	6.610E+00	3.868E-01	0.212
		633.10		-1.325E+00	3.622E+00	5.698E+00	3.023E-01	-0.233
W-188	+	63.58		9.990E+01	8.537E+01	1.264E+02	1.098E+01	0.790
		227.08		-3.491E+00	1.578E+01	2.485E+01	1.378E+00	-0.140
IR-192		290.67	*	3.144E+00	9.034E+00	1.361E+01	7.970E-01	0.231
	+	295.96		1.205E+00	1.907E-01	3.373E-01	2.011E-02	3.573
		308.46		-1.111E-01	1.159E-01	1.845E-01	1.099E-02	-0.603
		316.51	*	-4.286E-02	3.994E-02	6.276E-02	3.723E-03	-0.683
		468.07		2.522E-02	8.610E-02	1.268E-01	8.542E-03	0.199
AU-195		604.41		-8.155E-02	6.777E-01	9.400E-01	1.051E-01	-0.087
		612.46		2.873E-01	1.005E+00	1.455E+00	1.061E-01	0.197
		65.12		5.486E-02	2.584E-01	3.844E-01	3.339E-02	0.143
		66.83		5.490E-02	1.391E-01	2.085E-01	1.813E-02	0.263
	+	75.70		1.229E+00	3.179E-01	6.266E-01	5.596E-02	1.961
TL-200		98.88	*	3.738E-01	3.034E-01	4.675E-01	3.730E-02	0.800
	+	129.76		6.061E+00	3.856E+00	6.141E+00	3.491E-01	0.987
		367.94	*	-7.078E-04	3.856E+00	Half-Life	too short	
		579.30		5.177E-02	3.856E+00	Half-Life	too short	
TL-201		828.27		-1.035E-02	3.856E+00	Half-Life	too short	
		1205.75		-9.743E-03	3.856E+00	Half-Life	too short	
		68.90		-6.293E+00	1.085E+01	1.640E+01	1.431E+00	-0.384
		70.82		-2.849E-01	6.303E+00	9.243E+00	8.099E-01	-0.031
		80.30		-1.726E+01	1.184E+01	1.603E+01	1.472E+00	-1.076
TL-202		135.34		2.393E+01	4.861E+01	8.121E+01	4.522E+00	0.295
		167.43	*	3.928E+00	1.321E+01	2.177E+01	1.111E+00	0.180
		68.90		-3.958E-01	6.826E-01	1.032E+00	9.000E-02	-0.384
		70.82		-1.787E-02	3.954E-01	5.798E-01	5.080E-02	-0.031
		80.30		-1.083E+00	7.431E-01	1.006E+00	9.234E-02	-1.076
HG-203		439.56	*	6.330E-03	8.970E-02	1.490E-01	8.720E-03	0.042
		70.83		-6.712E-02	1.570E+00	2.303E+00	3.154E-01	-0.029
		72.87		2.853E+00	1.023E+00	1.561E+00	2.082E-01	1.827
		82.60		1.328E+00	1.883E+00	2.417E+00	3.432E-01	0.550
		279.20	*	-5.982E-02	4.986E-02	7.902E-02	4.881E-03	-0.757

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		7.415E-01	2.762E-01	4.381E-01	3.864E-02	1.693
	+	74.97		6.763E-01	1.750E-01	3.101E-01	2.759E-02	2.181
		84.90		6.741E-01	2.696E-01	4.248E-01	4.038E-02	1.587
		569.67		2.238E-02	3.738E-02	6.371E-02	3.589E-03	0.351
		1063.62	*	4.060E-02	5.863E-02	1.035E-01	7.605E-03	0.392
TL-207		1770.23		-1.643E+00	7.226E-01	6.905E-01	4.275E-02	-2.379
		81.07		-5.038E-01	3.169E-01	4.252E-01	3.924E-02	-1.185
		83.78		2.647E-01	1.758E-01	2.715E-01	2.557E-02	0.975
		94.90		3.323E-01	3.119E-01	4.755E-01	4.057E-02	0.699
		122.32		-2.776E-01	2.151E+00	3.519E+00	2.381E-01	-0.079
		144.24		8.986E-01	8.243E-01	1.372E+00	9.500E-02	0.655
		154.21		2.736E-01	4.752E-01	7.930E-01	5.212E-02	0.345
	+	269.46		5.470E-01	3.321E-01	4.203E-01	2.541E-02	1.301
		323.87	*	-8.653E-01	8.207E-01	1.279E+00	2.117E-01	-0.677
	+	338.28		6.846E+00	1.839E+00	2.879E+00	3.049E-01	2.378
PO-209		445.03		9.705E-01	2.717E+00	4.595E+00	4.733E-01	0.211
		260.50		-8.184E+00	1.178E+01	1.808E+01	1.038E+00	-0.453
		262.80		1.025E+00	3.313E+01	5.118E+01	2.944E+00	0.020
		896.60	*	-2.167E-01	8.342E+00	1.386E+01	1.258E+00	-0.016
BI-210		46.50	*	1.106E+00	6.237E+00	1.058E+01	8.239E-01	0.105
PB-210		46.50	*	1.106E+00	6.237E+00	1.058E+01	8.239E-01	0.105
PO-210		46.50	*	1.106E+00	6.237E+00	1.058E+01	7.099E-01	0.105
PB-211		404.84	*	-8.623E-01	1.231E+00	1.748E+00	1.090E+00	-0.493
		427.08		-2.422E+00	2.816E+00	3.669E+00	2.268E+00	-0.660
		831.96		8.583E-01	1.574E+00	2.590E+00	1.621E+00	0.331
	+	727.18	*	1.129E+00	6.820E-01	8.038E-01	6.380E-02	1.405
BI-212		785.46		1.815E+00	2.189E+00	3.895E+00	2.746E-01	0.466
		1620.62		1.632E+00	1.320E+00	2.636E+00	1.788E-01	0.619
		81.07		-5.038E-01	3.169E-01	4.252E-01	3.924E-02	-1.185
		83.78		2.647E-01	1.758E-01	2.715E-01	2.557E-02	0.975
PO-215		94.90		3.323E-01	3.119E-01	4.755E-01	4.057E-02	0.699
		122.32		-2.776E-01	2.151E+00	3.519E+00	2.381E-01	-0.079
		144.24		8.986E-01	8.243E-01	1.372E+00	9.500E-02	0.655
		154.21		2.736E-01	4.752E-01	7.930E-01	5.212E-02	0.345
	+	269.46		5.470E-01	3.321E-01	4.203E-01	2.541E-02	1.301
		323.87	*	-8.653E-01	8.207E-01	1.279E+00	2.117E-01	-0.677
	+	338.28		6.846E+00	1.839E+00	2.879E+00	3.049E-01	2.378
		445.03		9.705E-01	2.717E+00	4.595E+00	4.733E-01	0.211
RN-219	+	271.23		7.018E-01	4.278E-01	5.320E-01	4.307E-02	1.319
		401.81	*	5.861E-01	4.715E-01	8.325E-01	1.133E-01	0.704
RN-220		549.76	*	-2.206E+01	2.876E+01	4.379E+01	2.499E+00	-0.504
RA-223		81.07		-5.038E-01	3.169E-01	4.252E-01	3.924E-02	-1.185
		83.78		2.647E-01	1.758E-01	2.715E-01	2.557E-02	0.975
		94.90		3.323E-01	3.119E-01	4.755E-01	4.057E-02	0.699
		122.32		-2.776E-01	2.151E+00	3.519E+00	2.381E-01	-0.079
		144.24		8.986E-01	8.243E-01	1.372E+00	9.500E-02	0.655
		154.21		2.736E-01	4.752E-01	7.930E-01	5.212E-02	0.345
	+	269.46		5.470E-01	3.321E-01	4.203E-01	2.541E-02	1.301
		323.87	*	-8.653E-01	8.207E-01	1.279E+00	2.117E-01	-0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28		6.846E+00	1.839E+00	2.879E+00	3.049E-01	2.378
		445.03		9.705E-01	2.717E+00	4.595E+00	4.733E-01	0.211
		79.80		-8.390E-01	2.319E+00	3.329E+00	7.231E-01	-0.252
		236.00		2.885E+00	4.886E-01	7.265E-01	7.515E-02	3.971
		256.20	*	2.993E-01	4.726E-01	7.788E-01	1.085E-01	0.384
TH-227		286.10		-1.033E+00	1.823E+00	2.894E+00	3.351E-01	-0.357
	+	299.80		4.432E+00	2.360E+00	3.157E+00	5.151E-01	1.404
		304.40		2.583E+00	2.392E+00	3.726E+00	6.456E-01	0.693
		334.20		-2.224E+00	3.074E+00	4.177E+00	7.673E-01	-0.532
		79.80		-8.390E-01	2.319E+00	3.329E+00	7.321E-01	-0.252
TH-229	+	94.00		9.043E+00	3.761E+00	4.548E+00	9.915E-01	1.988
		236.00		2.885E+00	4.648E-01	7.265E-01	6.489E-02	3.971
		256.20	*	2.993E-01	4.734E-01	7.788E-01	1.314E-01	0.384
		286.10		-1.033E+00	2.093E+00	2.894E+00	2.898E+00	-0.357
	+	299.80		4.432E+00	2.360E+00	3.157E+00	5.151E-01	1.404
PA-231		304.40		2.583E+00	2.392E+00	3.726E+00	6.456E-01	0.693
		334.20		-2.224E+00	3.074E+00	4.177E+00	7.673E-01	-0.532
		85.43		7.500E-01	2.765E-01	4.349E-01	4.153E-02	1.724
	+	88.47		3.171E-01	1.658E-01	2.694E-01	2.605E-02	1.177
		100.00		2.183E-01	2.407E-01	3.833E-01	3.005E-02	0.569
TH-231		193.63	*	-2.898E-01	6.339E-01	1.005E+00	5.325E-02	-0.288
		210.97		8.464E-01	1.085E+00	1.598E+00	8.679E-02	0.530
		283.67	*	2.304E+00	1.797E+00	3.168E+00	4.370E-01	0.727
		301.29		1.070E+00	7.950E-01	1.255E+00	1.318E-01	0.853
		81.07		-5.038E-01	3.169E-01	4.252E-01	3.924E-02	-1.185
U-231		83.78		2.647E-01	1.758E-01	2.715E-01	2.557E-02	0.975
		94.90		3.323E-01	3.119E-01	4.755E-01	4.057E-02	0.699
		122.32		-2.776E-01	2.151E+00	3.519E+00	2.381E-01	-0.079
		144.24		8.986E-01	8.243E-01	1.372E+00	9.500E-02	0.655
		154.21		2.736E-01	4.752E-01	7.930E-01	5.212E-02	0.345
PA-233	+	269.46		5.470E-01	3.321E-01	4.203E-01	2.541E-02	1.301
		323.87	*	-8.653E-01	8.207E-01	1.279E+00	2.117E-01	-0.677
	+	338.28		6.846E+00	1.839E+00	2.879E+00	3.049E-01	2.378
		445.03		9.705E-01	2.717E+00	4.595E+00	4.733E-01	0.211
	+	84.21		1.858E+01	1.061E+01	1.648E+01	1.558E+00	1.127
PA-234		92.29		1.261E+01	4.599E+00	6.866E+00	6.145E-01	1.837
		95.87	*	-1.343E+00	2.058E+00	2.889E+00	2.424E-01	-0.465
		108.00		-1.142E+00	3.519E+00	5.735E+00	4.008E-01	-0.199
	+	75.28		1.973E+01	5.687E+00	9.722E+00	1.508E+00	2.030
	+	86.59		6.200E+00	2.619E+00	3.739E+00	1.016E+00	1.658
PA-234	+	300.12		1.236E+00	6.480E-01	8.824E-01	1.189E-01	1.400
		311.98	*	7.109E-02	7.262E-02	1.281E-01	8.007E-03	0.555
		340.50		1.723E+00	8.935E-01	1.345E+00	3.093E-01	1.281
		398.62		8.331E-02	2.359E+00	3.926E+00	1.015E+00	0.021
		415.76		-1.087E+00	1.942E+00	3.079E+00	6.340E-01	-0.353
PA-234	+	63.00		2.837E+00	2.452E+00	3.618E+00	5.621E-01	0.784
		94.67		8.468E-02	2.116E-01	3.547E-01	4.386E-02	0.239
		98.44		1.107E-01	1.373E-01	1.868E-01	1.041E-01	0.593
		99.86		5.895E-01	6.111E-01	9.752E-01	7.661E-02	0.604

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-4.548E-02	2.184E-01	3.571E-01	3.863E-02	-0.127
		131.20		-4.814E-02	1.449E-01	2.046E-01	1.156E-02	-0.235
		152.70		3.220E-01	3.905E-01	6.533E-01	1.021E-01	0.493
	+	186.00		5.148E+00	2.387E+00	2.892E+00	8.806E-01	1.780
		226.40		-3.004E-01	4.772E-01	7.328E-01	8.378E-02	-0.410
		227.20		-1.266E-01	5.216E-01	8.204E-01	4.550E-02	-0.154
		248.90		-3.539E-01	1.068E+00	1.539E+00	3.303E-01	-0.230
	+	293.70		7.440E+00	1.620E+00	2.065E+00	3.326E-01	3.603
		369.80		5.527E-01	9.992E-01	1.709E+00	3.562E-01	0.323
		568.70		9.619E-01	1.204E+00	2.081E+00	1.173E-01	0.462
		569.50		1.902E-01	3.310E-01	5.633E-01	3.174E-02	0.338
		574.00		-1.914E+00	1.830E+00	2.728E+00	1.532E-01	-0.702
		699.00		9.207E-01	9.286E-01	1.591E+00	2.854E-01	0.579
		706.10		2.002E-01	1.230E+00	2.008E+00	8.860E-01	0.100
		733.00		1.568E-02	5.168E-01	7.194E-01	1.537E-01	0.022
		742.81		-2.408E-01	1.718E+00	2.715E+00	1.818E+00	-0.089
		796.30		8.163E-01	1.363E+00	2.073E+00	5.524E-01	0.394
		805.60		-9.964E-01	1.199E+00	1.793E+00	5.439E-01	-0.556
		819.60		1.921E-01	1.512E+00	2.555E+00	9.661E-01	0.075
		826.30		-5.231E-01	1.031E+00	1.604E+00	7.150E-01	-0.326
		831.60		3.623E-01	7.550E-01	1.300E+00	3.853E-01	0.279
		876.40		-2.820E-01	1.046E+00	1.633E+00	1.679E+00	-0.173
		880.51		2.799E-01	3.348E-01	5.984E-01	5.246E-02	0.468
		883.24		9.231E-02	3.374E-01	5.672E-01	3.815E-01	0.163
		899.00		1.415E-01	9.551E-01	1.610E+00	7.052E-01	0.088
		925.00		4.404E-01	1.388E+00	2.377E+00	2.111E-01	0.185
		926.50		3.424E-02	2.035E-01	3.434E-01	8.711E-02	0.100
		946.00	*	2.286E-01	3.460E-01	6.068E-01	1.141E-01	0.377
		949.00		1.306E-01	5.214E-01	8.861E-01	7.680E-02	0.147
		980.50		5.607E-01	8.919E-01	1.563E+00	1.305E-01	0.359
PA-234M		1394.10		-4.572E-01	1.332E+00	1.981E+00	1.286E+00	-0.231
		766.42		1.689E+01	1.610E+01	2.421E+01	1.221E+01	0.698
		1001.03	*	8.369E+00	5.611E+00	1.042E+01	9.940E-01	0.803
U-235	+	89.95		3.183E+00	1.913E+00	2.390E+00	7.429E-01	1.331
	+	93.35		2.813E+00	1.271E+00	1.494E+00	4.194E-01	1.883
		105.00		5.882E-01	1.290E+00	2.148E+00	6.334E-01	0.274
		143.76	*	2.573E-01	2.586E-01	4.247E-01	6.869E-02	0.606
		163.35		-4.147E-02	5.978E-01	9.422E-01	1.675E-01	-0.044
	+	185.71		1.907E-01	6.742E-02	1.073E-01	5.618E-03	1.777
		205.31		1.366E-01	6.805E-01	9.721E-01	1.736E-01	0.140
NP-236		94.67		6.741E-02	1.605E-01	2.694E-01	2.308E-02	0.250
		98.44		8.368E-02	9.297E-02	1.412E-01	1.135E-02	0.593
		111.00		-3.440E-02	1.651E-01	2.701E-01	1.815E-02	-0.127
		160.31	*	5.413E-02	9.600E-02	1.600E-01	8.277E-03	0.338
NP-239		99.55		2.903E-01	2.092E-01	3.244E-01	2.561E-02	0.895
		117.00	*	9.902E-02	2.272E-01	3.804E-01	2.374E-02	0.260
	+	209.75		2.088E+00	1.306E+00	1.716E+00	9.303E-02	1.217
		228.18		4.125E-02	2.699E-01	4.329E-01	2.404E-02	0.095
		277.60		1.202E-01	2.247E-01	3.685E-01	2.142E-02	0.326

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.155E+00	1.733E+00	2.388E+00	1.411E-01	-0.484
AM-241		59.54	*	2.139E-01	2.368E-01	3.649E-01	3.395E-02	0.586
CM-243		99.55		2.988E-01	2.153E-01	3.339E-01	2.636E-02	0.895
		103.76	*	6.291E-03	1.163E-01	1.925E-01	1.427E-02	0.033
		117.00		1.019E-01	2.338E-01	3.914E-01	2.443E-02	0.260
	+	209.75		2.059E+00	1.288E+00	1.692E+00	9.172E-02	1.217
		228.18		4.168E-02	2.728E-01	4.375E-01	2.429E-02	0.095
		277.60		1.212E-01	2.265E-01	3.715E-01	2.160E-02	0.326
AM-246		798.80		5.514E-02	1.794E-01	2.696E-01	1.962E-02	0.205
		1036.00		3.651E-02	3.563E-01	5.944E-01	4.581E-02	0.061
		1062.04		5.474E-02	2.544E-01	4.291E-01	3.162E-02	0.128
		1078.86	*	1.716E-01	1.724E-01	3.104E-01	2.215E-02	0.553
CM-247		278.00		3.535E-01	8.861E-01	1.521E+00	8.847E-02	0.232
		287.40		-1.499E+00	1.551E+00	2.222E+00	1.299E-01	-0.675
		402.60	*	1.837E-02	4.244E-02	7.236E-02	4.194E-03	0.254
CF-249		252.85		1.189E-01	1.067E+00	1.720E+00	9.805E-02	0.069
		333.44		-2.829E-01	2.348E-01	3.086E-01	1.823E-02	-0.917
		387.95	*	6.571E-04	4.551E-02	7.575E-02	4.383E-03	0.009
CF-251		176.60	*	-5.449E-03	1.513E-01	2.453E-01	1.268E-02	-0.022
		227.00		-3.174E-02	4.583E-01	7.272E-01	4.032E-02	-0.044
		285.00		6.197E-01	1.998E+00	3.418E+00	1.996E-01	0.181

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 Savage Road      *
*               Charleston, SC 29414  *
*                                     *
*****
*
*               DETECTOR DATA
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344004
* Acquisition date   : 18-FEB-2010 16:59:10 Detector SN#      :
* Detector ID        : GAM23          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 02:00:01.67 Half life ratio :       : 8.000
*****
*
*               SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G246344004      Analyst initials: MXR1
* Batch Number       : 950787          Sample Quantity : 1.1864E+02 GRAM
* Recovery           : 1.00000         Carrier Weight  : 0.00000
*****
*
*               QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 2-JUN-2009 11:17:00 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	2.580E+01	2.691E+00	7.828E-01	0.000E+00
CD-109	3.232E+00	1.070E+00	1.652E+00	0.000E+00
SN-126	3.167E-01	1.048E-01	1.628E-01	0.000E+00
TL-208	4.999E-01	9.157E-02	7.395E-02	0.000E+00
BI-211	4.418E+00	6.000E-01	3.649E-01	0.000E+00
PB-212	1.755E+00	1.746E-01	1.021E-01	0.000E+00
PO-212	1.755E+00	1.746E-01	1.021E-01	0.000E+00
BI-214	1.202E+00	2.033E-01	1.367E-01	0.000E+00
PB-214	1.537E+00	2.230E-01	1.272E-01	0.000E+00
PO-214	1.537E+00	2.230E-01	1.272E-01	0.000E+00
PO-216	1.755E+00	1.746E-01	1.021E-01	0.000E+00
PO-218	1.537E+00	2.230E-01	1.272E-01	0.000E+00
RA-224	4.914E+00	1.579E+00	1.162E+00	0.000E+00
RA-226	1.202E+00	2.033E-01	1.367E-01	0.000E+00
AC-228	1.868E+00	3.947E-01	2.639E-01	0.000E+00
RA-228	1.868E+00	3.947E-01	2.639E-01	0.000E+00
TH-228	1.785E+00	1.776E-01	1.039E-01	0.000E+00
TH-230	1.202E+00	2.033E-01	1.367E-01	0.000E+00
TH-232	1.868E+00	3.947E-01	2.639E-01	0.000E+00
TH-234	2.434E+00	2.073E+00	2.991E+00	0.000E+00
U-234	1.202E+00	2.033E-01	1.367E-01	0.000E+00
NP-237	9.300E-01	3.607E-01	5.283E-01	0.000E+00
U-238	2.434E+00	2.073E+00	2.991E+00	0.000E+00
AM-243	3.767E-01	9.552E-02	1.181E-01	0.000E+00
ANH-511	1.331E-01	9.388E-02	5.206E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	2.857E-01	3.942E-01	7.005E-01	0.000E+00 NOT IDENT.
NA-22	-1.486E-02	5.444E-02	8.777E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	8.737E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.538E-02	3.669E-02	5.294E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.389E-02	1.062E-01	0.000E+00	FAIL ABUN
SC-46	2.462E-03	4.110E-02	7.050E-02	0.000E+00	FAIL ABUN
V-48	-2.512E-02	8.680E-02	1.425E-01	0.000E+00	NOT IDENT.
CR-51	-5.785E-02	4.312E-01	7.428E-01	0.000E+00	NOT IDENT.
MN-52	2.863E-01	3.539E-01	6.499E-01	0.000E+00	NOT IDENT.
MN-54	2.647E-04	4.504E-02	7.715E-02	0.000E+00	NOT IDENT.
CO-56	4.045E-03	4.612E-02	7.950E-02	0.000E+00	FAIL ABUN
CO-57	-5.116E-03	3.066E-02	5.240E-02	0.000E+00	NOT IDENT.
CO-58	2.728E-02	4.574E-02	8.234E-02	0.000E+00	NOT IDENT.
FE-59	-7.949E-02	1.196E-01	1.880E-01	0.000E+00	NOT IDENT.
CO-60	1.241E-02	4.328E-02	7.439E-02	0.000E+00	NOT IDENT.
ZN-65	1.222E-01	1.320E-01	2.113E-01	0.000E+00	NOT IDENT.
GE-68	-2.388E-01	1.504E+00	2.490E+00	0.000E+00	NOT IDENT.
AS-73	2.563E-03	1.347E+00	2.345E+00	0.000E+00	NOT IDENT.
AS-74	2.944E-02	1.219E-01	2.077E-01	0.000E+00	NOT IDENT.
SE-75	1.554E-02	5.937E-02	8.752E-02	0.000E+00	NOT IDENT.
BR-77	2.339E+01	2.195E+01	3.913E+01	0.000E+00	FAIL ABUN
SR-82	-2.086E-01	4.604E-01	7.617E-01	0.000E+00	NOT IDENT.
RB-83	8.242E-02	7.997E-02	1.422E-01	0.000E+00	NOT IDENT.
RB-84	1.101E-02	8.604E-02	1.485E-01	0.000E+00	NOT IDENT.
KR-85	8.936E+00	8.915E+00	1.432E+01	0.000E+00	NOT IDENT.
SR-85	4.683E-02	4.673E-02	7.504E-02	0.000E+00	NOT IDENT.
RB-86	-1.128E+00	1.075E+00	1.617E+00	0.000E+00	NOT IDENT.
Y-88	3.821E-03	3.677E-02	6.301E-02	0.000E+00	NOT IDENT.
ZR-88	-1.264E-02	3.563E-02	5.980E-02	0.000E+00	NOT IDENT.
Y-91	1.315E+00	2.526E+01	4.231E+01	0.000E+00	NOT IDENT.
NB-94	1.832E-02	4.098E-02	7.026E-02	0.000E+00	NOT IDENT.
NB-95	2.662E-02	5.254E-02	9.007E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.969E-01	3.314E-01	0.000E+00	NOT IDENT.
ZR-95	2.699E-02	8.837E-02	1.495E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.512E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.068E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.190E+01	2.456E+01	3.686E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.477E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.813E-02	3.913E-02	6.635E-02	0.000E+00	NOT IDENT.
RH-102	7.875E-03	3.575E-02	6.156E-02	0.000E+00	NOT IDENT.
RU-103	4.389E-02	4.898E-02	8.767E-02	0.000E+00	NOT IDENT.
RH-106	1.627E-01	3.880E-01	6.683E-01	0.000E+00	FAIL ABUN
RU-106	1.627E-01	3.877E-01	6.683E-01	0.000E+00	FAIL ABUN
AG-108M	-4.827E-03	3.809E-02	6.447E-02	0.000E+00	NOT IDENT.
AG-110M	-1.145E-02	4.389E-02	7.144E-02	0.000E+00	NOT IDENT.
IN-111	1.866E+00	2.191E+00	3.383E+00	0.000E+00	NOT IDENT.
IN-113M	-6.629E-03	5.029E-02	8.561E-02	0.000E+00	NOT IDENT.
SN-113	-6.629E-03	5.029E-02	8.561E-02	0.000E+00	NOT IDENT.
IN-114M	1.961E-01	2.479E-01	3.825E-01	0.000E+00	NOT IDENT.
CD-115	4.093E+00	2.254E+01	3.857E+01	0.000E+00	NOT IDENT.
SN-117M	-1.898E-02	7.249E-02	1.220E-01	0.000E+00	NOT IDENT.
SB-122	-4.799E-01	4.171E+00	6.944E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.696E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.315E-02	3.429E-02	5.738E-02	0.000E+00	NOT IDENT.
I-124	2.207E-01	1.318E+00	1.938E+00	0.000E+00	NOT IDENT.
SB-124	3.776E-02	7.189E-02	1.348E-01	0.000E+00	FAIL ABUN
SB-125	-8.511E-02	1.068E-01	1.724E-01	0.000E+00	FAIL ABUN
TE-125M	-9.375E-01	1.129E+01	1.945E+01	0.000E+00	NOT IDENT.
I-126	-2.214E-02	2.511E-01	4.142E-01	0.000E+00	NOT IDENT.
SB-126	-1.195E-01	1.912E-01	2.619E-01	0.000E+00	NOT IDENT.
SB-127	2.312E-01	2.461E+00	4.112E+00	0.000E+00	NOT IDENT.
XE-127	-2.909E-02	6.241E-02	9.419E-02	0.000E+00	NOT IDENT.
I-131	-4.046E-02	1.627E-01	2.723E-01	0.000E+00	NOT IDENT.
TE-132	1.850E-01	1.261E+00	2.101E+00	0.000E+00	NOT IDENT.
BA-133	-3.595E-02	5.547E-02	7.832E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.465E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.607E-02	7.856E-02	1.095E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.227E-01	3.621E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.211E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	7.437E-02	1.363E-01	2.436E-01	0.000E+00	FAIL ABUN
BA-137M	2.424E-02	4.575E-02	7.905E-02	0.000E+00	NOT IDENT.
CS-137	2.562E-02	4.836E-02	8.356E-02	0.000E+00	NOT IDENT.
CE-139	-7.904E-03	3.536E-02	5.944E-02	0.000E+00	NOT IDENT.
BA-140	1.938E-01	3.399E-01	5.877E-01	0.000E+00	NOT IDENT.
LA-140	-1.114E-02	1.160E-01	1.939E-01	0.000E+00	NOT IDENT.
CE-141	1.881E-02	7.751E-02	1.336E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.401E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.561E-02	2.575E-01	4.151E-01	0.000E+00	NOT IDENT.
PM-144	-5.492E-02	4.967E-02	6.899E-02	0.000E+00	NOT IDENT.
PR-144	-3.726E+00	3.370E+00	4.680E+00	0.000E+00	NOT IDENT.

PM-146	3.295E-02	5.237E-02	9.053E-02	0.000E+00	NOT IDENT.
ND-147	-8.103E-01	7.308E-01	1.106E+00	0.000E+00	FAIL ABUN
PM-149	-3.776E+01	1.968E+02	3.402E+02	0.000E+00	NOT IDENT.
EU-152	-1.034E-01	1.406E-01	1.860E-01	0.000E+00	FAIL ABUN
GD-153	-5.017E-04	1.056E-01	1.609E-01	0.000E+00	NOT IDENT.
EU-154	-4.001E-02	1.521E-01	2.454E-01	0.000E+00	NOT IDENT.
EU-155	4.891E-02	1.285E-01	2.255E-01	0.000E+00	FAIL ABUN
TB-160	9.819E-02	1.703E-01	3.048E-01	0.000E+00	FAIL ABUN
HO-166M	3.585E-02	6.858E-02	1.187E-01	0.000E+00	FAIL ABUN
TM-171	1.534E+01	4.101E+01	6.463E+01	0.000E+00	NOT IDENT.
LU-176	-7.998E-03	2.872E-02	4.792E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.240E+00	3.026E+00	0.000E+00	FAIL ABUN
LU-177M	-5.657E-02	2.066E-01	3.476E-01	0.000E+00	FAIL ABUN
HF-181	-6.805E-02	5.592E-02	8.402E-02	0.000E+00	NOT IDENT.
W-181	9.181E-02	5.473E-01	8.556E-01	0.000E+00	NOT IDENT.
TA-182	1.577E-01	2.374E-01	4.188E-01	0.000E+00	FAIL ABUN
RE-183	-5.435E-03	1.386E-01	2.281E-01	0.000E+00	FAIL ABUN
RE-184	3.196E-02	2.812E-01	4.700E-01	0.000E+00	NOT IDENT.
OS-185	-7.134E-03	4.957E-02	8.145E-02	0.000E+00	NOT IDENT.
RE-188	5.471E-02	2.047E-01	3.521E-01	0.000E+00	NOT IDENT.
W-188	3.144E+00	8.853E+00	1.382E+01	0.000E+00	FAIL ABUN
IR-192	-4.286E-02	3.914E-02	6.366E-02	0.000E+00	FAIL ABUN
AU-195	3.738E-01	2.973E-01	4.803E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.971E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.928E+00	1.294E+01	2.224E+01	0.000E+00	NOT IDENT.
TL-202	6.330E-03	8.791E-02	1.506E-01	0.000E+00	NOT IDENT.
HG-203	-5.982E-02	4.886E-02	8.027E-02	0.000E+00	NOT IDENT.
BI-207	4.060E-02	5.745E-02	1.036E-01	0.000E+00	FAIL ABUN
TL-207	-8.653E-01	8.043E-01	1.297E+00	0.000E+00	FAIL ABUN
PO-209	-2.167E-01	8.175E+00	1.389E+01	0.000E+00	NOT IDENT.
BI-210	1.106E+00	6.112E+00	1.096E+01	0.000E+00	NOT IDENT.
PB-210	1.106E+00	6.112E+00	1.096E+01	0.000E+00	NOT IDENT.
PO-210	1.106E+00	6.112E+00	1.096E+01	0.000E+00	NOT IDENT.
PB-211	-8.623E-01	1.207E+00	1.769E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.683E-01	8.079E-01	0.000E+00	FAIL ABUN
PO-215	-8.653E-01	8.043E-01	1.297E+00	0.000E+00	FAIL ABUN
RN-219	5.861E-01	4.621E-01	8.423E-01	0.000E+00	FAIL ABUN
RN-220	-2.206E+01	2.819E+01	4.415E+01	0.000E+00	NOT IDENT.
RA-223	-8.653E-01	8.043E-01	1.297E+00	0.000E+00	FAIL ABUN
AC-227	2.993E-01	4.631E-01	7.919E-01	0.000E+00	FAIL ABUN
TH-227	2.993E-01	4.639E-01	7.919E-01	0.000E+00	FAIL ABUN
TH-229	-2.898E-01	6.212E-01	1.025E+00	0.000E+00	FAIL ABUN
PA-231	2.304E+00	1.761E+00	3.217E+00	0.000E+00	NOT IDENT.
TH-231	-8.653E-01	8.043E-01	1.297E+00	0.000E+00	FAIL ABUN
U-231	-1.343E+00	2.017E+00	2.970E+00	0.000E+00	FAIL ABUN
PA-233	7.109E-02	7.117E-02	1.299E-01	0.000E+00	FAIL ABUN
PA-234	2.286E-01	3.391E-01	6.081E-01	0.000E+00	FAIL ABUN
PA-234M	8.369E+00	5.499E+00	1.043E+01	0.000E+00	NOT IDENT.
U-235	2.573E-01	2.534E-01	4.346E-01	0.000E+00	FAIL ABUN
NP-236	5.413E-02	9.408E-02	1.636E-01	0.000E+00	NOT IDENT.
NP-239	9.902E-02	2.227E-01	3.901E-01	0.000E+00	FAIL ABUN
AM-241	2.139E-01	2.321E-01	3.769E-01	0.000E+00	NOT IDENT.
CM-243	6.291E-03	1.139E-01	1.977E-01	0.000E+00	FAIL ABUN
AM-246	1.716E-01	1.689E-01	3.105E-01	0.000E+00	NOT IDENT.
CM-247	1.837E-02	4.159E-02	7.320E-02	0.000E+00	NOT IDENT.
CF-249	6.571E-04	4.460E-02	7.667E-02	0.000E+00	NOT IDENT.
CF-251	-5.449E-03	1.483E-01	2.505E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 18:59:50.96

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344004.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 16:59:10
Sample ID          : G246344004          Sample quantity  : 1.18640E+02 GRAM
Detector name      : GAM23              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:01.67  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials  : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 950787             Detector SN#      :
Matrix Spike ID    :                    LCS ID           : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	868	10.67*	9.974E-01	2.580E+01	2.580E+01	10.64
CD-109	88.03	193	3.72*	5.214E+00	3.150E+00	3.232E+00	33.77
SN-126	64.28	74	9.60	2.533E+00	9.635E-01	9.635E-01	86.37
	86.94	193	8.90	5.214E+00	1.317E+00	1.317E+00	52.69
	87.57	193	37.00*	5.214E+00	3.167E-01	3.167E-01	33.77
TL-208	277.35	-----	6.80	4.140E+00	-----	Line Not Found	-----
	510.84	107	21.60	2.545E+00	6.160E-01	6.160E-01	72.48
	583.14	303	84.20*	2.278E+00	4.999E-01	4.999E-01	18.69
	860.37	-----	12.46	1.609E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	3.829E+00	-----	Line Not Found	-----
	351.07	622	12.94*	3.442E+00	4.418E+00	4.418E+00	13.86
PB-212	74.81	318	10.70	4.041E+00	2.324E+00	2.324E+00	27.51
	77.11	612	18.00	4.295E+00	2.503E+00	2.503E+00	16.32
	87.30	193	8.00	5.214E+00	1.465E+00	1.465E+00	35.22
	238.63	1147	44.60*	4.638E+00	1.755E+00	1.755E+00	10.15
	300.09	101	3.41	3.901E+00	2.391E+00	2.391E+00	51.36
PO-212	74.81	318	10.70	4.041E+00	2.324E+00	2.324E+00	27.51
	77.11	612	18.00	4.295E+00	2.503E+00	2.503E+00	16.32
	87.30	193	8.00	5.214E+00	1.465E+00	1.465E+00	35.22
	115.19	-----	0.60	6.293E+00	-----	Line Not Found	-----
	238.63	1147	44.60*	4.638E+00	1.755E+00	1.755E+00	10.15
	300.09	101	3.41	3.901E+00	2.391E+00	2.391E+00	51.36
BI-214	609.31	386	46.30*	2.194E+00	1.202E+00	1.202E+00	17.26
	1120.29	94	15.10	1.258E+00	1.572E+00	1.572E+00	55.33
	1764.49	-----	15.80	8.740E-01	-----	Line Not Found	-----
PB-214	74.81	318	6.21	4.041E+00	4.004E+00	4.004E+00	26.91
	77.11	612	10.50	4.295E+00	4.290E+00	4.291E+00	18.01
	87.30	193	4.67	5.214E+00	2.509E+00	2.509E+00	34.63
	241.98	282	7.49	4.596E+00	2.592E+00	2.592E+00	33.27
	295.21	371	19.20	3.949E+00	1.550E+00	1.550E+00	16.98
	351.92	622	37.20*	3.442E+00	1.537E+00	1.537E+00	14.81
PO-214	74.81	318	6.21	4.041E+00	4.004E+00	4.004E+00	26.91

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	612	10.50	4.295E+00	4.290E+00	4.291E+00	18.01
	87.30	193	4.67	5.214E+00	2.509E+00	2.509E+00	34.63
	241.98	282	7.49	4.596E+00	2.592E+00	2.592E+00	33.27
	295.21	371	19.20	3.949E+00	1.550E+00	1.550E+00	16.98
	351.92	622	37.20*	3.442E+00	1.537E+00	1.537E+00	14.81
PO-216	74.81	318	10.70	4.041E+00	2.324E+00	2.324E+00	27.51
	77.11	612	18.00	4.295E+00	2.503E+00	2.503E+00	16.32
	87.30	193	8.00	5.214E+00	1.465E+00	1.465E+00	35.22
	238.63	1147	44.60*	4.638E+00	1.755E+00	1.755E+00	10.15
	300.09	101	3.41	3.901E+00	2.391E+00	2.391E+00	51.36
PO-218	74.81	318	6.21	4.041E+00	4.004E+00	4.004E+00	26.91
	77.11	612	10.50	4.295E+00	4.290E+00	4.291E+00	18.01
	87.30	193	4.67	5.214E+00	2.509E+00	2.509E+00	34.63
	241.98	282	7.49	4.596E+00	2.592E+00	2.592E+00	33.27
	295.21	371	19.20	3.949E+00	1.550E+00	1.550E+00	16.98
	351.92	622	37.20*	3.442E+00	1.537E+00	1.537E+00	14.81
RA-224	240.98	282	3.95*	4.596E+00	4.914E+00	4.914E+00	32.79
RA-226	609.31	386	46.30*	2.194E+00	1.202E+00	1.202E+00	17.26
	1120.29	94	15.10	1.258E+00	1.572E+00	1.572E+00	55.33
	1764.49	-----	15.80	8.740E-01	-----	Line Not Found	-----
AC-228	338.32	210	11.40	3.550E+00	1.640E+00	1.640E+00	47.67
	911.07	250	27.70*	1.527E+00	1.868E+00	1.868E+00	21.56
	969.11	144	16.60	1.441E+00	1.906E+00	1.906E+00	31.85
RA-228	338.32	210	11.40	3.550E+00	1.640E+00	1.640E+00	47.67
	911.07	250	27.70*	1.527E+00	1.868E+00	1.868E+00	21.56
	969.11	144	16.60	1.441E+00	1.906E+00	1.906E+00	31.85
TH-228	74.81	318	10.70	4.041E+00	2.324E+00	2.364E+00	25.90
	77.11	612	18.00	4.295E+00	2.503E+00	2.546E+00	16.32
	87.30	193	8.00	5.214E+00	1.465E+00	1.490E+00	33.77
	238.63	1147	44.60*	4.638E+00	1.755E+00	1.785E+00	10.15
	300.09	101	3.41	3.901E+00	2.391E+00	2.433E+00	77.74
TH-230	609.31	386	46.30*	2.194E+00	1.202E+00	1.202E+00	17.26
	1120.29	94	15.10	1.258E+00	1.572E+00	1.572E+00	55.33
	1764.49	-----	15.80	8.740E-01	-----	Line Not Found	-----
TH-232	338.32	210	11.40	3.550E+00	1.640E+00	1.640E+00	25.38
	911.07	250	27.70*	1.527E+00	1.868E+00	1.868E+00	21.56
	969.11	144	16.60	1.441E+00	1.906E+00	1.906E+00	31.85
TH-234	63.29	74	3.80*	2.533E+00	2.434E+00	2.434E+00	86.91
	92.38	223	5.41	5.579E+00	2.340E+00	2.340E+00	39.78
U-234	609.31	386	46.30*	2.194E+00	1.202E+00	1.202E+00	17.26
	1120.29	94	15.10	1.258E+00	1.572E+00	1.572E+00	55.33
	1764.49	-----	15.80	8.740E-01	-----	Line Not Found	-----
NP-237	86.50	193	12.60*	5.214E+00	9.300E-01	9.300E-01	39.57
	95.87	-----	2.60	5.757E+00	-----	Line Not Found	-----
U-238	63.29	74	3.80*	2.533E+00	2.434E+00	2.434E+00	86.91
	92.38	223	5.41	5.579E+00	2.340E+00	2.340E+00	36.47
AM-243	74.67	318	66.00*	4.041E+00	3.767E-01	3.767E-01	25.87
	86.72	193	0.34	5.214E+00	3.487E+01	3.487E+01	33.77
	117.66	-----	0.55	6.314E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	6.209E+00	-----	Line Not Found	-----
ANH-511	511.00	107	100.00*	2.545E+00	1.331E-01	1.331E-01	72.00

Flag: "*" = Keyline

Total number of lines in spectrum 29
Number of unidentified lines 1
Number of lines tentatively identified by NID 28 96.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.580E+01	2.580E+01	0.275E+01	10.64	
CD-109	464.00D	1.03	3.150E+00	3.232E+00	1.091E+00	33.77	
SN-126	1.00E+05Y	1.00	3.167E-01	3.167E-01	1.069E-01	33.77	
TL-208	1.41E+10Y	1.00	4.999E-01	4.999E-01	0.934E-01	18.69	
BI-211	7.04E+08Y	1.00	4.418E+00	4.418E+00	0.612E+00	13.86	
PB-212	1.41E+10Y	1.00	1.755E+00	1.755E+00	0.178E+00	10.15	
PO-212	1.41E+10Y	1.00	1.755E+00	1.755E+00	0.178E+00	10.15	
BI-214	1600.00Y	1.00	1.202E+00	1.202E+00	0.207E+00	17.26	
PB-214	1600.00Y	1.00	1.537E+00	1.537E+00	0.228E+00	14.81	
PO-214	1600.00Y	1.00	1.537E+00	1.537E+00	0.228E+00	14.81	
PO-216	1.41E+10Y	1.00	1.755E+00	1.755E+00	0.178E+00	10.15	
PO-218	1600.00Y	1.00	1.537E+00	1.537E+00	0.228E+00	14.81	
RA-224	1.41E+10Y	1.00	4.914E+00	4.914E+00	1.611E+00	32.79	
RA-226	1600.00Y	1.00	1.202E+00	1.202E+00	0.207E+00	17.26	
AC-228	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.403E+00	21.56	
RA-228	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.403E+00	21.56	
TH-228	1.91Y	1.02	1.755E+00	1.785E+00	0.181E+00	10.15	
TH-230	4.47E+09Y	1.00	1.202E+00	1.202E+00	0.207E+00	17.26	
TH-232	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.403E+00	21.56	
TH-234	4.47E+09Y	1.00	2.434E+00	2.434E+00	2.115E+00	86.91	
U-234	4.47E+09Y	1.00	1.202E+00	1.202E+00	0.207E+00	17.26	
NP-237	2.14E+06Y	1.00	9.300E-01	9.300E-01	3.680E-01	39.57	
U-238	4.47E+09Y	1.00	2.434E+00	2.434E+00	2.115E+00	86.91	
AM-243	7380.00Y	1.00	3.767E-01	3.767E-01	0.975E-01	25.87	
ANH-511	1.00E+09Y	1.00	1.331E-01	1.331E-01	0.958E-01	72.00	

Total Activity : 6.745E+01 6.757E+01

Grand Total Activity : 6.745E+01 6.757E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246344004

Page : 5
Acquisition date : 18-FEB-2010 16:59:10

It	Energy	Area	Bkqnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.63	147	413	1.26	179.26	171	23	2.04E-02	51.4	5.40E+00	T
0	129.05	92	272	0.77	258.10	254	7	1.28E-02	63.4	6.32E+00	T
0	185.65	179	238	1.48	371.31	367	8	2.48E-02	35.0	5.49E+00	T
0	208.85	109	298	0.86	417.70	413	10	1.51E-02	62.3	5.09E+00	T
0	269.76	99	213	1.11	539.53	534	11	1.38E-02	60.4	4.23E+00	T
0	462.18	104	81	1.10	924.37	918	12	1.44E-02	39.8	2.76E+00	T
0	727.47	79	96	0.92	1454.94	1449	16	1.10E-02	59.9	1.88E+00	T
0	794.66	40	57	1.65	1589.32	1584	11	5.52E-03	83.1	1.73E+00	T
1	963.69	51	27	2.12	1927.37	1922	21	7.09E-03	49.6	1.45E+00	T
0	1238.88	11	85	1.02	2477.75	2473	14	1.55E-03	****	1.15E+00	T
0	1762.92	77	0	2.03	3525.84	3519	13	1.07E-02	22.8	8.74E-01	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC
*                               2040 Savage Road
*                               Charleston, SC 29414
*****
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344004.CNF;1
* Acquisition date   : 18-FEB-2010 16:59:10  Detector SN#      :
* Detector ID        : GAM23                  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 02:00:01.67          Half life ratio   : 8.00000
*****
*                               SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00.  Nuclide Library : SOLID
* Sample ID          : G246344004            Analyst initials: MXR1
* Batch Number       : 950787                Sample Quantity  : 1.18640E+02 GRAM
*****
*                               QC DATA
*
* CALIB. DATE/TIME   : 2-JUN-2009 11:17:00.62MS 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	2.580E+01	2.746E+00	7.851E-01	5.872E-02	32.870
CD-109	3.232E+00	1.091E+00	1.606E+00	1.568E-01	2.013
SN-126	3.167E-01	1.069E-01	1.583E-01	1.540E-02	2.001
TL-208	4.999E-01	9.344E-02	7.340E-02	4.765E-03	6.811
BI-211	4.418E+00	6.123E-01	3.601E-01	2.346E-02	12.269
PB-212	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
PO-212	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
BI-214	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
PB-214	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
PO-214	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
PO-216	1.755E+00	1.781E-01	1.003E-01	7.214E-03	17.489
PO-218	1.537E+00	2.276E-01	1.255E-01	1.048E-02	12.243
RA-224	4.914E+00	1.611E+00	1.142E+00	6.434E-02	4.303
RA-226	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
AC-228	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
RA-228	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
TH-228	1.785E+00	1.812E-01	1.021E-01	7.339E-03	17.489
TH-230	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.868E+00	4.027E-01	2.632E-01	3.037E-02	7.096
TH-234	2.434E+00	2.115E+00	2.897E+00	5.220E-01	0.840
U-234	1.202E+00	2.074E-01	1.358E-01	1.021E-02	8.852
NP-237	9.300E-01	3.680E-01	5.135E-01	1.169E-01	1.811
U-238	2.434E+00	2.115E+00	2.897E+00	5.220E-01	0.840
AM-243	3.767E-01	9.747E-02	1.146E-01	1.019E-02	3.286
ANH-511	1.331E-01	9.579E-02	5.159E-02	2.997E-03	2.579

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.857E-01		4.023E-01	6.937E-01	4.715E-02	0.412
NA-22	-1.486E-02		5.555E-02	8.788E-02	5.902E-03	-0.169
NA-24	1.988E+00		4.458E+00	Half-Life too short		
AL-26	-2.538E-02		3.744E-02	5.323E-02	3.199E-03	-0.477
TI-44	4.619E-01	+	7.540E-02	1.031E-01	9.347E-03	4.480
SC-46	2.462E-03		4.194E-02	7.030E-02	6.281E-03	0.035
V-48	-2.512E-02		8.857E-02	1.423E-01	1.184E-02	-0.177
CR-51	-5.785E-02		4.400E-01	7.324E-01	4.802E-02	-0.079
MN-52	2.863E-01		3.611E-01	6.516E-01	4.715E-02	0.439
MN-54	2.647E-04		4.596E-02	7.688E-02	6.087E-03	0.003
CO-56	4.045E-03		4.706E-02	7.923E-02	6.446E-03	0.051
CO-57	-5.116E-03		3.128E-02	5.111E-02	3.014E-03	-0.100
CO-58	2.728E-02		4.668E-02	8.203E-02	6.163E-03	0.333
FE-59	-7.949E-02		1.220E-01	1.879E-01	1.447E-02	-0.423
CO-60	1.241E-02		4.417E-02	7.452E-02	5.471E-03	0.167
ZN-65	1.222E-01		1.347E-01	2.112E-01	1.395E-02	0.578
GE-68	-2.388E-01		1.535E+00	2.489E+00	1.781E-01	-0.096
AS-73	2.563E-03		1.374E+00	2.267E+00	2.002E-01	0.001
AS-74	2.944E-02		1.244E-01	2.062E-01	1.137E-02	0.143
SE-75	1.554E-02		6.058E-02	8.610E-02	5.012E-03	0.181
BR-77	2.339E+01		2.240E+01	3.878E+01	2.245E+00	0.603
SR-82	-2.086E-01		4.698E-01	7.584E-01	5.232E-02	-0.275
RB-83	8.242E-02		8.161E-02	1.410E-01	8.161E-03	0.585
RB-84	1.101E-02		8.780E-02	1.480E-01	1.301E-02	0.074
KR-85	8.936E+00		9.097E+00	1.419E+01	8.234E-01	0.630
SR-85	4.683E-02		4.768E-02	7.437E-02	4.316E-03	0.630
RB-86	-1.128E+00		1.097E+00	1.616E+00	1.158E-01	-0.698
Y-88	3.821E-03		3.752E-02	6.336E-02	3.731E-03	0.060
ZR-88	-1.264E-02		3.636E-02	5.909E-02	3.411E-03	-0.214
Y-91	1.315E+00		2.577E+01	4.234E+01	2.526E+00	0.031
NB-94	1.832E-02		4.182E-02	6.988E-02	3.993E-03	0.262
NB-95	2.662E-02		5.361E-02	8.967E-02	6.026E-03	0.297
NB-95M	7.199E-01		2.009E-01	3.256E-01	2.402E-02	2.211
ZR-95	2.699E-02		9.017E-02	1.488E-01	1.141E-02	0.181
NB-97	-2.709E-01		4.853E-01	Half-Life too short		
ZR-97	6.196E+01		1.055E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-2.190E+01		2.506E+01	3.668E+01	5.133E+00	-0.597
TC-99M	-1.313E+13		7.534E+12	Half-Life too short		
RH-101	1.813E-02		3.993E-02	6.506E-02	3.468E-03	0.279
RH-102	7.875E-03		3.648E-02	6.095E-02	3.568E-03	0.129
RU-103	4.389E-02		4.998E-02	8.685E-02	1.100E-02	0.505
RH-106	1.627E-01		3.960E-01	6.638E-01	7.655E-02	0.245
RU-106	1.627E-01		3.956E-01	6.638E-01	3.567E-02	0.245
AG-108M	-4.827E-03		3.887E-02	6.377E-02	4.043E-03	-0.076
AG-110M	-1.145E-02		4.479E-02	7.100E-02	3.945E-03	-0.161
IN-111	1.866E+00		2.236E+00	3.326E+00	1.883E-01	0.561
IN-113M	-6.629E-03		5.132E-02	8.459E-02	5.211E-03	-0.078
SN-113	-6.629E-03		5.132E-02	8.459E-02	5.211E-03	-0.078
IN-114M	1.961E-01		2.530E-01	3.749E-01	1.976E-02	0.523
CD-115	4.093E+00		2.300E+01	3.824E+01	2.207E+00	0.107
SN-117M	-1.898E-02		7.397E-02	1.193E-01	6.201E-03	-0.159
SB-122	-4.799E-01		4.256E+00	6.889E+00	3.897E-01	-0.070
I-123	-3.718E+01		4.947E+01	Half-Life too short		
TE-123M	-1.315E-02		3.499E-02	5.614E-02	2.962E-03	-0.234
I-124	2.207E-01		1.345E+00	1.924E+00	1.054E-01	0.115
SB-124	3.776E-02		7.336E-02	1.355E-01	9.444E-03	0.279
SB-125	-8.511E-02		1.089E-01	1.705E-01	1.037E-02	-0.499
TE-125M	-9.375E-01		1.152E+01	1.895E+01	1.691E+00	-0.049
I-126	-2.214E-02		2.562E-01	4.117E-01	2.130E-02	-0.054
SB-126	-1.195E-01		1.951E-01	2.606E-01	1.561E-02	-0.458
SB-127	2.312E-01		2.511E+00	4.088E+00	4.084E-01	0.057
XE-127	-2.909E-02		6.368E-02	9.239E-02	4.960E-03	-0.315
I-131	-4.046E-02		1.661E-01	2.689E-01	1.762E-02	-0.150
TE-132	1.850E-01		1.287E+00	2.063E+00	3.035E-01	0.090
BA-133	-3.595E-02		5.661E-02	7.731E-02	8.970E-03	-0.465
I-133	-2.730E-03		1.768E-02	Half-Life too short		
CS-134	9.607E-02	+	8.016E-02	1.090E-01	7.963E-03	0.881
CS-135	4.520E-01		2.272E-01	3.563E-01	2.722E-02	1.269
I-135	3.403E+11		6.181E+11	Half-Life too short		
CS-136	7.437E-02		1.391E-01	2.434E-01	1.940E-02	0.306
BA-137M	2.424E-02		4.669E-02	7.857E-02	4.014E-03	0.309
CS-137	2.562E-02		4.935E-02	8.305E-02	4.266E-03	0.309
CE-139	-7.904E-03		3.608E-02	5.818E-02	2.966E-03	-0.136
BA-140	1.938E-01		3.468E-01	5.827E-01	1.895E-01	0.333
LA-140	-1.114E-02		1.183E-01	1.947E-01	1.336E-02	-0.057
CE-141	1.881E-02		7.909E-02	1.305E-01	7.362E-03	0.144
CE-143	3.460E-03		4.797E-04	Half-Life too short		
CE-144	9.561E-02		2.627E-01	4.054E-01	5.725E-02	0.236
PM-144	-5.492E-02		5.068E-02	6.861E-02	3.860E-03	-0.800
PR-144	-3.726E+00		3.438E+00	4.654E+00	2.616E-01	-0.800
PM-146	3.295E-02		5.344E-02	8.960E-02	7.760E-03	0.368
ND-147	-8.103E-01		7.457E-01	1.097E+00	1.481E-01	-0.739
PM-149	-3.776E+01		2.008E+02	3.350E+02	4.757E+01	-0.113
EU-152	-1.034E-01		1.434E-01	1.835E-01	1.216E-02	-0.564

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-5.017E-04		1.077E-01	1.566E-01	1.280E-02	-0.003
EU-154	-4.001E-02		1.552E-01	2.457E-01	2.439E-02	-0.163
EU-155	4.891E-02		1.311E-01	2.196E-01	1.619E-02	0.223
TB-160	9.819E-02		1.738E-01	3.039E-01	2.657E-02	0.323
HO-166M	3.585E-02		6.998E-02	1.181E-01	6.912E-03	0.304
TM-171	1.534E+01		4.184E+01	6.264E+01	5.447E+00	0.245
LU-176	-7.998E-03		2.931E-02	4.722E-02	2.782E-03	-0.169
LU-177	3.654E+00	+	2.286E+00	2.969E+00	1.606E-01	1.231
LU-177M	-5.657E-02		2.109E-01	3.436E-01	1.999E-02	-0.165
HF-181	-6.805E-02		5.706E-02	8.322E-02	4.867E-03	-0.818
W-181	9.181E-02		5.585E-01	8.291E-01	7.202E-02	0.111
TA-182	1.577E-01		2.422E-01	4.192E-01	2.573E-02	0.376
RE-183	-5.435E-03		1.414E-01	2.232E-01	1.148E-02	-0.024
RE-184	3.196E-02		2.869E-01	4.622E-01	2.636E-02	0.069
OS-185	-7.134E-03		5.058E-02	8.094E-02	4.224E-03	-0.088
RE-188	5.471E-02		2.088E-01	3.444E-01	1.807E-02	0.159
W-188	3.144E+00		9.034E+00	1.361E+01	7.970E-01	0.231
IR-192	-4.286E-02		3.994E-02	6.276E-02	3.723E-03	-0.683
AU-195	3.738E-01		3.034E-01	4.675E-01	3.730E-02	0.800
TL-200	-7.078E-04		1.006E-03	Half-Life too short		
TL-201	3.928E+00		1.321E+01	2.177E+01	1.111E+00	0.180
TL-202	6.330E-03		8.970E-02	1.490E-01	8.720E-03	0.042
HG-203	-5.982E-02		4.986E-02	7.902E-02	4.881E-03	-0.757
BI-207	4.060E-02		5.863E-02	1.035E-01	7.605E-03	0.392
TL-207	-8.653E-01		8.207E-01	1.279E+00	2.117E-01	-0.677
PO-209	-2.167E-01		8.342E+00	1.386E+01	1.258E+00	-0.016
BI-210	1.106E+00		6.237E+00	1.058E+01	8.239E-01	0.105
PB-210	1.106E+00		6.237E+00	1.058E+01	8.239E-01	0.105
PO-210	1.106E+00		6.237E+00	1.058E+01	7.099E-01	0.105
PB-211	-8.623E-01		1.231E+00	1.748E+00	1.090E+00	-0.493
BI-212	1.129E+00	+	6.820E-01	8.038E-01	6.380E-02	1.405
PO-215	-8.653E-01		8.207E-01	1.279E+00	2.117E-01	-0.677
RN-219	5.861E-01		4.715E-01	8.325E-01	1.133E-01	0.704
RN-220	-2.206E+01		2.876E+01	4.379E+01	2.499E+00	-0.504
RA-223	-8.653E-01		8.207E-01	1.279E+00	2.117E-01	-0.677
AC-227	2.993E-01		4.726E-01	7.788E-01	1.085E-01	0.384
TH-227	2.993E-01		4.734E-01	7.788E-01	1.314E-01	0.384
TH-229	-2.898E-01		6.339E-01	1.005E+00	5.325E-02	-0.288
PA-231	2.304E+00		1.797E+00	3.168E+00	4.370E-01	0.727
TH-231	-8.653E-01		8.207E-01	1.279E+00	2.117E-01	-0.677
U-231	-1.343E+00		2.058E+00	2.889E+00	2.424E-01	-0.465
PA-233	7.109E-02		7.262E-02	1.281E-01	8.007E-03	0.555
PA-234	2.286E-01		3.460E-01	6.068E-01	1.141E-01	0.377
PA-234M	8.369E+00		5.611E+00	1.042E+01	9.940E-01	0.803
U-235	2.573E-01		2.586E-01	4.247E-01	6.869E-02	0.606
NP-236	5.413E-02		9.600E-02	1.600E-01	8.277E-03	0.338
NP-239	9.902E-02		2.272E-01	3.804E-01	2.374E-02	0.260
AM-241	2.139E-01		2.368E-01	3.649E-01	3.395E-02	0.586

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.291E-03		1.163E-01	1.925E-01	1.427E-02	0.033
AM-246	1.716E-01		1.724E-01	3.104E-01	2.215E-02	0.553
CM-247	1.837E-02		4.244E-02	7.236E-02	4.194E-03	0.254
CF-249	6.571E-04		4.551E-02	7.575E-02	4.383E-03	0.009
CF-251	-5.449E-03		1.513E-01	2.453E-01	1.268E-02	-0.022

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246344004          *
* Acquisition date   : 18-FEB-2010 16:59:10 Detector SN#      :             *
* Detector ID        : GAM23                      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 02:00:01.67             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G246344004              Analyst initials: MXR1         *
* Batch Number       : 950787                  Sample Quantity : 1.1864E+02 GRAM  *
* Recovery           : 1.00000                 Carrier Weight  : 0.00000        *
*****
*
*                                     QC DATA                                *
*
* CALIB. DATE/TIME  : 2-JUN-2009 11:17:00 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	DLC (pCi/GRAM)	TPU
K-40	2.580E+01	2.691E+00	3.916E-01	1.373E+00
CD-109	3.232E+00	1.070E+00	8.264E-01	5.457E-01
SN-126	3.167E-01	1.048E-01	8.147E-02	5.347E-02
TL-208	4.999E-01	9.157E-02	3.700E-02	4.672E-02
BI-211	4.418E+00	6.000E-01	1.826E-01	3.061E-01
PB-212	1.755E+00	1.746E-01	5.108E-02	8.907E-02
PO-212	1.755E+00	1.746E-01	5.108E-02	8.907E-02
BI-214	1.202E+00	2.033E-01	6.841E-02	1.037E-01
PB-214	1.537E+00	2.230E-01	6.364E-02	1.138E-01
PO-214	1.537E+00	2.230E-01	6.364E-02	1.138E-01
PO-216	1.755E+00	1.746E-01	5.108E-02	8.907E-02
PO-218	1.537E+00	2.230E-01	6.364E-02	1.138E-01
RA-224	4.914E+00	1.579E+00	5.813E-01	8.057E-01
RA-226	1.202E+00	2.033E-01	6.841E-02	1.037E-01
AC-228	1.868E+00	3.947E-01	1.320E-01	2.014E-01
RA-228	1.868E+00	3.947E-01	1.320E-01	2.014E-01
TH-228	1.785E+00	1.776E-01	5.197E-02	9.061E-02
TH-230	1.202E+00	2.033E-01	6.841E-02	1.037E-01
TH-232	1.868E+00	3.947E-01	1.320E-01	2.014E-01
TH-234	2.434E+00	2.073E+00	1.496E+00	1.058E+00
U-234	1.202E+00	2.033E-01	6.841E-02	1.037E-01
NP-237	9.300E-01	3.607E-01	2.643E-01	1.840E-01
U-238	2.434E+00	2.073E+00	1.496E+00	1.058E+00
AM-243	3.767E-01	9.552E-02	5.911E-02	4.874E-02
ANH-511	1.331E-01	9.388E-02	2.604E-02	4.790E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	2.857E-01	3.942E-01	3.505E-01	2.011E-01 NOT IDENT.
NA-22	-1.486E-02	5.444E-02	4.391E-02	2.777E-02 NOT IDENT.

NA-24	1.988E+06	8.737E+06	0.000E+00	4.458E+06	SHORT HLIF
AL-26	-2.538E-02	3.669E-02	2.649E-02	1.872E-02	NOT IDENT.
TI-44	4.619E-01	7.389E-02	5.313E-02	3.770E-02	FAIL ABUN
SC-46	2.462E-03	4.110E-02	3.527E-02	2.097E-02	FAIL ABUN
V-48	-2.512E-02	8.680E-02	7.131E-02	4.428E-02	NOT IDENT.
CR-51	-5.785E-02	4.312E-01	3.716E-01	2.200E-01	NOT IDENT.
MN-52	2.863E-01	3.539E-01	3.251E-01	1.806E-01	NOT IDENT.
MN-54	2.647E-04	4.504E-02	3.860E-02	2.298E-02	NOT IDENT.
CO-56	4.045E-03	4.612E-02	3.977E-02	2.353E-02	FAIL ABUN
CO-57	-5.116E-03	3.066E-02	2.621E-02	1.564E-02	NOT IDENT.
CO-58	2.728E-02	4.574E-02	4.120E-02	2.334E-02	NOT IDENT.
FE-59	-7.949E-02	1.196E-01	9.404E-02	6.102E-02	NOT IDENT.
CO-60	1.241E-02	4.328E-02	3.722E-02	2.208E-02	NOT IDENT.
ZN-65	1.222E-01	1.320E-01	1.057E-01	6.733E-02	NOT IDENT.
GE-68	-2.388E-01	1.504E+00	1.246E+00	7.675E-01	NOT IDENT.
AS-73	2.563E-03	1.347E+00	1.173E+00	6.871E-01	NOT IDENT.
AS-74	2.944E-02	1.219E-01	1.039E-01	6.220E-02	NOT IDENT.
SE-75	1.554E-02	5.937E-02	4.379E-02	3.029E-02	NOT IDENT.
BR-77	2.339E+01	2.195E+01	1.957E+01	1.120E+01	FAIL ABUN
SR-82	-2.086E-01	4.604E-01	3.811E-01	2.349E-01	NOT IDENT.
RB-83	8.242E-02	7.997E-02	7.115E-02	4.080E-02	NOT IDENT.
RB-84	1.101E-02	8.604E-02	7.427E-02	4.390E-02	NOT IDENT.
KR-85	8.936E+00	8.915E+00	7.163E+00	4.548E+00	NOT IDENT.
SR-85	4.683E-02	4.673E-02	3.754E-02	2.384E-02	NOT IDENT.
RB-86	-1.128E+00	1.075E+00	8.089E-01	5.485E-01	NOT IDENT.
Y-88	3.821E-03	3.677E-02	3.152E-02	1.876E-02	NOT IDENT.
ZR-88	-1.264E-02	3.563E-02	2.992E-02	1.818E-02	NOT IDENT.
Y-91	1.315E+00	2.526E+01	2.117E+01	1.289E+01	NOT IDENT.
NB-94	1.832E-02	4.098E-02	3.515E-02	2.091E-02	NOT IDENT.
NB-95	2.662E-02	5.254E-02	4.506E-02	2.681E-02	NOT IDENT.
NB-95M	7.199E-01	1.969E-01	1.658E-01	1.004E-01	NOT IDENT.
ZR-95	2.699E-02	8.837E-02	7.477E-02	4.509E-02	NOT IDENT.
NB-97	-2.709E+05	9.512E+05	0.000E+00	4.853E+05	SHORT HLIF
ZR-97	6.196E+07	2.068E+07	0.000E+00	1.055E+07	SHORT HLIF
MO-99	-2.190E+01	2.456E+01	1.844E+01	1.253E+01	NOT IDENT.
TC-99M	-1.313E+19	1.477E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.813E-02	3.913E-02	3.319E-02	1.997E-02	NOT IDENT.
RH-102	7.875E-03	3.575E-02	3.080E-02	1.824E-02	NOT IDENT.
RU-103	4.389E-02	4.898E-02	4.386E-02	2.499E-02	NOT IDENT.
RH-106	1.627E-01	3.880E-01	3.344E-01	1.980E-01	FAIL ABUN
RU-106	1.627E-01	3.877E-01	3.344E-01	1.978E-01	FAIL ABUN
AG-108M	-4.827E-03	3.809E-02	3.225E-02	1.944E-02	NOT IDENT.
AG-110M	-1.145E-02	4.389E-02	3.574E-02	2.240E-02	NOT IDENT.
IN-111	1.866E+00	2.191E+00	1.693E+00	1.118E+00	NOT IDENT.
IN-113M	-6.629E-03	5.029E-02	4.283E-02	2.566E-02	NOT IDENT.
SN-113	-6.629E-03	5.029E-02	4.283E-02	2.566E-02	NOT IDENT.
IN-114M	1.961E-01	2.479E-01	1.913E-01	1.265E-01	NOT IDENT.
CD-115	4.093E+00	2.254E+01	1.930E+01	1.150E+01	NOT IDENT.
SN-117M	-1.898E-02	7.249E-02	6.102E-02	3.699E-02	NOT IDENT.
SB-122	-4.799E-01	4.171E+00	3.474E+00	2.128E+00	NOT IDENT.
I-123	-3.718E+07	9.696E+07	0.000E+00	4.947E+07	SHORT HLIF
TE-123M	-1.315E-02	3.429E-02	2.871E-02	1.749E-02	NOT IDENT.
I-124	2.207E-01	1.318E+00	9.695E-01	6.725E-01	NOT IDENT.
SB-124	3.776E-02	7.189E-02	6.746E-02	3.668E-02	FAIL ABUN
SB-125	-8.511E-02	1.068E-01	8.626E-02	5.447E-02	FAIL ABUN
TE-125M	-9.375E-01	1.129E+01	9.728E+00	5.759E+00	NOT IDENT.
I-126	-2.214E-02	2.511E-01	2.072E-01	1.281E-01	NOT IDENT.
SB-126	-1.195E-01	1.912E-01	1.311E-01	9.757E-02	NOT IDENT.
SB-127	2.312E-01	2.461E+00	2.057E+00	1.255E+00	NOT IDENT.
XE-127	-2.909E-02	6.241E-02	4.712E-02	3.184E-02	NOT IDENT.
I-131	-4.046E-02	1.627E-01	1.362E-01	8.303E-02	NOT IDENT.
TE-132	1.850E-01	1.261E+00	1.051E+00	6.436E-01	NOT IDENT.
BA-133	-3.595E-02	5.547E-02	3.919E-02	2.830E-02	NOT IDENT.
I-133	-2.730E+03	3.465E+04	0.000E+00	1.768E+04	SHORT HLIF
CS-134	9.607E-02	7.856E-02	5.477E-02	4.008E-02	FAIL ABUN
CS-135	4.520E-01	2.227E-01	1.811E-01	1.136E-01	NOT IDENT.
I-135	3.403E+17	1.211E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	7.437E-02	1.363E-01	1.219E-01	6.955E-02	FAIL ABUN
BA-137M	2.424E-02	4.575E-02	3.955E-02	2.334E-02	NOT IDENT.
CS-137	2.562E-02	4.836E-02	4.181E-02	2.468E-02	NOT IDENT.
CE-139	-7.904E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
BA-140	1.938E-01	3.399E-01	2.940E-01	1.734E-01	NOT IDENT.
LA-140	-1.114E-02	1.160E-01	9.703E-02	5.916E-02	NOT IDENT.
CE-141	1.881E-02	7.751E-02	6.682E-02	3.955E-02	NOT IDENT.
CE-143	3.460E+03	9.401E+02	0.000E+00	4.797E+02	SHORT HLIF
CE-144	9.561E-02	2.575E-01	2.077E-01	1.314E-01	NOT IDENT.
PM-144	-5.492E-02	4.967E-02	3.451E-02	2.534E-02	NOT IDENT.
PR-144	-3.726E+00	3.370E+00	2.341E+00	1.719E+00	NOT IDENT.

PM-146	3.295E-02	5.237E-02	4.529E-02	2.672E-02	NOT IDENT.
ND-147	-8.103E-01	7.308E-01	5.534E-01	3.729E-01	FAIL ABUN
PM-149	-3.776E+01	1.968E+02	1.702E+02	1.004E+02	NOT IDENT.
EU-152	-1.034E-01	1.406E-01	9.303E-02	7.172E-02	FAIL ABUN
GD-153	-5.017E-04	1.056E-01	8.052E-02	5.386E-02	NOT IDENT.
EU-154	-4.001E-02	1.521E-01	1.228E-01	7.758E-02	NOT IDENT.
EU-155	4.891E-02	1.285E-01	1.128E-01	6.557E-02	FAIL ABUN
TB-160	9.819E-02	1.703E-01	1.525E-01	8.691E-02	FAIL ABUN
HO-166M	3.585E-02	6.858E-02	5.939E-02	3.499E-02	FAIL ABUN
TM-171	1.534E+01	4.101E+01	3.233E+01	2.092E+01	NOT IDENT.
LU-176	-7.998E-03	2.872E-02	2.397E-02	1.466E-02	FAIL ABUN
LU-177	3.654E+00	2.240E+00	1.514E+00	1.143E+00	FAIL ABUN
LU-177M	-5.657E-02	2.066E-01	1.739E-01	1.054E-01	FAIL ABUN
HF-181	-6.805E-02	5.592E-02	4.204E-02	2.853E-02	NOT IDENT.
W-181	9.181E-02	5.473E-01	4.281E-01	2.792E-01	NOT IDENT.
TA-182	1.577E-01	2.374E-01	2.095E-01	1.211E-01	FAIL ABUN
RE-183	-5.435E-03	1.386E-01	1.141E-01	7.072E-02	FAIL ABUN
RE-184	3.196E-02	2.812E-01	2.352E-01	1.434E-01	NOT IDENT.
OS-185	-7.134E-03	4.957E-02	4.075E-02	2.529E-02	NOT IDENT.
RE-188	5.471E-02	2.047E-01	1.762E-01	1.044E-01	NOT IDENT.
W-188	3.144E+00	8.853E+00	6.914E+00	4.517E+00	FAIL ABUN
IR-192	-4.286E-02	3.914E-02	3.185E-02	1.997E-02	FAIL ABUN
AU-195	3.738E-01	2.973E-01	2.403E-01	1.517E-01	FAIL ABUN
TL-200	-7.078E+02	1.971E+03	0.000E+00	1.006E+03	SHORT HLIF
TL-201	3.928E+00	1.294E+01	1.112E+01	6.603E+00	NOT IDENT.
TL-202	6.330E-03	8.791E-02	7.536E-02	4.485E-02	NOT IDENT.
HG-203	-5.982E-02	4.886E-02	4.016E-02	2.493E-02	NOT IDENT.
BI-207	4.060E-02	5.745E-02	5.182E-02	2.931E-02	FAIL ABUN
TL-207	-8.653E-01	8.043E-01	6.488E-01	4.104E-01	FAIL ABUN
PO-209	-2.167E-01	8.175E+00	6.951E+00	4.171E+00	NOT IDENT.
BI-210	1.106E+00	6.112E+00	5.483E+00	3.119E+00	NOT IDENT.
PB-210	1.106E+00	6.112E+00	5.483E+00	3.119E+00	NOT IDENT.
PO-210	1.106E+00	6.112E+00	5.483E+00	3.119E+00	NOT IDENT.
PB-211	-8.623E-01	1.207E+00	8.850E-01	6.157E-01	NOT IDENT.
BI-212	1.129E+00	6.683E-01	4.042E-01	3.410E-01	FAIL ABUN
PO-215	-8.653E-01	8.043E-01	6.488E-01	4.104E-01	FAIL ABUN
RN-219	5.861E-01	4.621E-01	4.214E-01	2.358E-01	FAIL ABUN
RN-220	-2.206E+01	2.819E+01	2.209E+01	1.438E+01	NOT IDENT.
RA-223	-8.653E-01	8.043E-01	6.488E-01	4.104E-01	FAIL ABUN
AC-227	2.993E-01	4.631E-01	3.962E-01	2.363E-01	FAIL ABUN
TH-227	2.993E-01	4.639E-01	3.962E-01	2.367E-01	FAIL ABUN
TH-229	-2.898E-01	6.212E-01	5.129E-01	3.169E-01	FAIL ABUN
PA-231	2.304E+00	1.761E+00	1.610E+00	8.985E-01	NOT IDENT.
TH-231	-8.653E-01	8.043E-01	6.488E-01	4.104E-01	FAIL ABUN
U-231	-1.343E+00	2.017E+00	1.486E+00	1.029E+00	FAIL ABUN
PA-233	7.109E-02	7.117E-02	6.501E-02	3.631E-02	FAIL ABUN
PA-234	2.286E-01	3.391E-01	3.042E-01	1.730E-01	FAIL ABUN
PA-234M	8.369E+00	5.499E+00	5.220E+00	2.806E+00	NOT IDENT.
U-235	2.573E-01	2.534E-01	2.174E-01	1.293E-01	FAIL ABUN
NP-236	5.413E-02	9.408E-02	8.183E-02	4.800E-02	NOT IDENT.
NP-239	9.902E-02	2.227E-01	1.952E-01	1.136E-01	FAIL ABUN
AM-241	2.139E-01	2.321E-01	1.886E-01	1.184E-01	NOT IDENT.
CM-243	6.291E-03	1.139E-01	9.891E-02	5.813E-02	FAIL ABUN
AM-246	1.716E-01	1.689E-01	1.554E-01	8.618E-02	NOT IDENT.
CM-247	1.837E-02	4.159E-02	3.662E-02	2.122E-02	NOT IDENT.
CF-249	6.571E-04	4.460E-02	3.836E-02	2.275E-02	NOT IDENT.
CF-251	-5.449E-03	1.483E-01	1.253E-01	7.565E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON, SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
--------	------------

46.50	283.6767
46.50	283.6767
46.50	283.6767
48.70	291.1524
49.72	287.1344
51.35	309.8189
52.39	295.7657
52.97	300.6255
53.15	297.0610
53.44	307.2654
54.07	322.2374
56.28	326.1707
56.28	326.1721
57.37	0.0000
57.53	341.9594
57.53	341.9601
57.60	334.6316
57.98	320.6213
57.98	320.6213
59.32	298.4087
59.32	298.4087
59.40	298.4463
59.54	292.6011
59.72	308.9447
60.01	309.0857
61.10	336.2777
61.14	333.3355
61.30	333.4186
63.00	382.5786
63.29	375.3152
63.29	375.3152
63.58	353.1754
64.28	382.5777
65.12	392.0039
65.20	392.0504
65.20	392.0504
66.05	391.0555
66.72	383.9706
66.83	384.0349
66.91	384.0804
67.20	387.2338
67.20	387.2338
67.75	432.6840
67.85	432.7475
68.90	438.4055
68.90	438.4055
69.30	441.1584
69.67	394.6300
70.82	426.8390
70.82	426.8390
70.83	426.8459
72.80	418.9920
72.87	419.0327
72.87	419.0327
74.67	431.6034
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.97	431.7812
75.28	431.9660
75.70	432.2135
77.11	433.0433
77.11	433.0433

77.11	433.0433
77.11	433.0433
77.11	433.0433
77.11	433.0433
77.11	433.0433
78.38	388.7922
79.62	454.8472
79.80	454.9548
79.80	454.9548
80.11	517.5537
80.18	517.6014
80.30	517.6824
80.30	517.6824
80.57	552.8992
81.00	522.7316
81.07	522.7798
81.07	522.7798
81.07	522.7798
81.07	522.7798
82.60	422.5212
83.37	421.9209
83.78	406.8498
83.78	406.8498
83.78	406.8498
83.78	406.8498
84.21	396.3629
84.90	387.5221
85.43	416.9051
86.29	517.0967
86.50	517.2346
86.54	517.2592
86.59	517.2921
86.72	552.6892
86.79	552.7354
86.94	552.8408
87.30	436.9037
87.30	436.9037
87.30	436.9037
87.30	436.9037
87.30	436.9037
87.30	436.9037
87.57	437.0513
87.88	437.2213
88.03	437.3029
88.36	437.4817
88.47	437.5424
89.95	438.3444
91.11	438.9692
92.29	439.5992
92.38	439.6479
92.38	439.6479
93.35	440.1634
94.00	440.5070
94.67	440.8568
94.67	440.8593
94.90	359.7628
94.90	359.7628
94.90	359.7628
94.90	359.7628
95.87	377.2551
95.87	377.2551
96.73	386.9637
97.43	342.1763
98.44	306.7640
98.44	306.7652
98.88	294.4577
99.55	288.4505
99.55	288.4505
99.86	317.1486
100.00	317.1995
100.10	317.2380
103.18	379.6774
103.76	329.9873
105.00	326.5253
105.31	332.5237
108.00	352.2096
109.28	342.8519

111.00	329.6757
111.00	329.6757
111.76	342.7880
112.95	329.3784
115.19	315.2924
116.30	312.6833
117.00	305.9592
117.00	305.9592
117.66	306.1707
121.11	334.2000
121.62	337.3695
121.78	332.4322
122.06	332.5275
122.32	331.6163
122.32	331.6163
122.32	331.6163
122.32	331.6163
123.07	342.7224
127.23	350.1219
129.76	320.4065
131.20	340.2066
133.02	303.6572
133.54	303.0029
135.34	302.5153
136.00	300.6799
136.25	304.8029
136.48	309.9338
140.51	339.5806
140.51	0.0000
142.18	301.4131
142.65	297.4692
143.76	285.5371
144.24	278.5216
144.24	278.5216
144.24	278.5216
144.24	278.5216
145.22	312.4692
145.44	323.7670
147.16	343.7109
152.43	293.9491
152.70	292.9908
153.22	295.1827
154.21	300.5859
154.21	300.5859
154.21	300.5859
154.21	300.5859
155.03	303.8947
156.02	325.8099
158.56	314.1309
159.00	0.0000
159.00	318.3840
160.31	289.7668
161.27	287.9346
162.32	297.5212
162.64	298.6392
163.35	300.8945
163.89	299.9947
165.85	300.4919
167.43	272.7781
171.28	271.5607
171.86	267.5117
172.10	267.5645
176.55	280.0738
176.60	280.0840
181.06	301.5097
184.41	265.1521
185.71	275.7772
186.00	253.6469
190.27	254.4873
192.34	257.0142
193.63	304.0430
197.04	255.8002
198.01	255.9869
198.60	253.9645
200.40	278.8836
201.83	288.8052
202.84	266.8988
205.31	245.3641

208.36	257.9480
208.81	260.1825
209.75	265.0917
209.75	265.0917
210.97	277.3850
215.65	247.4148
216.55	254.0586
218.09	243.5120
222.10	215.9786
223.80	237.9657
226.40	230.7719
227.00	223.2444
227.08	231.9693
227.20	231.9888
228.16	216.8819
228.18	216.8850
228.18	216.8850
231.56	0.0000
235.69	240.1162
236.00	213.8708
236.00	213.8708
238.63	198.6606
238.63	198.6606
238.63	198.6606
238.63	198.6606
239.00	198.7089
240.98	198.9699
241.98	199.1011
241.98	199.1011
241.98	199.1011
244.69	171.0241
245.39	162.2825
247.94	187.2869
248.90	200.3684
249.79	201.2203
252.40	187.1608
252.85	196.0771
252.85	196.0771
254.15	0.0000
256.20	188.7234
256.20	188.7234
260.50	205.9316
260.90	202.6450
262.80	180.9074
264.65	173.2075
268.24	173.5912
268.79	179.0210
269.46	179.0942
269.46	179.0942
269.46	179.0942
269.46	179.0942
271.23	182.8753
273.65	242.3969
276.40	167.0046
277.35	174.3301
277.60	191.2292
277.60	191.2292
278.00	195.3265
278.60	202.5989
279.20	221.5892
279.53	230.6406
280.46	228.0644
281.68	185.8325
283.67	149.0217
284.30	150.8851
285.00	162.6965
285.90	170.9236
286.10	182.9010
286.10	182.9010
287.40	186.2026
288.45	0.0000
290.67	140.5671
290.80	140.5766
291.72	146.7018
293.26	0.0000
293.70	157.1677
295.21	157.3029
295.21	157.3029

295.21	157.3029
295.96	157.3726
296.50	157.4211
297.23	157.4866
298.57	157.6070
299.80	157.7189
299.80	157.7189
300.09	173.2451
300.09	173.2451
300.09	173.2451
300.09	173.2451
300.12	173.2474
301.29	171.8427
302.84	156.7737
303.76	149.2411
303.91	149.2530
304.40	131.0139
304.40	131.0139
304.84	137.1405
306.84	160.6873
308.46	179.5630
311.98	128.5105
316.51	161.9600
318.01	148.2804
319.02	151.1254
319.41	150.2358
320.08	142.9152
323.87	192.1791
323.87	192.1791
323.87	192.1791
323.87	192.1791
325.23	179.3742
328.77	140.8097
333.44	185.7373
334.20	165.6833
334.20	165.6833
334.30	165.6920
338.28	158.2814
338.28	158.2814
338.28	158.2814
338.28	158.2814
338.32	158.2834
338.32	158.2834
338.32	158.2834
340.50	124.2871
340.57	124.2904
344.27	155.0414
345.85	154.2323
350.59	0.0000
351.07	119.0330
351.92	119.0842
351.92	119.0842
351.92	119.0842
355.39	0.0000
356.01	137.8115
364.48	125.5041
366.43	136.9623
367.43	137.0296
367.94	0.0000
369.80	115.4294
374.96	135.6423
383.85	104.7927
387.95	116.4540
388.63	122.2203
391.69	116.6610
391.69	116.6610
392.90	124.3823
398.62	110.3281
400.65	103.7114
401.10	107.5758
401.81	92.2383
402.60	108.6121
404.84	136.6282
410.95	110.9626
411.60	111.9615
413.65	123.6594
414.70	127.5850
415.30	132.4545

415.76	120.8786
417.63	0.0000
418.52	106.5061
423.70	92.1982
427.08	120.5261
427.89	120.5700
432.53	85.7431
433.93	109.1945
439.47	98.7117
439.56	98.7154
439.89	97.7527
443.98	107.7200
444.90	99.9256
445.03	99.9319
445.03	99.9319
445.03	99.9319
445.03	99.9319
453.90	95.0701
463.38	103.6849
468.07	84.1014
473.00	105.0968
475.06	104.1938
475.35	92.2973
476.78	96.3239
477.59	91.3902
477.96	101.3388
482.03	121.4132
484.57	77.7058
487.03	83.7683
490.36	0.0000
492.35	79.9521
497.08	78.1028
507.63	0.0000
510.53	0.0000
510.84	79.5396
511.00	79.5444
511.85	79.5719
511.85	79.5719
513.99	80.6465
513.99	80.6465
520.41	66.2518
520.65	66.2582
527.90	71.9638
528.96	0.0000
529.64	72.0123
529.87	0.0000
531.02	93.3611
537.32	75.2755
543.00	76.4575
546.56	0.0000
549.76	79.7196
552.65	62.4118
555.20	69.6402
563.23	73.9564
563.90	88.3600
568.70	76.1644
569.32	76.1824
569.50	80.3061
569.67	80.3099
573.80	91.7747
574.00	101.0625
574.64	101.0864
578.91	70.5939
579.30	0.0000
583.14	91.3957
585.48	89.7474
591.81	92.3723
592.07	83.0391
593.00	92.4114
595.88	85.2291
600.56	97.1706
602.52	0.0000
602.71	90.2975
602.71	90.2975
603.60	86.8530
604.41	100.7778
604.70	100.7873
609.31	87.7222

609.31	87.7222
609.31	87.7222
609.31	87.7222
610.33	80.0920
612.46	87.1216
614.37	74.9753
618.01	86.9413
621.84	74.4685
621.84	74.4685
631.29	69.4499
633.02	85.2834
633.10	85.2853
634.78	95.8699
635.90	81.1508
636.97	72.7465
645.85	69.7915
646.12	68.7404
656.30	84.8906
657.75	85.9933
657.90	0.0000
661.65	81.8520
661.65	81.8520
664.57	0.0000
666.33	84.1072
666.33	84.1072
675.00	65.1267
677.61	89.7586
685.20	74.9817
692.80	71.9432
695.00	92.4101
696.49	104.2797
696.49	104.2797
697.00	95.6945
697.49	91.4082
698.33	77.4475
698.50	76.3770
699.00	71.0096
702.63	73.2444
706.10	66.8543
706.58	0.0000
706.67	63.6310
709.31	84.1928
711.68	57.2506
713.82	59.4500
717.42	64.9277
720.50	61.8945
721.93	0.0000
722.20	61.4113
722.78	59.6151
722.78	59.6151
722.89	59.6178
722.95	59.6191
723.30	54.2053
724.18	48.7980
727.18	66.2094
733.00	63.4275
735.90	74.3676
739.58	79.5336
742.81	69.7969
744.21	82.9190
747.13	63.3370
751.79	67.7989
752.31	65.6221
753.82	76.5950
755.35	63.4927
756.15	63.5083
756.87	68.9985
763.93	93.2883
765.79	69.1816
766.42	58.2107
766.84	51.6277
776.49	67.9312
778.00	76.2269
778.57	84.5055
778.89	84.5130
783.80	62.5561
785.46	63.5069
792.07	71.1380

795.84	74.3801
796.30	72.8071
798.80	53.8531
801.93	43.1566
805.60	68.5048
810.29	59.3268
810.76	50.9907
815.85	63.1344
817.79	57.5952
818.51	60.3940
819.60	59.4831
826.30	67.0444
828.27	0.0000
831.60	56.8859
831.96	58.7574
834.83	69.0724
836.80	0.0000
846.75	55.2525
848.13	60.8952
856.28	0.0000
856.80	87.3332
860.37	54.5190
867.32	53.6799
867.82	49.9193
871.10	56.5625
873.19	58.4807
874.81	52.8452
875.33	0.0000
876.40	57.5871
879.36	50.0746
880.27	44.4173
880.51	44.4201
881.50	52.9398
883.24	47.2890
884.67	52.9842
889.25	40.7342
896.60	47.4579
898.02	46.5257
899.00	47.4874
903.28	52.1596
911.07	57.1655
911.07	57.1655
911.07	57.1655
919.63	59.2022
920.93	58.2672
925.00	46.8537
925.24	47.8129
926.50	46.8726
935.52	40.2697
937.48	54.6783
944.10	41.3186
946.00	40.3773
949.00	47.1428
962.29	43.0253
964.01	43.4573
966.15	43.4811
968.20	43.5031
969.11	43.0988
969.11	43.0988
969.11	43.0988
977.42	46.5098
980.50	44.6055
983.50	47.5505
989.30	43.7311
996.32	67.1694
1001.03	38.0090
1001.68	46.7871
1004.76	55.6014
1021.30	0.0000
1024.50	0.0000
1034.80	48.1447
1036.00	46.1910
1037.82	35.3965
1038.57	39.3359
1038.76	0.0000
1045.16	46.2924
1046.59	33.4992
1048.07	36.4670

1050.47	48.3221
1050.47	48.3221
1062.04	39.5540
1063.62	35.6118
1076.63	65.4844
1077.35	51.6022
1078.86	38.7144
1085.78	59.6558
1099.22	63.8281
1112.02	58.2976
1112.84	53.1645
1115.52	53.1948
1120.29	56.1162
1120.29	56.1162
1120.29	56.1162
1120.29	56.1162
1120.51	56.1185
1121.28	56.1276
1124.00	0.0000
1129.67	44.7564
1131.51	0.0000
1147.95	0.0000
1167.94	58.7316
1173.22	52.7173
1175.09	64.9089
1177.93	55.8146
1189.05	55.9489
1204.90	67.3643
1205.75	0.0000
1213.00	69.5246
1221.42	51.2126
1230.97	70.1979
1235.34	65.1552
1236.41	0.0000
1238.25	75.7659
1246.25	67.0672
1260.41	0.0000
1271.85	44.5030
1274.45	48.6676
1274.54	48.6696
1291.56	51.9531
1298.22	0.0000
1312.09	39.6467
1325.50	34.5214
1325.50	34.5214
1332.49	25.1416
1333.61	25.1465
1360.21	24.2241
1362.66	0.0000
1365.15	23.1924
1368.21	25.3164
1368.53	0.0000
1376.25	24.2990
1384.27	21.1621
1394.10	23.3213
1395.20	23.3267
1407.95	12.7539
1434.06	17.0885
1436.60	18.1649
1457.56	0.0000
1460.81	32.1997
1489.15	20.4983
1509.49	20.5725
1596.49	22.6147
1620.62	7.5692
1678.03	0.0000
1691.02	6.7009
1691.02	6.7009
1706.46	0.0000
1750.46	0.0000
1764.49	6.7805
1764.49	6.7805
1764.49	6.7805
1764.49	6.7805
1770.23	38.7807
1771.40	15.5151
1791.20	0.0000
1808.65	16.5814

1836.01

9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246344004

Total Uranium Activity	7.3606E+00	ug/g
Total Uranium Counting Unc.	6.1686E+00	ug/g
Total Uranium Tpu	3.1472E-06	ug/g
Total Uranium Mda	4.4524E+00	ug/g


```

*****
*
*               GEL Laboratories LLC
*               2040 SAVAGE ROAD
*               CHARLESTON , SC 29417
*               GROSS GAMMA REPORT
*
*****
*
*  BATCH ID      : 950787                SAMPLE ID   : G246344004
*  ANALYST       : MXR1                  DETECTOR    : GAM23
*  SAMPLE DATE   : 1-FEB-2010 12:00:00.00  COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 16:59:10.04  SAMPLE ALQT  : 118.640 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.208E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.494E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 3.283E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.590E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 20:03:09.45

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
Configuration      : DKAl00:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344005.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 17:02:42
Sample ID          : G246344005      Sample quantity   : 8.96700E+01 GRAM
Detector name      : GAM15           Detector geometry: CAN
Elapsed live time  : 0 03:00:00.00   Elapsed real time: 0 03:00:01.71  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials  : MXR1
Abundance limit    : 75.00000        Sensitivity       : 5.00000
Batch ID           : 950787          Detector SN#      :
Matrix Spike ID    :                  LCS ID           : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	438	721	1.37	125.61	121	10	4.06E-02	12.7	
2	5	74.96*	279	594	1.40	148.85	145	13	2.59E-02	17.1	2.65E-01
3	5	77.24*	421	543	1.11	153.40	145	13	3.90E-02	10.9	
4	3	84.27	132	675	1.50	167.46	160	33	1.23E-02	35.0	5.21E+00
5	3	87.32*	264	716	1.63	173.56	160	33	2.45E-02	20.0	
6	3	92.78*	1953	550	1.43	184.47	160	33	1.81E-01	3.4	
7	0	98.68	199	573	1.44	196.29	193	10	1.84E-02	23.5	
8	0	113.01	89	756	1.63	224.94	218	12	8.28E-03	62.5	
9	0	144.13*	110	414	1.39	287.18	283	9	1.02E-02	36.2	
10	0	186.04*	560	555	1.40	370.99	365	11	5.19E-02	9.7	
11	0	209.43	144	286	2.01	417.77	414	9	1.34E-02	22.8	
12	3	238.78*	1029	288	1.30	476.46	469	20	9.53E-02	4.5	1.02E+00
13	3	241.79*	266	406	2.04	482.47	469	20	2.47E-02	20.5	
14	0	270.56	99	212	1.61	540.02	536	8	9.16E-03	27.6	
15	0	295.46*	340	315	1.52	589.81	583	13	3.15E-02	12.1	
16	0	338.03*	235	304	1.45	674.97	668	15	2.18E-02	17.7	
17	0	352.07*	572	249	1.58	703.04	698	11	5.30E-02	7.1	
18	0	462.76	54	130	1.37	924.43	921	8	4.98E-03	39.2	
19	0	511.54*	224	210	2.63	1021.97	1013	23	2.07E-02	20.2	
20	0	583.34*	290	147	1.54	1165.59	1159	12	2.68E-02	10.7	
21	0	609.53*	469	151	1.79	1217.97	1212	16	4.34E-02	7.8	
22	0	661.70	1181	152	1.58	1322.31	1315	16	1.09E-01	3.7	
23	0	727.61*	88	58	1.72	1454.16	1450	11	8.11E-03	22.1	
24	0	911.22*	241	67	2.00	1821.42	1813	19	2.23E-02	10.7	
25	0	964.33	50	66	1.62	1927.67	1920	13	4.63E-03	36.7	
26	0	969.52*	119	46	1.63	1938.05	1933	13	1.10E-02	16.2	
27	0	1001.26	117	58	1.77	2001.54	1993	19	1.08E-02	18.0	
28	0	1119.97*	118	49	1.56	2239.00	2232	14	1.09E-02	16.3	
29	0	1238.84	73	69	1.93	2476.80	2467	19	6.74E-03	30.8	
30	0	1294.07	15	23	1.38	2587.30	2581	10	1.35E-03	68.5	
31	0	1379.19	50	20	1.14	2757.59	2751	17	4.60E-03	25.5	
32	0	1460.70*	811	26	2.05	2920.66	2912	18	7.51E-02	3.9	
33	0	1764.40*	90	8	2.00	3528.29	3520	16	8.35E-03	13.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 20:03:11

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344005.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 1-FEB-2010 12:00:00 Acquisition date : 18-FEB-2010 17:02:42
 Sample ID : G246344005 Sample quantity : 89.670 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA15 Detector geometry: CAN
 Elapsed live time: 0 03:00:00.00 Elapsed real time: 0 03:00:01.71 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	+	1460.81	*	2.197E+01	2.744E+00	7.564E-01	7.432E-02	29.041
CD-109	+	88.03	*	4.577E+00	1.913E+00	1.935E+00	2.402E-01	2.365
SN-126	+	64.28		6.980E+00	2.131E+00	1.614E+00	2.732E-01	4.325
	+	86.94		1.864E+00	1.084E+00	8.030E-01	3.395E-01	2.322
	+	87.57	*	4.485E-01	1.874E-01	1.911E-01	2.364E-02	2.347
BA-137M	+	661.65	*	1.850E+00	2.054E-01	7.021E-02	5.772E-03	26.356
CS-137	+	661.65	*	1.956E+00	2.174E-01	7.422E-02	6.115E-03	26.356
CE-141	+	145.44	*	1.666E-01	1.218E-01	1.432E-01	1.480E-02	1.163
LU-177	+	112.95		4.180E+00	5.240E+00	4.850E+00	4.931E-01	0.862
	+	208.36	*	4.842E+00	2.273E+00	3.299E+00	3.618E-01	1.468
TL-208		277.35		1.041E+00	5.474E-01	9.471E-01	1.323E-01	1.099
	+	510.84		1.197E+00	5.044E-01	2.725E-01	3.271E-02	4.393
	+	583.14	*	4.384E-01	1.022E-01	7.822E-02	7.163E-03	5.604
		860.37		4.758E-01	3.651E-01	6.566E-01	6.422E-02	0.725
BI-211		72.87		5.990E+00	6.147E+00	9.159E+00	1.049E+00	0.654
	+	351.07	*	3.930E+00	6.809E-01	4.778E-01	4.758E-02	8.226
PB-212	+	74.81		2.246E+00	8.389E-01	9.403E-01	1.394E-01	2.388
	+	77.11		1.865E+00	4.611E-01	5.184E-01	6.009E-02	3.597
	+	87.30		2.074E+00	8.914E-01	8.878E-01	1.411E-01	2.336
	+	238.63	*	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
		300.09		1.189E+00	1.202E+00	1.829E+00	2.209E-01	0.650
PO-212	+	74.81		2.246E+00	8.389E-01	9.403E-01	1.394E-01	2.388
	+	77.11		1.865E+00	4.611E-01	5.184E-01	6.009E-02	3.597
	+	87.30		2.074E+00	8.914E-01	8.878E-01	1.411E-01	2.336
		115.19		2.662E+00	6.180E+00	8.964E+00	9.073E-01	0.297
	+	238.63	*	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
		300.09		1.189E+00	1.202E+00	1.829E+00	2.209E-01	0.650
BI-214	+	609.31	*	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
	+	1120.29		1.781E+00	6.107E-01	5.366E-01	5.785E-02	3.320
	+	1764.49		1.862E+00	5.443E-01	3.839E-01	3.366E-02	4.850
PB-214	+	74.81		3.870E+00	1.429E+00	1.620E+00	2.217E-01	2.388
	+	77.11		3.196E+00	8.272E-01	8.888E-01	1.233E-01	3.597
	+	87.30		3.553E+00	1.510E+00	1.521E+00	2.214E-01	2.336
	+	241.98		2.434E+00	1.041E+00	7.359E-01	9.104E-02	3.307

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	295.21		1.394E+00	3.796E-01	3.204E-01	3.950E-02	4.352
	+	351.92	*	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
	+	74.81		3.870E+00	1.429E+00	1.620E+00	2.217E-01	2.388
	+	77.11		3.196E+00	8.272E-01	8.888E-01	1.233E-01	3.597
	+	87.30		3.553E+00	1.510E+00	1.521E+00	2.214E-01	2.336
	+	241.98		2.434E+00	1.041E+00	7.359E-01	9.104E-02	3.307
PO-216	+	295.21		1.394E+00	3.796E-01	3.204E-01	3.950E-02	4.352
	+	351.92	*	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
	+	74.81		2.246E+00	8.389E-01	9.403E-01	1.394E-01	2.388
	+	77.11		1.865E+00	4.611E-01	5.184E-01	6.009E-02	3.597
	+	87.30		2.074E+00	8.914E-01	8.878E-01	1.411E-01	2.336
	+	238.63	*	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
PO-218	+	300.09		1.189E+00	1.202E+00	1.829E+00	2.209E-01	0.650
	+	74.81		3.870E+00	1.429E+00	1.620E+00	2.217E-01	2.388
	+	77.11		3.196E+00	8.272E-01	8.888E-01	1.233E-01	3.597
	+	87.30		3.553E+00	1.510E+00	1.521E+00	2.214E-01	2.336
	+	241.98		2.434E+00	1.041E+00	7.359E-01	9.104E-02	3.307
	+	295.21		1.394E+00	3.796E-01	3.204E-01	3.950E-02	4.352
RA-224	+	351.92	*	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
	+	240.98	*	4.615E+00	1.956E+00	1.391E+00	1.534E-01	3.318
RA-226	+	609.31	*	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
	+	1120.29		1.781E+00	6.107E-01	5.366E-01	5.785E-02	3.320
AC-228	+	1764.49		1.862E+00	5.443E-01	3.839E-01	3.366E-02	4.850
	+	338.32		1.785E+00	9.733E-01	5.036E-01	2.092E-01	3.545
	+	911.07	*	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
	+	969.11		1.420E+00	5.695E-01	5.087E-01	1.198E-01	2.792
RA-228	+	338.32		1.785E+00	9.733E-01	5.036E-01	2.092E-01	3.545
	+	911.07	*	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
	+	969.11		1.420E+00	5.695E-01	5.087E-01	1.198E-01	2.792
TH-228	+	74.81		2.285E+00	8.267E-01	9.566E-01	1.106E-01	2.388
	+	77.11		1.897E+00	4.691E-01	5.274E-01	6.113E-02	3.597
	+	87.30		2.110E+00	8.819E-01	9.031E-01	1.115E-01	2.336
	+	238.63	*	1.592E+00	2.383E-01	1.244E-01	1.481E-02	12.803
TH-229	+	300.09		1.210E+00	1.412E+00	1.860E+00	1.109E+00	0.650
	+	85.43		5.339E-01	3.790E-01	4.452E-01	5.416E-02	1.199
	+	88.47		6.123E-01	2.559E-01	2.571E-01	3.168E-02	2.382
	+	100.00		8.713E-01	4.206E-01	4.386E-01	4.738E-02	1.986
	+	193.63	*	-1.697E-01	7.450E-01	1.181E+00	1.285E-01	-0.144
	+	210.97		1.675E+00	1.150E+00	1.789E+00	1.964E-01	0.937
TH-230	+	609.31	*	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
	+	1120.29		1.781E+00	6.107E-01	5.366E-01	5.785E-02	3.320
	+	1764.49		1.862E+00	5.443E-01	3.839E-01	3.366E-02	4.850
	+	338.32		1.785E+00	6.545E-01	5.036E-01	4.964E-02	3.545
TH-232	+	911.07	*	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
	+	969.11		1.420E+00	5.695E-01	5.087E-01	1.198E-01	2.792
TH-234	+	63.29	*	1.763E+01	5.646E+00	4.388E+00	8.548E-01	4.018
	+	92.38		2.087E+01	4.343E+00	1.218E+00	2.402E-01	17.128
U-234	+	609.31	*	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
	+	1120.29		1.781E+00	6.107E-01	5.366E-01	5.785E-02	3.320

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	+	1764.49		1.862E+00	5.443E-01	3.839E-01	3.366E-02	4.850
		89.95		9.343E+00	3.757E+00	3.296E+00	1.054E+00	2.835
	+	93.35		2.509E+01	7.491E+00	1.448E+00	4.205E-01	17.330
		105.00		5.579E-01	1.714E+00	2.608E+00	7.934E-01	0.214
	+	143.76	*	5.312E-01	3.966E-01	4.680E-01	8.575E-02	1.135
		163.35		9.078E-01	7.406E-01	1.170E+00	2.346E-01	0.776
NP-237	+	185.71		5.962E-01	1.323E-01	1.024E-01	1.108E-02	5.824
		205.31		2.339E-01	9.030E-01	1.245E+00	2.520E-01	0.188
	+	86.50	*	1.317E+00	6.138E-01	5.716E-01	1.372E-01	2.304
U-238		95.87		5.091E+00	2.485E+00	2.580E+00	6.619E-01	1.973
	+	63.29	*	1.763E+01	5.646E+00	4.388E+00	8.548E-01	4.018
AM-243	+	92.38		2.087E+01	2.803E+00	1.218E+00	1.420E-01	17.128
	+	74.67	*	3.641E-01	1.317E-01	1.518E-01	1.746E-02	2.399
ANH-511	+	86.72		4.939E+01	2.064E+01	2.135E+01	2.624E+00	2.313
		117.66		4.608E+00	6.155E+00	9.051E+00	9.131E-01	0.509
		142.18		2.487E+01	2.862E+01	4.195E+01	4.258E+00	0.593
	+	511.00	*	2.586E-01	1.068E-01	5.888E-02	5.087E-03	4.392

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	5.826E-01	5.245E-01	8.990E-01	8.358E-02	0.648
NA-22		1274.54	*	-6.399E-03	5.016E-02	7.989E-02	7.257E-03	-0.080
NA-24		1368.53	*	3.892E+00	5.016E-02	Half-Life too short		
AL-26		1129.67		-3.568E-01	2.019E+00	3.232E+00	2.730E-01	-0.110
		1808.65	*	-1.423E-02	3.742E-02	5.709E-02	4.884E-03	-0.249
TI-44		67.85		-6.124E-02	1.015E-01	1.412E-01	1.612E-02	-0.434
	+	78.38	*	3.441E-01	8.510E-02	1.203E-01	1.402E-02	2.859
SC-46		889.25	*	-1.368E-02	4.305E-02	6.887E-02	6.400E-03	-0.199
	+	1120.51		3.103E-01	1.044E-01	1.610E-01	1.369E-02	1.927
V-48		944.10		3.625E-01	1.183E+00	1.999E+00	1.848E-01	0.181
		983.50	*	-4.701E-02	8.498E-02	1.314E-01	1.201E-02	-0.358
		1312.09		-3.377E-02	1.062E-01	1.647E-01	1.552E-02	-0.205
CR-51		320.08	*	-2.044E-01	5.822E-01	9.510E-01	1.010E-01	-0.215
MN-52		744.21		4.004E-01	4.053E-01	7.179E-01	6.214E-02	0.558
		848.13		2.006E+00	1.097E+01	1.843E+01	1.683E+00	0.109
		935.52		1.295E-01	4.170E-01	7.038E-01	6.520E-02	0.184
		1246.25		7.805E+00	1.109E+01	1.703E+01	1.501E+00	0.458
		1333.61		5.867E+00	7.861E+00	1.376E+01	1.322E+00	0.427
MN-54		1434.06	*	3.447E-01	3.942E-01	7.186E-01	6.917E-02	0.480
		834.83	*	3.243E-02	4.786E-02	8.298E-02	7.531E-03	0.391
		846.75	*	-4.492E-04	4.992E-02	8.262E-02	7.539E-03	-0.005
CO-56		977.42		1.955E+00	3.664E+00	5.750E+00	5.267E-01	0.340
		1037.82		4.026E-03	3.800E-01	6.226E-01	5.843E-02	0.006
		1175.09		-5.516E-01	2.689E+00	4.282E+00	3.493E-01	-0.129
	+	1238.25		3.167E-01	1.971E-01	2.141E-01	1.924E-02	1.479
		1360.21		5.003E-01	1.119E+00	1.970E+00	1.897E-01	0.254
		1771.40		1.257E-01	3.059E-01	4.755E-01	4.154E-02	0.264

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	1.498E-02	3.625E-02	5.970E-02	6.014E-03	0.251
		136.48		2.909E-02	2.930E-01	4.761E-01	5.063E-02	0.061
CO-58		810.76	*	-7.488E-03	4.390E-02	7.179E-02	6.454E-03	-0.104
FE-59	+	142.65		7.082E+00	5.176E+00	6.881E+00	6.989E-01	1.029
		192.34		-7.314E-01	1.485E+00	2.237E+00	3.349E-01	-0.327
		1099.22	*	3.987E-02	1.223E-01	2.051E-01	1.913E-02	0.194
		1291.56		3.649E-02	1.832E-01	2.605E-01	2.691E-02	0.140
CO-60		1173.22		-1.668E-02	5.191E-02	8.164E-02	6.645E-03	-0.204
		1332.49	*	-1.401E-03	4.694E-02	7.535E-02	7.244E-03	-0.019
ZN-65		1115.52	*	1.013E-01	1.206E-01	1.864E-01	1.593E-02	0.543
GE-68		1077.35	*	5.813E-01	1.579E+00	2.661E+00	2.330E-01	0.218
AS-73		53.44	*	3.756E-01	2.498E+00	4.165E+00	5.408E-01	0.090
AS-74		595.88	*	-4.645E-03	1.349E-01	2.169E-01	1.843E-02	-0.021
		634.78		5.878E-02	5.157E-01	8.355E-01	6.977E-02	0.070
SE-75		66.05		-6.668E+00	1.141E+01	1.591E+01	2.043E+00	-0.419
		96.73		3.318E+00	1.820E+00	2.070E+00	3.172E-01	1.603
		121.11		3.901E-02	1.968E-01	3.220E-01	3.983E-02	0.121
		136.00		-1.241E-02	5.618E-02	9.026E-02	9.137E-03	-0.138
		198.60		-1.625E+00	2.646E+00	4.116E+00	4.804E-01	-0.395
		264.65	*	-1.248E-02	6.665E-02	1.004E-01	1.101E-02	-0.124
		279.53		3.531E-03	1.599E-01	2.671E-01	2.956E-02	0.013
		303.91		-3.042E+00	3.054E+00	4.820E+00	6.242E-01	-0.631
		400.65		1.370E-02	3.670E-01	6.045E-01	6.639E-02	0.023
BR-77	+	87.88		1.826E+03	7.633E+02	9.664E+02	1.199E+02	1.890
		200.40		-3.119E+02	4.376E+02	6.772E+02	7.398E+01	-0.461
	+	239.00		4.656E+02	6.649E+01	8.333E+01	9.193E+00	5.588
		249.79		1.187E+02	1.716E+02	2.945E+02	3.242E+01	0.403
		281.68		-2.314E+02	2.453E+02	3.916E+02	4.224E+01	-0.591
		297.23		7.174E+02	2.003E+02	3.157E+02	3.346E+01	2.272
		303.76		-4.711E+02	4.749E+02	7.520E+02	7.899E+01	-0.626
		439.47		4.079E+02	3.810E+02	6.567E+02	5.628E+01	0.621
		484.57		-5.813E+02	6.127E+02	9.383E+02	8.103E+01	-0.620
		520.65	*	3.893E+00	2.914E+01	4.136E+01	3.572E+00	0.094
		574.64		-2.734E+02	5.183E+02	7.804E+02	6.676E+01	-0.350
		578.91		-9.613E+01	2.396E+02	3.199E+02	2.733E+01	-0.300
		585.48		3.151E+03	6.854E+02	1.148E+03	9.788E+01	2.745
		755.35		3.245E+02	3.564E+02	6.326E+02	5.510E+01	0.513
		817.79		2.397E+02	2.766E+02	4.911E+02	4.421E+01	0.488
SR-82		698.33		-3.718E+00	4.489E+01	7.471E+01	6.290E+00	-0.050
		776.49	*	-5.627E-01	4.844E-01	7.031E-01	6.196E-02	-0.800
		1395.20		-6.258E+00	1.215E+01	1.879E+01	1.811E+00	-0.333
RB-83		520.41	*	1.702E-02	1.059E-01	1.507E-01	1.302E-02	0.113
		529.64		-6.866E-02	1.443E-01	2.265E-01	1.955E-02	-0.303
		552.65		-1.963E-02	2.710E-01	4.364E-01	3.753E-02	-0.045
RB-84		881.50	*	5.110E-03	8.419E-02	1.399E-01	1.296E-02	0.037
KR-85		513.99	*	4.072E+01	1.126E+01	2.056E+01	1.776E+00	1.980
SR-85		513.99	*	2.135E-01	5.904E-02	1.078E-01	9.313E-03	1.980
RB-86		1076.63	*	5.205E-01	1.062E+00	1.810E+00	1.585E-01	0.288
Y-88		898.02		-3.300E-02	4.983E-02	7.427E-02	6.955E-03	-0.444

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1836.01	*		-7.430E-03	3.688E-02	5.794E-02	4.879E-03	-0.128
ZR-88	392.90	*		-5.738E-02	4.547E-02	6.950E-02	5.850E-03	-0.826
Y-91	1204.90	*		-7.308E+00	2.211E+01	3.470E+01	2.926E+00	-0.211
NB-94	702.63	*		-2.880E-02	4.041E-02	6.410E-02	5.412E-03	-0.449
	871.10			-2.495E-02	3.520E-02	5.381E-02	4.963E-03	-0.464
NB-95	765.79	*		1.205E-01	6.195E-02	1.130E-01	9.904E-03	1.066
NB-95M	235.69	*		4.885E-01	2.093E-01	3.272E-01	3.938E-02	1.493
ZR-95	724.18			1.047E-01	1.375E-01	2.118E-01	1.971E-02	0.494
	756.15			3.464E-02	8.632E-02	1.480E-01	1.418E-02	0.234
NB-97	657.90	*		3.718E+00	8.632E-02	Half-Life	too short	
	1024.50			3.992E+01	8.632E-02	Half-Life	too short	
ZR-97	254.15			-3.380E+01	8.632E-02	Half-Life	too short	
	355.39			1.330E+01	8.632E-02	Half-Life	too short	
	507.63	*		3.486E+01	8.632E-02	Half-Life	too short	
	602.52			4.934E+01	8.632E-02	Half-Life	too short	
	1021.30			4.215E+01	8.632E-02	Half-Life	too short	
	1147.95			1.220E+01	8.632E-02	Half-Life	too short	
	1362.66			-4.325E+01	8.632E-02	Half-Life	too short	
	1750.46			-2.987E+01	8.632E-02	Half-Life	too short	
MO-99	140.51			1.213E+01	6.888E+01	9.814E+01	2.767E+01	0.124
	181.06			3.219E+01	4.824E+01	6.922E+01	1.343E+01	0.465
	366.43			-5.297E+01	2.051E+02	3.341E+02	3.062E+01	-0.159
	739.58	*		-1.220E+01	2.543E+01	4.087E+01	6.209E+00	-0.299
	778.00			-4.878E+01	6.759E+01	1.056E+02	9.318E+00	-0.462
TC-99M	140.51	*		3.554E+12	6.759E+01	Half-Life	too short	
RH-101	127.23			-2.505E-02	4.464E-02	7.092E-02	7.115E-03	-0.353
	198.01	*		4.240E-03	5.016E-02	7.528E-02	8.213E-03	0.056
	325.23			-5.302E-02	3.306E-01	5.447E-01	5.518E-02	-0.097
RH-102	418.52			8.506E-02	4.136E-01	6.858E-01	5.838E-02	0.124
	475.06	*		-1.554E-02	4.590E-02	7.348E-02	6.341E-03	-0.212
	631.29			2.417E-02	7.118E-02	1.172E-01	9.807E-03	0.206
	697.49			-1.150E-02	9.679E-02	1.607E-01	1.353E-02	-0.072
	766.84			3.564E-01	1.563E-01	2.879E-01	2.523E-02	1.238
	1046.59			3.413E-02	1.345E-01	2.253E-01	2.006E-02	0.151
	1112.84			-1.925E-01	3.197E-01	4.082E-01	3.491E-02	-0.472
RU-103	497.08	*		-2.750E-02	5.860E-02	9.236E-02	1.309E-02	-0.298
	610.33	+		1.496E+01	3.413E+00	3.665E+00	6.083E-01	4.081
RH-106	511.85	+		1.297E+00	5.356E-01	5.975E-01	5.162E-02	2.171
	621.84	*		-1.016E-01	4.018E-01	6.333E-01	8.371E-02	-0.160
	1050.47			1.472E+00	2.882E+00	4.922E+00	4.374E-01	0.299
RU-106	511.85	+		1.297E+00	5.356E-01	5.975E-01	5.162E-02	2.171
	621.84	*		-1.016E-01	4.016E-01	6.333E-01	5.322E-02	-0.160
	1050.47			1.472E+00	2.882E+00	4.922E+00	4.374E-01	0.299
AG-108M	433.93	*		-1.590E-02	4.752E-02	7.639E-02	6.800E-03	-0.208
	614.37			1.552E-02	5.747E-02	8.184E-02	7.185E-03	0.190
	722.95			-1.251E-02	5.927E-02	8.352E-02	7.424E-03	-0.150
AG-110M	657.75	*		1.314E-01	5.679E-02	9.600E-02	8.169E-03	1.369
	677.61			-9.120E-02	3.416E-01	5.605E-01	4.798E-02	-0.163
	706.67			6.393E-03	2.542E-01	4.258E-01	3.707E-02	0.015

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	763.93			-3.918E-02	2.377E-01	3.919E-01	3.524E-02	-0.100
	884.67			-8.859E-03	5.488E-02	8.928E-02	8.512E-03	-0.099
	937.48			-7.802E-03	1.399E-01	2.293E-01	2.190E-02	-0.034
	1384.27			2.175E-01	1.950E-01	3.345E-01	3.296E-02	0.650
IN-111	171.28			6.072E-01	2.293E+00	3.722E+00	3.987E-01	0.163
	245.39	*		-6.037E-01	2.808E+00	4.050E+00	4.464E-01	-0.149
IN-113M	391.69	*		-1.266E-02	6.557E-02	1.069E-01	9.281E-03	-0.118
SN-113	391.69	*		-1.266E-02	6.557E-02	1.069E-01	9.281E-03	-0.118
IN-114M	190.27	*		6.589E-02	3.104E-01	4.315E-01	4.685E-02	0.153
CD-115	260.90			-2.363E+02	3.500E+02	5.680E+02	6.223E+01	-0.416
	492.35			-4.115E+01	1.005E+02	1.595E+02	1.378E+01	-0.258
	527.90	*		-1.871E+01	2.867E+01	4.444E+01	3.835E+00	-0.421
SN-117M	156.02			-2.950E-01	3.550E+00	5.705E+00	5.947E-01	-0.052
	158.56	*		-3.902E-02	8.771E-02	1.389E-01	1.456E-02	-0.281
SB-122	563.90	*		-1.397E+00	4.574E+00	7.234E+00	6.206E-01	-0.193
	692.80			3.628E+00	9.381E+01	1.575E+02	1.321E+01	0.023
I-123	159.00	*		-5.131E+01	9.381E+01	Half-Life too short		
	528.96			-5.667E+03	9.381E+01	Half-Life too short		
TE-123M	159.00	*		-1.763E-02	4.159E-02	6.591E-02	6.946E-03	-0.267
I-124	602.71	*		8.391E-01	1.466E+00	2.142E+00	1.815E-01	0.392
	722.78			-1.296E+00	8.825E+00	1.252E+01	1.070E+00	-0.104
	1325.50			1.613E+01	5.759E+01	9.598E+01	9.165E+00	0.168
	1376.25			5.168E+01	6.682E+01	1.057E+02	1.018E+01	0.489
	1509.49			4.315E+01	2.749E+01	5.343E+01	5.102E+00	0.808
	1691.02			3.224E+00	5.380E+00	9.884E+00	8.969E-01	0.326
SB-124	602.71			3.519E-02	6.150E-02	8.985E-02	7.615E-03	0.392
	645.85			4.010E-01	6.130E-01	1.035E+00	9.142E-02	0.388
	709.31			1.862E+00	3.449E+00	5.973E+00	5.064E-01	0.312
	713.82			-5.033E-01	2.073E+00	3.405E+00	4.070E-01	-0.148
	722.78			-7.881E-02	5.365E-01	7.612E-01	6.649E-02	-0.104
	+ 968.20			1.498E+01	5.053E+00	8.104E+00	7.444E-01	1.848
	1045.16			-3.451E-01	2.884E+00	4.662E+00	4.154E-01	-0.074
	1325.50			1.048E+00	3.739E+00	6.233E+00	5.951E-01	0.168
	1368.21			1.363E+00	2.052E+00	3.683E+00	5.209E-01	0.370
	1436.60			2.221E+00	4.898E+00	8.581E+00	8.259E-01	0.259
	1691.02	*		4.623E-02	7.717E-02	1.418E-01	1.332E-02	0.326
SB-125	427.89	*		-3.136E-02	1.320E-01	2.135E-01	1.860E-02	-0.147
	+ 463.38			5.647E-01	4.458E-01	7.331E-01	6.811E-02	0.770
	600.56			3.098E-02	2.474E-01	4.020E-01	3.668E-02	0.077
	635.90			-2.234E-01	3.696E-01	5.664E-01	5.134E-02	-0.394
TE-125M	109.28	*		-5.141E+00	1.674E+01	2.355E+01	2.767E+00	-0.218
I-126	388.63			2.978E-01	3.315E-01	5.680E-01	4.834E-02	0.524
	666.33	*		-8.999E-02	2.651E-01	3.696E-01	3.048E-02	-0.243
	753.82			8.713E-01	1.938E+00	3.336E+00	2.903E-01	0.261
SB-126	223.80			-2.605E+00	6.051E+00	1.001E+01	1.104E+00	-0.260
	278.60			5.080E+00	3.999E+00	6.936E+00	7.504E-01	0.732
	+ 296.50			1.562E+01	4.140E+00	5.157E+00	5.471E-01	3.030
	414.70			-4.450E-02	1.239E-01	1.995E-01	1.696E-02	-0.223
	415.30			-4.302E+00	1.036E+01	1.663E+01	1.414E+00	-0.259

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		555.20		3.335E+00	5.881E+00	9.871E+00	8.483E-01	0.338
		573.80		-3.819E-01	1.524E+00	2.418E+00	2.069E-01	-0.158
		593.00		-6.717E-01	1.448E+00	2.260E+00	1.922E-01	-0.297
		656.30		6.772E+00	5.259E+00	8.511E+00	7.021E-01	0.796
		666.33		-3.779E-02	1.113E-01	1.552E-01	1.280E-02	-0.243
		675.00		-1.647E+00	2.528E+00	4.021E+00	3.335E-01	-0.410
		695.00		8.406E-02	1.099E-01	1.926E-01	1.618E-02	0.437
		697.00		1.323E-01	3.786E-01	6.477E-01	5.449E-02	0.204
		720.50	*	-1.212E-01	2.203E-01	3.251E-01	2.775E-02	-0.373
		856.80		-8.331E-01	6.788E-01	1.006E+00	9.224E-02	-0.828
		989.30		9.710E-01	1.633E+00	2.827E+00	2.579E-01	0.344
		1034.80		1.873E+01	1.193E+01	2.207E+01	1.976E+00	0.848
		1213.00		2.801E+00	6.101E+00	1.030E+01	8.759E-01	0.272
		61.10		5.336E+02	2.277E+02	3.432E+02	4.783E+01	1.555
		252.40		1.511E-01	8.960E+00	1.502E+01	6.424E+00	0.010
		290.80		-1.578E+01	4.817E+01	6.825E+01	9.140E+00	-0.231
		411.60		1.823E+01	2.607E+01	4.402E+01	7.098E+00	0.414
		444.90		-4.104E+00	2.085E+01	3.374E+01	4.417E+00	-0.122
		473.00		-1.696E+00	3.741E+00	5.940E+00	7.983E-01	-0.286
		543.00		5.293E-01	3.347E+01	5.428E+01	8.089E+00	0.010
		603.60		1.619E+01	2.581E+01	3.782E+01	4.915E+00	0.428
		685.20	*	7.164E-01	2.352E+00	4.022E+00	4.758E-01	0.178
		698.50		3.385E+00	2.712E+01	4.576E+01	7.404E+00	0.074
		722.20		3.923E+00	6.278E+01	9.097E+01	1.070E+01	0.043
		783.80		7.451E+00	6.849E+00	1.211E+01	1.593E+00	0.615
		57.60		-6.220E+00	1.701E+01	2.572E+01	3.023E+00	-0.242
	+	145.22		1.828E+00	1.336E+00	1.782E+00	1.818E-01	1.026
		172.10		1.042E-02	1.702E-01	2.742E-01	2.939E-02	0.038
XE-127		202.84	*	-3.395E-03	7.188E-02	1.146E-01	1.254E-02	-0.030
		374.96		1.099E-01	2.981E-01	5.000E-01	4.461E-02	0.220
		80.18		7.503E-01	1.417E+01	1.479E+01	1.747E+00	0.051
I-131		284.30		2.094E+00	2.533E+00	4.352E+00	4.845E-01	0.481
		364.48	*	-4.265E-02	2.010E-01	3.283E-01	3.174E-02	-0.130
		636.97		5.000E-01	2.483E+00	4.046E+00	3.582E-01	0.124
TE-132		722.89		-2.259E+00	1.199E+01	1.694E+01	1.460E+00	-0.133
		49.72		-7.010E+01	1.114E+02	1.805E+02	2.804E+01	-0.388
	+	111.76		9.573E+01	1.202E+02	1.246E+02	1.578E+01	0.768
BA-133		116.30		2.358E+01	7.089E+01	1.025E+02	1.290E+01	0.230
		228.16	*	7.240E-01	1.488E+00	2.538E+00	4.449E-01	0.285
		53.15		7.258E+00	1.078E+01	1.821E+01	2.379E+00	0.399
I-133		79.62		2.663E+00	3.417E+00	3.709E+00	6.369E-01	0.718
		81.00		-3.377E-02	2.488E-01	2.561E-01	4.561E-02	-0.132
		276.40		6.739E-01	5.653E-01	9.233E-01	1.465E-01	0.730
I-133		302.84		2.012E-02	2.086E-01	3.395E-01	4.953E-02	0.059
		356.01	*	-7.129E-02	7.302E-02	9.656E-02	1.328E-02	-0.738
		383.85		-8.658E-03	4.354E-01	7.164E-01	9.048E-02	-0.012
I-133	+	510.53		1.427E+01	4.354E-01	Half-Life	too short	
		529.87	*	-1.466E-02	4.354E-01	Half-Life	too short	
		706.58		-6.234E-01	4.354E-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
CS-134	856.28			-4.760E+00	4.354E-01	Half-Life	too short	
	875.33			2.142E-02	4.354E-01	Half-Life	too short	
	1236.41			5.541E+00	4.354E-01	Half-Life	too short	
	1298.22			4.467E-03	4.354E-01	Half-Life	too short	
	475.35			-1.553E-01	2.971E+00	4.832E+00	4.170E-01	-0.032
	563.23			9.977E-02	4.623E-01	7.586E-01	6.571E-02	0.132
	569.32			3.725E-01	2.573E-01	4.521E-01	3.926E-02	0.824
	604.70			4.214E-02	4.966E-02	7.435E-02	6.312E-03	0.567
	795.84	*		5.483E-02	5.506E-02	9.784E-02	8.769E-03	0.560
	801.93			1.343E-01	4.848E-01	8.221E-01	7.380E-02	0.163
	1038.57			-2.882E+00	4.555E+00	6.975E+00	6.234E-01	-0.413
	1167.94			9.959E-01	2.942E+00	4.931E+00	4.033E-01	0.202
CS-135	1365.15			-1.303E+00	1.374E+00	1.997E+00	1.993E-01	-0.653
	268.24	*		2.781E-01	2.546E-01	3.893E-01	4.671E-02	0.714
	288.45			-8.091E+12	2.546E-01	Half-Life	too short	
	417.63			-1.072E+12	2.546E-01	Half-Life	too short	
	546.56			-4.657E+11	2.546E-01	Half-Life	too short	
	836.80			3.014E+12	2.546E-01	Half-Life	too short	
	1038.76			-3.450E+12	2.546E-01	Half-Life	too short	
	1124.00			4.555E+12	2.546E-01	Half-Life	too short	
	1131.51			3.344E+11	2.546E-01	Half-Life	too short	
	1260.41	*		2.072E+11	2.546E-01	Half-Life	too short	
	1457.56			1.203E+14	2.546E-01	Half-Life	too short	
	1678.03			5.551E+11	2.546E-01	Half-Life	too short	
CS-136	1706.46			-3.344E+12	2.546E-01	Half-Life	too short	
	1791.20			1.346E+12	2.546E-01	Half-Life	too short	
	66.91			-2.654E+00	2.017E+00	2.654E+00	4.554E-01	-1.000
	86.29			6.542E+00	2.804E+00	3.498E+00	5.429E-01	1.870
	153.22			2.598E-01	1.001E+00	1.629E+00	1.828E-01	0.159
	163.89			2.726E+00	1.826E+00	2.956E+00	3.394E-01	0.922
	176.55			1.267E-01	5.698E-01	9.224E-01	1.029E-01	0.137
	273.65			-1.125E+00	8.437E-01	1.118E+00	1.266E-01	-1.006
	340.57			6.145E-01	2.346E-01	3.772E-01	3.784E-02	1.629
	818.51			5.122E-02	9.170E-02	1.593E-01	1.436E-02	0.321
	1048.07	*		9.013E-02	1.453E-01	2.507E-01	2.320E-02	0.359
	1235.34			1.111E+00	9.644E-01	1.496E+00	1.783E-01	0.743
CE-139	165.85	*		7.532E-03	4.328E-02	7.007E-02	7.479E-03	0.107
	162.64			8.977E-01	1.300E+00	2.072E+00	2.279E-01	0.433
	304.84			-2.003E+00	2.096E+00	3.207E+00	9.189E-01	-0.625
	423.70			-1.207E+00	3.031E+00	4.820E+00	1.561E+00	-0.250
	537.32	*		3.564E-02	4.035E-01	6.575E-01	2.179E-01	0.054
	328.77			2.962E-01	4.722E-01	8.022E-01	8.405E-02	0.369
	432.53			5.760E-01	3.305E+00	5.465E+00	4.905E-01	0.105
	487.03			5.275E-02	2.149E-01	3.551E-01	3.256E-02	0.149
	751.79			-1.723E+00	2.288E+00	3.582E+00	3.441E-01	-0.481
	815.85			2.814E-01	4.007E-01	7.034E-01	6.998E-02	0.400
	867.82			-4.133E-01	1.609E+00	2.593E+00	2.499E-01	-0.159
	919.63			2.309E-01	3.991E+00	5.697E+00	6.381E-01	0.041
	925.24			-7.837E-02	1.463E+00	2.399E+00	2.348E-01	-0.033

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-143	1596.49	*		-2.451E-02	1.151E-01	1.847E-01	1.731E-02	-0.133
	57.37			-3.593E-03	1.151E-01	Half-Life	too short	
	231.56			3.573E-03	1.151E-01	Half-Life	too short	
	293.26	*		2.834E-03	1.151E-01	Half-Life	too short	
	350.59		+	9.044E-02	1.151E-01	Half-Life	too short	
	490.36			6.564E-03	1.151E-01	Half-Life	too short	
	664.57			8.230E-02	1.151E-01	Half-Life	too short	
CE-144	721.93			1.423E-03	1.151E-01	Half-Life	too short	
	80.11			6.037E-01	5.476E+00	5.738E+00	6.744E-01	0.105
	133.54	*		-7.045E-02	2.960E-01	4.754E-01	7.798E-02	-0.148
PM-144	476.78			4.840E-02	1.067E-01	1.780E-01	1.679E-02	0.272
	618.01			2.002E-02	4.996E-02	7.126E-02	6.174E-03	0.281
	696.49	*		3.978E-02	4.331E-02	7.653E-02	6.439E-03	0.520
PR-144	778.57			-1.768E+00	2.729E+00	4.300E+00	3.795E-01	-0.411
	696.49	*		2.699E+00	2.938E+00	5.192E+00	4.366E-01	0.520
	1489.15			-1.798E+01	1.446E+01	1.939E+01	1.857E+00	-0.927
PM-146	453.90	*		4.572E-02	6.456E-02	1.092E-01	1.169E-02	0.419
	633.02			1.397E+00	1.894E+00	3.089E+00	1.152E+00	0.452
	735.90			6.874E-03	1.883E-01	3.010E-01	8.609E-02	0.023
ND-147	747.13			-2.064E-02	1.163E-01	1.914E-01	2.693E-02	-0.108
	91.11			1.032E+01	1.496E+00	1.382E+00	1.710E-01	7.468
	319.41			-3.230E+00	5.578E+00	9.008E+00	9.228E-01	-0.359
	439.89			5.459E+00	9.682E+00	1.631E+01	1.398E+00	0.335
PM-149	531.02	*		-3.496E-01	8.749E-01	1.379E+00	2.062E-01	-0.254
	285.90	*		1.696E+02	2.466E+02	4.204E+02	7.070E+01	0.403
EU-152	121.78			-6.693E-03	1.053E-01	1.707E-01	1.913E-02	-0.039
	244.69			4.526E-01	5.347E-01	8.119E-01	8.950E-02	0.557
	344.27	*		-7.520E-02	1.539E-01	2.130E-01	2.169E-02	-0.353
	443.98			2.010E-01	1.403E+00	2.314E+00	1.986E-01	0.087
	778.89			-1.507E-01	3.122E-01	4.990E-01	4.403E-02	-0.302
	867.32			-1.216E-01	8.735E-01	1.425E+00	1.312E-01	-0.085
	964.01		+	6.865E-01	5.082E-01	6.763E-01	6.221E-02	1.015
GD-153	1085.78			-2.112E-01	5.137E-01	8.068E-01	7.026E-02	-0.262
	1112.02			-1.330E-01	4.181E-01	5.833E-01	4.992E-02	-0.228
	1407.95			4.064E-01	2.448E-01	4.696E-01	4.525E-02	0.866
	69.67			1.685E+00	3.409E+00	5.027E+00	5.738E-01	0.335
	83.37		+	4.208E+01	2.987E+01	4.076E+01	4.886E+00	1.032
	97.43	*		3.627E-01	1.751E-01	2.175E-01	2.401E-02	1.667
	103.18			-1.396E-01	1.843E-01	2.537E-01	2.682E-02	-0.550
EU-154	123.07			2.382E-02	7.357E-02	1.208E-01	1.508E-02	0.197
	247.94			-1.896E-01	5.825E-01	8.337E-01	1.115E-01	-0.227
	591.81			-1.811E-01	8.598E-01	1.367E+00	1.584E-01	-0.133
	723.30			-5.770E-02	2.496E-01	3.510E-01	3.323E-02	-0.164
	756.87			2.597E-02	9.336E-01	1.559E+00	1.878E-01	0.017
	873.19			8.772E-02	3.170E-01	5.377E-01	6.819E-02	0.163
	996.32			-3.578E-01	5.069E-01	6.356E-01	1.144E-01	-0.563
EU-155	1004.76			2.457E-02	3.059E-01	4.348E-01	5.208E-02	0.057
	1274.45	*		-3.951E-02	1.411E-01	2.207E-01	2.574E-02	-0.179
	48.70			-1.047E+01	9.664E+00	1.533E+01	2.058E+00	-0.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160		60.01		8.035E+00	1.277E+01	1.902E+01	2.148E+00	0.422
	+	86.54		5.406E-01	2.260E-01	2.867E-01	3.536E-02	1.885
		105.31	*	6.045E-02	1.839E-01	2.666E-01	2.809E-02	0.227
	+	86.79		1.472E+00	6.153E-01	7.743E-01	9.521E-02	1.901
		197.04		8.346E-01	8.730E-01	1.350E+00	1.472E-01	0.618
		215.65		9.996E-03	1.099E+00	1.752E+00	1.927E-01	0.006
		298.57		2.779E-01	1.854E-01	2.878E-01	3.045E-02	0.966
		879.36	*	4.282E-02	1.679E-01	2.835E-01	2.624E-02	0.151
		962.29		9.401E-01	7.331E-01	1.178E+00	1.084E-01	0.798
		966.15		8.307E-01	5.060E-01	5.843E-01	5.370E-02	1.422
HO-166M		1177.93		2.084E-01	4.333E-01	7.346E-01	6.011E-02	0.284
		1271.85		-1.610E-01	7.963E-01	1.256E+00	1.137E-01	-0.128
		80.57		-7.214E-02	6.912E-01	7.133E-01	8.404E-02	-0.101
		184.41		4.871E-01	8.597E-02	1.198E-01	1.296E-02	4.065
		280.46		-9.439E-02	1.240E-01	2.000E-01	2.160E-02	-0.472
		410.95		4.116E-01	3.536E-01	6.109E-01	5.186E-02	0.674
		711.68	*	-2.211E-02	7.678E-02	1.258E-01	1.068E-02	-0.176
		752.31		-7.494E-02	3.223E-01	5.275E-01	4.587E-02	-0.142
		810.29		-4.697E-02	6.710E-02	1.044E-01	9.361E-03	-0.450
		51.35		1.880E+01	1.007E+02	1.683E+02	2.269E+01	0.112
TM-171		52.39		2.663E+01	4.946E+01	8.334E+01	1.105E+01	0.320
		59.40		4.981E+01	6.921E+01	1.035E+02	1.167E+01	0.481
		66.72	*	-9.508E+01	6.551E+01	8.685E+01	9.914E+00	-1.095
	+	88.36		1.064E+00	4.446E-01	5.710E-01	7.050E-02	1.863
LU-176		201.83		-6.046E-02	4.335E-02	6.467E-02	7.070E-03	-0.935
	*	306.84		1.349E-02	3.416E-02	5.777E-02	6.040E-03	0.233
LU-177M		401.10		3.404E-01	9.497E+00	1.564E+01	1.322E+00	0.022
		52.97		3.831E+00	4.989E+00	8.445E+00	1.107E+00	0.454
		54.07		-7.513E-01	2.469E+00	4.053E+00	5.188E-01	-0.185
		61.30		1.177E+01	4.157E+00	6.365E+00	7.234E-01	1.850
		121.62		-2.265E-01	5.499E-01	8.801E-01	8.858E-02	-0.257
		147.16		3.152E-01	1.028E+00	1.472E+00	1.506E-01	0.214
		171.86		2.063E-03	6.655E-01	1.070E+00	1.146E-01	0.002
		218.09		1.358E+00	1.184E+00	2.057E+00	2.264E-01	0.660
		268.79		1.772E+00	1.323E+00	2.041E+00	2.225E-01	0.868
		319.02		-2.525E-01	3.881E-01	6.245E-01	6.401E-02	-0.404
HF-181		367.43		2.131E-01	1.298E+00	2.159E+00	1.972E-01	0.099
		413.65	*	-2.369E-01	2.643E-01	4.128E-01	3.508E-02	-0.574
		56.28		-1.507E+00	2.557E+00	4.148E+00	5.035E-01	-0.363
		57.53		-5.481E-01	1.426E+00	2.155E+00	2.537E-01	-0.254
		65.20		8.352E+00	2.627E+00	3.934E+00	4.492E-01	2.123
		133.02		-4.526E-02	9.838E-02	1.568E-01	1.575E-02	-0.289
		136.25		1.853E-02	6.618E-01	1.073E+00	1.081E-01	0.017
		345.85		-1.486E-01	3.363E-01	4.389E-01	4.251E-02	-0.339
		482.03	*	-5.521E-02	6.728E-02	1.043E-01	9.010E-03	-0.529
	W-181	56.28		-5.764E-01	9.787E-01	1.587E+00	1.927E-01	-0.363
TA-182		57.53		-2.103E-01	5.463E-01	8.255E-01	9.720E-02	-0.255
		65.20	*	3.174E+00	9.983E-01	1.495E+00	1.707E-01	2.123
		67.75		-2.463E-01	2.508E-01	3.421E-01	3.904E-02	-0.720

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183	+	100.10		8.505E-01	4.106E-01	4.995E-01	5.392E-02	1.703
		152.43		-1.035E-01	4.723E-01	7.557E-01	7.815E-02	-0.137
		222.10		-3.344E-01	4.729E-01	7.731E-01	8.519E-02	-0.433
	+	1001.68		1.270E+01	4.724E+00	6.367E+00	5.783E-01	1.995
	+	1121.28		8.530E-01	2.870E-01	4.330E-01	3.680E-02	1.970
		1189.05		6.583E-02	3.537E-01	5.843E-01	4.841E-02	0.113
		1221.42	*	-9.458E-02	2.348E-01	3.660E-01	3.141E-02	-0.258
		1230.97		-4.367E-02	7.101E-01	9.759E-01	8.462E-02	-0.045
		57.98		9.831E-02	5.590E-01	8.200E-01	9.553E-02	0.120
		59.32		2.034E-01	2.907E-01	4.346E-01	4.908E-02	0.468
		67.20		-5.704E-01	4.624E-01	6.214E-01	7.092E-02	-0.918
		162.32	*	4.892E-02	1.724E-01	2.716E-01	2.874E-02	0.180
RE-184	+	208.81		3.573E+00	1.677E+00	2.428E+00	2.663E-01	1.472
		291.72		8.888E-01	1.439E+00	2.160E+00	2.305E-01	0.412
		57.98		3.578E-01	2.035E+00	2.985E+00	3.477E-01	0.120
		59.32		7.399E-01	1.057E+00	1.580E+00	1.785E-01	0.468
		67.20		-2.076E+00	1.682E+00	2.261E+00	2.581E-01	-0.918
		161.27		5.922E-02	5.232E-01	8.459E-01	8.926E-02	0.070
		216.55		3.359E-01	3.705E-01	6.264E-01	6.893E-02	0.536
		252.85	*	-1.556E-01	3.317E-01	5.448E-01	5.991E-02	-0.286
		318.01		-3.629E-01	6.606E-01	1.068E+00	1.097E-01	-0.340
		792.07		-8.157E-01	1.186E+00	1.863E+00	1.655E-01	-0.438
		903.28		5.384E-01	1.281E+00	1.917E+00	1.786E-01	0.281
		920.93		7.722E-02	5.534E-01	8.585E-01	7.976E-02	0.090
OS-185		59.72		6.613E-01	7.681E-01	1.154E+00	1.300E-01	0.573
		61.14		1.126E+00	4.450E-01	6.833E-01	7.761E-02	1.648
		69.30		1.689E-01	5.893E-01	9.094E-01	1.038E-01	0.186
		592.07		-3.581E-01	3.525E+00	5.646E+00	4.803E-01	-0.063
		646.12	*	2.458E-02	5.199E-02	8.659E-02	7.186E-03	0.284
		717.42		4.497E-01	1.135E+00	1.948E+00	1.659E-01	0.231
		874.81		-1.016E-01	6.580E-01	1.072E+00	9.903E-02	-0.095
		880.27		4.451E-01	9.151E-01	1.575E+00	1.458E-01	0.283
		155.03	*	2.868E-02	2.450E-01	3.967E-01	4.125E-02	0.072
		477.96		6.758E+00	4.957E+00	8.587E+00	7.412E-01	0.787
		633.10		2.874E+00	3.763E+00	6.370E+00	5.324E-01	0.451
	+	63.58		7.238E+02	2.016E+02	2.460E+02	2.808E+01	2.943
		227.08		-5.972E+00	1.778E+01	2.952E+01	3.256E+00	-0.202
IR-192		290.67	*	-3.998E+00	1.163E+01	1.647E+01	1.760E+00	-0.243
	+	295.96		1.085E+00	2.876E-01	3.604E-01	3.844E-02	3.010
		308.46		-1.172E-02	1.329E-01	2.201E-01	2.304E-02	-0.053
		316.51	*	1.357E-02	5.095E-02	8.558E-02	8.824E-03	0.159
		468.07		-3.345E-02	1.162E-01	1.602E-01	1.480E-02	-0.209
		604.41		4.749E-01	6.994E-01	1.029E+00	1.330E-01	0.461
		612.46		4.437E+00	1.332E+00	2.203E+00	2.147E-01	2.014
		65.12		1.605E+00	4.704E-01	7.019E-01	8.014E-02	2.286
		66.83		-2.941E-01	2.158E-01	2.876E-01	3.283E-02	-1.023
	+	75.70		1.188E+00	4.296E-01	6.917E-01	7.978E-02	1.717
	+	98.88	*	1.058E+00	5.109E-01	6.342E-01	6.912E-02	1.669
		129.76		2.944E+00	4.028E+00	6.678E+00	6.701E-01	0.441
AU-195								

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	-8.809E-04	4.028E+00	Half-Life	too short	
		579.30		-4.410E-04	4.028E+00	Half-Life	too short	
		828.27		1.778E-02	4.028E+00	Half-Life	too short	
		1205.75		1.965E-03	4.028E+00	Half-Life	too short	
TL-201		68.90		-3.801E+00	1.618E+01	2.320E+01	2.648E+00	-0.164
		70.82		1.321E+01	8.600E+00	1.303E+01	1.488E+00	1.014
		80.30		-7.875E-01	2.077E+01	2.154E+01	2.534E+00	-0.037
		135.34		-3.041E+01	5.857E+01	9.300E+01	9.361E+00	-0.327
		167.43	*	-3.391E+01	1.698E+01	2.463E+01	2.631E+00	-1.377
TL-202		68.90		-2.381E-01	1.013E+00	1.454E+00	1.659E-01	-0.164
		70.82		8.255E-01	5.373E-01	8.138E-01	9.296E-02	1.014
		80.30		-4.922E-02	1.298E+00	1.346E+00	1.584E-01	-0.037
		439.56	*	1.169E-01	1.120E-01	1.929E-01	1.653E-02	0.606
HG-203		70.83		3.265E+00	2.158E+00	3.227E+00	5.013E-01	1.012
		72.87		1.229E+00	1.268E+00	1.880E+00	2.858E-01	0.654
		82.60		3.261E+00	2.464E+00	3.134E+00	5.022E-01	1.041
		279.20	*	3.261E-02	6.146E-02	1.045E-01	1.151E-02	0.312
BI-207		72.80		2.902E-01	3.573E-01	5.303E-01	6.073E-02	0.547
	+	74.97		6.536E-01	2.364E-01	3.502E-01	4.030E-02	1.866
	+	84.90		5.410E-01	3.840E-01	5.261E-01	6.375E-02	1.028
		569.67		5.147E-02	4.028E-02	7.016E-02	6.010E-03	0.734
		1063.62	*	1.949E-02	7.032E-02	1.175E-01	1.037E-02	0.166
		1770.23		1.669E-02	6.318E-01	8.921E-01	7.798E-02	0.019
TL-207		81.07		-7.040E-02	5.483E-01	5.647E-01	6.673E-02	-0.125
	+	83.78		3.567E-01	2.532E-01	3.433E-01	4.126E-02	1.039
		94.90		5.427E+00	8.414E-01	9.092E-01	1.029E-01	5.969
		122.32		1.314E+00	2.501E+00	4.131E+00	4.382E-01	0.318
	+	144.24		1.722E+00	1.261E+00	1.676E+00	1.854E-01	1.027
		154.21		2.433E-01	5.473E-01	8.959E-01	9.949E-02	0.272
	+	269.46		5.382E-01	3.026E-01	4.832E-01	5.334E-02	1.114
		323.87	*	-4.636E-01	9.984E-01	1.618E+00	2.993E-01	-0.287
	+	338.28		7.454E+00	2.811E+00	3.036E+00	4.011E-01	2.455
		445.03		-6.767E-01	3.319E+00	5.368E+00	6.474E-01	-0.126
PO-209		260.50		-1.987E+00	1.326E+01	2.205E+01	2.416E+00	-0.090
		262.80		-3.125E+01	3.707E+01	5.959E+01	6.522E+00	-0.524
		896.60	*	-4.136E+00	8.089E+00	1.267E+01	1.181E+00	-0.326
BI-210		46.50	*	1.669E+01	1.552E+01	2.649E+01	3.262E+00	0.630
PB-210		46.50	*	1.669E+01	1.552E+01	2.649E+01	3.262E+00	0.630
PO-210		46.50	*	1.669E+01	1.550E+01	2.649E+01	3.090E+00	0.630
PB-211		404.84	*	-1.185E+00	1.556E+00	2.148E+00	1.345E+00	-0.552
		427.08		-1.816E+00	3.131E+00	4.623E+00	2.872E+00	-0.393
		831.96		-3.830E-01	1.581E+00	2.544E+00	1.596E+00	-0.151
BI-212	+	727.18	*	1.133E+00	5.122E-01	7.797E-01	7.769E-02	1.453
		785.46		2.723E+00	2.235E+00	4.005E+00	3.546E-01	0.680
		1620.62		4.886E-01	1.642E+00	2.821E+00	2.626E-01	0.173
PO-215		81.07		-7.040E-02	5.483E-01	5.647E-01	6.673E-02	-0.125
	+	83.78		3.567E-01	2.532E-01	3.433E-01	4.126E-02	1.039
		94.90		5.427E+00	8.414E-01	9.092E-01	1.029E-01	5.969
		122.32		1.314E+00	2.501E+00	4.131E+00	4.382E-01	0.318

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	144.24		1.722E+00	1.261E+00	1.676E+00	1.854E-01	1.027
		154.21		2.433E-01	5.473E-01	8.959E-01	9.949E-02	0.272
	+	269.46		5.382E-01	3.026E-01	4.832E-01	5.334E-02	1.114
		323.87	*	-4.636E-01	9.984E-01	1.618E+00	2.993E-01	-0.287
	+	338.28		7.454E+00	2.811E+00	3.036E+00	4.011E-01	2.455
		445.03		-6.767E-01	3.319E+00	5.368E+00	6.474E-01	-0.126
RN-219	+	271.23		6.906E-01	3.900E-01	6.103E-01	7.488E-02	1.131
		401.81	*	3.893E-01	5.809E-01	9.827E-01	1.467E-01	0.396
RN-220		549.76	*	-1.106E+01	3.553E+01	5.631E+01	4.845E+00	-0.196
RA-223		81.07		-7.040E-02	5.483E-01	5.647E-01	6.673E-02	-0.125
	+	83.78		3.567E-01	2.532E-01	3.433E-01	4.126E-02	1.039
		94.90		5.427E+00	8.414E-01	9.092E-01	1.029E-01	5.969
		122.32		1.314E+00	2.501E+00	4.131E+00	4.382E-01	0.318
	+	144.24		1.722E+00	1.261E+00	1.676E+00	1.854E-01	1.027
		154.21		2.433E-01	5.473E-01	8.959E-01	9.949E-02	0.272
	+	269.46		5.382E-01	3.026E-01	4.832E-01	5.334E-02	1.114
		323.87	*	-4.636E-01	9.984E-01	1.618E+00	2.993E-01	-0.287
	+	338.28		7.454E+00	2.811E+00	3.036E+00	4.011E-01	2.455
		445.03		-6.767E-01	3.319E+00	5.368E+00	6.474E-01	-0.126
AC-227		79.80		1.543E+00	4.267E+00	4.533E+00	1.039E+00	0.340
		236.00		1.452E+00	4.318E-01	6.488E-01	9.115E-02	2.238
		256.20	*	2.197E-01	5.336E-01	9.059E-01	1.521E-01	0.242
		286.10		8.159E-01	2.134E+00	3.610E+00	5.298E-01	0.226
		299.80		2.495E+00	2.255E+00	3.408E+00	6.313E-01	0.732
		304.40		-3.347E+00	2.742E+00	4.188E+00	8.118E-01	-0.799
		334.20		2.666E+00	3.631E+00	5.416E+00	1.085E+00	0.492
TH-227		79.80		1.543E+00	4.267E+00	4.533E+00	1.051E+00	0.340
	+	94.00		8.065E+01	1.943E+01	9.448E+00	2.176E+00	8.536
		236.00		1.452E+00	4.251E-01	6.488E-01	8.464E-02	2.238
		256.20	*	2.197E-01	5.341E-01	9.059E-01	1.749E-01	0.242
		286.10		8.159E-01	2.283E+00	3.610E+00	3.631E+00	0.226
		299.80		2.495E+00	2.255E+00	3.408E+00	6.313E-01	0.732
		304.40		-3.347E+00	2.742E+00	4.188E+00	8.118E-01	-0.799
		334.20		2.666E+00	3.631E+00	5.416E+00	1.085E+00	0.492
PA-231		283.67	*	6.250E-01	2.165E+00	3.650E+00	6.022E-01	0.171
		301.29		1.316E+00	8.974E-01	1.385E+00	1.893E-01	0.950
TH-231		81.07		-7.040E-02	5.483E-01	5.647E-01	6.673E-02	-0.125
	+	83.78		3.567E-01	2.532E-01	3.433E-01	4.126E-02	1.039
		94.90		5.427E+00	8.414E-01	9.092E-01	1.029E-01	5.969
		122.32		1.314E+00	2.501E+00	4.131E+00	4.382E-01	0.318
	+	144.24		1.722E+00	1.261E+00	1.676E+00	1.854E-01	1.027
		154.21		2.433E-01	5.473E-01	8.959E-01	9.949E-02	0.272
	+	269.46		5.382E-01	3.026E-01	4.832E-01	5.334E-02	1.114
		323.87	*	-4.636E-01	9.984E-01	1.618E+00	2.993E-01	-0.287
	+	338.28		7.454E+00	2.811E+00	3.036E+00	4.011E-01	2.455
		445.03		-6.767E-01	3.319E+00	5.368E+00	6.474E-01	-0.126
U-231	+	84.21		2.177E+01	1.545E+01	2.071E+01	2.496E+00	1.051
	+	92.29		1.129E+02	1.516E+01	1.410E+01	1.645E+00	8.005
		95.87	*	8.177E+00	3.517E+00	4.144E+00	4.643E-01	1.973

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233		108.00		3.443E-01	5.047E+00	7.227E+00	7.461E-01	0.048
	+	75.28		1.907E+01	7.310E+00	1.068E+01	1.831E+00	1.786
	+	86.59		8.780E+00	4.294E+00	4.649E+00	1.311E+00	1.888
		300.12		6.072E-01	6.239E-01	9.439E-01	1.517E-01	0.643
		311.98	*	-9.414E-02	9.081E-02	1.428E-01	1.510E-02	-0.659
		340.50		2.790E+00	1.197E+00	1.652E+00	4.013E-01	1.689
		398.62		5.222E-01	2.930E+00	4.857E+00	1.291E+00	0.108
PA-234		415.76		-4.925E-01	2.395E+00	3.885E+00	8.354E-01	-0.127
	+	63.00		2.055E+01	6.308E+00	7.267E+00	1.251E+00	2.828
		94.67		4.388E+00	7.608E-01	7.132E-01	1.029E-01	6.152
	+	98.44		4.253E-01	3.117E-01	2.545E-01	1.430E-01	1.671
	+	99.86		2.205E+00	1.064E+00	1.315E+00	1.422E-01	1.676
		111.00		2.361E-01	3.281E-01	4.803E-01	6.377E-02	0.492
		131.20		1.344E-01	1.513E-01	2.517E-01	2.527E-02	0.534
		152.70		1.839E-01	4.411E-01	7.207E-01	1.296E-01	0.255
	+	186.00		1.610E+01	6.006E+00	4.489E+00	1.432E+00	3.586
		226.40		-2.436E-01	5.450E-01	8.997E-01	1.339E-01	-0.271
		227.20		-1.893E-01	5.884E-01	9.774E-01	1.078E-01	-0.194
		248.90		2.530E-02	1.223E+00	1.939E+00	4.545E-01	0.013
		293.70		5.930E+00	1.605E+00	2.108E+00	3.877E-01	2.814
		369.80		-5.411E-01	1.251E+00	2.011E+00	4.417E-01	-0.269
		568.70		1.348E+00	1.297E+00	2.233E+00	1.913E-01	0.604
		569.50		5.286E-01	3.546E-01	6.247E-01	5.351E-02	0.846
		574.00		-2.719E-01	1.940E+00	3.103E+00	2.655E-01	-0.088
		699.00		8.596E-02	8.838E-01	1.488E+00	2.826E-01	0.058
		706.10		-3.586E-01	1.268E+00	2.062E+00	9.188E-01	-0.174
		733.00		3.093E-01	4.860E-01	7.424E-01	1.647E-01	0.417
		742.81		1.285E+00	1.967E+00	3.092E+00	2.078E+00	0.416
		796.30		9.056E-01	1.111E+00	1.909E+00	5.183E-01	0.474
		805.60		-1.768E-01	1.457E+00	2.021E+00	6.213E-01	-0.087
		819.60		-1.124E-01	1.403E+00	2.311E+00	8.809E-01	-0.049
		826.30		4.223E-01	1.013E+00	1.706E+00	7.647E-01	0.248
		831.60		-5.192E-01	8.471E-01	1.318E+00	3.950E-01	-0.394
		876.40		2.147E-01	9.761E-01	1.604E+00	1.649E+00	0.134
		880.51		1.562E-01	3.255E-01	5.599E-01	5.185E-02	0.279
		883.24		2.336E-02	3.315E-01	5.505E-01	3.705E-01	0.042
		899.00		-1.041E-01	9.866E-01	1.556E+00	6.825E-01	-0.067
		925.00		-9.778E-02	1.365E+00	2.234E+00	2.074E-01	-0.044
		926.50		-1.110E-01	2.097E-01	3.256E-01	8.305E-02	-0.341
		946.00	*	1.354E-03	3.694E-01	6.082E-01	1.159E-01	0.002
		949.00		-1.079E-01	5.481E-01	8.863E-01	8.185E-02	-0.122
		980.50		-1.426E-01	8.132E-01	1.312E+00	1.201E-01	-0.109
		1394.10		1.024E+00	1.387E+00	2.255E+00	1.471E+00	0.454
PA-234M		766.42		4.153E+01	2.650E+01	3.053E+01	1.550E+01	1.360
NP-236	+	1001.03	*	2.847E+01	1.069E+01	1.423E+01	1.475E+00	2.001
		94.67		3.347E+00	4.968E-01	5.420E-01	6.149E-02	6.175
	+	98.44		3.215E-01	1.552E-01	1.924E-01	2.104E-02	1.671
		111.00		1.786E-01	2.477E-01	3.633E-01	3.713E-02	0.492
		160.31	*	-9.672E-02	1.185E-01	1.846E-01	1.944E-02	-0.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		7.350E-01	3.548E-01	4.398E-01	4.768E-02	1.671
		117.00	*	2.080E-01	3.118E-01	4.569E-01	4.612E-02	0.455
	+	209.75		2.760E+00	1.296E+00	1.844E+00	2.024E-01	1.497
		228.18		1.540E-01	3.100E-01	5.298E-01	5.845E-02	0.291
		277.60		4.296E-01	2.611E-01	4.561E-01	4.939E-02	0.942
AM-241		334.30		2.237E+00	2.003E+00	3.075E+00	3.059E-01	0.727
		59.54	*	3.127E-01	4.001E-01	5.994E-01	7.036E-02	0.522
CM-243	+	99.55		7.564E-01	3.652E-01	4.526E-01	4.907E-02	1.671
		103.76	*	-3.329E-02	1.656E-01	2.346E-01	2.472E-02	-0.142
	+	117.00		2.140E-01	3.208E-01	4.701E-01	4.746E-02	0.455
		209.75		2.721E+00	1.278E+00	1.818E+00	1.995E-01	1.497
		228.18		1.556E-01	3.133E-01	5.354E-01	5.907E-02	0.291
AM-246		277.60		4.331E-01	2.633E-01	4.599E-01	4.980E-02	0.942
		798.80		-1.220E-01	1.730E-01	2.715E-01	2.421E-02	-0.449
		1036.00		4.320E-01	3.605E-01	6.501E-01	5.818E-02	0.664
		1062.04		9.435E-02	3.058E-01	5.126E-01	4.526E-02	0.184
		1078.86	*	3.029E-02	1.806E-01	2.993E-01	2.618E-02	0.101
CM-247		278.00		1.649E+00	1.078E+00	1.879E+00	2.034E-01	0.877
		287.40		-2.015E+00	1.788E+00	2.730E+00	2.927E-01	-0.738
		402.60	*	3.840E-02	5.212E-02	8.869E-02	7.501E-03	0.433
CF-249		252.85		-5.789E-01	1.234E+00	2.027E+00	2.229E-01	-0.286
		333.44		-2.554E-02	2.722E-01	3.890E-01	3.876E-02	-0.066
		387.95	*	7.898E-02	5.755E-02	1.004E-01	8.566E-03	0.787
CF-251		176.60	*	1.061E-03	1.777E-01	2.854E-01	3.069E-02	0.004
		227.00		-1.776E-01	5.223E-01	8.671E-01	9.563E-02	-0.205
		285.00		2.211E+00	2.424E+00	4.179E+00	4.493E-01	0.529

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                                     DETECTOR DATA
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344005
* Acquisition date   : 18-FEB-2010 17:02:42 Detector SN#
* Detector ID        : GAM15 Sensitivity      : 5.000
* Geometry           : CAN Energy tolerance : 1.500
* Elapsed live time  : 0 03:00:00.00 Abundance limit : 75.000
* Elapsed real time  : 0 03:00:01.71 Half life ratio : 8.000
*****
*
*                                     SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G246344005 Analyst initials: MXR1
* Batch Number       : 950787 Sample Quantity : 8.9670E+01 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*
*                                     QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 3-FEB-2010 11:04:32 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	2.197E+01	2.689E+00	7.473E-01	0.000E+00
CD-109	4.577E+00	1.875E+00	1.900E+00	0.000E+00
SN-126	4.485E-01	1.837E-01	1.875E-01	0.000E+00
BA-137M	1.850E+00	2.013E-01	6.924E-02	0.000E+00
CS-137	1.956E+00	2.131E-01	7.320E-02	0.000E+00
CE-141	1.666E-01	1.193E-01	1.407E-01	0.000E+00
LU-177	4.842E+00	2.227E+00	3.244E+00	0.000E+00
TL-208	4.384E-01	1.001E-01	7.712E-02	0.000E+00
BI-211	3.930E+00	6.673E-01	4.705E-01	0.000E+00
PB-212	1.565E+00	2.296E-01	1.203E-01	0.000E+00
PO-212	1.565E+00	2.296E-01	1.203E-01	0.000E+00
BI-214	1.335E+00	2.424E-01	1.458E-01	0.000E+00
PO-214	1.367E+00	2.424E-01	1.563E-01	0.000E+00
PO-216	1.565E+00	2.296E-01	1.203E-01	0.000E+00
PO-218	1.367E+00	2.424E-01	1.563E-01	0.000E+00
RA-224	4.615E+00	1.917E+00	1.368E+00	0.000E+00
RA-226	1.335E+00	2.424E-01	1.458E-01	0.000E+00
AC-228	1.627E+00	3.889E-01	2.420E-01	0.000E+00
RA-228	1.627E+00	3.889E-01	2.420E-01	0.000E+00
TH-228	1.592E+00	2.336E-01	1.224E-01	0.000E+00
TH-229	-1.697E-01	7.301E-01	1.161E+00	0.000E+00
TH-230	1.335E+00	2.424E-01	1.458E-01	0.000E+00
TH-232	1.627E+00	3.889E-01	2.420E-01	0.000E+00
TH-234	1.763E+01	5.533E+00	4.303E+00	0.000E+00
U-234	1.335E+00	2.424E-01	1.458E-01	0.000E+00
U-235	5.312E-01	3.887E-01	4.599E-01	0.000E+00
NP-237	1.317E+00	6.016E-01	5.610E-01	0.000E+00
U-238	1.763E+01	5.533E+00	4.303E+00	0.000E+00
AM-243	3.641E-01	1.290E-01	1.489E-01	0.000E+00
ANH-511	2.586E-01	1.047E-01	5.803E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	5.826E-01	5.140E-01	8.859E-01	0.000E+00	NOT IDENT.
NA-22	-6.399E-03	4.915E-02	7.891E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.879E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.423E-02	3.667E-02	5.644E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.340E-02	1.181E-01	0.000E+00	FAIL ABUN
SC-46	-1.368E-02	4.219E-02	6.797E-02	0.000E+00	FAIL ABUN
V-48	-4.701E-02	8.328E-02	1.297E-01	0.000E+00	NOT IDENT.
CR-51	-2.044E-01	5.705E-01	9.363E-01	0.000E+00	NOT IDENT.
MN-52	3.447E-01	3.863E-01	7.100E-01	0.000E+00	NOT IDENT.
MN-54	3.243E-02	4.690E-02	8.189E-02	0.000E+00	NOT IDENT.
CO-56	-4.492E-04	4.892E-02	8.153E-02	0.000E+00	FAIL ABUN
CO-57	1.498E-02	3.553E-02	5.864E-02	0.000E+00	NOT IDENT.
CO-58	-7.488E-03	4.303E-02	7.083E-02	0.000E+00	NOT IDENT.
FE-59	3.987E-02	1.199E-01	2.025E-01	0.000E+00	FAIL ABUN
CO-60	-1.401E-03	4.600E-02	7.443E-02	0.000E+00	NOT IDENT.
ZN-65	1.013E-01	1.182E-01	1.841E-01	0.000E+00	NOT IDENT.
GE-68	5.813E-01	1.547E+00	2.628E+00	0.000E+00	NOT IDENT.
AS-73	3.756E-01	2.448E+00	4.083E+00	0.000E+00	NOT IDENT.
AS-74	-4.645E-03	1.322E-01	2.139E-01	0.000E+00	NOT IDENT.
SE-75	-1.248E-02	6.531E-02	9.883E-02	0.000E+00	NOT IDENT.
BR-77	3.893E+00	2.855E+01	4.077E+01	0.000E+00	FAIL ABUN
SR-82	-5.627E-01	4.747E-01	6.937E-01	0.000E+00	NOT IDENT.
RB-83	1.702E-02	1.038E-01	1.486E-01	0.000E+00	NOT IDENT.
RB-84	5.110E-03	8.250E-02	1.380E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.104E+01	2.027E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.786E-02	1.062E-01	0.000E+00	NOT IDENT.
RB-86	5.205E-01	1.041E+00	1.787E+00	0.000E+00	NOT IDENT.
Y-88	-7.430E-03	3.615E-02	5.728E-02	0.000E+00	NOT IDENT.
ZR-88	-5.738E-02	4.456E-02	6.845E-02	0.000E+00	NOT IDENT.
Y-91	-7.308E+00	2.167E+01	3.427E+01	0.000E+00	NOT IDENT.
NB-94	-2.880E-02	3.960E-02	6.323E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.071E-02	1.115E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.052E-01	3.219E-01	0.000E+00	NOT IDENT.
ZR-95	3.464E-02	8.460E-02	1.461E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.290E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.331E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.220E+01	2.492E+01	4.032E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.980E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.240E-03	4.916E-02	7.403E-02	0.000E+00	NOT IDENT.
RH-102	-1.554E-02	4.498E-02	7.241E-02	0.000E+00	NOT IDENT.
RU-103	-2.750E-02	5.743E-02	9.103E-02	0.000E+00	FAIL ABUN
RH-106	-1.016E-01	3.937E-01	6.244E-01	0.000E+00	FAIL ABUN
RU-106	-1.016E-01	3.936E-01	6.244E-01	0.000E+00	FAIL ABUN
AG-108M	-1.590E-02	4.657E-02	7.527E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	5.565E-02	9.467E-02	0.000E+00	NOT IDENT.
IN-111	-6.037E-01	2.752E+00	3.985E+00	0.000E+00	NOT IDENT.
IN-113M	-1.266E-02	6.426E-02	1.053E-01	0.000E+00	NOT IDENT.
SN-113	-1.266E-02	6.426E-02	1.053E-01	0.000E+00	NOT IDENT.
IN-114M	6.589E-02	3.042E-01	4.243E-01	0.000E+00	NOT IDENT.
CD-115	-1.871E+01	2.810E+01	4.380E+01	0.000E+00	NOT IDENT.
SN-117M	-3.902E-02	8.596E-02	1.365E-01	0.000E+00	NOT IDENT.
SB-122	-1.397E+00	4.482E+00	7.132E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.186E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.763E-02	4.076E-02	6.478E-02	0.000E+00	NOT IDENT.
I-124	8.391E-01	1.437E+00	2.112E+00	0.000E+00	NOT IDENT.
SB-124	4.623E-02	7.563E-02	1.401E-01	0.000E+00	FAIL ABUN
SB-125	-3.136E-02	1.293E-01	2.103E-01	0.000E+00	FAIL ABUN
TE-125M	-5.141E+00	1.640E+01	2.312E+01	0.000E+00	NOT IDENT.
I-126	-8.999E-02	2.598E-01	3.645E-01	0.000E+00	NOT IDENT.
SB-126	-1.212E-01	2.159E-01	3.207E-01	0.000E+00	FAIL ABUN
SB-127	7.164E-01	2.305E+00	3.967E+00	0.000E+00	NOT IDENT.
XE-127	-3.395E-03	7.044E-02	1.127E-01	0.000E+00	FAIL ABUN
I-131	-4.265E-02	1.970E-01	3.233E-01	0.000E+00	NOT IDENT.
TE-132	7.240E-01	1.459E+00	2.497E+00	0.000E+00	FAIL ABUN
BA-133	-7.129E-02	7.156E-02	9.508E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.286E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.483E-02	5.396E-02	9.653E-02	0.000E+00	NOT IDENT.
CS-135	2.781E-01	2.495E-01	3.831E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.225E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.013E-02	1.424E-01	2.476E-01	0.000E+00	FAIL ABUN
CE-139	7.532E-03	4.242E-02	6.888E-02	0.000E+00	NOT IDENT.
BA-140	3.564E-02	3.955E-01	6.481E-01	0.000E+00	NOT IDENT.
LA-140	-2.451E-02	1.128E-01	1.825E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.201E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-7.045E-02	2.901E-01	4.670E-01	0.000E+00	NOT IDENT.
PM-144	3.978E-02	4.245E-02	7.548E-02	0.000E+00	NOT IDENT.
PR-144	2.699E+00	2.880E+00	5.121E+00	0.000E+00	NOT IDENT.
PM-146	4.572E-02	6.327E-02	1.076E-01	0.000E+00	NOT IDENT.
ND-147	-3.496E-01	8.574E-01	1.359E+00	0.000E+00	NOT IDENT.
PM-149	1.696E+02	2.416E+02	4.137E+02	0.000E+00	NOT IDENT.
EU-152	-7.520E-02	1.508E-01	2.097E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.716E-01	2.136E-01	0.000E+00	FAIL ABUN
EU-154	-3.951E-02	1.383E-01	2.180E-01	0.000E+00	NOT IDENT.
EU-155	6.045E-02	1.803E-01	2.618E-01	0.000E+00	FAIL ABUN
TB-160	4.282E-02	1.645E-01	2.798E-01	0.000E+00	FAIL ABUN
HO-166M	-2.211E-02	7.525E-02	1.241E-01	0.000E+00	NOT IDENT.
TM-171	-9.508E+01	6.420E+01	8.519E+01	0.000E+00	NOT IDENT.
LU-176	1.349E-02	3.348E-02	5.687E-02	0.000E+00	FAIL ABUN
LU-177M	-2.369E-01	2.590E-01	4.067E-01	0.000E+00	NOT IDENT.
HF-181	-5.521E-02	6.594E-02	1.028E-01	0.000E+00	NOT IDENT.
W-181	0.000E+00	9.783E-01	1.466E+00	0.000E+00	NOT IDENT.
TA-182	-9.458E-02	2.301E-01	3.615E-01	0.000E+00	FAIL ABUN
RE-183	4.892E-02	1.690E-01	2.670E-01	0.000E+00	FAIL ABUN
RE-184	-1.556E-01	3.251E-01	5.361E-01	0.000E+00	NOT IDENT.
OS-185	2.458E-02	5.095E-02	8.539E-02	0.000E+00	NOT IDENT.
RE-188	2.868E-02	2.401E-01	3.899E-01	0.000E+00	NOT IDENT.
W-188	-3.998E+00	1.140E+01	1.621E+01	0.000E+00	FAIL ABUN
IR-192	1.357E-02	4.993E-02	8.425E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.007E-01	6.226E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.519E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.391E+01	1.664E+01	2.421E+01	0.000E+00	NOT IDENT.
TL-202	1.169E-01	1.098E-01	1.900E-01	0.000E+00	NOT IDENT.
HG-203	3.261E-02	6.024E-02	1.029E-01	0.000E+00	NOT IDENT.
BI-207	1.949E-02	6.891E-02	1.161E-01	0.000E+00	FAIL ABUN
TL-207	-4.636E-01	9.785E-01	1.593E+00	0.000E+00	FAIL ABUN
PO-209	-4.136E+00	7.927E+00	1.251E+01	0.000E+00	NOT IDENT.
BI-210	1.669E+01	1.521E+01	2.596E+01	0.000E+00	NOT IDENT.
PB-210	1.669E+01	1.521E+01	2.596E+01	0.000E+00	NOT IDENT.
PO-210	1.669E+01	1.519E+01	2.596E+01	0.000E+00	NOT IDENT.
PB-211	-1.185E+00	1.524E+00	2.116E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.019E-01	7.691E-01	0.000E+00	FAIL ABUN
PO-215	-4.636E-01	9.785E-01	1.593E+00	0.000E+00	FAIL ABUN
RN-219	3.893E-01	5.693E-01	9.680E-01	0.000E+00	FAIL ABUN
RN-220	-1.106E+01	3.482E+01	5.551E+01	0.000E+00	NOT IDENT.
RA-223	-4.636E-01	9.785E-01	1.593E+00	0.000E+00	FAIL ABUN
AC-227	2.197E-01	5.230E-01	8.914E-01	0.000E+00	NOT IDENT.
TH-227	2.197E-01	5.234E-01	8.914E-01	0.000E+00	FAIL ABUN
PA-231	6.250E-01	2.121E+00	3.593E+00	0.000E+00	NOT IDENT.
TH-231	-4.636E-01	9.785E-01	1.593E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.447E+00	4.068E+00	0.000E+00	FAIL ABUN
PA-233	-9.414E-02	8.899E-02	1.406E-01	0.000E+00	FAIL ABUN
PA-234	1.354E-03	3.621E-01	6.004E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	1.047E+01	1.404E+01	0.000E+00	FAIL ABUN
NP-236	-9.672E-02	1.161E-01	1.815E-01	0.000E+00	FAIL ABUN
NP-239	2.080E-01	3.055E-01	4.487E-01	0.000E+00	FAIL ABUN
AM-241	3.127E-01	3.921E-01	5.878E-01	0.000E+00	NOT IDENT.
CM-243	-3.329E-02	1.623E-01	2.303E-01	0.000E+00	FAIL ABUN
AM-246	3.029E-02	1.770E-01	2.956E-01	0.000E+00	NOT IDENT.
CM-247	3.840E-02	5.107E-02	8.737E-02	0.000E+00	NOT IDENT.
CF-249	7.898E-02	5.640E-02	9.890E-02	0.000E+00	NOT IDENT.
CF-251	1.061E-03	1.742E-01	2.806E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 20:03:10.41

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                          *
*                                     Charleston, SC 29414                      *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344005.CNF;1
Sample date        : 1-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 17:02:42
Sample ID          : G246344005          Sample quantity  : 8.96700E+01 GRAM
Detector name      : GAM15              Detector geometry: CAN
Elapsed live time  : 0 03:00:00.00      Elapsed real time: 0 03:00:01.71  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials  : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 950787             Detector SN#      :
Matrix Spike ID    :                    LCS ID           : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	811	10.67*	9.662E-01	2.197E+01	2.197E+01	12.49
CD-109	88.03	264	3.72*	4.446E+00	4.461E+00	4.577E+00	41.79
SN-126	64.28	438	9.60	1.825E+00	6.980E+00	6.980E+00	30.53
	86.94	264	8.90	4.446E+00	1.864E+00	1.864E+00	58.16
	87.57	264	37.00*	4.446E+00	4.485E-01	4.485E-01	41.79
BA-137M	661.65	1181	89.98*	1.982E+00	1.848E+00	1.850E+00	11.10
CS-137	661.65	1181	85.12*	1.982E+00	1.954E+00	1.956E+00	11.11
CE-141	145.44	110	48.40*	5.502E+00	1.152E-01	1.666E-01	73.11
LU-177	112.95	89	6.40	5.557E+00	7.019E-01	4.180E+00	125.35
	208.36	144	11.00*	4.500E+00	8.130E-01	4.842E+00	46.94
TL-208	277.35	-----	6.80	3.705E+00	-----	Line Not Found	-----
	510.84	224	21.60	2.417E+00	1.197E+00	1.197E+00	42.13
	583.14	290	84.20*	2.190E+00	4.384E-01	4.384E-01	23.31
	860.37	-----	12.46	1.576E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	3.001E+00	-----	Line Not Found	-----
	351.07	572	12.94*	3.140E+00	3.930E+00	3.930E+00	17.32
PB-212	74.81	279	10.70	3.245E+00	2.246E+00	2.246E+00	37.36
	77.11	421	18.00	3.499E+00	1.865E+00	1.865E+00	24.73
	87.30	264	8.00	4.446E+00	2.074E+00	2.074E+00	42.97
	238.63	1029	44.60*	4.114E+00	1.565E+00	1.565E+00	14.97
	300.09	-----	3.41	3.507E+00	-----	Line Not Found	-----
PO-212	74.81	279	10.70	3.245E+00	2.246E+00	2.246E+00	37.36
	77.11	421	18.00	3.499E+00	1.865E+00	1.865E+00	24.73
	87.30	264	8.00	4.446E+00	2.074E+00	2.074E+00	42.97
	115.19	-----	0.60	5.586E+00	-----	Line Not Found	-----
	238.63	1029	44.60*	4.114E+00	1.565E+00	1.565E+00	14.97
	300.09	-----	3.41	3.507E+00	-----	Line Not Found	-----
BI-214	609.31	469	46.30*	2.117E+00	1.335E+00	1.335E+00	18.53
	1120.29	118	15.10	1.227E+00	1.781E+00	1.781E+00	34.28
	1764.49	90	15.80	8.554E-01	1.862E+00	1.862E+00	29.23
PB-214	74.81	279	6.21	3.245E+00	3.869E+00	3.870E+00	36.92
	77.11	421	10.50	3.499E+00	3.196E+00	3.196E+00	25.88

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	87.30	264	4.67	4.446E+00	3.553E+00	3.553E+00	42.50
	241.98	266	7.49	4.078E+00	2.434E+00	2.434E+00	42.76
	295.21	340	19.20	3.545E+00	1.394E+00	1.394E+00	27.22
	351.92	572	37.20*	3.140E+00	1.367E+00	1.367E+00	18.09
	74.81	279	6.21	3.245E+00	3.869E+00	3.870E+00	36.92
	77.11	421	10.50	3.499E+00	3.196E+00	3.196E+00	25.88
	87.30	264	4.67	4.446E+00	3.553E+00	3.553E+00	42.50
	241.98	266	7.49	4.078E+00	2.434E+00	2.434E+00	42.76
	295.21	340	19.20	3.545E+00	1.394E+00	1.394E+00	27.22
	351.92	572	37.20*	3.140E+00	1.367E+00	1.367E+00	18.09
PO-216	74.81	279	10.70	3.245E+00	2.246E+00	2.246E+00	37.36
	77.11	421	18.00	3.499E+00	1.865E+00	1.865E+00	24.73
	87.30	264	8.00	4.446E+00	2.074E+00	2.074E+00	42.97
	238.63	1029	44.60*	4.114E+00	1.565E+00	1.565E+00	14.97
	300.09	-----	3.41	3.507E+00	-----	Line Not Found	-----
PO-218	74.81	279	6.21	3.245E+00	3.869E+00	3.870E+00	36.92
	77.11	421	10.50	3.499E+00	3.196E+00	3.196E+00	25.88
	87.30	264	4.67	4.446E+00	3.553E+00	3.553E+00	42.50
	241.98	266	7.49	4.078E+00	2.434E+00	2.434E+00	42.76
	295.21	340	19.20	3.545E+00	1.394E+00	1.394E+00	27.22
RA-224	351.92	572	37.20*	3.140E+00	1.367E+00	1.367E+00	18.09
	240.98	266	3.95*	4.078E+00	4.615E+00	4.615E+00	42.39
RA-226	609.31	469	46.30*	2.117E+00	1.335E+00	1.335E+00	18.53
	1120.29	118	15.10	1.227E+00	1.781E+00	1.781E+00	34.28
AC-228	1764.49	90	15.80	8.554E-01	1.862E+00	1.862E+00	29.23
	338.32	235	11.40	3.229E+00	1.785E+00	1.785E+00	54.52
	911.07	241	27.70*	1.494E+00	1.627E+00	1.627E+00	24.40
	969.11	119	16.60	1.409E+00	1.420E+00	1.420E+00	40.11
RA-228	338.32	235	11.40	3.229E+00	1.785E+00	1.785E+00	54.52
	911.07	241	27.70*	1.494E+00	1.627E+00	1.627E+00	24.40
TH-228	969.11	119	16.60	1.409E+00	1.420E+00	1.420E+00	40.11
	74.81	279	10.70	3.245E+00	2.246E+00	2.285E+00	36.19
	77.11	421	18.00	3.499E+00	1.865E+00	1.897E+00	24.73
	87.30	264	8.00	4.446E+00	2.074E+00	2.110E+00	41.79
TH-229	238.63	1029	44.60*	4.114E+00	1.565E+00	1.592E+00	14.97
	300.09	-----	3.41	3.507E+00	-----	Line Not Found	-----
	85.43	132	16.50	4.192E+00	5.339E-01	5.339E-01	70.98
	88.47	264	27.10	4.446E+00	6.123E-01	6.123E-01	41.79
	100.00	199	12.40	5.142E+00	8.713E-01	8.713E-01	48.28
TH-230	193.63	-----	4.59*	4.737E+00	-----	Line Not Found	-----
	210.97	-----	3.26	4.478E+00	-----	Line Not Found	-----
	609.31	469	46.30*	2.117E+00	1.335E+00	1.335E+00	18.53
	1120.29	118	15.10	1.227E+00	1.781E+00	1.781E+00	34.28
	1764.49	90	15.80	8.554E-01	1.862E+00	1.862E+00	29.23
TH-232	338.32	235	11.40	3.229E+00	1.785E+00	1.785E+00	36.67
	911.07	241	27.70*	1.494E+00	1.627E+00	1.627E+00	24.40
TH-234	969.11	119	16.60	1.409E+00	1.420E+00	1.420E+00	40.11
	63.29	438	3.80*	1.825E+00	1.763E+01	1.763E+01	32.02
	92.38	1953	5.41	4.827E+00	2.087E+01	2.087E+01	20.81

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-234	609.31	469	46.30*	2.117E+00	1.335E+00	1.335E+00	18.53
	1120.29	118	15.10	1.227E+00	1.781E+00	1.781E+00	34.28
	1764.49	90	15.80	8.554E-01	1.862E+00	1.862E+00	29.23
U-235	89.95	-----	2.70	4.641E+00	-----	Line Not Found	-----
	93.35	1953	4.50	4.827E+00	2.509E+01	2.509E+01	29.86
	105.00	-----	2.10	5.378E+00	-----	Line Not Found	-----
	143.76	110	10.50*	5.502E+00	5.312E-01	5.312E-01	74.66
	163.35	-----	4.70	5.224E+00	-----	Line Not Found	-----
	185.71	560	54.00	4.856E+00	5.962E-01	5.962E-01	22.18
	205.31	-----	4.70	4.560E+00	-----	Line Not Found	-----
NP-237	86.50	264	12.60*	4.446E+00	1.317E+00	1.317E+00	46.61
	95.87	-----	2.60	5.004E+00	-----	Line Not Found	-----
U-238	63.29	438	3.80*	1.825E+00	1.763E+01	1.763E+01	32.02
	92.38	1953	5.41	4.827E+00	2.087E+01	2.087E+01	13.43
AM-243	74.67	279	66.00*	3.245E+00	3.641E-01	3.641E-01	36.17
	86.72	264	0.34	4.446E+00	4.939E+01	4.939E+01	41.79
	117.66	-----	0.55	5.611E+00	-----	Line Not Found	-----
	142.18	-----	0.13	5.525E+00	-----	Line Not Found	-----
ANH-511	511.00	224	100.00*	2.417E+00	2.586E-01	2.586E-01	41.30

Flag: "*" = Keyline

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	1.28E+09Y	1.00	2.197E+01	2.197E+01	0.274E+01	12.49	
CD-109	464.00D	1.03	4.461E+00	4.577E+00	1.913E+00	41.79	
SN-126	1.00E+05Y	1.00	4.485E-01	4.485E-01	1.874E-01	41.79	
BA-137M	30.17Y	1.00	1.848E+00	1.850E+00	0.205E+00	11.10	
CS-137	30.17Y	1.00	1.954E+00	1.956E+00	0.217E+00	11.11	
CE-141	32.50D	1.45	1.152E-01	1.666E-01	1.218E-01	73.11	
LU-177	6.71D	5.96	8.130E-01	4.842E+00	2.273E+00	46.94	
TL-208	1.41E+10Y	1.00	4.384E-01	4.384E-01	1.022E-01	23.31	
BI-211	7.04E+08Y	1.00	3.930E+00	3.930E+00	0.681E+00	17.32	
PB-212	1.41E+10Y	1.00	1.565E+00	1.565E+00	0.234E+00	14.97	
PO-212	1.41E+10Y	1.00	1.565E+00	1.565E+00	0.234E+00	14.97	
BI-214	1600.00Y	1.00	1.335E+00	1.335E+00	0.247E+00	18.53	
PB-214	1600.00Y	1.00	1.367E+00	1.367E+00	0.247E+00	18.09	
PO-214	1600.00Y	1.00	1.367E+00	1.367E+00	0.247E+00	18.09	
PO-216	1.41E+10Y	1.00	1.565E+00	1.565E+00	0.234E+00	14.97	
PO-218	1600.00Y	1.00	1.367E+00	1.367E+00	0.247E+00	18.09	
RA-224	1.41E+10Y	1.00	4.615E+00	4.615E+00	1.956E+00	42.39	
RA-226	1600.00Y	1.00	1.335E+00	1.335E+00	0.247E+00	18.53	
AC-228	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.397E+00	24.40	
RA-228	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.397E+00	24.40	
TH-228	1.91Y	1.02	1.565E+00	1.592E+00	0.238E+00	14.97	
TH-229	7340.00Y	1.00	6.123E-01	6.123E-01	2.559E-01	41.79	K
TH-230	4.47E+09Y	1.00	1.335E+00	1.335E+00	0.247E+00	18.53	
TH-232	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.397E+00	24.40	
TH-234	4.47E+09Y	1.00	1.763E+01	1.763E+01	0.565E+01	32.02	
U-234	4.47E+09Y	1.00	1.335E+00	1.335E+00	0.247E+00	18.53	
U-235	7.04E+08Y	1.00	5.312E-01	5.312E-01	3.966E-01	74.66	
NP-237	2.14E+06Y	1.00	1.317E+00	1.317E+00	0.614E+00	46.61	
U-238	4.47E+09Y	1.00	1.763E+01	1.763E+01	0.565E+01	32.02	
AM-243	7380.00Y	1.00	3.641E-01	3.641E-01	1.317E-01	36.17	
ANH-511	1.00E+09Y	1.00	2.586E-01	2.586E-01	1.068E-01	41.30	
Total Activity :			9.952E+01	1.037E+02			

Grand Total Activity : 9.952E+01 1.037E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	270.56	99	212	1.61	540.02	536	8	9.16E-03	55.1	3.77E+00	T
0	462.76	54	130	1.37	924.43	921	8	4.98E-03	78.4	2.60E+00	T
0	727.61	88	58	1.72	1454.16	1450	11	8.11E-03	44.1	1.83E+00	T
0	964.33	50	66	1.62	1927.67	1920	13	4.63E-03	73.5	1.42E+00	T
0	1001.26	117	58	1.77	2001.54	1993	19	1.08E-02	36.1	1.37E+00	T
0	1238.84	73	69	1.93	2476.80	2467	19	6.74E-03	61.6	1.12E+00	T
0	1294.07	15	23	1.38	2587.30	2581	10	1.35E-03	****	1.07E+00	
0	1379.19	50	20	1.14	2757.59	2751	17	4.60E-03	50.9	1.01E+00	

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246344005.CNF;1
* Acquisition date   : 18-FEB-2010 17:02:42   Detector SN#      :
* Detector ID        : GAM15                   Sensitivity         : 5.00000
* Geometry           : CAN                     Energy tolerance: 1.50000
* Elapsed live time  : 0 03:00:00.00           Abundance limit  : 75.00000
* Elapsed real time  : 0 03:00:01.71           Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00.   Nuclide Library : SOLID
* Sample ID          : G246344005             Analyst initials: MXR1
* Batch Number       : 950787                 Sample Quantity : 8.96700E+01 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 3-FEB-2010 11:04:32.11MS 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	2.197E+01	2.744E+00	7.564E-01	7.432E-02	29.041
CD-109	4.577E+00	1.913E+00	1.935E+00	2.402E-01	2.365
SN-126	4.485E-01	1.874E-01	1.911E-01	2.364E-02	2.347
BA-137M	1.850E+00	2.054E-01	7.021E-02	5.772E-03	26.356
CS-137	1.956E+00	2.174E-01	7.422E-02	6.115E-03	26.356
CE-141	1.666E-01	1.218E-01	1.432E-01	1.480E-02	1.163
LU-177	4.842E+00	2.273E+00	3.299E+00	3.618E-01	1.468
TL-208	4.384E-01	1.022E-01	7.822E-02	7.163E-03	5.604
BI-211	3.930E+00	6.809E-01	4.778E-01	4.758E-02	8.226
PB-212	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
PO-212	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
BI-214	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
PB-214	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
PO-214	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
PO-216	1.565E+00	2.343E-01	1.223E-01	1.456E-02	12.803
PO-218	1.367E+00	2.474E-01	1.587E-01	1.782E-02	8.614
RA-224	4.615E+00	1.956E+00	1.391E+00	1.534E-01	3.318
RA-226	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
RA-228	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
TH-228	1.592E+00	2.383E-01	1.244E-01	1.481E-02	12.803
TH-229	6.123E-01	2.559E-01	1.181E+00	1.285E-01	0.518
TH-230	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
TH-232	1.627E+00	3.968E-01	2.452E-01	2.889E-02	6.632
TH-234	1.763E+01	5.646E+00	4.388E+00	8.548E-01	4.018
U-234	1.335E+00	2.474E-01	1.479E-01	1.466E-02	9.027
U-235	5.312E-01	3.966E-01	4.680E-01	8.575E-02	1.135
NP-237	1.317E+00	6.138E-01	5.716E-01	1.372E-01	2.304
U-238	1.763E+01	5.646E+00	4.388E+00	8.548E-01	4.018
AM-243	3.641E-01	1.317E-01	1.518E-01	1.746E-02	2.399
ANH-511	2.586E-01	1.068E-01	5.888E-02	5.087E-03	4.392

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.826E-01		5.245E-01	8.990E-01	8.358E-02	0.648
NA-22	-6.399E-03		5.016E-02	7.989E-02	7.257E-03	-0.080
NA-24	3.892E+00		4.530E+00	Half-Life too short		
AL-26	-1.423E-02		3.742E-02	5.709E-02	4.884E-03	-0.249
TI-44	3.441E-01	+	8.510E-02	1.203E-01	1.402E-02	2.859
SC-46	-1.368E-02		4.305E-02	6.887E-02	6.400E-03	-0.199
V-48	-4.701E-02		8.498E-02	1.314E-01	1.201E-02	-0.358
CR-51	-2.044E-01		5.822E-01	9.510E-01	1.010E-01	-0.215
MN-52	3.447E-01		3.942E-01	7.186E-01	6.917E-02	0.480
MN-54	3.243E-02		4.786E-02	8.298E-02	7.531E-03	0.391
CO-56	-4.492E-04		4.992E-02	8.262E-02	7.539E-03	-0.005
CO-57	1.498E-02		3.625E-02	5.970E-02	6.014E-03	0.251
CO-58	-7.488E-03		4.390E-02	7.179E-02	6.454E-03	-0.104
FE-59	3.987E-02		1.223E-01	2.051E-01	1.913E-02	0.194
CO-60	-1.401E-03		4.694E-02	7.535E-02	7.244E-03	-0.019
ZN-65	1.013E-01		1.206E-01	1.864E-01	1.593E-02	0.543
GE-68	5.813E-01		1.579E+00	2.661E+00	2.330E-01	0.218
AS-73	3.756E-01		2.498E+00	4.165E+00	5.408E-01	0.090
AS-74	-4.645E-03		1.349E-01	2.169E-01	1.843E-02	-0.021
SE-75	-1.248E-02		6.665E-02	1.004E-01	1.101E-02	-0.124
BR-77	3.893E+00		2.914E+01	4.136E+01	3.572E+00	0.094
SR-82	-5.627E-01		4.844E-01	7.031E-01	6.196E-02	-0.800
RB-83	1.702E-02		1.059E-01	1.507E-01	1.302E-02	0.113
RB-84	5.110E-03		8.419E-02	1.399E-01	1.296E-02	0.037
KR-85	4.072E+01		1.126E+01	2.056E+01	1.776E+00	1.980
SR-85	2.135E-01		5.904E-02	1.078E-01	9.313E-03	1.980
RB-86	5.205E-01		1.062E+00	1.810E+00	1.585E-01	0.288
Y-88	-7.430E-03		3.688E-02	5.794E-02	4.879E-03	-0.128
ZR-88	-5.738E-02		4.547E-02	6.950E-02	5.850E-03	-0.826
Y-91	-7.308E+00		2.211E+01	3.470E+01	2.926E+00	-0.211

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-2.880E-02		4.041E-02	6.410E-02	5.412E-03	-0.449
NB-95	1.205E-01		6.195E-02	1.130E-01	9.904E-03	1.066
NB-95M	4.885E-01		2.093E-01	3.272E-01	3.938E-02	1.493
ZR-95	3.464E-02		8.632E-02	1.480E-01	1.418E-02	0.234
NB-97	3.718E+00		6.581E-01	Half-Life too short		
ZR-97	3.486E+01		1.189E+01	Half-Life too short		
MO-99	-1.220E+01		2.543E+01	4.087E+01	6.209E+00	-0.299
TC-99M	3.554E+12		1.010E+13	Half-Life too short		
RH-101	4.240E-03		5.016E-02	7.528E-02	8.213E-03	0.056
RH-102	-1.554E-02		4.590E-02	7.348E-02	6.341E-03	-0.212
RU-103	-2.750E-02		5.860E-02	9.236E-02	1.309E-02	-0.298
RH-106	-1.016E-01		4.018E-01	6.333E-01	8.371E-02	-0.160
RU-106	-1.016E-01		4.016E-01	6.333E-01	5.322E-02	-0.160
AG-108M	-1.590E-02		4.752E-02	7.639E-02	6.800E-03	-0.208
AG-110M	1.314E-01		5.679E-02	9.600E-02	8.169E-03	1.369
IN-111	-6.037E-01		2.808E+00	4.050E+00	4.464E-01	-0.149
IN-113M	-1.266E-02		6.557E-02	1.069E-01	9.281E-03	-0.118
SN-113	-1.266E-02		6.557E-02	1.069E-01	9.281E-03	-0.118
IN-114M	6.589E-02		3.104E-01	4.315E-01	4.685E-02	0.153
CD-115	-1.871E+01		2.867E+01	4.444E+01	3.835E+00	-0.421
SN-117M	-3.902E-02		8.771E-02	1.389E-01	1.456E-02	-0.281
SB-122	-1.397E+00		4.574E+00	7.234E+00	6.206E-01	-0.193
I-123	-5.131E+01		6.053E+01	Half-Life too short		
TE-123M	-1.763E-02		4.159E-02	6.591E-02	6.946E-03	-0.267
I-124	8.391E-01		1.466E+00	2.142E+00	1.815E-01	0.392
SB-124	4.623E-02		7.717E-02	1.418E-01	1.332E-02	0.326
SB-125	-3.136E-02		1.320E-01	2.135E-01	1.860E-02	-0.147
TE-125M	-5.141E+00		1.674E+01	2.355E+01	2.767E+00	-0.218
I-126	-8.999E-02		2.651E-01	3.696E-01	3.048E-02	-0.243
SB-126	-1.212E-01		2.203E-01	3.251E-01	2.775E-02	-0.373
SB-127	7.164E-01		2.352E+00	4.022E+00	4.758E-01	0.178
XE-127	-3.395E-03		7.188E-02	1.146E-01	1.254E-02	-0.030
I-131	-4.265E-02		2.010E-01	3.283E-01	3.174E-02	-0.130
TE-132	7.240E-01		1.488E+00	2.538E+00	4.449E-01	0.285
BA-133	-7.129E-02		7.302E-02	9.656E-02	1.328E-02	-0.738
I-133	-1.466E-02		2.187E-02	Half-Life too short		
CS-134	5.483E-02		5.506E-02	9.784E-02	8.769E-03	0.560
CS-135	2.781E-01		2.546E-01	3.893E-01	4.671E-02	0.714
I-135	2.072E+11		6.251E+11	Half-Life too short		
CS-136	9.013E-02		1.453E-01	2.507E-01	2.320E-02	0.359
CE-139	7.532E-03		4.328E-02	7.007E-02	7.479E-03	0.107
BA-140	3.564E-02		4.035E-01	6.575E-01	2.179E-01	0.054
LA-140	-2.451E-02		1.151E-01	1.847E-01	1.731E-02	-0.133
CE-143	2.834E-03		4.694E-04	Half-Life too short		
CE-144	-7.045E-02		2.960E-01	4.754E-01	7.798E-02	-0.148
PM-144	3.978E-02		4.331E-02	7.653E-02	6.439E-03	0.520
PR-144	2.699E+00		2.938E+00	5.192E+00	4.366E-01	0.520
PM-146	4.572E-02		6.456E-02	1.092E-01	1.169E-02	0.419

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-3.496E-01		8.749E-01	1.379E+00	2.062E-01	-0.254
PM-149	1.696E+02		2.466E+02	4.204E+02	7.070E+01	0.403
EU-152	-7.520E-02		1.539E-01	2.130E-01	2.169E-02	-0.353
GD-153	3.627E-01	+	1.751E-01	2.175E-01	2.401E-02	1.667
EU-154	-3.951E-02		1.411E-01	2.207E-01	2.574E-02	-0.179
EU-155	6.045E-02		1.839E-01	2.666E-01	2.809E-02	0.227
TB-160	4.282E-02		1.679E-01	2.835E-01	2.624E-02	0.151
HO-166M	-2.211E-02		7.678E-02	1.258E-01	1.068E-02	-0.176
TM-171	-9.508E+01		6.551E+01	8.685E+01	9.914E+00	-1.095
LU-176	1.349E-02		3.416E-02	5.777E-02	6.040E-03	0.233
LU-177M	-2.369E-01		2.643E-01	4.128E-01	3.508E-02	-0.574
HF-181	-5.521E-02		6.728E-02	1.043E-01	9.010E-03	-0.529
W-181	3.174E+00		9.983E-01	1.495E+00	1.707E-01	2.123
TA-182	-9.458E-02		2.348E-01	3.660E-01	3.141E-02	-0.258
RE-183	4.892E-02		1.724E-01	2.716E-01	2.874E-02	0.180
RE-184	-1.556E-01		3.317E-01	5.448E-01	5.991E-02	-0.286
OS-185	2.458E-02		5.199E-02	8.659E-02	7.186E-03	0.284
RE-188	2.868E-02		2.450E-01	3.967E-01	4.125E-02	0.072
W-188	-3.998E+00		1.163E+01	1.647E+01	1.760E+00	-0.243
IR-192	1.357E-02		5.095E-02	8.558E-02	8.824E-03	0.159
AU-195	1.058E+00	+	5.109E-01	6.342E-01	6.912E-02	1.669
TL-200	-8.809E-04		1.285E-03	Half-Life too short		
TL-201	-3.391E+01		1.698E+01	2.463E+01	2.631E+00	-1.377
TL-202	1.169E-01		1.120E-01	1.929E-01	1.653E-02	0.606
HG-203	3.261E-02		6.146E-02	1.045E-01	1.151E-02	0.312
BI-207	1.949E-02		7.032E-02	1.175E-01	1.037E-02	0.166
TL-207	-4.636E-01		9.984E-01	1.618E+00	2.993E-01	-0.287
PO-209	-4.136E+00		8.089E+00	1.267E+01	1.181E+00	-0.326
BI-210	1.669E+01		1.552E+01	2.649E+01	3.262E+00	0.630
PB-210	1.669E+01		1.552E+01	2.649E+01	3.262E+00	0.630
PO-210	1.669E+01		1.550E+01	2.649E+01	3.090E+00	0.630
PB-211	-1.185E+00		1.556E+00	2.148E+00	1.345E+00	-0.552
BI-212	1.133E+00	+	5.122E-01	7.797E-01	7.769E-02	1.453
PO-215	-4.636E-01		9.984E-01	1.618E+00	2.993E-01	-0.287
RN-219	3.893E-01		5.809E-01	9.827E-01	1.467E-01	0.396
RN-220	-1.106E+01		3.553E+01	5.631E+01	4.845E+00	-0.196
RA-223	-4.636E-01		9.984E-01	1.618E+00	2.993E-01	-0.287
AC-227	2.197E-01		5.336E-01	9.059E-01	1.521E-01	0.242
TH-227	2.197E-01		5.341E-01	9.059E-01	1.749E-01	0.242
PA-231	6.250E-01		2.165E+00	3.650E+00	6.022E-01	0.171
TH-231	-4.636E-01		9.984E-01	1.618E+00	2.993E-01	-0.287
U-231	8.177E+00		3.517E+00	4.144E+00	4.643E-01	1.973
PA-233	-9.414E-02		9.081E-02	1.428E-01	1.510E-02	-0.659
PA-234	1.354E-03		3.694E-01	6.082E-01	1.159E-01	0.002
PA-234M	2.847E+01	+	1.069E+01	1.423E+01	1.475E+00	2.001
NP-236	-9.672E-02		1.185E-01	1.846E-01	1.944E-02	-0.524
NP-239	2.080E-01		3.118E-01	4.569E-01	4.612E-02	0.455
AM-241	3.127E-01		4.001E-01	5.994E-01	7.036E-02	0.522

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.329E-02		1.656E-01	2.346E-01	2.472E-02	-0.142
AM-246	3.029E-02		1.806E-01	2.993E-01	2.618E-02	0.101
CM-247	3.840E-02		5.212E-02	8.869E-02	7.501E-03	0.433
CF-249	7.898E-02		5.755E-02	1.004E-01	8.566E-03	0.787
CF-251	1.061E-03		1.777E-01	2.854E-01	3.069E-02	0.004

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 Savage Road      *
*               Charleston, SC 29414  *
*                                     *
*****
*
*               DETECTOR DATA
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G246344005
* Acquisition date   : 18-FEB-2010 17:02:42 Detector SN#   :
* Detector ID        : GAM15          Sensitivity          : 5.000
* Geometry           : CAN            Energy tolerance     : 1.500
* Elapsed live time  : 0 03:00:00.00 Abundance limit      : 75.000
* Elapsed real time  : 0 03:00:01.71 Half life ratio     : 8.000
*****
*
*               SAMPLE DATA
*
* Sample date        : 1-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G246344005      Analyst initials: MXR1
* Batch Number       : 950787          Sample Quantity   : 8.9670E+01 GRAM
* Recovery           : 1.00000         Carrier Weight    : 0.00000
*****
*
*               QC DATA
*
* CALIB. DATE/TIME  : 3-FEB-2010 11:04:32 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	DLC (pCi/GRAM)	TPU
K-40	2.197E+01	2.689E+00	3.739E-01	1.372E+00
CD-109	4.577E+00	1.875E+00	9.503E-01	9.565E-01
SN-126	4.485E-01	1.837E-01	9.382E-02	9.372E-02
BA-137M	1.850E+00	2.013E-01	3.464E-02	1.027E-01
CS-137	1.956E+00	2.131E-01	3.662E-02	1.087E-01
CE-141	1.666E-01	1.193E-01	7.040E-02	6.089E-02
LU-177	4.842E+00	2.227E+00	1.623E+00	1.136E+00
TL-208	4.384E-01	1.001E-01	3.858E-02	5.110E-02
BI-211	3.930E+00	6.673E-01	2.354E-01	3.405E-01
PB-212	1.565E+00	2.296E-01	6.018E-02	1.171E-01
PO-212	1.565E+00	2.296E-01	6.018E-02	1.171E-01
BI-214	1.335E+00	2.424E-01	7.294E-02	1.237E-01
PB-214	1.367E+00	2.424E-01	7.820E-02	1.237E-01
PO-214	1.367E+00	2.424E-01	7.820E-02	1.237E-01
PO-216	1.565E+00	2.296E-01	6.018E-02	1.171E-01
PO-218	1.367E+00	2.424E-01	7.820E-02	1.237E-01
RA-224	4.615E+00	1.917E+00	6.846E-01	9.780E-01
RA-226	1.335E+00	2.424E-01	7.294E-02	1.237E-01
AC-228	1.627E+00	3.889E-01	1.211E-01	1.984E-01
RA-228	1.627E+00	3.889E-01	1.211E-01	1.984E-01
TH-228	1.592E+00	2.336E-01	6.122E-02	1.192E-01
TH-229	-1.697E-01	7.301E-01	5.810E-01	3.725E-01
TH-230	1.335E+00	2.424E-01	7.294E-02	1.237E-01
TH-232	1.627E+00	3.889E-01	1.211E-01	1.984E-01
TH-234	1.763E+01	5.533E+00	2.153E+00	2.823E+00
U-234	1.335E+00	2.424E-01	7.294E-02	1.237E-01
U-235	5.312E-01	3.887E-01	2.301E-01	1.983E-01
NP-237	1.317E+00	6.016E-01	2.807E-01	3.069E-01
U-238	1.763E+01	5.533E+00	2.153E+00	2.823E+00
AM-243	3.641E-01	1.290E-01	7.451E-02	6.584E-02
ANH-511	2.586E-01	1.047E-01	2.903E-02	5.340E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.826E-01	5.140E-01	4.432E-01	2.623E-01	NOT IDENT.
NA-22	-6.399E-03	4.915E-02	3.948E-02	2.508E-02	NOT IDENT.
NA-24	3.892E+06	8.879E+06	0.000E+00	4.530E+06	SHORT HLIF
AL-26	-1.423E-02	3.667E-02	2.824E-02	1.871E-02	NOT IDENT.
TI-44	3.441E-01	8.340E-02	5.908E-02	4.255E-02	FAIL ABUN
SC-46	-1.368E-02	4.219E-02	3.401E-02	2.153E-02	FAIL ABUN
V-48	-4.701E-02	8.328E-02	6.488E-02	4.249E-02	NOT IDENT.
CR-51	-2.044E-01	5.705E-01	4.684E-01	2.911E-01	NOT IDENT.
MN-52	3.447E-01	3.863E-01	3.552E-01	1.971E-01	NOT IDENT.
MN-54	3.243E-02	4.690E-02	4.097E-02	2.393E-02	NOT IDENT.
CO-56	-4.492E-04	4.892E-02	4.079E-02	2.496E-02	FAIL ABUN
CO-57	1.498E-02	3.553E-02	2.934E-02	1.813E-02	NOT IDENT.
CO-58	-7.488E-03	4.303E-02	3.544E-02	2.195E-02	NOT IDENT.
FE-59	3.987E-02	1.199E-01	1.013E-01	6.117E-02	FAIL ABUN
CO-60	-1.401E-03	4.600E-02	3.724E-02	2.347E-02	NOT IDENT.
ZN-65	1.013E-01	1.182E-01	9.209E-02	6.030E-02	NOT IDENT.
GE-68	5.813E-01	1.547E+00	1.315E+00	7.894E-01	NOT IDENT.
AS-73	3.756E-01	2.448E+00	2.043E+00	1.249E+00	NOT IDENT.
AS-74	-4.645E-03	1.322E-01	1.070E-01	6.743E-02	NOT IDENT.
SE-75	-1.248E-02	6.531E-02	4.944E-02	3.332E-02	NOT IDENT.
BR-77	3.893E+00	2.855E+01	2.040E+01	1.457E+01	FAIL ABUN
SR-82	-5.627E-01	4.747E-01	3.470E-01	2.422E-01	NOT IDENT.
RB-83	1.702E-02	1.038E-01	7.433E-02	5.296E-02	NOT IDENT.
RB-84	5.110E-03	8.250E-02	6.906E-02	4.209E-02	NOT IDENT.
KR-85	4.072E+01	1.104E+01	1.014E+01	5.631E+00	NOT IDENT.
SR-85	2.135E-01	5.786E-02	5.315E-02	2.952E-02	NOT IDENT.
RB-86	5.205E-01	1.041E+00	8.939E-01	5.312E-01	NOT IDENT.
Y-88	-7.430E-03	3.615E-02	2.866E-02	1.844E-02	NOT IDENT.
ZR-88	-5.738E-02	4.456E-02	3.425E-02	2.273E-02	NOT IDENT.
Y-91	-7.308E+00	2.167E+01	1.715E+01	1.106E+01	NOT IDENT.
NB-94	-2.880E-02	3.960E-02	3.163E-02	2.021E-02	NOT IDENT.
NB-95	1.205E-01	6.071E-02	5.579E-02	3.098E-02	NOT IDENT.
NB-95M	4.885E-01	2.052E-01	1.611E-01	1.047E-01	NOT IDENT.
ZR-95	3.464E-02	8.460E-02	7.307E-02	4.316E-02	NOT IDENT.
NB-97	3.718E+06	1.290E+06	0.000E+00	6.581E+05	SHORT HLIF
ZR-97	3.486E+07	2.331E+07	0.000E+00	1.189E+07	SHORT HLIF
MO-99	-1.220E+01	2.492E+01	2.017E+01	1.272E+01	NOT IDENT.
TC-99M	3.554E+18	1.980E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.240E-03	4.916E-02	3.704E-02	2.508E-02	NOT IDENT.
RH-102	-1.554E-02	4.498E-02	3.623E-02	2.295E-02	NOT IDENT.
RU-103	-2.750E-02	5.743E-02	4.554E-02	2.930E-02	FAIL ABUN
RH-106	-1.016E-01	3.937E-01	3.124E-01	2.009E-01	FAIL ABUN
RU-106	-1.016E-01	3.936E-01	3.124E-01	2.008E-01	FAIL ABUN
AG-108M	-1.590E-02	4.657E-02	3.766E-02	2.376E-02	NOT IDENT.
AG-110M	1.314E-01	5.565E-02	4.737E-02	2.839E-02	NOT IDENT.
IN-111	-6.037E-01	2.752E+00	1.994E+00	1.404E+00	NOT IDENT.
IN-113M	-1.266E-02	6.426E-02	5.266E-02	3.279E-02	NOT IDENT.
SN-113	-1.266E-02	6.426E-02	5.266E-02	3.279E-02	NOT IDENT.
IN-114M	6.589E-02	3.042E-01	2.123E-01	1.552E-01	NOT IDENT.
CD-115	-1.871E+01	2.810E+01	2.192E+01	1.434E+01	NOT IDENT.
SN-117M	-3.902E-02	8.596E-02	6.829E-02	4.386E-02	NOT IDENT.
SB-122	-1.397E+00	4.482E+00	3.568E+00	2.287E+00	NOT IDENT.
I-123	-5.131E+07	1.186E+08	0.000E+00	6.053E+07	SHORT HLIF
TE-123M	-1.763E-02	4.076E-02	3.241E-02	2.080E-02	NOT IDENT.
I-124	8.391E-01	1.437E+00	1.057E+00	7.331E-01	NOT IDENT.
SB-124	4.623E-02	7.563E-02	7.010E-02	3.858E-02	FAIL ABUN
SB-125	-3.136E-02	1.293E-01	1.052E-01	6.599E-02	FAIL ABUN
TE-125M	-5.141E+00	1.640E+01	1.157E+01	8.368E+00	NOT IDENT.
I-126	-8.999E-02	2.598E-01	1.824E-01	1.326E-01	NOT IDENT.
SB-126	-1.212E-01	2.159E-01	1.604E-01	1.102E-01	FAIL ABUN
SB-127	7.164E-01	2.305E+00	1.985E+00	1.176E+00	NOT IDENT.
XE-127	-3.395E-03	7.044E-02	5.638E-02	3.594E-02	FAIL ABUN
I-131	-4.265E-02	1.970E-01	1.618E-01	1.005E-01	NOT IDENT.
TE-132	7.240E-01	1.459E+00	1.249E+00	7.442E-01	FAIL ABUN
BA-133	-7.129E-02	7.156E-02	4.757E-02	3.651E-02	NOT IDENT.
I-133	-1.466E+04	4.286E+04	0.000E+00	2.187E+04	SHORT HLIF
CS-134	5.483E-02	5.396E-02	4.829E-02	2.753E-02	NOT IDENT.
CS-135	2.781E-01	2.495E-01	1.917E-01	1.273E-01	NOT IDENT.
I-135	2.072E+17	1.225E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.013E-02	1.424E-01	1.239E-01	7.265E-02	FAIL ABUN
CE-139	7.532E-03	4.242E-02	3.446E-02	2.164E-02	NOT IDENT.
BA-140	3.564E-02	3.955E-01	3.243E-01	2.018E-01	NOT IDENT.
LA-140	-2.451E-02	1.128E-01	9.132E-02	5.753E-02	NOT IDENT.
CE-143	2.834E+03	9.201E+02	0.000E+00	4.694E+02	SHORT HLIF

CE-144	-7.045E-02	2.901E-01	2.337E-01	1.480E-01	NOT IDENT.
PM-144	3.978E-02	4.245E-02	3.776E-02	2.166E-02	NOT IDENT.
PR-144	2.699E+00	2.880E+00	2.562E+00	1.469E+00	NOT IDENT.
PM-146	4.572E-02	6.327E-02	5.382E-02	3.228E-02	NOT IDENT.
ND-147	-3.496E-01	8.574E-01	6.801E-01	4.375E-01	NOT IDENT.
PM-149	1.696E+02	2.416E+02	2.070E+02	1.233E+02	NOT IDENT.
EU-152	-7.520E-02	1.508E-01	1.049E-01	7.695E-02	FAIL ABUN
GD-153	3.627E-01	1.716E-01	1.068E-01	8.756E-02	FAIL ABUN
EU-154	-3.951E-02	1.383E-01	1.091E-01	7.055E-02	NOT IDENT.
EU-155	6.045E-02	1.803E-01	1.310E-01	9.197E-02	FAIL ABUN
TB-160	4.282E-02	1.645E-01	1.400E-01	8.395E-02	FAIL ABUN
HO-166M	-2.211E-02	7.525E-02	6.209E-02	3.839E-02	NOT IDENT.
TM-171	-9.508E+01	6.420E+01	4.262E+01	3.276E+01	NOT IDENT.
LU-176	1.349E-02	3.348E-02	2.845E-02	1.708E-02	FAIL ABUN
LU-177M	-2.369E-01	2.590E-01	2.035E-01	1.322E-01	NOT IDENT.
HF-181	-5.521E-02	6.594E-02	5.145E-02	3.364E-02	NOT IDENT.
W-181	3.174E+00	9.783E-01	7.335E-01	4.992E-01	NOT IDENT.
TA-182	-9.458E-02	2.301E-01	1.808E-01	1.174E-01	FAIL ABUN
RE-183	4.892E-02	1.690E-01	1.336E-01	8.621E-02	FAIL ABUN
RE-184	-1.556E-01	3.251E-01	2.682E-01	1.658E-01	NOT IDENT.
OS-185	2.458E-02	5.095E-02	4.272E-02	2.599E-02	NOT IDENT.
RE-188	2.868E-02	2.401E-01	1.951E-01	1.225E-01	NOT IDENT.
W-188	-3.998E+00	1.140E+01	8.111E+00	5.817E+00	FAIL ABUN
IR-192	1.357E-02	4.993E-02	4.215E-02	2.547E-02	FAIL ABUN
AU-195	1.058E+00	5.007E-01	3.115E-01	2.554E-01	FAIL ABUN
TL-200	-8.809E+02	2.519E+03	0.000E+00	1.285E+03	SHORT HLIF
TL-201	-3.391E+01	1.664E+01	1.211E+01	8.492E+00	NOT IDENT.
TL-202	1.169E-01	1.098E-01	9.508E-02	5.601E-02	NOT IDENT.
HG-203	3.261E-02	6.024E-02	5.146E-02	3.073E-02	NOT IDENT.
BI-207	1.949E-02	6.891E-02	5.806E-02	3.516E-02	FAIL ABUN
TL-207	-4.636E-01	9.785E-01	7.969E-01	4.992E-01	FAIL ABUN
PO-209	-4.136E+00	7.927E+00	6.257E+00	4.044E+00	NOT IDENT.
BI-210	1.669E+01	1.521E+01	1.299E+01	7.758E+00	NOT IDENT.
PB-210	1.669E+01	1.521E+01	1.299E+01	7.758E+00	NOT IDENT.
PO-210	1.669E+01	1.519E+01	1.299E+01	7.751E+00	NOT IDENT.
PB-211	-1.185E+00	1.524E+00	1.058E+00	7.778E-01	NOT IDENT.
BI-212	1.133E+00	5.019E-01	3.848E-01	2.561E-01	FAIL ABUN
PO-215	-4.636E-01	9.785E-01	7.969E-01	4.992E-01	FAIL ABUN
RN-219	3.893E-01	5.693E-01	4.843E-01	2.905E-01	FAIL ABUN
RN-220	-1.106E+01	3.482E+01	2.777E+01	1.777E+01	NOT IDENT.
RA-223	-4.636E-01	9.785E-01	7.969E-01	4.992E-01	FAIL ABUN
AC-227	2.197E-01	5.230E-01	4.460E-01	2.668E-01	NOT IDENT.
TH-227	2.197E-01	5.234E-01	4.460E-01	2.670E-01	FAIL ABUN
PA-231	6.250E-01	2.121E+00	1.797E+00	1.082E+00	NOT IDENT.
TH-231	-4.636E-01	9.785E-01	7.969E-01	4.992E-01	FAIL ABUN
U-231	8.177E+00	3.447E+00	2.035E+00	1.759E+00	FAIL ABUN
PA-233	-9.414E-02	8.899E-02	7.033E-02	4.540E-02	FAIL ABUN
PA-234	1.354E-03	3.621E-01	3.004E-01	1.847E-01	FAIL ABUN
PA-234M	2.847E+01	1.047E+01	7.026E+00	5.343E+00	FAIL ABUN
NP-236	-9.672E-02	1.161E-01	9.079E-02	5.926E-02	FAIL ABUN
NP-239	2.080E-01	3.055E-01	2.245E-01	1.559E-01	FAIL ABUN
AM-241	3.127E-01	3.921E-01	2.941E-01	2.001E-01	NOT IDENT.
CM-243	-3.329E-02	1.623E-01	1.152E-01	8.281E-02	FAIL ABUN
AM-246	3.029E-02	1.770E-01	1.479E-01	9.031E-02	NOT IDENT.
CM-247	3.840E-02	5.107E-02	4.371E-02	2.606E-02	NOT IDENT.
CF-249	7.898E-02	5.640E-02	4.948E-02	2.878E-02	NOT IDENT.
CF-251	1.061E-03	1.742E-01	1.404E-01	8.887E-02	NOT IDENT.

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD       *
*               CHARLESTON ,SC 29417  *
*               GAMMA SPECTROSCOPY BACKGROUND REPORT *
*****

```

ENERGY	MDA COUNTS
46.50	401.3945
46.50	401.3945
46.50	401.3945
48.70	491.7140
49.72	466.7381
51.35	428.6848
52.39	424.6130
52.97	419.2432
53.15	419.3654
53.44	436.8830
54.07	451.7737
56.28	477.5176
56.28	477.5204
57.37	0.0000
57.53	489.4236
57.53	489.4250
57.60	489.4761
57.98	462.1082
57.98	462.1082
59.32	461.4993
59.32	461.4993
59.40	461.5555
59.54	461.6525
59.72	461.7784
60.01	485.3120
61.10	489.2202
61.14	489.2489
61.30	509.6263
63.00	545.8627
63.29	546.0930
63.29	546.0930
63.58	546.3239
64.28	536.8989
65.12	572.0262
65.20	572.0925
65.20	572.0925
66.05	633.9877
66.72	651.8671
66.83	642.5436
66.91	642.6173
67.20	642.8794
67.20	642.8794
67.75	637.0815
67.85	605.7076
68.90	601.8668
68.90	601.8668
69.30	580.6533
69.67	574.1176
70.82	514.9901
70.82	514.9901
70.83	514.9980
72.80	641.5038
72.87	641.5643
72.87	641.5643
74.67	614.5208
74.81	626.0163
74.81	626.0163
74.81	626.0163
74.81	626.0163
74.81	626.0163
74.81	626.0163
74.81	626.0163
74.97	626.1486
75.28	626.4036
75.70	626.7476
77.11	627.9000
77.11	627.9000

77.11	627.9000
77.11	627.9000
77.11	627.9000
77.11	627.9000
77.11	627.9000
78.38	650.2043
79.62	651.2339
79.80	651.3832
79.80	651.3832
80.11	651.6393
80.18	651.6966
80.30	651.7961
80.30	651.7961
80.57	652.0174
81.00	652.3706
81.07	652.4278
81.07	652.4278
81.07	652.4278
81.07	652.4278
82.60	588.1750
83.37	588.7346
83.78	589.0344
83.78	589.0344
83.78	589.0344
83.78	589.0344
84.21	589.3478
84.90	589.8457
85.43	590.2273
86.29	590.8450
86.50	590.9949
86.54	591.0217
86.59	591.0576
86.72	591.1516
86.79	591.1985
86.94	591.3082
87.30	591.5634
87.30	591.5634
87.30	591.5634
87.30	591.5634
87.30	591.5634
87.30	591.5634
87.57	591.7558
87.88	591.9751
88.03	592.0825
88.36	592.3153
88.47	592.3936
89.95	593.4343
91.11	594.2444
92.29	595.0635
92.38	595.1262
92.38	595.1262
93.35	595.7931
94.00	596.2407
94.67	596.6949
94.67	596.6995
94.90	431.3642
94.90	431.3642
94.90	431.3642
94.90	431.3642
95.87	431.8413
95.87	431.8413
96.73	432.2635
97.43	432.6031
98.44	433.0916
98.44	433.0932
98.88	462.7371
99.55	463.0826
99.55	463.0826
99.86	474.6998
100.00	474.7741
100.10	474.8272
103.18	538.8597
103.76	506.3220
105.00	492.4582
105.31	493.9948
108.00	525.1348
109.28	548.9935

111.00	526.7865
111.00	526.7865
111.76	497.3602
112.95	497.9700
115.19	507.4292
116.30	449.7039
117.00	433.3529
117.00	433.3529
117.66	418.6295
121.11	434.0827
121.62	462.5552
121.78	444.8343
122.06	425.0653
122.32	424.1250
122.32	424.1250
122.32	424.1250
122.32	424.1250
123.07	428.6275
127.23	464.0212
129.76	437.7119
131.20	439.3625
133.02	482.4265
133.54	466.7827
135.34	464.3759
136.00	446.6219
136.25	428.6859
136.48	425.5914
140.51	409.0371
140.51	0.0000
142.18	436.9594
142.65	440.5558
143.76	434.7943
144.24	437.1150
144.24	437.1150
144.24	437.1150
144.24	437.1150
145.22	410.7510
145.44	410.8301
147.16	408.0224
152.43	424.0869
152.70	389.7317
153.22	396.3682
154.21	401.0114
154.21	401.0114
154.21	401.0114
154.21	401.0114
155.03	419.6281
156.02	426.4561
158.56	439.2644
159.00	0.0000
159.00	443.7517
160.31	478.9053
161.27	436.9964
162.32	439.5421
162.64	427.7151
163.35	399.7233
163.89	381.4265
165.85	414.6840
167.43	490.4091
171.28	353.0866
171.86	363.0921
172.10	360.9727
176.55	365.5246
176.60	379.8102
181.06	396.5378
184.41	439.9537
185.71	428.8893
186.00	428.9811
190.27	369.1238
192.34	410.0586
193.63	404.7289
197.04	337.7403
198.01	364.7490
198.60	411.7720
200.40	401.1306
201.83	449.6369
202.84	398.4711
205.31	380.3319

208.36	449.4659
208.81	458.5984
209.75	403.7846
209.75	403.7846
210.97	318.1984
215.65	350.0934
216.55	313.3944
218.09	314.0240
222.10	346.6328
223.80	329.7664
226.40	337.6159
227.00	338.6599
227.08	338.6803
227.20	338.7053
228.16	318.8773
228.18	318.8815
228.18	318.8815
231.56	0.0000
235.69	320.4453
236.00	320.5093
236.00	320.5093
238.63	299.0349
238.63	299.0349
238.63	299.0349
238.63	299.0349
239.00	299.1046
240.98	299.4826
241.98	299.6736
241.98	299.6736
241.98	299.6736
244.69	308.4744
245.39	308.6093
247.94	304.4886
248.90	298.8997
249.79	273.4315
252.40	293.3043
252.85	306.3427
252.85	306.3427
254.15	0.0000
256.20	277.2940
256.20	277.2940
260.50	277.0905
260.90	292.0369
262.80	291.4392
264.65	266.3295
268.24	270.9015
268.79	277.2196
269.46	278.8863
269.46	278.8863
269.46	278.8863
269.46	278.8863
271.23	271.3794
273.65	346.7350
276.40	268.6808
277.35	244.1753
277.60	256.4240
277.60	256.4240
278.00	257.4202
278.60	264.0892
279.20	289.5659
279.53	298.0814
280.46	313.2972
281.68	315.3997
283.67	256.3746
284.30	240.4384
285.00	228.2723
285.90	233.1093
286.10	243.5158
286.10	243.5158
287.40	283.3667
288.45	0.0000
290.67	250.7698
290.80	250.7892
291.72	222.5128
293.26	0.0000
293.70	232.2386
295.21	282.7144
295.21	282.7144

295.21	282.7144
295.96	313.2019
296.50	295.8931
297.23	292.8452
298.57	240.7873
299.80	229.8518
299.80	229.8518
300.09	233.0610
300.09	233.0610
300.09	233.0610
300.12	233.0640
301.29	218.9352
302.84	257.2284
303.76	283.0963
303.91	283.1180
304.40	285.1012
304.40	285.1012
304.84	272.7718
306.84	219.5978
308.46	220.7471
311.98	254.6742
316.51	235.1366
318.01	256.4530
319.02	268.1220
319.41	261.4514
320.08	261.5410
323.87	280.3681
323.87	280.3681
323.87	280.3681
323.87	280.3681
325.23	271.8897
328.77	239.5507
333.44	233.9936
334.20	208.2550
334.20	208.2550
334.30	192.1209
338.28	203.8348
338.28	203.8348
338.28	203.8348
338.28	203.8348
338.32	203.8400
338.32	203.8400
338.32	203.8400
340.50	194.3457
340.57	194.3530
344.27	214.1885
345.85	216.3064
350.59	0.0000
351.07	224.6824
351.92	204.2546
351.92	204.2546
351.92	204.2546
355.39	0.0000
356.01	239.9188
364.48	210.4290
366.43	202.7511
367.43	193.0021
367.94	0.0000
369.80	216.8821
374.96	195.6724
383.85	201.4537
387.95	170.0210
388.63	183.0027
391.69	205.1727
391.69	205.1727
392.90	223.2262
398.62	180.8453
400.65	189.0115
401.10	190.0510
401.81	173.1014
402.60	173.1647
404.84	222.4363
410.95	174.8177
411.60	185.9236
413.65	221.2998
414.70	201.2744
415.30	203.3414

415.76	192.3080
417.63	0.0000
418.52	179.4362
423.70	180.8529
427.08	185.1669
427.89	180.1707
432.53	168.3607
433.93	182.6697
439.47	150.5510
439.56	150.5564
439.89	164.8200
443.98	173.2601
444.90	177.4048
445.03	177.4154
445.03	177.4154
445.03	177.4154
445.03	177.4154
453.90	163.7461
463.38	173.6355
468.07	181.8597
473.00	187.7253
475.06	197.1716
475.35	187.9030
476.78	182.8467
477.59	170.5047
477.96	162.2627
482.03	191.5129
484.57	173.0525
487.03	141.0668
490.36	0.0000
492.35	159.0345
497.08	148.9141
507.63	0.0000
510.53	0.0000
510.84	120.3955
511.00	120.4026
511.85	120.4412
511.85	120.4412
513.99	120.5401
513.99	120.5401
520.41	117.3318
520.65	117.3427
527.90	140.1403
528.96	0.0000
529.64	132.8537
529.87	0.0000
531.02	133.9763
537.32	131.1173
543.00	129.2735
546.56	0.0000
549.76	129.5922
552.65	122.2858
555.20	106.4331
563.23	111.0103
563.90	119.5770
568.70	100.5313
569.32	94.1359
569.50	93.0726
569.67	98.4261
573.80	118.9266
574.00	116.7918
574.64	122.6534
578.91	123.4341
579.30	0.0000
583.14	123.6166
585.48	136.2687
591.81	127.2245
592.07	122.9229
593.00	130.5122
595.88	122.0047
600.56	131.9333
602.52	0.0000
602.71	119.0449
602.71	119.0449
603.60	115.4714
604.41	113.6979
604.70	106.4910
609.31	124.7340

609.31	124.7340
609.31	124.7340
609.31	124.7340
610.33	124.7789
612.46	112.2009
614.37	108.6499
618.01	87.0273
621.84	100.2095
621.84	100.2095
631.29	96.1533
633.02	91.8340
633.10	91.8360
634.78	103.9202
635.90	118.1856
636.97	102.8997
645.85	74.6556
646.12	77.9544
656.30	78.6848
657.75	91.3168
657.90	0.0000
661.65	92.8751
661.65	92.8751
664.57	0.0000
666.33	89.9869
666.33	89.9869
675.00	88.6504
677.61	79.4825
685.20	82.4507
692.80	102.1448
695.00	92.9220
696.49	90.1757
696.49	90.1757
697.00	99.4874
697.49	107.8721
698.33	105.1099
698.50	98.6029
699.00	101.4091
702.63	106.1792
706.10	98.8337
706.58	0.0000
706.67	95.1207
709.31	85.8625
711.68	103.6696
713.82	97.1953
717.42	88.8808
720.50	106.1324
721.93	0.0000
722.20	99.5823
722.78	101.2061
722.78	101.2061
722.89	101.2104
722.95	101.2126
723.30	102.8281
724.18	93.2143
727.18	88.4715
733.00	66.0659
735.90	83.5409
739.58	100.7718
742.81	85.7846
744.21	82.9906
747.13	94.3888
751.79	90.7363
752.31	82.2422
753.82	73.7661
755.35	65.2841
756.15	75.7096
756.87	83.2967
763.93	131.8396
765.79	96.7975
766.42	90.1719
766.84	94.9280
776.49	88.5271
778.00	83.8034
778.57	85.7227
778.89	82.8723
783.80	80.1257
785.46	75.3917
792.07	90.8310

795.84	67.9550
796.30	72.7514
798.80	94.8327
801.93	76.6992
805.60	67.1802
810.29	73.9953
810.76	63.4326
815.85	52.9344
817.79	51.9994
818.51	53.9367
819.60	64.5505
826.30	67.5633
828.27	0.0000
831.60	102.4589
831.96	91.8341
834.83	81.2639
836.80	0.0000
846.75	76.6727
848.13	73.7874
856.28	0.0000
856.80	99.2607
860.37	65.2620
867.32	53.6718
867.82	52.7025
871.10	55.6780
873.19	48.8668
874.81	57.6880
875.33	0.0000
876.40	56.7338
879.36	60.6932
880.27	55.8113
880.51	55.8148
881.50	59.7465
883.24	59.7738
884.67	56.8554
889.25	55.9412
896.60	58.9966
898.02	64.9204
899.00	58.0493
903.28	52.3439
911.07	61.1889
911.07	61.1889
911.07	61.1889
919.63	52.5612
920.93	54.0861
925.00	59.4238
925.24	58.4370
926.50	67.3719
935.52	69.5101
937.48	71.5298
944.10	59.7064
946.00	65.7073
949.00	68.7459
962.29	59.9731
964.01	89.9982
966.15	84.0410
968.20	84.0837
969.11	84.1025
969.11	84.1025
969.11	84.1025
977.42	45.1447
980.50	53.2103
983.50	55.2574
989.30	48.2920
996.32	65.6491
1001.03	68.6046
1001.68	68.6156
1004.76	64.0493
1021.30	0.0000
1024.50	0.0000
1034.80	39.6586
1036.00	44.7555
1037.82	58.0020
1038.57	62.0847
1038.76	0.0000
1045.16	54.0244
1046.59	53.0220
1048.07	52.0189

1050.47	57.1507
1050.47	57.1507
1062.04	68.5567
1063.62	69.6048
1076.63	56.4636
1077.35	59.5529
1078.86	62.6531
1085.78	70.9794
1099.22	65.0021
1112.02	62.0801
1112.84	69.1885
1115.52	51.4782
1120.29	58.6385
1120.29	58.6385
1120.29	58.6385
1120.29	58.6385
1120.51	58.6408
1121.28	49.7656
1124.00	0.0000
1129.67	61.2807
1131.51	0.0000
1147.95	0.0000
1167.94	55.5016
1173.22	60.8037
1175.09	61.8761
1177.93	54.5687
1189.05	54.6956
1204.90	63.3179
1205.75	0.0000
1213.00	57.0806
1221.42	69.8860
1230.97	78.2045
1235.34	69.1719
1236.41	0.0000
1238.25	71.1875
1246.25	36.4872
1260.41	0.0000
1271.85	42.7865
1274.45	48.1586
1274.54	46.0199
1291.56	46.0205
1298.22	0.0000
1312.09	44.2015
1325.50	33.5076
1325.50	33.5076
1332.49	36.8001
1333.61	30.3117
1360.21	26.1133
1362.66	0.0000
1365.15	36.4061
1368.21	25.2183
1368.53	0.0000
1376.25	40.9241
1384.27	18.0334
1394.10	17.8317
1395.20	28.1616
1407.95	25.4048
1434.06	26.4707
1436.60	29.3209
1457.56	0.0000
1460.81	36.0981
1489.15	34.3703
1509.49	17.2460
1596.49	26.2551
1620.62	24.4080
1678.03	0.0000
1691.02	8.8876
1691.02	8.8876
1706.46	0.0000
1750.46	0.0000
1764.49	15.9833
1764.49	15.9833
1764.49	15.9833
1764.49	15.9833
1770.23	15.7473
1771.40	12.2500
1791.20	0.0000
1808.65	18.1023

1836.01

13.1279

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246344005

Total Uranium Activity	5.2703E+01	ug/g
Total Uranium Counting Unc.	1.6462E+01	ug/g
Total Uranium Tpu	8.3992E-06	ug/g
Total Uranium Mda	6.4057E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G246344005
*  ANALYST       : MXR1                             DETECTOR    : GAM15
*  SAMPLE DATE   : 1-FEB-2010 12:00:00.00          COUNT TIME  : 0 03:00:00.00
*  ANALYSIS DATE: 18-FEB-2010 17:02:42.47          SAMPLE ALQT: 89.670 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.257E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.798E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 4.605E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 2.244E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 19:03:49.39

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKAl00:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037549.CNF;1
Sample date        : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:03:17
Sample ID          : G1202037549      Sample quantity   : 1.66280E+02 GRAM
Detector name      : GAM22            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:00.99  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity      : 5.00000
Batch ID           : 950787           Detector SN#     :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.63*	49	194	1.13	185.45	180	12	6.85E-03	67.4	
2	0	185.72*	57	227	1.25	371.45	365	13	7.98E-03	61.0	
3	0	511.00*	5	85	2.02	1021.50	1014	16	6.46E-04	651.7	
4	0	583.19*	14	32	1.46	1165.80	1162	9	1.88E-03	103.5	
5	0	609.61*	1	69	1.39	1218.60	1214	10	2.01E-04	*****	
6	0	1077.16	13	15	0.49	2153.37	2143	13	1.82E-03	68.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 19:03:52

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037549.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:03:17
Sample ID        : G1202037549 Sample quantity : 166.28 GRAM
Sample type      : SOLID Sample geometry :
Detector name     : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.99 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
GE-68	+	1077.35	*	3.775E-01	5.198E-01	6.772E-01	6.384E-02	0.558
RB-86	+	1076.63	*	1.852E-01	2.550E-01	3.199E-01	3.018E-02	0.579
TL-208		277.35		-9.021E-02	1.736E-01	2.668E-01	4.399E-02	-0.338
	+	510.84		1.130E-02	1.473E-01	1.039E-01	1.354E-02	0.109
	+	583.14	*	9.225E-03	1.912E-02	2.466E-02	2.674E-03	0.374
		860.37		7.810E-02	1.236E-01	2.017E-01	2.351E-02	0.387
ANH-511	+	511.00	*	2.442E-03	3.182E-02	2.245E-02	2.249E-03	0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.848E-02	1.333E-01	2.054E-01	2.144E-02	-0.333
NA-22		1274.54	*	1.183E-02	1.456E-02	2.671E-02	2.302E-03	0.443
NA-24		1368.53	*	4.886E-05	1.456E-02	Half-Life too short		
AL-26		1129.67		-3.325E-01	5.968E-01	8.882E-01	7.735E-02	-0.374
		1808.65	*	-9.291E-03	1.434E-02	2.053E-02	1.679E-03	-0.453
K-40		1460.81	*	2.056E-02	2.228E-01	4.106E-01	3.761E-02	0.050
TI-44		67.85		3.584E-03	1.469E-02	2.461E-02	1.879E-03	0.146
		78.38	*	-4.470E-03	1.160E-02	1.850E-02	1.568E-03	-0.242
SC-46		889.25	*	-1.079E-02	1.520E-02	2.312E-02	2.588E-03	-0.467
		1120.51		-1.089E-02	2.104E-02	3.352E-02	2.963E-03	-0.325
V-48		944.10		-1.260E-01	2.416E-01	3.712E-01	4.027E-02	-0.339
		983.50	*	-3.107E-03	1.930E-02	3.105E-02	3.256E-03	-0.100
		1312.09		8.658E-04	2.118E-02	3.516E-02	3.098E-03	0.025
CR-51		320.08	*	-5.147E-04	1.512E-01	2.529E-01	3.274E-02	-0.002
MN-52		744.21		1.324E-02	4.112E-02	6.887E-02	7.484E-03	0.192
		848.13		1.708E-01	1.138E+00	1.923E+00	2.141E-01	0.089
		935.52		-4.081E-02	4.449E-02	6.586E-02	7.191E-03	-0.620
		1246.25		-3.717E-01	1.032E+00	1.634E+00	1.381E-01	-0.228
		1333.61		1.992E-01	7.657E-01	1.309E+00	1.167E-01	0.152
		1434.06	*	-4.344E-02	3.951E-02	5.184E-02	4.632E-03	-0.838
MN-54		834.83	*	-2.929E-03	1.523E-02	2.493E-02	2.770E-03	-0.117
CO-56		846.75	*	3.686E-03	1.590E-02	2.708E-02	3.015E-03	0.136

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	977.42			1.156E+00	1.042E+00	1.924E+00	2.029E-01	0.601
	1037.82			5.030E-02	1.184E-01	2.028E-01	2.092E-02	0.248
	1175.09			6.172E-01	6.769E-01	1.254E+00	1.010E-01	0.492
	1238.25			4.687E-03	2.771E-02	4.688E-02	4.062E-03	0.100
	1360.21			-5.399E-02	3.887E-01	6.261E-01	5.593E-02	-0.086
	1771.40			-2.250E-01	1.444E-01	1.834E-01	1.524E-02	-1.226
CO-57	122.06	*		9.801E-03	1.113E-02	1.858E-02	1.532E-03	0.528
	136.48			-6.886E-02	9.068E-02	1.469E-01	1.363E-02	-0.469
CO-58	810.76	*		3.617E-03	1.477E-02	2.530E-02	2.802E-03	0.143
FE-59	142.65			-1.109E+00	1.165E+00	1.692E+00	1.497E-01	-0.655
	192.34			-2.601E-01	4.001E-01	6.085E-01	9.036E-02	-0.427
	1099.22	*		5.674E-03	2.954E-02	4.921E-02	4.822E-03	0.115
	1291.56			-1.136E-02	3.840E-02	6.068E-02	5.981E-03	-0.187
CO-60	1173.22			2.617E-03	1.446E-02	2.469E-02	1.985E-03	0.106
	1332.49	*		5.263E-04	1.503E-02	2.488E-02	2.219E-03	0.021
ZN-65	1115.52	*		1.375E-02	3.567E-02	6.031E-02	5.380E-03	0.228
AS-73	53.44	*		-7.421E-02	2.550E-01	4.178E-01	3.157E-02	-0.178
AS-74	595.88	*		-1.833E-02	3.465E-02	5.507E-02	5.708E-03	-0.333
	634.78			1.084E-01	1.094E-01	1.959E-01	2.054E-02	0.553
SE-75	66.05			-4.023E+00	1.787E+00	2.383E+00	2.273E-01	-1.689
	96.73			3.560E-02	3.219E-01	4.667E-01	6.424E-02	0.076
	121.11			2.788E-02	5.944E-02	9.695E-02	1.060E-02	0.288
	136.00			-9.290E-03	1.688E-02	2.772E-02	2.405E-03	-0.335
	198.60			-2.060E-01	8.864E-01	1.365E+00	1.595E-01	-0.151
	264.65	*		1.406E-02	1.982E-02	3.323E-02	4.473E-03	0.423
	279.53			2.568E-02	4.709E-02	7.800E-02	1.107E-02	0.329
	303.91			-6.766E-01	9.262E-01	1.476E+00	2.249E-01	-0.458
	400.65			-4.981E-02	1.117E-01	1.769E-01	2.071E-02	-0.282
BR-77	87.88			7.885E+00	7.190E+00	1.134E+01	1.075E+00	0.695
	200.40			-4.258E-01	8.806E+00	1.444E+01	1.588E+00	-0.029
	239.00			-2.331E-02	5.949E-01	9.556E-01	1.189E-01	-0.024
	249.79			4.118E-01	3.544E+00	5.767E+00	7.415E-01	0.071
	281.68			-1.008E-01	4.873E+00	7.779E+00	1.084E+00	-0.013
	297.23			-1.240E+00	2.711E+00	4.429E+00	5.956E-01	-0.280
	303.76			-6.284E+00	9.518E+00	1.528E+01	2.021E+00	-0.411
	439.47			1.235E+00	8.015E+00	1.320E+01	1.271E+00	0.094
	484.57			-4.784E+00	1.197E+01	1.862E+01	1.840E+00	-0.257
	520.65	*		-9.782E-02	5.362E-01	8.667E-01	8.723E-02	-0.113
	574.64			-6.745E+00	1.027E+01	1.606E+01	1.653E+00	-0.420
	578.91			4.585E+00	4.565E+00	7.323E+00	7.547E-01	0.626
	585.48			5.727E+00	9.396E+00	1.438E+01	1.485E+00	0.398
	755.35			1.478E+00	7.701E+00	1.274E+01	1.389E+00	0.116
	817.79			-8.708E-01	6.598E+00	1.089E+01	1.206E+00	-0.080
SR-82	698.33			3.619E+00	1.241E+01	2.079E+01	2.224E+00	0.174
	776.49	*		-9.427E-02	1.369E-01	2.045E-01	2.243E-02	-0.461
	1395.20			-3.121E+00	3.131E+00	4.090E+00	3.657E-01	-0.763
RB-83	520.41	*		-5.869E-03	2.891E-02	4.664E-02	4.694E-03	-0.126
	529.64			3.917E-03	4.287E-02	7.235E-02	7.312E-03	0.054
	552.65			-1.130E-02	7.962E-02	1.313E-01	1.339E-02	-0.086

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-84		881.50	*	1.921E-02	2.402E-02	4.309E-02	4.819E-03	0.446
KR-85		513.99	*	1.580E+01	4.301E+00	7.576E+00	7.601E-01	2.085
SR-85		513.99	*	7.493E-02	2.040E-02	3.593E-02	3.605E-03	2.085
Y-88		898.02		4.736E-03	1.549E-02	2.653E-02	2.981E-03	0.179
		1836.01	*	5.318E-03	1.494E-02	2.613E-02	2.113E-03	0.204
ZR-88		392.90	*	-1.229E-02	1.423E-02	2.188E-02	2.038E-03	-0.562
Y-91		1204.90	*	2.035E+00	5.843E+00	1.012E+01	8.324E-01	0.201
NB-94		702.63	*	-8.130E-03	1.463E-02	2.258E-02	2.420E-03	-0.360
		871.10		-2.099E-05	1.316E-02	2.187E-02	2.443E-03	-0.001
NB-95		765.79	*	-2.833E-03	1.561E-02	2.478E-02	2.710E-03	-0.114
NB-95M		235.69	*	-5.530E-02	5.577E-02	8.462E-02	1.119E-02	-0.654
ZR-95		724.18		3.853E-02	3.542E-02	6.312E-02	7.197E-03	0.610
		756.15	*	1.960E-02	2.551E-02	4.466E-02	5.184E-03	0.439
NB-97		657.90	*	-4.415E-06	2.551E-02	Half-Life	too short	
		1024.50		-1.009E-03	2.551E-02	Half-Life	too short	
ZR-97		254.15		-1.507E-04	2.551E-02	Half-Life	too short	
		355.39		-6.563E-05	2.551E-02	Half-Life	too short	
		507.63	*	1.655E-03	2.551E-02	Half-Life	too short	
		602.52		-3.219E-04	2.551E-02	Half-Life	too short	
		1021.30		1.536E-03	2.551E-02	Half-Life	too short	
		1147.95		1.033E-03	2.551E-02	Half-Life	too short	
		1362.66		-1.800E-03	2.551E-02	Half-Life	too short	
		1750.46		1.005E-03	2.551E-02	Half-Life	too short	
MO-99		140.51		8.522E-01	1.748E+00	2.995E+00	8.309E-01	0.285
		181.06		-2.938E-01	1.300E+00	1.856E+00	3.553E-01	-0.158
		366.43		-8.223E-01	6.208E+00	1.017E+01	1.079E+00	-0.081
		739.58	*	-1.689E-01	7.891E-01	1.253E+00	2.074E-01	-0.135
		778.00		-1.528E-01	2.186E+00	3.506E+00	3.847E-01	-0.044
TC-99M		140.51	*	1.035E+01	2.186E+00	Half-Life	too short	
RH-101		127.23		1.198E-02	1.445E-02	2.394E-02	2.001E-03	0.500
		198.01	*	-1.146E-02	1.696E-02	2.540E-02	2.771E-03	-0.451
		325.23		9.442E-03	1.009E-01	1.696E-01	2.109E-02	0.056
RH-102		418.52		-2.921E-02	1.192E-01	1.908E-01	1.811E-02	-0.153
		475.06	*	-6.561E-03	1.296E-02	1.997E-02	1.964E-03	-0.329
		631.29		-1.201E-02	2.278E-02	3.559E-02	3.727E-03	-0.337
		697.49		2.066E-03	3.517E-02	5.775E-02	6.177E-03	0.036
		766.84		9.155E-03	4.272E-02	7.065E-02	7.727E-03	0.130
		1046.59		-2.189E-02	5.217E-02	7.629E-02	7.481E-03	-0.287
		1112.84		-1.148E-02	8.807E-02	1.406E-01	1.258E-02	-0.082
RU-103		497.08	*	2.234E-03	1.656E-02	2.696E-02	4.046E-03	0.083
	+	610.33		1.751E-02	4.465E-01	5.937E-01	1.049E-01	0.030
RH-106	+	511.85		1.203E-02	1.568E-01	2.218E-01	2.223E-02	0.054
		621.84	*	6.953E-04	1.454E-01	2.402E-01	3.507E-02	0.003
		1050.47		6.164E-01	9.237E-01	1.620E+00	1.581E-01	0.380
RU-106	+	511.85		1.203E-02	1.568E-01	2.218E-01	2.223E-02	0.054
		621.84	*	6.953E-04	1.454E-01	2.402E-01	2.509E-02	0.003
		1050.47		6.164E-01	9.237E-01	1.620E+00	1.581E-01	0.380
AG-108M		433.93	*	-3.870E-03	1.633E-02	2.614E-02	2.588E-03	-0.148
		614.37		1.261E-03	2.075E-02	2.969E-02	3.178E-03	0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	722.95			1.577E-02	1.747E-02	3.071E-02	3.398E-03	0.514
CD-109	88.03	*		3.078E-01	2.847E-01	4.486E-01	4.257E-02	0.686
AG-110M	657.75	*		-2.478E-03	1.491E-02	2.411E-02	2.591E-03	-0.103
	677.61			2.404E-02	1.200E-01	2.005E-01	2.168E-02	0.120
	706.67			-4.793E-02	8.569E-02	1.317E-01	1.439E-02	-0.364
	763.93			-5.946E-02	6.531E-02	9.455E-02	1.052E-02	-0.629
	884.67			5.753E-03	1.976E-02	3.379E-02	3.854E-03	0.170
	937.48			-1.939E-02	4.439E-02	6.956E-02	7.756E-03	-0.279
	1384.27			2.000E-02	6.546E-02	1.121E-01	1.029E-02	0.178
IN-111	171.28			1.232E-02	7.298E-02	1.225E-01	1.223E-02	0.101
	245.39	*		-1.167E-01	8.128E-02	1.164E-01	1.477E-02	-1.003
IN-113M	391.69	*		-1.984E-02	2.040E-02	3.101E-02	2.962E-03	-0.640
SN-113	391.69	*		-1.984E-02	2.040E-02	3.101E-02	2.962E-03	-0.640
IN-114M	190.27	*		-2.283E-02	8.314E-02	1.178E-01	1.252E-02	-0.194
CD-115	260.90			-2.063E+00	6.405E+00	1.008E+01	1.339E+00	-0.205
	492.35			2.220E-01	1.744E+00	2.840E+00	2.819E-01	0.078
	527.90	*		-1.231E-02	4.809E-01	8.043E-01	8.122E-02	-0.015
SN-117M	156.02			4.769E-01	6.586E-01	1.144E+00	1.072E-01	0.417
	158.56	*		8.414E-04	1.646E-02	2.761E-02	2.619E-03	0.030
SB-122	563.90	*		-4.989E-02	1.391E-01	2.248E-01	2.304E-02	-0.222
	692.80			-2.074E+00	3.111E+00	4.776E+00	5.099E-01	-0.434
I-123	159.00	*		-1.480E-04	3.111E+00	Half-Life	too short	
	528.96			1.299E-02	3.111E+00	Half-Life	too short	
TE-123M	159.00	*		-8.332E-03	1.195E-02	1.917E-02	1.831E-03	-0.435
I-124	602.71	*		-1.010E-02	1.158E-01	1.705E-01	1.771E-02	-0.059
	722.78			4.911E-01	5.352E-01	9.420E-01	1.017E-01	0.521
	1325.50			-1.066E+00	3.668E+00	5.769E+00	5.124E-01	-0.185
	1376.25			-4.885E+00	4.299E+00	6.010E+00	5.371E-01	-0.813
	1509.49			2.450E+00	2.005E+00	3.817E+00	3.393E-01	0.642
	1691.02			1.297E-03	5.860E-01	9.708E-01	8.302E-02	0.001
SB-124	602.71			-1.841E-03	2.111E-02	3.107E-02	3.228E-03	-0.059
	645.85			4.103E-02	1.951E-01	3.273E-01	3.579E-02	0.125
	709.31			-4.797E-01	1.102E+00	1.719E+00	1.847E-01	-0.279
	713.82			1.356E-01	6.834E-01	1.046E+00	1.428E-01	0.130
	722.78			1.297E-01	1.414E-01	2.489E-01	2.723E-02	0.521
	968.20			3.437E-01	1.112E+00	1.745E+00	1.856E-01	0.197
	1045.16			-3.629E-01	8.960E-01	1.387E+00	1.363E-01	-0.262
	1325.50			-3.008E-01	1.035E+00	1.628E+00	1.446E-01	-0.185
	1368.21			3.407E-01	7.040E-01	1.230E+00	1.683E-01	0.277
	1436.60			-1.655E+00	1.548E+00	2.078E+00	1.857E-01	-0.796
	1691.02	*		8.083E-05	3.652E-02	6.050E-02	5.381E-03	0.001
SB-125	427.89	*		2.603E-02	3.921E-02	6.736E-02	6.536E-03	0.387
	463.38			4.937E-02	1.216E-01	2.034E-01	2.109E-02	0.243
	600.56			8.465E-02	9.308E-02	1.629E-01	1.777E-02	0.520
	635.90			6.632E-02	1.145E-01	1.982E-01	2.193E-02	0.335
TE-125M	109.28	*		-2.304E+00	3.527E+00	5.377E+00	5.438E-01	-0.428
I-126	388.63	*		-6.375E-03	6.456E-02	1.055E-01	9.990E-03	-0.060
	666.33	*		4.417E-03	5.378E-02	8.888E-02	9.391E-03	0.050
	753.82			-2.245E-01	4.132E-01	6.291E-01	6.856E-02	-0.357

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126	223.80			6.576E-01	1.262E+00	2.116E+00	2.511E-01	0.311
	278.60			4.021E-01	7.346E-01	1.217E+00	1.701E-01	0.330
	296.50			-2.540E-01	4.355E-01	6.637E-01	8.941E-02	-0.383
	414.70			-1.637E-02	2.242E-02	3.446E-02	3.261E-03	-0.475
	415.30			-9.522E-01	1.832E+00	2.868E+00	2.715E-01	-0.332
	555.20			2.333E-01	1.160E+00	1.966E+00	2.008E-01	0.119
	573.80			-2.250E-01	2.947E-01	4.558E-01	4.689E-02	-0.494
	593.00			-2.613E-01	2.966E-01	4.547E-01	4.708E-02	-0.575
	656.30			-7.331E-02	9.757E-01	1.592E+00	1.677E-01	-0.046
	666.33			1.815E-03	2.210E-02	3.652E-02	3.858E-03	0.050
	675.00			-1.236E-01	5.674E-01	9.101E-01	9.650E-02	-0.136
	695.00			2.370E-02	2.347E-02	4.142E-02	4.426E-03	0.572
	697.00			2.804E-02	8.141E-02	1.369E-01	1.464E-02	0.205
	720.50		*	1.366E-02	3.972E-02	6.684E-02	7.208E-03	0.204
	856.80			-6.693E-02	1.216E-01	1.899E-01	2.117E-02	-0.352
	989.30			-3.400E-02	3.118E-01	5.048E-01	5.265E-02	-0.067
	1034.80			-5.506E-01	2.501E+00	3.982E+00	3.960E-01	-0.138
	1213.00			-6.448E-01	1.038E+00	1.588E+00	1.313E-01	-0.406
SN-126	64.28			-5.151E-02	1.967E-01	3.137E-01	4.555E-02	-0.164
	86.94			-4.963E-02	1.242E-01	1.840E-01	7.639E-02	-0.270
SB-127	87.57		*	9.372E-03	3.021E-02	4.486E-02	4.236E-03	0.209
	61.10			-8.888E+00	5.338E+00	7.856E+00	6.319E-01	-1.131
	252.40			-9.107E-02	5.376E-01	8.554E-01	3.652E-01	-0.106
	290.80			-7.833E-01	2.548E+00	4.213E+00	5.952E-01	-0.186
	411.60			3.586E-01	1.460E+00	2.433E+00	3.650E-01	0.147
	444.90			6.996E-01	1.178E+00	2.003E+00	2.360E-01	0.349
	473.00			5.921E-02	1.909E-01	3.170E-01	3.890E-02	0.187
	543.00			-4.361E-01	1.871E+00	3.065E+00	4.324E-01	-0.142
	603.60			-1.154E+00	1.939E+00	2.590E+00	3.204E-01	-0.446
	685.20		*	4.800E-02	1.499E-01	2.528E-01	2.899E-02	0.190
	698.50			5.215E-01	1.791E+00	2.997E+00	4.769E-01	0.174
	722.20			3.033E+00	3.249E+00	5.731E+00	6.523E-01	0.529
	783.80			-3.293E-02	3.901E-01	6.243E-01	7.982E-02	-0.053
XE-127	57.60			-5.313E-01	1.620E+00	2.634E+00	1.892E-01	-0.202
	145.22			4.428E-02	2.419E-01	4.113E-01	3.679E-02	0.108
	172.10			-1.705E-02	4.658E-02	7.584E-02	7.590E-03	-0.225
	202.84		*	-2.642E-04	1.827E-02	2.999E-02	3.324E-03	-0.009
I-131	374.96			3.484E-02	8.321E-02	1.411E-01	1.437E-02	0.247
	80.18			-4.351E-01	8.051E-01	1.267E+00	1.098E-01	-0.343
	284.30			-4.775E-02	3.701E-01	5.855E-01	8.263E-02	-0.082
	364.48		*	-1.204E-02	2.828E-02	4.533E-02	5.009E-03	-0.266
TE-132	636.97			9.479E-02	3.455E-01	5.835E-01	6.334E-02	0.162
	722.89			1.412E+00	1.554E+00	2.734E+00	2.954E-01	0.516
	49.72			2.145E-02	1.340E+00	2.253E+00	1.958E-01	0.010
	111.76			7.853E-01	2.690E+00	4.200E+00	3.775E-01	0.187
BA-133	116.30			8.360E-01	2.407E+00	3.916E+00	3.499E-01	0.213
	228.16		*	-3.020E-02	6.738E-02	1.063E-01	1.796E-02	-0.284
	53.15			-1.628E-01	1.181E+00	1.957E+00	1.485E-01	-0.083
	79.62			-4.479E-01	4.395E-01	6.622E-01	1.007E-01	-0.676

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133		81.00		-4.938E-03	3.154E-02	5.091E-02	8.114E-03	-0.097
		276.40		-8.206E-02	1.682E-01	2.590E-01	4.686E-02	-0.317
		302.84		2.032E-02	6.477E-02	1.108E-01	1.847E-02	0.183
		356.01	*	-4.561E-03	2.008E-02	3.277E-02	4.896E-03	-0.139
		383.85		1.145E-01	1.461E-01	2.522E-01	3.374E-02	0.454
	+	510.53		6.647E-05	1.461E-01	Half-Life	too short	
		529.87	*	-1.842E-06	1.461E-01	Half-Life	too short	
		706.58		-2.509E-04	1.461E-01	Half-Life	too short	
		856.28		-6.576E-04	1.461E-01	Half-Life	too short	
		875.33		-1.488E-04	1.461E-01	Half-Life	too short	
CS-134		1236.41		1.094E-04	1.461E-01	Half-Life	too short	
		1298.22		1.155E-04	1.461E-01	Half-Life	too short	
		475.35		-3.971E-01	8.477E-01	1.312E+00	1.290E-01	-0.303
		563.23		-2.792E-03	1.614E-01	2.686E-01	2.771E-02	-0.010
		569.32		1.209E-02	8.973E-02	1.455E-01	1.509E-02	0.083
		604.70		-1.074E-02	2.117E-02	2.860E-02	2.978E-03	-0.376
		795.84	*	-8.716E-03	1.950E-02	2.990E-02	3.310E-03	-0.291
		801.93		1.323E-01	1.737E-01	3.005E-01	3.328E-02	0.440
		1038.57		1.040E+00	1.566E+00	2.748E+00	2.721E-01	0.379
		1167.94		-6.523E-01	7.923E-01	1.166E+00	9.478E-02	-0.559
CS-135		1365.15		8.337E-02	5.295E-01	8.893E-01	8.283E-02	0.094
		268.24	*	-9.559E-03	7.201E-02	1.145E-01	1.657E-02	-0.083
		288.45		6.658E+01	7.201E-02	Half-Life	too short	
		417.63		1.750E+01	7.201E-02	Half-Life	too short	
		546.56		2.500E+01	7.201E-02	Half-Life	too short	
		836.80		4.974E+00	7.201E-02	Half-Life	too short	
		1038.76		3.235E+01	7.201E-02	Half-Life	too short	
		1124.00		5.711E+01	7.201E-02	Half-Life	too short	
		1131.51		-7.513E+00	7.201E-02	Half-Life	too short	
		1260.41	*	1.730E+00	7.201E-02	Half-Life	too short	
I-135		1457.56		1.458E+02	7.201E-02	Half-Life	too short	
		1678.03		-1.217E+01	7.201E-02	Half-Life	too short	
		1706.46		1.692E+01	7.201E-02	Half-Life	too short	
		1791.20		-3.997E+01	7.201E-02	Half-Life	too short	
		66.91		-2.325E-01	1.861E-01	2.650E-01	3.941E-02	-0.877
		86.29		-1.642E-01	2.446E-01	3.788E-01	5.041E-02	-0.434
		153.22		-2.646E-01	1.903E-01	2.909E-01	2.969E-02	-0.910
		163.89		1.161E-01	3.208E-01	5.454E-01	5.805E-02	0.213
		176.55		4.506E-02	1.107E-01	1.877E-01	1.985E-02	0.240
		273.65		-1.862E-02	1.372E-01	2.178E-01	3.081E-02	-0.085
CS-136		340.57		-1.540E-02	3.680E-02	5.946E-02	7.121E-03	-0.259
		818.51		-2.969E-03	2.117E-02	3.490E-02	3.865E-03	-0.085
		1048.07	*	-5.863E-03	3.385E-02	5.121E-02	5.177E-03	-0.114
		1235.34		-4.702E-02	1.346E-01	2.143E-01	2.503E-02	-0.219
		661.65	*	1.506E-03	1.565E-02	2.591E-02	2.732E-03	0.058
		661.65	*	1.592E-03	1.654E-02	2.739E-02	2.892E-03	0.058
		165.85	*	-1.268E-02	1.264E-02	1.978E-02	1.940E-03	-0.641
		162.64		2.050E-01	2.236E-01	3.898E-01	3.942E-02	0.526
		304.84		-1.379E-01	3.925E-01	6.413E-01	1.908E-01	-0.215
BA-137M								
CS-137								
CE-139								
BA-140								

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LA-140		423.70		-3.048E-01	5.573E-01	8.533E-01	2.788E-01	-0.357
		537.32	*	2.592E-02	7.329E-02	1.254E-01	4.209E-02	0.207
		328.77		-4.439E-02	8.615E-02	1.386E-01	1.751E-02	-0.320
		432.53		-4.813E-03	6.575E-01	1.071E+00	1.067E-01	-0.004
		487.03		-4.787E-03	4.228E-02	6.751E-02	6.998E-03	-0.071
		751.79		1.456E-01	4.568E-01	7.661E-01	8.913E-02	0.190
		815.85		1.135E-02	9.219E-02	1.560E-01	1.849E-02	0.073
		867.82		4.247E-02	3.548E-01	5.977E-01	6.887E-02	0.071
		919.63		3.180E-01	7.576E-01	1.308E+00	1.660E-01	0.243
		925.24		-1.016E-01	3.539E-01	5.678E-01	6.490E-02	-0.179
CE-141	1596.49		*	-3.980E-03	2.358E-02	3.820E-02	3.349E-03	-0.104
CE-143	145.44		*	3.171E-04	2.150E-02	3.622E-02	3.297E-03	0.009
	57.37			-2.002E+00	7.951E+00	1.301E+01	1.121E+00	-0.154
	231.56			1.386E+01	2.899E+01	4.788E+01	1.566E+01	0.290
	293.26		*	1.157E-01	1.350E+00	2.285E+00	5.453E-01	0.051
	350.59			-1.303E+01	1.975E+01	2.897E+01	9.237E+00	-0.450
	490.36			1.058E+00	3.293E+01	5.322E+01	1.700E+01	0.020
	664.57			-2.503E+00	1.408E+01	2.271E+01	7.466E+00	-0.110
	721.93			1.153E+01	1.410E+01	2.406E+01	7.188E+00	0.479
CE-144	80.11			-3.842E-01	6.886E-01	1.083E+00	9.358E-02	-0.355
	133.54		*	6.849E-02	8.794E-02	1.536E-01	2.384E-02	0.446
PM-144	476.78			-4.814E-03	2.917E-02	4.644E-02	4.902E-03	-0.104
	618.01			8.391E-03	1.528E-02	2.628E-02	2.794E-03	0.319
	696.49		*	8.935E-03	1.557E-02	2.664E-02	2.849E-03	0.335
	778.57			-1.688E-01	9.495E-01	1.505E+00	1.651E-01	-0.112
PR-144	696.49		*	6.031E-01	1.051E+00	1.798E+00	1.923E-01	0.335
	1489.15			1.508E+00	6.004E+00	1.012E+01	9.012E-01	0.149
PM-146	453.90		*	-2.935E-03	1.862E-02	2.979E-02	3.462E-03	-0.099
	633.02			2.502E-01	5.982E-01	1.011E+00	3.827E-01	0.247
	735.90			5.060E-02	6.318E-02	1.082E-01	3.174E-02	0.468
	747.13			1.781E-02	3.801E-02	6.452E-02	1.002E-02	0.276
ND-147	91.11			-1.170E-01	8.329E-02	1.213E-01	1.198E-02	-0.965
	319.41			-2.808E-01	1.023E+00	1.682E+00	2.129E-01	-0.167
	439.89			-1.374E-01	1.774E+00	2.870E+00	2.764E-01	-0.048
	531.02		*	-3.125E-02	1.527E-01	2.513E-01	3.985E-02	-0.124
PM-149	285.90		*	-3.628E+00	4.408E+00	6.534E+00	1.235E+00	-0.555
EU-152	121.78			3.456E-02	3.261E-02	5.493E-02	5.272E-03	0.629
	244.69			-2.479E-01	1.557E-01	2.197E-01	2.782E-02	-1.128
	344.27		*	-5.500E-03	4.304E-02	7.093E-02	8.526E-03	-0.078
	443.98			-5.667E-02	4.453E-01	7.168E-01	6.920E-02	-0.079
	778.89			-7.784E-03	1.097E-01	1.760E-01	1.931E-02	-0.044
	867.32			-2.371E-02	3.207E-01	5.287E-01	5.903E-02	-0.045
	964.01			-1.360E-02	1.232E-01	2.005E-01	2.140E-02	-0.068
	1085.78			1.628E-01	1.462E-01	2.698E-01	2.514E-02	0.603
	1112.02			-7.079E-02	1.262E-01	1.903E-01	1.705E-02	-0.372
	1407.95			1.329E-02	7.828E-02	1.314E-01	1.174E-02	0.101
GD-153	69.67			4.023E-01	5.081E-01	8.773E-01	6.809E-02	0.459
	83.37			3.356E-01	5.219E+00	8.121E+00	7.289E-01	0.041
	97.43		*	2.600E-02	3.339E-02	5.102E-02	4.486E-03	0.510

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	103.18			-2.096E-02	3.926E-02	6.053E-02	5.173E-03	-0.346
	123.07			-1.934E-03	2.380E-02	3.750E-02	4.160E-03	-0.052
	247.94			1.789E-01	1.637E-01	2.804E-01	4.167E-02	0.638
	591.81			-3.814E-04	2.850E-01	4.727E-01	6.145E-02	-0.001
	723.30			7.590E-02	7.268E-02	1.291E-01	1.488E-02	0.588
	756.87			3.050E-01	3.063E-01	5.445E-01	7.467E-02	0.560
	873.19			-7.154E-02	1.175E-01	1.807E-01	2.559E-02	-0.396
	996.32			-7.174E-02	1.568E-01	2.430E-01	4.537E-02	-0.295
	1004.76			2.792E-02	9.077E-02	1.536E-01	1.983E-02	0.182
EU-155	1274.45		*	3.261E-02	4.080E-02	7.465E-02	8.437E-03	0.437
	48.70			-3.211E-01	7.889E-01	1.288E+00	1.049E-01	-0.249
	60.01			-1.447E+00	1.609E+00	2.506E+00	1.780E-01	-0.577
	86.54			-1.684E-02	3.341E-02	5.248E-02	4.936E-03	-0.321
	105.31		*	1.613E-02	4.260E-02	6.996E-02	6.005E-03	0.231
TB-160	86.79			-4.101E-02	8.820E-02	1.318E-01	1.232E-02	-0.311
	197.04			-1.480E-02	2.704E-01	4.211E-01	4.579E-02	-0.035
	215.65			1.252E-01	3.185E-01	5.322E-01	6.152E-02	0.235
	298.57			-1.603E-02	4.704E-02	7.746E-02	1.038E-02	-0.207
	879.36		*	4.731E-02	5.150E-02	9.340E-02	1.044E-02	0.507
	962.29			5.695E-02	2.097E-01	3.540E-01	3.783E-02	0.161
	966.15			5.389E-02	7.877E-02	1.375E-01	1.465E-02	0.392
	1177.93			1.698E-02	1.154E-01	1.958E-01	1.580E-02	0.087
	1271.85			-9.506E-02	2.134E-01	3.286E-01	2.824E-02	-0.289
HO-166M	80.57			-1.876E-02	8.625E-02	1.387E-01	1.205E-02	-0.135
	184.41		+	2.368E-02	2.897E-02	3.125E-02	3.258E-03	0.758
	280.46			7.014E-03	3.962E-02	6.413E-02	8.956E-03	0.109
	410.95			-1.769E-02	1.121E-01	1.815E-01	1.713E-02	-0.097
	711.68		*	2.094E-02	2.818E-02	4.551E-02	4.893E-03	0.460
TM-171	752.31			-6.294E-02	1.146E-01	1.744E-01	1.900E-02	-0.361
	810.29			-1.873E-02	2.506E-02	3.865E-02	4.273E-03	-0.485
	51.35			2.843E+00	1.024E+01	1.748E+01	1.364E+00	0.163
	52.39			1.595E+00	5.171E+00	8.838E+00	6.783E-01	0.180
	59.40			-8.725E-01	8.096E+00	1.336E+01	9.443E-01	-0.065
LU-176	66.72		*	-1.117E+01	9.862E+00	1.440E+01	1.088E+00	-0.775
	88.36			2.659E-02	6.934E-02	1.036E-01	9.794E-03	0.257
	201.83			-4.466E-03	1.345E-02	2.168E-02	2.395E-03	-0.206
LU-177	306.84		*	1.875E-03	1.132E-02	1.919E-02	2.518E-03	0.098
	401.10			-4.323E-01	2.994E+00	4.859E+00	4.553E-01	-0.089
	112.95			-1.072E-01	3.447E-01	5.182E-01	4.308E-02	-0.207
LU-177M	208.36		*	-1.168E-02	2.198E-01	3.591E-01	4.053E-02	-0.033
	52.97			-1.900E-02	5.173E-01	8.636E-01	6.571E-02	-0.022
	54.07			-3.545E-02	2.666E-01	4.414E-01	3.306E-02	-0.080
	61.30			-2.951E-01	4.890E-01	7.804E-01	5.614E-02	-0.378
	121.62			1.732E-01	1.620E-01	2.733E-01	2.251E-02	0.634
	147.16			-1.632E-01	2.648E-01	4.297E-01	3.875E-02	-0.380
	171.86			-6.218E-02	2.101E-01	3.436E-01	3.436E-02	-0.181
	218.09			-3.785E-01	3.928E-01	6.003E-01	6.994E-02	-0.630
	268.79			-9.277E-02	3.515E-01	5.535E-01	7.524E-02	-0.168
	319.02			-2.697E-03	1.215E-01	2.030E-01	2.573E-02	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HF-181		367.43		-2.363E-01	4.207E-01	6.671E-01	7.043E-02	-0.354
		413.65	*	2.065E-02	7.456E-02	1.247E-01	1.179E-02	0.166
		56.28		-1.040E-01	2.621E-01	4.245E-01	3.093E-02	-0.245
		57.53		-4.921E-02	1.403E-01	2.278E-01	1.637E-02	-0.216
		65.20		-4.479E-01	3.114E-01	4.491E-01	3.348E-02	-0.997
W-181		133.02		1.953E-03	2.496E-02	4.244E-02	3.618E-03	0.046
		136.25		-1.257E-01	1.808E-01	2.943E-01	2.539E-02	-0.427
		345.85		4.896E-02	7.474E-02	1.295E-01	1.497E-02	0.378
		482.03	*	-3.762E-03	1.702E-02	2.693E-02	2.659E-03	-0.140
		56.28		-4.398E-02	1.110E-01	1.798E-01	1.310E-02	-0.245
TA-182		57.53		-2.078E-02	5.947E-02	9.654E-02	6.939E-03	-0.215
		65.20	*	-1.883E-01	1.309E-01	1.888E-01	1.408E-02	-0.997
		67.75		-9.604E-03	3.609E-02	5.602E-02	4.272E-03	-0.171
		100.10		-1.752E-02	6.704E-02	1.059E-01	9.177E-03	-0.165
		152.43		-8.131E-02	1.328E-01	2.147E-01	1.981E-02	-0.379
RE-183		222.10		6.185E-02	1.595E-01	2.657E-01	3.135E-02	0.233
		1001.68		2.537E-01	9.305E-01	1.418E+00	1.461E-01	0.179
		1121.28		-2.666E-02	5.888E-02	9.447E-02	8.342E-03	-0.282
		1189.05		4.197E-02	1.022E-01	1.784E-01	1.451E-02	0.235
		1221.42	*	4.935E-02	6.893E-02	1.231E-01	1.024E-02	0.401
RE-184		1230.97		1.885E-03	1.646E-01	2.737E-01	2.290E-02	0.007
		57.98		-2.052E-02	5.679E-02	9.206E-02	6.588E-03	-0.223
		59.32		-3.733E-03	3.115E-02	5.136E-02	3.633E-03	-0.073
		67.20		-5.469E-02	6.219E-02	9.197E-02	6.979E-03	-0.595
		162.32	*	4.783E-02	4.523E-02	7.934E-02	7.655E-03	0.603
OS-185		208.81		1.312E-01	3.922E-01	6.548E-01	7.402E-02	0.200
		291.72		-6.190E-02	3.900E-01	6.510E-01	8.870E-02	-0.095
		57.98		-7.895E-02	2.185E-01	3.541E-01	2.534E-02	-0.223
		59.32		-1.435E-02	1.197E-01	1.974E-01	1.396E-02	-0.073
		67.20		-2.103E-01	2.391E-01	3.536E-01	2.684E-02	-0.595
RE-188		161.27		8.202E-02	1.508E-01	2.589E-01	2.486E-02	0.317
		216.55		-9.170E-02	1.202E-01	1.866E-01	2.163E-02	-0.491
		252.85	*	-4.145E-02	1.066E-01	1.673E-01	2.171E-02	-0.248
		318.01		-3.098E-02	2.103E-01	3.487E-01	4.433E-02	-0.089
		792.07		-1.656E-01	4.069E-01	6.272E-01	6.906E-02	-0.264
W-188		903.28		-1.553E-01	3.910E-01	6.185E-01	6.906E-02	-0.251
		920.93		9.389E-02	1.807E-01	3.149E-01	3.475E-02	0.298
		59.72		-8.372E-02	9.094E-02	1.415E-01	1.002E-02	-0.592
		61.14		-8.879E-02	5.453E-02	8.069E-02	5.796E-03	-1.100
		69.30		5.830E-02	8.771E-02	1.505E-01	1.164E-02	0.388
RE-188		592.07		-7.618E-04	1.103E+00	1.830E+00	1.894E-01	0.000
		646.12	*	-1.466E-03	1.755E-02	2.865E-02	3.011E-03	-0.051
		717.42		-5.992E-01	3.749E-01	4.975E-01	5.359E-02	-1.204
		874.81		-4.737E-02	2.142E-01	3.468E-01	3.876E-02	-0.137
		880.27		2.298E-01	2.943E-01	5.272E-01	5.896E-02	0.436
W-188		155.03	*	5.399E-02	6.671E-02	1.164E-01	1.086E-02	0.464
		477.96		-1.563E-01	1.271E+00	2.031E+00	2.000E-01	-0.077
		633.10		5.825E-01	1.104E+00	1.906E+00	1.996E-01	0.306
		63.58		-1.904E+00	1.941E+01	3.129E+01	2.299E+00	-0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IR-192		227.08		-5.077E+00	5.662E+00	8.658E+00	1.038E+00	-0.586
		290.67	*	-9.820E-01	3.107E+00	5.135E+00	7.014E-01	-0.191
		295.96		-1.730E-02	4.710E-02	7.298E-02	9.873E-03	-0.237
		308.46		1.017E-02	4.159E-02	7.081E-02	9.270E-03	0.144
		316.51	*	1.626E-03	1.555E-02	2.621E-02	3.349E-03	0.062
		468.07		4.116E-03	2.931E-02	4.582E-02	4.740E-03	0.090
AU-195		604.41		-1.194E-01	2.661E-01	3.613E-01	5.150E-02	-0.330
		612.46		1.345E-01	3.533E-01	5.230E-01	6.014E-02	0.257
		65.12		-9.627E-02	6.228E-02	8.926E-02	6.649E-03	-1.079
		66.83		-3.847E-02	3.180E-02	4.611E-02	3.488E-03	-0.834
		75.70		5.423E-02	6.088E-02	1.017E-01	8.379E-03	0.533
		98.88	*	7.142E-02	8.673E-02	1.466E-01	1.278E-02	0.487
TL-200		129.76		3.863E-01	1.196E+00	2.060E+00	1.736E-01	0.188
		367.94	*	-7.911E-01	1.959E+00	3.146E+00	3.314E-01	-0.251
		579.30		1.537E+01	1.460E+01	2.347E+01	2.419E+00	0.655
		828.27		4.895E+00	1.809E+01	3.101E+01	3.441E+00	0.158
		1205.75		4.219E+00	7.348E+00	1.306E+01	1.074E+00	0.323
		68.90		1.352E-01	2.757E-01	4.684E-01	3.610E-02	0.289
TL-201		70.82		-8.525E-02	1.552E-01	2.459E-01	1.929E-02	-0.347
		80.30		-3.388E-02	2.972E-01	4.815E-01	4.171E-02	-0.070
		135.34		1.606E+00	2.026E+00	3.557E+00	3.058E-01	0.452
		167.43	*	-4.054E-01	5.666E-01	9.037E-01	8.907E-02	-0.449
		68.90		4.315E-02	8.800E-02	1.495E-01	1.152E-02	0.289
		70.82		-2.713E-02	4.941E-02	7.826E-02	6.140E-03	-0.347
HG-203		80.30		-1.079E-02	9.463E-02	1.533E-01	1.328E-02	-0.070
		439.56	*	2.825E-03	2.207E-02	3.627E-02	3.492E-03	0.078
		70.83		-1.606E-01	2.923E-01	4.621E-01	6.067E-02	-0.348
		72.87		-1.295E-01	1.704E-01	2.647E-01	3.391E-02	-0.489
		82.60		9.058E-02	3.451E-01	5.419E-01	7.542E-02	0.167
		279.20	*	9.317E-03	1.648E-02	2.733E-02	3.869E-03	0.341
BI-207		72.80		-4.292E-02	5.565E-02	8.664E-02	6.930E-03	-0.495
		74.97		9.246E-04	3.475E-02	5.538E-02	4.528E-03	0.017
		84.90		-2.866E-02	6.869E-02	1.036E-01	9.467E-03	-0.277
		569.67		4.372E-03	1.411E-02	2.321E-02	2.384E-03	0.188
		1063.62	*	4.187E-03	1.977E-02	3.309E-02	3.176E-03	0.127
		1770.23		-2.589E-01	2.928E-01	4.220E-01	3.507E-02	-0.614
TL-207		81.07		-8.765E-03	6.981E-02	1.129E-01	9.870E-03	-0.078
		83.78		-8.495E-03	4.552E-02	6.972E-02	6.288E-03	-0.122
		94.90		-1.491E-02	9.862E-02	1.401E-01	1.252E-02	-0.106
		122.32		6.563E-01	7.823E-01	1.303E+00	1.159E-01	0.504
		144.24		-1.907E-01	3.231E-01	4.779E-01	4.731E-02	-0.399
		154.21		-1.644E-01	1.679E-01	2.647E-01	2.673E-02	-0.621
PO-209		269.46		-4.709E-02	8.644E-02	1.331E-01	1.828E-02	-0.354
		323.87	*	1.087E-01	3.094E-01	5.271E-01	1.048E-01	0.206
		338.28		-6.791E-02	4.712E-01	7.430E-01	1.099E-01	-0.091
		445.03		6.182E-01	1.042E+00	1.770E+00	2.274E-01	0.349
		260.50		2.689E-01	4.654E+00	7.519E+00	9.979E-01	0.036
		262.80		-8.059E+00	1.302E+01	1.999E+01	2.671E+00	-0.403
		896.60	*	1.280E+00	3.006E+00	5.204E+00	5.829E-01	0.246

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210		46.50	*	-3.938E-01	1.266E+00	1.919E+00	1.783E-01	-0.205
PB-210		46.50	*	-3.938E-01	1.266E+00	1.919E+00	1.783E-01	-0.205
PO-210		46.50	*	-3.938E-01	1.266E+00	1.919E+00	1.614E-01	-0.205
BI-211		72.87		-7.268E-01	9.539E-01	1.486E+00	1.189E-01	-0.489
		351.07	*	-7.683E-02	1.049E-01	1.568E-01	1.830E-02	-0.490
PB-211		404.84	*	-2.307E-01	4.466E-01	6.639E-01	4.168E-01	-0.348
		427.08		5.931E-01	9.801E-01	1.559E+00	9.709E-01	0.380
		831.96		-1.879E-01	5.232E-01	8.201E-01	5.171E-01	-0.229
BI-212		727.18	*	-5.947E-03	1.233E-01	1.996E-01	2.384E-02	-0.030
		785.46		-4.673E-01	7.561E-01	1.137E+00	1.250E-01	-0.411
		1620.62		2.690E-01	5.343E-01	9.583E-01	8.355E-02	0.281
PB-212		74.81		-2.347E-03	1.195E-01	1.899E-01	2.357E-02	-0.012
		77.11		7.919E-03	6.991E-02	1.083E-01	9.059E-03	0.073
		87.30		3.941E-02	1.398E-01	2.072E-01	2.845E-02	0.190
		238.63	*	-1.303E-02	3.250E-02	5.120E-02	6.765E-03	-0.254
		300.09		4.109E-03	3.447E-01	5.802E-01	8.461E-02	0.007
PO-212		74.81		-2.347E-03	1.195E-01	1.899E-01	2.357E-02	-0.012
		77.11		7.919E-03	6.991E-02	1.083E-01	9.059E-03	0.073
		87.30		3.941E-02	1.398E-01	2.072E-01	2.845E-02	0.190
		115.19		2.475E-01	1.517E+00	2.440E+00	2.021E-01	0.101
		238.63	*	-1.303E-02	3.250E-02	5.120E-02	6.765E-03	-0.254
		300.09		4.109E-03	3.447E-01	5.802E-01	8.461E-02	0.007
BI-214	+	609.31	*	1.848E-03	4.712E-02	6.505E-02	7.563E-03	0.028
		1120.29		-8.204E-02	1.321E-01	2.078E-01	2.296E-02	-0.395
		1764.49		3.645E-02	1.568E-01	2.735E-01	2.279E-02	0.133
PB-214		74.81		-4.044E-03	2.060E-01	3.272E-01	3.607E-02	-0.012
		77.11		1.358E-02	1.199E-01	1.857E-01	2.101E-02	0.073
		87.30		6.751E-02	2.395E-01	3.549E-01	4.318E-02	0.190
		241.98		-2.261E-01	1.733E-01	2.546E-01	3.501E-02	-0.888
		295.21		5.017E-03	6.672E-02	1.065E-01	1.586E-02	0.047
		351.92	*	-9.652E-03	3.647E-02	5.650E-02	7.202E-03	-0.171
PO-214		74.81		-4.044E-03	2.060E-01	3.272E-01	3.607E-02	-0.012
		77.11		1.358E-02	1.199E-01	1.857E-01	2.101E-02	0.073
		87.30		6.751E-02	2.395E-01	3.549E-01	4.318E-02	0.190
		241.98		-2.261E-01	1.733E-01	2.546E-01	3.501E-02	-0.888
		295.21		5.017E-03	6.672E-02	1.065E-01	1.586E-02	0.047
		351.92	*	-9.652E-03	3.647E-02	5.650E-02	7.202E-03	-0.171
PO-215		81.07		-8.765E-03	6.981E-02	1.129E-01	9.870E-03	-0.078
		83.78		-8.495E-03	4.552E-02	6.972E-02	6.288E-03	-0.122
		94.90		-1.491E-02	9.862E-02	1.401E-01	1.252E-02	-0.106
		122.32		6.563E-01	7.823E-01	1.303E+00	1.159E-01	0.504
		144.24		-1.907E-01	3.231E-01	4.779E-01	4.731E-02	-0.399
		154.21		-1.644E-01	1.679E-01	2.647E-01	2.673E-02	-0.621
		269.46		-4.709E-02	8.644E-02	1.331E-01	1.828E-02	-0.354
		323.87	*	1.087E-01	3.094E-01	5.271E-01	1.048E-01	0.206
		338.28		-6.791E-02	4.712E-01	7.430E-01	1.099E-01	-0.091
		445.03		6.182E-01	1.042E+00	1.770E+00	2.274E-01	0.349
PO-216		74.81		-2.347E-03	1.195E-01	1.899E-01	2.357E-02	-0.012
		77.11		7.919E-03	6.991E-02	1.083E-01	9.059E-03	0.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-218		87.30		3.941E-02	1.398E-01	2.072E-01	2.845E-02	0.190
		238.63	*	-1.303E-02	3.250E-02	5.120E-02	6.765E-03	-0.254
		300.09		4.109E-03	3.447E-01	5.802E-01	8.461E-02	0.007
		74.81		-4.044E-03	2.060E-01	3.272E-01	3.607E-02	-0.012
		77.11		1.358E-02	1.199E-01	1.857E-01	2.101E-02	0.073
		87.30		6.751E-02	2.395E-01	3.549E-01	4.318E-02	0.190
		241.98		-2.261E-01	1.733E-01	2.546E-01	3.501E-02	-0.888
RN-219		295.21		5.017E-03	6.672E-02	1.065E-01	1.586E-02	0.047
		351.92	*	-9.652E-03	3.647E-02	5.650E-02	7.202E-03	-0.171
		271.23		-4.212E-03	1.073E-01	1.717E-01	2.543E-02	-0.025
		401.81	*	3.233E-02	1.826E-01	3.037E-01	4.698E-02	0.106
		549.76	*	-8.138E+00	1.111E+01	1.731E+01	1.764E+00	-0.470
RA-223		81.07		-8.765E-03	6.981E-02	1.129E-01	9.870E-03	-0.078
		83.78		-8.495E-03	4.552E-02	6.972E-02	6.288E-03	-0.122
		94.90		-1.491E-02	9.862E-02	1.401E-01	1.252E-02	-0.106
		122.32		6.563E-01	7.823E-01	1.303E+00	1.159E-01	0.504
		144.24		-1.907E-01	3.231E-01	4.779E-01	4.731E-02	-0.399
		154.21		-1.644E-01	1.679E-01	2.647E-01	2.673E-02	-0.621
		269.46		-4.709E-02	8.644E-02	1.331E-01	1.828E-02	-0.354
		323.87	*	1.087E-01	3.094E-01	5.271E-01	1.048E-01	0.206
		338.28		-6.791E-02	4.712E-01	7.430E-01	1.099E-01	-0.091
		445.03		6.182E-01	1.042E+00	1.770E+00	2.274E-01	0.349
		240.98	*	1.182E-01	3.237E-01	5.345E-01	6.691E-02	0.221
RA-224		609.31	*	1.848E-03	4.712E-02	6.505E-02	7.563E-03	0.028
RA-226	+	1120.29		-8.204E-02	1.321E-01	2.078E-01	2.296E-02	-0.395
AC-227		1764.49		3.645E-02	1.568E-01	2.735E-01	2.279E-02	0.133
		79.80		-3.267E-01	5.432E-01	8.451E-01	1.817E-01	-0.387
		236.00		-6.897E-02	1.126E-01	1.758E-01	2.652E-02	-0.392
		256.20	*	-1.404E-02	1.853E-01	2.971E-01	5.422E-02	-0.047
		286.10		-4.189E-01	7.422E-01	1.131E+00	1.928E-01	-0.370
TH-227		299.80		-1.079E-01	6.429E-01	1.070E+00	2.167E-01	-0.101
		304.40		-7.711E-01	8.872E-01	1.386E+00	2.906E-01	-0.557
		334.20		2.346E-01	1.034E+00	1.747E+00	3.698E-01	0.134
		79.80		-3.267E-01	5.433E-01	8.451E-01	1.840E-01	-0.387
	+	94.00		1.012E+00	1.383E+00	1.409E+00	3.091E-01	0.718
		236.00		-6.897E-02	1.126E-01	1.758E-01	2.488E-02	-0.392
		256.20	*	-1.404E-02	1.853E-01	2.971E-01	6.116E-02	-0.047
		286.10		-4.189E-01	8.512E-01	1.131E+00	1.142E+00	-0.370
		299.80		-1.079E-01	6.429E-01	1.070E+00	2.167E-01	-0.101
		304.40		-7.711E-01	8.872E-01	1.386E+00	2.906E-01	-0.557
AC-228		334.20		2.346E-01	1.034E+00	1.747E+00	3.698E-01	0.134
		338.32		-1.769E-02	1.130E-01	1.776E-01	7.473E-02	-0.100
		911.07	*	-5.944E-02	6.677E-02	1.039E-01	1.377E-02	-0.572
		969.11		-6.835E-03	1.165E-01	1.762E-01	4.255E-02	-0.039
RA-228		338.32		-1.769E-02	1.130E-01	1.776E-01	7.473E-02	-0.100
TH-228		911.07	*	-5.944E-02	6.677E-02	1.039E-01	1.377E-02	-0.572
		969.11		-6.835E-03	1.165E-01	1.762E-01	4.255E-02	-0.039
		74.81		-2.365E-03	1.205E-01	1.914E-01	1.577E-02	-0.012
		77.11		7.981E-03	7.045E-02	1.092E-01	9.129E-03	0.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-229		87.30		3.972E-02	1.409E-01	2.088E-01	1.965E-02	0.190
		238.63	*	-1.313E-02	3.275E-02	5.160E-02	6.817E-03	-0.254
		300.09		4.141E-03	3.474E-01	5.846E-01	3.517E-01	0.007
		85.43		-8.537E-03	6.219E-02	1.002E-01	9.220E-03	-0.085
		88.47		1.383E-02	3.979E-02	5.927E-02	5.599E-03	0.233
		100.00		-6.587E-03	7.227E-02	1.155E-01	1.002E-02	-0.057
TH-230		193.63	*	1.008E-02	2.308E-01	3.813E-01	4.100E-02	0.026
		210.97		-3.321E-01	3.490E-01	5.364E-01	6.107E-02	-0.619
	+	609.31	*	1.848E-03	4.712E-02	6.505E-02	7.563E-03	0.028
PA-231		1120.29		-8.204E-02	1.321E-01	2.078E-01	2.296E-02	-0.395
		1764.49		3.645E-02	1.568E-01	2.735E-01	2.279E-02	0.133
		283.67	*	6.859E-03	7.187E-01	1.149E+00	2.146E-01	0.006
TH-231		301.29		2.156E-01	2.527E-01	4.423E-01	7.032E-02	0.487
		81.07		-8.765E-03	6.981E-02	1.129E-01	9.870E-03	-0.078
		83.78		-8.495E-03	4.552E-02	6.972E-02	6.288E-03	-0.122
U-231		94.90		-1.491E-02	9.862E-02	1.401E-01	1.252E-02	-0.106
		122.32		6.563E-01	7.823E-01	1.303E+00	1.159E-01	0.504
		144.24		-1.907E-01	3.231E-01	4.779E-01	4.731E-02	-0.399
		154.21		-1.644E-01	1.679E-01	2.647E-01	2.673E-02	-0.621
		269.46		-4.709E-02	8.644E-02	1.331E-01	1.828E-02	-0.354
		323.87	*	1.087E-01	3.094E-01	5.271E-01	1.048E-01	0.206
		338.28		-6.791E-02	4.712E-01	7.430E-01	1.099E-01	-0.091
		445.03		6.182E-01	1.042E+00	1.770E+00	2.274E-01	0.349
		84.21		-2.573E-01	5.704E-01	8.566E-01	7.765E-02	-0.300
	+	92.29		2.943E-01	3.979E-01	4.781E-01	4.359E-02	0.616
TH-232		95.87	*	-4.091E-02	1.371E-01	1.919E-01	1.704E-02	-0.213
		108.00		-2.067E-01	2.542E-01	3.839E-01	3.227E-02	-0.539
		338.32		-1.769E-02	1.127E-01	1.776E-01	2.113E-02	-0.100
PA-233		911.07	*	-5.944E-02	6.677E-02	1.039E-01	1.377E-02	-0.572
		969.11		-6.835E-03	1.165E-01	1.762E-01	4.255E-02	-0.039
		75.28		1.679E-01	1.020E+00	1.639E+00	2.478E-01	0.102
PA-234		86.59		-3.119E-01	5.829E-01	8.577E-01	2.321E-01	-0.364
		300.12		5.590E-03	1.783E-01	3.005E-01	5.419E-02	0.019
		311.98	*	-1.462E-02	3.039E-02	4.932E-02	6.461E-03	-0.296
		340.50		-9.627E-02	2.653E-01	4.292E-01	1.080E-01	-0.224
		398.62		-2.999E-01	1.002E+00	1.605E+00	4.313E-01	-0.187
		415.76		-6.039E-02	7.122E-01	1.157E+00	2.535E-01	-0.052
		63.00		1.363E-02	6.129E-01	9.942E-01	1.473E-01	0.014
		94.67		8.022E-03	7.137E-02	1.036E-01	1.310E-02	0.077
		98.44		3.486E-02	4.259E-02	6.193E-02	3.456E-02	0.563
		99.86		-7.235E-03	1.835E-01	2.944E-01	2.555E-02	-0.025
		111.00		2.633E-02	7.773E-02	1.267E-01	1.507E-02	0.208
		131.20		-3.286E-02	4.667E-02	7.618E-02	6.452E-03	-0.431
		152.70		-9.921E-02	1.344E-01	2.142E-01	3.720E-02	-0.463
	+	186.00		8.524E-01	1.074E+00	1.184E+00	3.764E-01	0.720
		226.40		-1.094E-01	1.936E-01	3.033E-01	4.729E-02	-0.361
		227.20		-2.477E-01	2.096E-01	3.132E-01	3.757E-02	-0.791
		248.90		3.984E-01	3.851E-01	6.444E-01	1.569E-01	0.618
		293.70		-1.818E-02	2.885E-01	4.841E-01	9.790E-02	-0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		3.161E-01	4.158E-01	7.120E-01	1.606E-01	0.444
		568.70		3.063E-02	4.580E-01	7.387E-01	7.585E-02	0.041
		569.50		3.356E-02	1.248E-01	2.046E-01	2.101E-02	0.164
		574.00		-3.420E-01	6.287E-01	9.939E-01	1.022E-01	-0.344
		699.00		1.581E-01	3.194E-01	5.418E-01	1.089E-01	0.292
		706.10		-8.216E-02	4.324E-01	6.896E-01	3.107E-01	-0.119
		733.00		-7.493E-02	1.597E-01	2.455E-01	5.681E-02	-0.305
		742.81		-1.295E-01	6.054E-01	9.513E-01	6.426E-01	-0.136
		796.30		-1.219E-01	3.836E-01	5.952E-01	1.661E-01	-0.205
		805.60		-2.540E-01	5.207E-01	7.067E-01	2.220E-01	-0.359
		819.60		-4.185E-02	5.292E-01	8.772E-01	3.391E-01	-0.048
		826.30		-2.002E-01	3.521E-01	5.336E-01	2.416E-01	-0.375
		831.60		-1.000E-02	2.551E-01	4.242E-01	1.300E-01	-0.024
		876.40		-1.948E-01	3.932E-01	5.253E-01	5.413E-01	-0.371
		880.51		8.222E-02	1.117E-01	1.995E-01	2.231E-02	0.412
		883.24		4.376E-02	1.215E-01	2.032E-01	1.374E-01	0.215
		899.00		4.285E-02	3.343E-01	5.608E-01	2.484E-01	0.076
		925.00		-2.899E-01	5.473E-01	8.546E-01	9.403E-02	-0.339
		926.50		3.508E-02	8.330E-02	1.423E-01	3.724E-02	0.247
		946.00	*	-3.212E-02	1.134E-01	1.801E-01	3.580E-02	-0.178
		949.00		-1.114E-01	1.744E-01	2.645E-01	2.857E-02	-0.421
		980.50		-1.042E-02	2.789E-01	4.561E-01	4.797E-02	-0.023
		1394.10		-3.253E-01	4.548E-01	5.525E-01	3.599E-01	-0.589
PA-234M		766.42		-2.644E-01	4.440E+00	7.139E+00	3.654E+00	-0.037
		1001.03	*	7.593E-01	2.183E+00	3.346E+00	3.834E-01	0.227
TH-234		63.29	*	-1.468E-01	5.298E-01	8.454E-01	1.472E-01	-0.174
	+	92.38		2.618E-01	3.564E-01	4.247E-01	7.781E-02	0.616
U-234	+	609.31	*	1.848E-03	4.712E-02	6.505E-02	7.563E-03	0.028
		1120.29		-8.204E-02	1.321E-01	2.078E-01	2.296E-02	-0.395
		1764.49		3.645E-02	1.568E-01	2.735E-01	2.279E-02	0.133
U-235		89.95		-1.839E-01	4.155E-01	5.719E-01	1.776E-01	-0.322
	+	93.35		3.147E-01	4.337E-01	5.045E-01	1.421E-01	0.624
		105.00		-2.196E-03	4.215E-01	6.754E-01	2.013E-01	-0.003
		143.76	*	-8.500E-02	1.017E-01	1.472E-01	2.596E-02	-0.578
		163.35		9.767E-02	2.089E-01	3.560E-01	6.973E-02	0.274
	+	185.71		3.157E-02	3.863E-02	4.400E-02	4.607E-03	0.718
		205.31		5.786E-02	2.281E-01	3.794E-01	7.725E-02	0.153
NP-236		94.67		6.574E-03	5.416E-02	7.869E-02	7.046E-03	0.084
		98.44		2.634E-02	2.873E-02	4.681E-02	4.093E-03	0.563
		111.00		1.992E-02	5.877E-02	9.584E-02	7.997E-03	0.208
		160.31	*	-3.309E-02	3.671E-02	5.821E-02	5.565E-03	-0.569
NP-237		86.50	*	-4.331E-02	8.209E-02	1.279E-01	2.897E-02	-0.338
		95.87		-1.226E-01	4.117E-01	5.750E-01	1.422E-01	-0.213
U-238		63.29	*	-1.468E-01	5.298E-01	8.454E-01	1.472E-01	-0.174
	+	92.38		2.618E-01	3.540E-01	4.247E-01	3.869E-02	0.616
NP-239		99.55		2.611E-02	6.119E-02	1.011E-01	8.789E-03	0.258
		117.00	*	-2.077E-02	8.443E-02	1.321E-01	1.092E-02	-0.157
		209.75		1.778E-02	3.409E-01	5.602E-01	6.352E-02	0.032
		228.18		-4.712E-02	1.064E-01	1.682E-01	2.024E-02	-0.280

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	277.60			-2.470E-02	8.246E-02	1.291E-01	1.799E-02	-0.191
	334.30			1.800E-01	5.839E-01	9.919E-01	1.196E-01	0.181
AM-241	59.54	*		-4.112E-03	4.741E-02	7.835E-02	6.124E-03	-0.052
AM-243	74.67	*		-1.169E-03	1.939E-02	3.072E-02	2.504E-03	-0.038
	86.72			-1.706E+00	3.247E+00	4.828E+00	4.512E-01	-0.353
	117.66			-6.139E-01	1.689E+00	2.620E+00	2.164E-01	-0.234
	142.18			-8.558E+00	8.518E+00	1.233E+01	1.089E+00	-0.694
CM-243	99.55			2.685E-02	6.294E-02	1.040E-01	9.040E-03	0.258
	103.76	*		-6.304E-03	3.769E-02	5.975E-02	5.094E-03	-0.106
	117.00			-2.136E-02	8.682E-02	1.358E-01	1.123E-02	-0.157
	209.75			1.752E-02	3.359E-01	5.520E-01	6.259E-02	0.032
	228.18			-4.759E-02	1.075E-01	1.699E-01	2.044E-02	-0.280
	277.60			-2.489E-02	8.310E-02	1.301E-01	1.813E-02	-0.191
AM-246	798.80			-6.211E-03	6.156E-02	9.820E-02	1.083E-02	-0.063
	1036.00			-1.866E-02	1.272E-01	2.044E-01	2.029E-02	-0.091
	1062.04			7.296E-02	8.502E-02	1.530E-01	1.471E-02	0.477
	1078.86	*		-4.584E-02	6.873E-02	8.288E-02	7.797E-03	-0.553
CM-247	278.00			-6.500E-02	3.430E-01	5.414E-01	7.555E-02	-0.120
	287.40			-2.147E-01	5.876E-01	9.118E-01	1.255E-01	-0.236
	402.60	*		-4.754E-03	1.656E-02	2.657E-02	2.493E-03	-0.179
CF-249	252.85			-1.603E-01	4.124E-01	6.471E-01	8.397E-02	-0.248
	333.44			-4.569E-02	7.730E-02	1.236E-01	1.495E-02	-0.370
	387.95	*		-4.087E-03	1.945E-02	3.154E-02	2.998E-03	-0.130
CF-251	176.60	*		2.181E-02	5.629E-02	9.538E-02	9.689E-03	0.229
	227.00			-1.589E-01	1.832E-01	2.808E-01	3.365E-02	-0.566
	285.00			-2.850E-01	8.269E-01	1.286E+00	1.779E-01	-0.222

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                                     DETECTOR DATA
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037549
* Acquisition date   : 18-FEB-2010 17:03:17 Detector SN#
* Detector ID        : GAM22 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 02:00:00.99 Half life ratio : 8.000
*****
*
*                                     SAMPLE DATA
*
* Sample date        : 11-FEB-2010 00:00:00 Nuclide Library : SOLID
* Sample ID          : G1202037549 Analyst initials: MXR1
* Batch Number       : 950787 Sample Quantity : 1.6628E+02 GRAM
* Recovery           : 1.00000 Carrier Weight  : 0.00000
*****
*
*                                     QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 2-DEC-2009 16:47:28 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)	
GE-68	3.775E-01	5.094E-01	6.921E-01	0.000E+00
RB-86	1.852E-01	2.499E-01	3.269E-01	0.000E+00
TL-208	9.225E-03	1.874E-02	2.570E-02	0.000E+00
ANH-511	2.442E-03	3.119E-02	2.349E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-6.848E-02	1.307E-01	2.154E-01	0.000E+00 NOT IDENT.
NA-22	1.183E-02	1.427E-02	2.715E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	8.496E+01	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-9.291E-03	1.406E-02	2.062E-02	0.000E+00 NOT IDENT.
K-40	2.056E-02	2.183E-01	4.154E-01	0.000E+00 NOT IDENT.
TI-44	-4.470E-03	1.137E-02	2.045E-02	0.000E+00 NOT IDENT.
SC-46	-1.079E-02	1.489E-02	2.377E-02	0.000E+00 NOT IDENT.
V-48	-3.107E-03	1.891E-02	3.182E-02	0.000E+00 NOT IDENT.
CR-51	-5.147E-04	1.481E-01	2.684E-01	0.000E+00 NOT IDENT.
MN-52	-4.344E-02	3.872E-02	5.248E-02	0.000E+00 NOT IDENT.
MN-54	-2.929E-03	1.492E-02	2.569E-02	0.000E+00 NOT IDENT.
CO-56	3.686E-03	1.558E-02	2.789E-02	0.000E+00 NOT IDENT.
CO-57	9.801E-03	1.090E-02	2.028E-02	0.000E+00 NOT IDENT.
CO-58	3.617E-03	1.447E-02	2.610E-02	0.000E+00 NOT IDENT.
FE-59	5.674E-03	2.895E-02	5.026E-02	0.000E+00 NOT IDENT.
CO-60	5.263E-04	1.472E-02	2.526E-02	0.000E+00 NOT IDENT.
ZN-65	1.375E-02	3.495E-02	6.157E-02	0.000E+00 NOT IDENT.
AS-73	-7.421E-02	2.499E-01	4.668E-01	0.000E+00 NOT IDENT.
AS-74	-1.833E-02	3.396E-02	5.736E-02	0.000E+00 NOT IDENT.
SE-75	1.406E-02	1.942E-02	3.548E-02	0.000E+00 NOT IDENT.
BR-77	-9.782E-02	5.255E-01	9.064E-01	0.000E+00 NOT IDENT.
SR-82	-9.427E-02	1.342E-01	2.112E-01	0.000E+00 NOT IDENT.
RB-83	-5.869E-03	2.833E-02	4.878E-02	0.000E+00 NOT IDENT.

RB-84	1.921E-02	2.354E-02	4.432E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	4.215E+00	7.926E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	1.999E-02	3.759E-02	0.000E+00	NOT IDENT.
Y-88	5.318E-03	1.464E-02	2.624E-02	0.000E+00	NOT IDENT.
ZR-88	-1.229E-02	1.394E-02	2.309E-02	0.000E+00	NOT IDENT.
Y-91	2.035E+00	5.726E+00	1.031E+01	0.000E+00	NOT IDENT.
NB-94	-8.130E-03	1.434E-02	2.340E-02	0.000E+00	NOT IDENT.
NB-95	-2.833E-03	1.530E-02	2.560E-02	0.000E+00	NOT IDENT.
NB-95M	-5.530E-02	5.466E-02	9.065E-02	0.000E+00	NOT IDENT.
ZR-95	1.960E-02	2.500E-02	4.617E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.840E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.568E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.689E-01	7.733E-01	1.296E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.068E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.146E-02	1.662E-02	2.735E-02	0.000E+00	NOT IDENT.
RH-102	-6.561E-03	1.270E-02	2.095E-02	0.000E+00	NOT IDENT.
RU-103	2.234E-03	1.623E-02	2.824E-02	0.000E+00	FAIL ABUN
RH-106	6.953E-04	1.425E-01	2.498E-01	0.000E+00	FAIL ABUN
RU-106	6.953E-04	1.425E-01	2.498E-01	0.000E+00	FAIL ABUN
AG-108M	-3.870E-03	1.600E-02	2.749E-02	0.000E+00	NOT IDENT.
CD-109	3.078E-01	2.791E-01	4.944E-01	0.000E+00	NOT IDENT.
AG-110M	-2.478E-03	1.461E-02	2.503E-02	0.000E+00	NOT IDENT.
IN-111	-1.167E-01	7.965E-02	1.246E-01	0.000E+00	NOT IDENT.
IN-113M	-1.984E-02	1.999E-02	3.272E-02	0.000E+00	NOT IDENT.
SN-113	-1.984E-02	1.999E-02	3.272E-02	0.000E+00	NOT IDENT.
IN-114M	-2.283E-02	8.147E-02	1.269E-01	0.000E+00	NOT IDENT.
CD-115	-1.231E-02	4.713E-01	8.408E-01	0.000E+00	NOT IDENT.
SN-117M	8.414E-04	1.613E-02	2.992E-02	0.000E+00	NOT IDENT.
SB-122	-4.989E-02	1.363E-01	2.346E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.080E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.332E-03	1.171E-02	2.077E-02	0.000E+00	NOT IDENT.
I-124	-1.010E-02	1.135E-01	1.775E-01	0.000E+00	NOT IDENT.
SB-124	8.083E-05	3.579E-02	6.092E-02	0.000E+00	NOT IDENT.
SB-125	2.603E-02	3.842E-02	7.087E-02	0.000E+00	NOT IDENT.
TE-125M	-2.304E+00	3.456E+00	5.890E+00	0.000E+00	NOT IDENT.
I-126	4.417E-03	5.271E-02	9.225E-02	0.000E+00	NOT IDENT.
SB-126	1.366E-02	3.893E-02	6.920E-02	0.000E+00	NOT IDENT.
SN-126	9.372E-03	2.960E-02	4.944E-02	0.000E+00	NOT IDENT.
SB-127	4.800E-02	1.469E-01	2.622E-01	0.000E+00	NOT IDENT.
XE-127	-2.642E-04	1.791E-02	3.227E-02	0.000E+00	NOT IDENT.
I-131	-1.204E-02	2.772E-02	4.793E-02	0.000E+00	NOT IDENT.
TE-132	-3.020E-02	6.603E-02	1.140E-01	0.000E+00	NOT IDENT.
BA-133	-4.561E-03	1.968E-02	3.467E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.951E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-8.716E-03	1.911E-02	3.086E-02	0.000E+00	NOT IDENT.
CS-135	-9.559E-03	7.057E-02	1.222E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.453E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.863E-03	3.317E-02	5.239E-02	0.000E+00	NOT IDENT.
BA-137M	1.506E-03	1.533E-02	2.689E-02	0.000E+00	NOT IDENT.
CS-137	1.592E-03	1.621E-02	2.843E-02	0.000E+00	NOT IDENT.
CE-139	-1.268E-02	1.239E-02	2.141E-02	0.000E+00	NOT IDENT.
BA-140	2.592E-02	7.183E-02	1.310E-01	0.000E+00	NOT IDENT.
LA-140	-3.980E-03	2.311E-02	3.854E-02	0.000E+00	NOT IDENT.
CE-141	3.171E-04	2.107E-02	3.935E-02	0.000E+00	NOT IDENT.
CE-143	1.157E-01	1.323E+00	2.432E+00	0.000E+00	NOT IDENT.
CE-144	6.849E-02	8.619E-02	1.673E-01	0.000E+00	NOT IDENT.
PM-144	8.935E-03	1.526E-02	2.761E-02	0.000E+00	NOT IDENT.
PR-144	6.031E-01	1.030E+00	1.864E+00	0.000E+00	NOT IDENT.
PM-146	-2.935E-03	1.824E-02	3.129E-02	0.000E+00	NOT IDENT.
ND-147	-3.125E-02	1.496E-01	2.626E-01	0.000E+00	NOT IDENT.
PM-149	-3.628E+00	4.320E+00	6.959E+00	0.000E+00	NOT IDENT.
EU-152	-5.500E-03	4.218E-02	7.513E-02	0.000E+00	NOT IDENT.
GD-153	2.600E-02	3.272E-02	5.606E-02	0.000E+00	NOT IDENT.
EU-154	3.261E-02	3.999E-02	7.587E-02	0.000E+00	NOT IDENT.
EU-155	1.613E-02	4.174E-02	7.670E-02	0.000E+00	NOT IDENT.
TB-160	4.731E-02	5.047E-02	9.609E-02	0.000E+00	NOT IDENT.
HO-166M	2.094E-02	2.762E-02	4.714E-02	0.000E+00	FAIL ABUN
TM-171	-1.117E+01	9.665E+00	1.599E+01	0.000E+00	NOT IDENT.
LU-176	1.875E-03	1.109E-02	2.040E-02	0.000E+00	NOT IDENT.
LU-177	-1.168E-02	2.154E-01	3.861E-01	0.000E+00	NOT IDENT.
LU-177M	2.065E-02	7.306E-02	1.313E-01	0.000E+00	NOT IDENT.
HF-181	-3.762E-03	1.668E-02	2.823E-02	0.000E+00	NOT IDENT.
W-181	-1.883E-01	1.283E-01	2.098E-01	0.000E+00	NOT IDENT.
TA-182	4.935E-02	6.755E-02	1.253E-01	0.000E+00	NOT IDENT.
RE-183	4.783E-02	4.433E-02	8.593E-02	0.000E+00	NOT IDENT.
RE-184	-4.145E-02	1.045E-01	1.789E-01	0.000E+00	NOT IDENT.
OS-185	-1.466E-03	1.720E-02	2.976E-02	0.000E+00	NOT IDENT.
RE-188	5.399E-02	6.538E-02	1.262E-01	0.000E+00	NOT IDENT.

W-188	-9.820E-01	3.045E+00	5.467E+00	0.000E+00	NOT IDENT.
IR-192	1.626E-03	1.524E-02	2.783E-02	0.000E+00	NOT IDENT.
AU-195	7.142E-02	8.499E-02	1.610E-01	0.000E+00	NOT IDENT.
TL-200	-7.911E-01	1.920E+00	3.326E+00	0.000E+00	NOT IDENT.
TL-201	-4.054E-01	5.553E-01	9.778E-01	0.000E+00	NOT IDENT.
TL-202	2.825E-03	2.162E-02	3.813E-02	0.000E+00	NOT IDENT.
HG-203	9.317E-03	1.615E-02	2.913E-02	0.000E+00	NOT IDENT.
BI-207	4.187E-03	1.938E-02	3.383E-02	0.000E+00	NOT IDENT.
TL-207	1.087E-01	3.032E-01	5.593E-01	0.000E+00	NOT IDENT.
PO-209	1.280E+00	2.946E+00	5.350E+00	0.000E+00	NOT IDENT.
BI-210	-3.938E-01	1.241E+00	2.153E+00	0.000E+00	NOT IDENT.
PB-210	-3.938E-01	1.241E+00	2.153E+00	0.000E+00	NOT IDENT.
PO-210	-3.938E-01	1.241E+00	2.153E+00	0.000E+00	NOT IDENT.
BI-211	-7.683E-02	1.028E-01	1.660E-01	0.000E+00	NOT IDENT.
PB-211	-2.307E-01	4.376E-01	6.997E-01	0.000E+00	NOT IDENT.
BI-212	-5.947E-03	1.208E-01	2.066E-01	0.000E+00	NOT IDENT.
PB-212	-1.303E-02	3.185E-02	5.483E-02	0.000E+00	NOT IDENT.
PO-212	-1.303E-02	3.185E-02	5.483E-02	0.000E+00	NOT IDENT.
BI-214	1.848E-03	4.617E-02	6.770E-02	0.000E+00	FAIL ABUN
PB-214	-9.652E-03	3.574E-02	5.980E-02	0.000E+00	NOT IDENT.
PO-214	-9.652E-03	3.574E-02	5.980E-02	0.000E+00	NOT IDENT.
PO-215	1.087E-01	3.032E-01	5.593E-01	0.000E+00	NOT IDENT.
PO-216	-1.303E-02	3.185E-02	5.483E-02	0.000E+00	NOT IDENT.
PO-218	-9.652E-03	3.574E-02	5.980E-02	0.000E+00	NOT IDENT.
RN-219	3.233E-02	1.790E-01	3.201E-01	0.000E+00	NOT IDENT.
RN-220	-8.138E+00	1.089E+01	1.807E+01	0.000E+00	NOT IDENT.
RA-223	1.087E-01	3.032E-01	5.593E-01	0.000E+00	NOT IDENT.
RA-224	1.182E-01	3.172E-01	5.722E-01	0.000E+00	NOT IDENT.
RA-226	1.848E-03	4.617E-02	6.770E-02	0.000E+00	FAIL ABUN
AC-227	-1.404E-02	1.816E-01	3.175E-01	0.000E+00	NOT IDENT.
TH-227	-1.404E-02	1.816E-01	3.175E-01	0.000E+00	FAIL ABUN
AC-228	-5.944E-02	6.543E-02	1.068E-01	0.000E+00	NOT IDENT.
RA-228	-5.944E-02	6.543E-02	1.068E-01	0.000E+00	NOT IDENT.
TH-228	-1.313E-02	3.210E-02	5.525E-02	0.000E+00	NOT IDENT.
TH-229	1.008E-02	2.262E-01	4.109E-01	0.000E+00	NOT IDENT.
TH-230	1.848E-03	4.617E-02	6.770E-02	0.000E+00	FAIL ABUN
PA-231	6.859E-03	7.044E-01	1.224E+00	0.000E+00	NOT IDENT.
TH-231	1.087E-01	3.032E-01	5.593E-01	0.000E+00	NOT IDENT.
U-231	-4.091E-02	1.343E-01	2.110E-01	0.000E+00	FAIL ABUN
TH-232	-5.944E-02	6.543E-02	1.068E-01	0.000E+00	NOT IDENT.
PA-233	-1.462E-02	2.978E-02	5.239E-02	0.000E+00	NOT IDENT.
PA-234	-3.212E-02	1.111E-01	1.848E-01	0.000E+00	FAIL ABUN
PA-234M	7.593E-01	2.140E+00	3.428E+00	0.000E+00	NOT IDENT.
TH-234	-1.468E-01	5.192E-01	9.402E-01	0.000E+00	FAIL ABUN
U-234	1.848E-03	4.617E-02	6.770E-02	0.000E+00	FAIL ABUN
U-235	-8.500E-02	9.962E-02	1.599E-01	0.000E+00	FAIL ABUN
NP-236	-3.309E-02	3.597E-02	6.307E-02	0.000E+00	NOT IDENT.
NP-237	-4.331E-02	8.044E-02	1.411E-01	0.000E+00	NOT IDENT.
U-238	-1.468E-01	5.192E-01	9.402E-01	0.000E+00	FAIL ABUN
NP-239	-2.077E-02	8.274E-02	1.444E-01	0.000E+00	NOT IDENT.
AM-241	-4.112E-03	4.647E-02	8.727E-02	0.000E+00	NOT IDENT.
AM-243	-1.169E-03	1.900E-02	3.401E-02	0.000E+00	NOT IDENT.
CM-243	-6.304E-03	3.693E-02	6.554E-02	0.000E+00	NOT IDENT.
AM-246	-4.584E-02	6.736E-02	8.470E-02	0.000E+00	NOT IDENT.
CM-247	-4.754E-03	1.623E-02	2.801E-02	0.000E+00	NOT IDENT.
CF-249	-4.087E-03	1.906E-02	3.329E-02	0.000E+00	NOT IDENT.
CF-251	2.181E-02	5.517E-02	1.030E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 19:03:50.27

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037549.CNF;1
Sample date        : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:03:17
Sample ID          : G1202037549      Sample quantity   : 1.66280E+02 GRAM
Detector name      : GAM22            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:00.99  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 950787           Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
GE-68	1077.35	13	3.29*	2.424E+00	3.706E-01	3.775E-01	137.68
RB-86	1076.63	13	8.78*	2.424E+00	1.389E-01	1.852E-01	137.68
TL-208	277.35	-----	6.80	6.182E+00	-----	Line Not Found	-----
	510.84	5	21.60	4.298E+00	1.130E-02	1.130E-02	1303.40
	583.14	14	84.20*	3.930E+00	9.225E-03	9.225E-03	207.30
	860.37	-----	12.46	2.924E+00	-----	Line Not Found	-----
ANH-511	511.00	5	100.00*	4.298E+00	2.442E-03	2.442E-03	1303.38

Flag: "*" = Keyline

Total number of lines in spectrum 6
Number of unidentified lines 0
Number of lines tentatively identified by NID 6 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
GE-68	288.00D	1.02	3.706E-01	3.775E-01	5.198E-01	137.68	
RB-86	18.66D	1.33	1.389E-01	1.852E-01	2.550E-01	137.68	
TL-208	1.41E+10Y	1.00	9.225E-03	9.225E-03	19.12E-03	207.30	
ANH-511	1.00E+09Y	1.00	2.442E-03	2.442E-03	31.82E-03	1303.38	

Total Activity : 5.211E-01 5.744E-01

Grand Total Activity : 5.211E-01 5.744E-01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202037549

Page : 3
Acquisition date : 18-FEB-2010 17:03:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.63	49	194	1.13	185.45	180	12	6.85E-03	****	7.86E+00	T
0	185.72	57	227	1.25	371.45	365	13	7.98E-03	****	7.61E+00	T
0	609.61	1	69	1.39	1218.60	1214	10	2.01E-04	****	3.81E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037549.CNF;1
* Acquisition date   : 18-FEB-2010 17:03:17   Detector SN#      :
* Detector ID        : GAM22                  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 02:00:00.99          Half life ratio       : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 11-FEB-2010 00:00:00   Nuclide Library   : SOLID
* Sample ID          : G1202037549           Analyst initials  : MXR1
* Batch Number       : 950787                Sample Quantity   : 1.66280E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 2-DEC-2009 16:47:28.08MS 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
GE-68	3.775E-01	5.198E-01	6.772E-01	6.384E-02	0.558
RB-86	1.852E-01	2.550E-01	3.199E-01	3.018E-02	0.579
TL-208	9.225E-03	1.912E-02	2.466E-02	2.674E-03	0.374
ANH-511	2.442E-03	3.182E-02	2.245E-02	2.249E-03	0.109

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.848E-02		1.333E-01	2.054E-01	2.144E-02	-0.333
NA-22	1.183E-02		1.456E-02	2.671E-02	2.302E-03	0.443
NA-24	4.886E-05		4.334E-05	Half-Life too short		
AL-26	-9.291E-03		1.434E-02	2.053E-02	1.679E-03	-0.453
K-40	2.056E-02		2.228E-01	4.106E-01	3.761E-02	0.050
TI-44	-4.470E-03		1.160E-02	1.850E-02	1.568E-03	-0.242
SC-46	-1.079E-02		1.520E-02	2.312E-02	2.588E-03	-0.467
V-48	-3.107E-03		1.930E-02	3.105E-02	3.256E-03	-0.100

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CR-51	-5.147E-04		1.512E-01	2.529E-01	3.274E-02	-0.002
MN-52	-4.344E-02		3.951E-02	5.184E-02	4.632E-03	-0.838
MN-54	-2.929E-03		1.523E-02	2.493E-02	2.770E-03	-0.117
CO-56	3.686E-03		1.590E-02	2.708E-02	3.015E-03	0.136
CO-57	9.801E-03		1.113E-02	1.858E-02	1.532E-03	0.528
CO-58	3.617E-03		1.477E-02	2.530E-02	2.802E-03	0.143
FE-59	5.674E-03		2.954E-02	4.921E-02	4.822E-03	0.115
CO-60	5.263E-04		1.503E-02	2.488E-02	2.219E-03	0.021
ZN-65	1.375E-02		3.567E-02	6.031E-02	5.380E-03	0.228
AS-73	-7.421E-02		2.550E-01	4.178E-01	3.157E-02	-0.178
AS-74	-1.833E-02		3.465E-02	5.507E-02	5.708E-03	-0.333
SE-75	1.406E-02		1.982E-02	3.323E-02	4.473E-03	0.423
BR-77	-9.782E-02		5.362E-01	8.667E-01	8.723E-02	-0.113
SR-82	-9.427E-02		1.369E-01	2.045E-01	2.243E-02	-0.461
RB-83	-5.869E-03		2.891E-02	4.664E-02	4.694E-03	-0.126
RB-84	1.921E-02		2.402E-02	4.309E-02	4.819E-03	0.446
KR-85	1.580E+01		4.301E+00	7.576E+00	7.601E-01	2.085
SR-85	7.493E-02		2.040E-02	3.593E-02	3.605E-03	2.085
Y-88	5.318E-03		1.494E-02	2.613E-02	2.113E-03	0.204
ZR-88	-1.229E-02		1.423E-02	2.188E-02	2.038E-03	-0.562
Y-91	2.035E+00		5.843E+00	1.012E+01	8.324E-01	0.201
NB-94	-8.130E-03		1.463E-02	2.258E-02	2.420E-03	-0.360
NB-95	-2.833E-03		1.561E-02	2.478E-02	2.710E-03	-0.114
NB-95M	-5.530E-02		5.577E-02	8.462E-02	1.119E-02	-0.654
ZR-95	1.960E-02		2.551E-02	4.466E-02	5.184E-03	0.439
NB-97	-4.415E-06		1.449E-05	Half-Life	too short	
ZR-97	1.655E-03		3.861E-04	Half-Life	too short	
MO-99	-1.689E-01		7.891E-01	1.253E+00	2.074E-01	-0.135
TC-99M	1.035E+01		1.055E+01	Half-Life	too short	
RH-101	-1.146E-02		1.696E-02	2.540E-02	2.771E-03	-0.451
RH-102	-6.561E-03		1.296E-02	1.997E-02	1.964E-03	-0.329
RU-103	2.234E-03		1.656E-02	2.696E-02	4.046E-03	0.083
RH-106	6.953E-04		1.454E-01	2.402E-01	3.507E-02	0.003
RU-106	6.953E-04		1.454E-01	2.402E-01	2.509E-02	0.003
AG-108M	-3.870E-03		1.633E-02	2.614E-02	2.588E-03	-0.148
CD-109	3.078E-01		2.847E-01	4.486E-01	4.257E-02	0.686
AG-110M	-2.478E-03		1.491E-02	2.411E-02	2.591E-03	-0.103
IN-111	-1.167E-01		8.128E-02	1.164E-01	1.477E-02	-1.003
IN-113M	-1.984E-02		2.040E-02	3.101E-02	2.962E-03	-0.640
SN-113	-1.984E-02		2.040E-02	3.101E-02	2.962E-03	-0.640
IN-114M	-2.283E-02		8.314E-02	1.178E-01	1.252E-02	-0.194
CD-115	-1.231E-02		4.809E-01	8.043E-01	8.122E-02	-0.015
SN-117M	8.414E-04		1.646E-02	2.761E-02	2.619E-03	0.030
SB-122	-4.989E-02		1.391E-01	2.248E-01	2.304E-02	-0.222
I-123	-1.480E-04		1.061E-04	Half-Life	too short	
TE-123M	-8.332E-03		1.195E-02	1.917E-02	1.831E-03	-0.435
I-124	-1.010E-02		1.158E-01	1.705E-01	1.771E-02	-0.059
SB-124	8.083E-05		3.652E-02	6.050E-02	5.381E-03	0.001

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125	2.603E-02		3.921E-02	6.736E-02	6.536E-03	0.387
TE-125M	-2.304E+00		3.527E+00	5.377E+00	5.438E-01	-0.428
I-126	4.417E-03		5.378E-02	8.888E-02	9.391E-03	0.050
SB-126	1.366E-02		3.972E-02	6.684E-02	7.208E-03	0.204
SN-126	9.372E-03		3.021E-02	4.486E-02	4.236E-03	0.209
SB-127	4.800E-02		1.499E-01	2.528E-01	2.899E-02	0.190
XE-127	-2.642E-04		1.827E-02	2.999E-02	3.324E-03	-0.009
I-131	-1.204E-02		2.828E-02	4.533E-02	5.009E-03	-0.266
TE-132	-3.020E-02		6.738E-02	1.063E-01	1.796E-02	-0.284
BA-133	-4.561E-03		2.008E-02	3.277E-02	4.896E-03	-0.139
I-133	-1.842E-06		3.547E-06	Half-Life	too short	
CS-134	-8.716E-03		1.950E-02	2.990E-02	3.310E-03	-0.291
CS-135	-9.559E-03		7.201E-02	1.145E-01	1.657E-02	-0.083
I-135	1.730E+00		7.413E+00	Half-Life	too short	
CS-136	-5.863E-03		3.385E-02	5.121E-02	5.177E-03	-0.114
BA-137M	1.506E-03		1.565E-02	2.591E-02	2.732E-03	0.058
CS-137	1.592E-03		1.654E-02	2.739E-02	2.892E-03	0.058
CE-139	-1.268E-02		1.264E-02	1.978E-02	1.940E-03	-0.641
BA-140	2.592E-02		7.329E-02	1.254E-01	4.209E-02	0.207
LA-140	-3.980E-03		2.358E-02	3.820E-02	3.349E-03	-0.104
CE-141	3.171E-04		2.150E-02	3.622E-02	3.297E-03	0.009
CE-143	1.157E-01		1.350E+00	2.285E+00	5.453E-01	0.051
CE-144	6.849E-02		8.794E-02	1.536E-01	2.384E-02	0.446
PM-144	8.935E-03		1.557E-02	2.664E-02	2.849E-03	0.335
PR-144	6.031E-01		1.051E+00	1.798E+00	1.923E-01	0.335
PM-146	-2.935E-03		1.862E-02	2.979E-02	3.462E-03	-0.099
ND-147	-3.125E-02		1.527E-01	2.513E-01	3.985E-02	-0.124
PM-149	-3.628E+00		4.408E+00	6.534E+00	1.235E+00	-0.555
EU-152	-5.500E-03		4.304E-02	7.093E-02	8.526E-03	-0.078
GD-153	2.600E-02		3.339E-02	5.102E-02	4.486E-03	0.510
EU-154	3.261E-02		4.080E-02	7.465E-02	8.437E-03	0.437
EU-155	1.613E-02		4.260E-02	6.996E-02	6.005E-03	0.231
TB-160	4.731E-02		5.150E-02	9.340E-02	1.044E-02	0.507
HO-166M	2.094E-02		2.818E-02	4.551E-02	4.893E-03	0.460
TM-171	-1.117E+01		9.862E+00	1.440E+01	1.088E+00	-0.775
LU-176	1.875E-03		1.132E-02	1.919E-02	2.518E-03	0.098
LU-177	-1.168E-02		2.198E-01	3.591E-01	4.053E-02	-0.033
LU-177M	2.065E-02		7.456E-02	1.247E-01	1.179E-02	0.166
HF-181	-3.762E-03		1.702E-02	2.693E-02	2.659E-03	-0.140
W-181	-1.883E-01		1.309E-01	1.888E-01	1.408E-02	-0.997
TA-182	4.935E-02		6.893E-02	1.231E-01	1.024E-02	0.401
RE-183	4.783E-02		4.523E-02	7.934E-02	7.655E-03	0.603
RE-184	-4.145E-02		1.066E-01	1.673E-01	2.171E-02	-0.248
OS-185	-1.466E-03		1.755E-02	2.865E-02	3.011E-03	-0.051
RE-188	5.399E-02		6.671E-02	1.164E-01	1.086E-02	0.464
W-188	-9.820E-01		3.107E+00	5.135E+00	7.014E-01	-0.191
IR-192	1.626E-03		1.555E-02	2.621E-02	3.349E-03	0.062
AU-195	7.142E-02		8.673E-02	1.466E-01	1.278E-02	0.487

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200	-7.911E-01		1.959E+00	3.146E+00	3.314E-01	-0.251
TL-201	-4.054E-01		5.666E-01	9.037E-01	8.907E-02	-0.449
TL-202	2.825E-03		2.207E-02	3.627E-02	3.492E-03	0.078
HG-203	9.317E-03		1.648E-02	2.733E-02	3.869E-03	0.341
BI-207	4.187E-03		1.977E-02	3.309E-02	3.176E-03	0.127
TL-207	1.087E-01		3.094E-01	5.271E-01	1.048E-01	0.206
PO-209	1.280E+00		3.006E+00	5.204E+00	5.829E-01	0.246
BI-210	-3.938E-01		1.266E+00	1.919E+00	1.783E-01	-0.205
PB-210	-3.938E-01		1.266E+00	1.919E+00	1.783E-01	-0.205
PO-210	-3.938E-01		1.266E+00	1.919E+00	1.614E-01	-0.205
BI-211	-7.683E-02		1.049E-01	1.568E-01	1.830E-02	-0.490
PB-211	-2.307E-01		4.466E-01	6.639E-01	4.168E-01	-0.348
BI-212	-5.947E-03		1.233E-01	1.996E-01	2.384E-02	-0.030
PB-212	-1.303E-02		3.250E-02	5.120E-02	6.765E-03	-0.254
PO-212	-1.303E-02		3.250E-02	5.120E-02	6.765E-03	-0.254
BI-214	1.848E-03	+	4.712E-02	6.505E-02	7.563E-03	0.028
PB-214	-9.652E-03		3.647E-02	5.650E-02	7.202E-03	-0.171
PO-214	-9.652E-03		3.647E-02	5.650E-02	7.202E-03	-0.171
PO-215	1.087E-01		3.094E-01	5.271E-01	1.048E-01	0.206
PO-216	-1.303E-02		3.250E-02	5.120E-02	6.765E-03	-0.254
PO-218	-9.652E-03		3.647E-02	5.650E-02	7.202E-03	-0.171
RN-219	3.233E-02		1.826E-01	3.037E-01	4.698E-02	0.106
RN-220	-8.138E+00		1.111E+01	1.731E+01	1.764E+00	-0.470
RA-223	1.087E-01		3.094E-01	5.271E-01	1.048E-01	0.206
RA-224	1.182E-01		3.237E-01	5.345E-01	6.691E-02	0.221
RA-226	1.848E-03	+	4.712E-02	6.505E-02	7.563E-03	0.028
AC-227	-1.404E-02		1.853E-01	2.971E-01	5.422E-02	-0.047
TH-227	-1.404E-02		1.853E-01	2.971E-01	6.116E-02	-0.047
AC-228	-5.944E-02		6.677E-02	1.039E-01	1.377E-02	-0.572
RA-228	-5.944E-02		6.677E-02	1.039E-01	1.377E-02	-0.572
TH-228	-1.313E-02		3.275E-02	5.160E-02	6.817E-03	-0.254
TH-229	1.008E-02		2.308E-01	3.813E-01	4.100E-02	0.026
TH-230	1.848E-03	+	4.712E-02	6.505E-02	7.563E-03	0.028
PA-231	6.859E-03		7.187E-01	1.149E+00	2.146E-01	0.006
TH-231	1.087E-01		3.094E-01	5.271E-01	1.048E-01	0.206
U-231	-4.091E-02		1.371E-01	1.919E-01	1.704E-02	-0.213
TH-232	-5.944E-02		6.677E-02	1.039E-01	1.377E-02	-0.572
PA-233	-1.462E-02		3.039E-02	4.932E-02	6.461E-03	-0.296
PA-234	-3.212E-02		1.134E-01	1.801E-01	3.580E-02	-0.178
PA-234M	7.593E-01		2.183E+00	3.346E+00	3.834E-01	0.227
TH-234	-1.468E-01		5.298E-01	8.454E-01	1.472E-01	-0.174
U-234	1.848E-03	+	4.712E-02	6.505E-02	7.563E-03	0.028
U-235	-8.500E-02		1.017E-01	1.472E-01	2.596E-02	-0.578
NP-236	-3.309E-02		3.671E-02	5.821E-02	5.565E-03	-0.569
NP-237	-4.331E-02		8.209E-02	1.279E-01	2.897E-02	-0.338
U-238	-1.468E-01		5.298E-01	8.454E-01	1.472E-01	-0.174
NP-239	-2.077E-02		8.443E-02	1.321E-01	1.092E-02	-0.157
AM-241	-4.112E-03		4.741E-02	7.835E-02	6.124E-03	-0.052

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	-1.169E-03		1.939E-02	3.072E-02	2.504E-03	-0.038
CM-243	-6.304E-03		3.769E-02	5.975E-02	5.094E-03	-0.106
AM-246	-4.584E-02		6.873E-02	8.288E-02	7.797E-03	-0.553
CM-247	-4.754E-03		1.656E-02	2.657E-02	2.493E-03	-0.179
CF-249	-4.087E-03		1.945E-02	3.154E-02	2.998E-03	-0.130
CF-251	2.181E-02		5.629E-02	9.538E-02	9.689E-03	0.229

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202037549          *
* Acquisition date   : 18-FEB-2010 17:03:17 Detector SN# :                  *
* Detector ID        : GAM22 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 02:00:00.99 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 11-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202037549 Analyst initials: MXR1                 *
* Batch Number       : 950787 Sample Quantity : 1.6628E+02 GRAM           *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 2-DEC-2009 16:47:28 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	DLC (pCi/GRAM)	TPU
GE-68	3.775E-01	5.094E-01	3.462E-01	2.599E-01
RB-86	1.852E-01	2.499E-01	1.636E-01	1.275E-01
TL-208	9.225E-03	1.874E-02	1.286E-02	9.562E-03
ANH-511	2.442E-03	3.119E-02	1.175E-02	1.591E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.848E-02	1.307E-01	1.078E-01	6.666E-02 NOT IDENT.
NA-22	1.183E-02	1.427E-02	1.358E-02	7.279E-03 NOT IDENT.
NA-24	4.886E+01	8.496E+01	0.000E+00	4.334E+01 SHORT HLIF
AL-26	-9.291E-03	1.406E-02	1.032E-02	7.172E-03 NOT IDENT.
K-40	2.056E-02	2.183E-01	2.078E-01	1.114E-01 NOT IDENT.
TI-44	-4.470E-03	1.137E-02	1.023E-02	5.800E-03 NOT IDENT.
SC-46	-1.079E-02	1.489E-02	1.189E-02	7.598E-03 NOT IDENT.
V-48	-3.107E-03	1.891E-02	1.592E-02	9.649E-03 NOT IDENT.
CR-51	-5.147E-04	1.481E-01	1.343E-01	7.558E-02 NOT IDENT.
MN-52	-4.344E-02	3.872E-02	2.626E-02	1.976E-02 NOT IDENT.
MN-54	-2.929E-03	1.492E-02	1.285E-02	7.613E-03 NOT IDENT.
CO-56	3.686E-03	1.558E-02	1.395E-02	7.951E-03 NOT IDENT.
CO-57	9.801E-03	1.090E-02	1.015E-02	5.563E-03 NOT IDENT.
CO-58	3.617E-03	1.447E-02	1.306E-02	7.384E-03 NOT IDENT.
FE-59	5.674E-03	2.895E-02	2.514E-02	1.477E-02 NOT IDENT.
CO-60	5.263E-04	1.472E-02	1.264E-02	7.513E-03 NOT IDENT.
ZN-65	1.375E-02	3.495E-02	3.080E-02	1.783E-02 NOT IDENT.
AS-73	-7.421E-02	2.499E-01	2.335E-01	1.275E-01 NOT IDENT.
AS-74	-1.833E-02	3.396E-02	2.870E-02	1.733E-02 NOT IDENT.
SE-75	1.406E-02	1.942E-02	1.775E-02	9.910E-03 NOT IDENT.
BR-77	-9.782E-02	5.255E-01	4.535E-01	2.681E-01 NOT IDENT.
SR-82	-9.427E-02	1.342E-01	1.057E-01	6.845E-02 NOT IDENT.
RB-83	-5.869E-03	2.833E-02	2.441E-02	1.446E-02 NOT IDENT.

RB-84	1.921E-02	2.354E-02	2.217E-02	1.201E-02	NOT IDENT.
KR-85	1.580E+01	4.215E+00	3.965E+00	2.150E+00	NOT IDENT.
SR-85	7.493E-02	1.999E-02	1.881E-02	1.020E-02	NOT IDENT.
Y-88	5.318E-03	1.464E-02	1.313E-02	7.471E-03	NOT IDENT.
ZR-88	-1.229E-02	1.394E-02	1.155E-02	7.113E-03	NOT IDENT.
Y-91	2.035E+00	5.726E+00	5.158E+00	2.921E+00	NOT IDENT.
NB-94	-8.130E-03	1.434E-02	1.170E-02	7.316E-03	NOT IDENT.
NB-95	-2.833E-03	1.530E-02	1.281E-02	7.804E-03	NOT IDENT.
NB-95M	-5.530E-02	5.466E-02	4.535E-02	2.789E-02	NOT IDENT.
ZR-95	1.960E-02	2.500E-02	2.310E-02	1.276E-02	NOT IDENT.
NB-97	-4.415E+00	2.840E+01	0.000E+00	1.449E+01	SHORT HLIF
ZR-97	1.655E+03	7.568E+02	0.000E+00	3.861E+02	SHORT HLIF
MO-99	-1.689E-01	7.733E-01	6.485E-01	3.945E-01	NOT IDENT.
TC-99M	1.035E+07	2.068E+07	0.000E+00	1.055E+07	SHORT HLIF
RH-101	-1.146E-02	1.662E-02	1.368E-02	8.479E-03	NOT IDENT.
RH-102	-6.561E-03	1.270E-02	1.048E-02	6.479E-03	NOT IDENT.
RU-103	2.234E-03	1.623E-02	1.413E-02	8.279E-03	FAIL ABUN
RH-106	6.953E-04	1.425E-01	1.250E-01	7.269E-02	FAIL ABUN
RU-106	6.953E-04	1.425E-01	1.250E-01	7.269E-02	FAIL ABUN
AG-108M	-3.870E-03	1.600E-02	1.375E-02	8.165E-03	NOT IDENT.
CD-109	3.078E-01	2.791E-01	2.473E-01	1.424E-01	NOT IDENT.
AG-110M	-2.478E-03	1.461E-02	1.252E-02	7.454E-03	NOT IDENT.
IN-111	-1.167E-01	7.965E-02	6.231E-02	4.064E-02	NOT IDENT.
IN-113M	-1.984E-02	1.999E-02	1.637E-02	1.020E-02	NOT IDENT.
SN-113	-1.984E-02	1.999E-02	1.637E-02	1.020E-02	NOT IDENT.
IN-114M	-2.283E-02	8.147E-02	6.351E-02	4.157E-02	NOT IDENT.
CD-115	-1.231E-02	4.713E-01	4.207E-01	2.405E-01	NOT IDENT.
SN-117M	8.414E-04	1.613E-02	1.497E-02	8.230E-03	NOT IDENT.
SB-122	-4.989E-02	1.363E-01	1.173E-01	6.953E-02	NOT IDENT.
I-123	-1.480E+02	2.080E+02	0.000E+00	1.061E+02	SHORT HLIF
TE-123M	-8.332E-03	1.171E-02	1.039E-02	5.973E-03	NOT IDENT.
I-124	-1.010E-02	1.135E-01	8.879E-02	5.792E-02	NOT IDENT.
SB-124	8.083E-05	3.579E-02	3.048E-02	1.826E-02	NOT IDENT.
SB-125	2.603E-02	3.842E-02	3.546E-02	1.960E-02	NOT IDENT.
TE-125M	-2.304E+00	3.456E+00	2.947E+00	1.763E+00	NOT IDENT.
I-126	4.417E-03	5.271E-02	4.615E-02	2.689E-02	NOT IDENT.
SB-126	1.366E-02	3.893E-02	3.462E-02	1.986E-02	NOT IDENT.
SN-126	9.372E-03	2.960E-02	2.474E-02	1.510E-02	NOT IDENT.
SB-127	4.800E-02	1.469E-01	1.312E-01	7.496E-02	NOT IDENT.
XE-127	-2.642E-04	1.791E-02	1.614E-02	9.137E-03	NOT IDENT.
I-131	-1.204E-02	2.772E-02	2.398E-02	1.414E-02	NOT IDENT.
TE-132	-3.020E-02	6.603E-02	5.704E-02	3.369E-02	NOT IDENT.
BA-133	-4.561E-03	1.968E-02	1.735E-02	1.004E-02	NOT IDENT.
I-133	-1.842E+00	6.951E+00	0.000E+00	3.547E+00	SHORT HLIF
CS-134	-8.716E-03	1.911E-02	1.544E-02	9.752E-03	NOT IDENT.
CS-135	-9.559E-03	7.057E-02	6.115E-02	3.601E-02	NOT IDENT.
I-135	1.730E+06	1.453E+07	0.000E+00	7.413E+06	SHORT HLIF
CS-136	-5.863E-03	3.317E-02	2.621E-02	1.692E-02	NOT IDENT.
BA-137M	1.506E-03	1.533E-02	1.345E-02	7.823E-03	NOT IDENT.
CS-137	1.592E-03	1.621E-02	1.422E-02	8.269E-03	NOT IDENT.
CE-139	-1.268E-02	1.239E-02	1.071E-02	6.321E-03	NOT IDENT.
BA-140	2.592E-02	7.183E-02	6.554E-02	3.665E-02	NOT IDENT.
LA-140	-3.980E-03	2.311E-02	1.928E-02	1.179E-02	NOT IDENT.
CE-141	3.171E-04	2.107E-02	1.969E-02	1.075E-02	NOT IDENT.
CE-143	1.157E-01	1.323E+00	1.217E+00	6.748E-01	NOT IDENT.
CE-144	6.849E-02	8.619E-02	8.369E-02	4.397E-02	NOT IDENT.
PM-144	8.935E-03	1.526E-02	1.381E-02	7.785E-03	NOT IDENT.
PR-144	6.031E-01	1.030E+00	9.325E-01	5.255E-01	NOT IDENT.
PM-146	-2.935E-03	1.824E-02	1.566E-02	9.308E-03	NOT IDENT.
ND-147	-3.125E-02	1.496E-01	1.314E-01	7.634E-02	NOT IDENT.
PM-149	-3.628E+00	4.320E+00	3.482E+00	2.204E+00	NOT IDENT.
EU-152	-5.500E-03	4.218E-02	3.759E-02	2.152E-02	NOT IDENT.
GD-153	2.600E-02	3.272E-02	2.805E-02	1.669E-02	NOT IDENT.
EU-154	3.261E-02	3.999E-02	3.796E-02	2.040E-02	NOT IDENT.
EU-155	1.613E-02	4.174E-02	3.837E-02	2.130E-02	NOT IDENT.
TB-160	4.731E-02	5.047E-02	4.807E-02	2.575E-02	NOT IDENT.
HO-166M	2.094E-02	2.762E-02	2.358E-02	1.409E-02	FAIL ABUN
TM-171	-1.117E+01	9.665E+00	8.002E+00	4.931E+00	NOT IDENT.
LU-176	1.875E-03	1.109E-02	1.021E-02	5.659E-03	NOT IDENT.
LU-177	-1.168E-02	2.154E-01	1.931E-01	1.099E-01	NOT IDENT.
LU-177M	2.065E-02	7.306E-02	6.569E-02	3.728E-02	NOT IDENT.
HF-181	-3.762E-03	1.668E-02	1.412E-02	8.509E-03	NOT IDENT.
W-181	-1.883E-01	1.283E-01	1.050E-01	6.546E-02	NOT IDENT.
TA-182	4.935E-02	6.755E-02	6.270E-02	3.446E-02	NOT IDENT.
RE-183	4.783E-02	4.433E-02	4.299E-02	2.261E-02	NOT IDENT.
RE-184	-4.145E-02	1.045E-01	8.948E-02	5.331E-02	NOT IDENT.
OS-185	-1.466E-03	1.720E-02	1.489E-02	8.774E-03	NOT IDENT.
RE-188	5.399E-02	6.538E-02	6.313E-02	3.336E-02	NOT IDENT.

W-188	-9.820E-01	3.045E+00	2.735E+00	1.553E+00	NOT IDENT.
IR-192	1.626E-03	1.524E-02	1.392E-02	7.777E-03	NOT IDENT.
AU-195	7.142E-02	8.499E-02	8.055E-02	4.336E-02	NOT IDENT.
TL-200	-7.911E-01	1.920E+00	1.664E+00	9.797E-01	NOT IDENT.
TL-201	-4.054E-01	5.553E-01	4.892E-01	2.833E-01	NOT IDENT.
TL-202	2.825E-03	2.162E-02	1.908E-02	1.103E-02	NOT IDENT.
HG-203	9.317E-03	1.615E-02	1.458E-02	8.240E-03	NOT IDENT.
BI-207	4.187E-03	1.938E-02	1.692E-02	9.886E-03	NOT IDENT.
TL-207	1.087E-01	3.032E-01	2.798E-01	1.547E-01	NOT IDENT.
PO-209	1.280E+00	2.946E+00	2.677E+00	1.503E+00	NOT IDENT.
BI-210	-3.938E-01	1.241E+00	1.077E+00	6.332E-01	NOT IDENT.
PB-210	-3.938E-01	1.241E+00	1.077E+00	6.332E-01	NOT IDENT.
PO-210	-3.938E-01	1.241E+00	1.077E+00	6.332E-01	NOT IDENT.
BI-211	-7.683E-02	1.028E-01	8.305E-02	5.247E-02	NOT IDENT.
PB-211	-2.307E-01	4.376E-01	3.501E-01	2.233E-01	NOT IDENT.
BI-212	-5.947E-03	1.208E-01	1.034E-01	6.164E-02	NOT IDENT.
PB-212	-1.303E-02	3.185E-02	2.743E-02	1.625E-02	NOT IDENT.
PO-212	-1.303E-02	3.185E-02	2.743E-02	1.625E-02	NOT IDENT.
BI-214	1.848E-03	4.617E-02	3.387E-02	2.356E-02	FAIL ABUN
PB-214	-9.652E-03	3.574E-02	2.992E-02	1.823E-02	NOT IDENT.
PO-214	-9.652E-03	3.574E-02	2.992E-02	1.823E-02	NOT IDENT.
PO-215	1.087E-01	3.032E-01	2.798E-01	1.547E-01	NOT IDENT.
PO-216	-1.303E-02	3.185E-02	2.743E-02	1.625E-02	NOT IDENT.
PO-218	-9.652E-03	3.574E-02	2.992E-02	1.823E-02	NOT IDENT.
RN-219	3.233E-02	1.790E-01	1.602E-01	9.132E-02	NOT IDENT.
RN-220	-8.138E+00	1.089E+01	9.041E+00	5.556E+00	NOT IDENT.
RA-223	1.087E-01	3.032E-01	2.798E-01	1.547E-01	NOT IDENT.
RA-224	1.182E-01	3.172E-01	2.863E-01	1.619E-01	NOT IDENT.
RA-226	1.848E-03	4.617E-02	3.387E-02	2.356E-02	FAIL ABUN
AC-227	-1.404E-02	1.816E-01	1.589E-01	9.265E-02	NOT IDENT.
TH-227	-1.404E-02	1.816E-01	1.589E-01	9.265E-02	FAIL ABUN
AC-228	-5.944E-02	6.543E-02	5.344E-02	3.338E-02	NOT IDENT.
RA-228	-5.944E-02	6.543E-02	5.344E-02	3.338E-02	NOT IDENT.
TH-228	-1.313E-02	3.210E-02	2.764E-02	1.638E-02	NOT IDENT.
TH-229	1.008E-02	2.262E-01	2.056E-01	1.154E-01	NOT IDENT.
TH-230	1.848E-03	4.617E-02	3.387E-02	2.356E-02	FAIL ABUN
PA-231	6.859E-03	7.044E-01	6.124E-01	3.594E-01	NOT IDENT.
TH-231	1.087E-01	3.032E-01	2.798E-01	1.547E-01	NOT IDENT.
U-231	-4.091E-02	1.343E-01	1.056E-01	6.854E-02	FAIL ABUN
TH-232	-5.944E-02	6.543E-02	5.344E-02	3.338E-02	NOT IDENT.
PA-233	-1.462E-02	2.978E-02	2.621E-02	1.520E-02	NOT IDENT.
PA-234	-3.212E-02	1.111E-01	9.248E-02	5.669E-02	FAIL ABUN
PA-234M	7.593E-01	2.140E+00	1.715E+00	1.092E+00	NOT IDENT.
TH-234	-1.468E-01	5.192E-01	4.704E-01	2.649E-01	FAIL ABUN
U-234	1.848E-03	4.617E-02	3.387E-02	2.356E-02	FAIL ABUN
U-235	-8.500E-02	9.962E-02	8.001E-02	5.083E-02	FAIL ABUN
NP-236	-3.309E-02	3.597E-02	3.155E-02	1.835E-02	NOT IDENT.
NP-237	-4.331E-02	8.044E-02	7.057E-02	4.104E-02	NOT IDENT.
U-238	-1.468E-01	5.192E-01	4.704E-01	2.649E-01	FAIL ABUN
NP-239	-2.077E-02	8.274E-02	7.225E-02	4.221E-02	NOT IDENT.
AM-241	-4.112E-03	4.647E-02	4.366E-02	2.371E-02	NOT IDENT.
AM-243	-1.169E-03	1.900E-02	1.702E-02	9.693E-03	NOT IDENT.
CM-243	-6.304E-03	3.693E-02	3.279E-02	1.884E-02	NOT IDENT.
AM-246	-4.584E-02	6.736E-02	4.238E-02	3.437E-02	NOT IDENT.
CM-247	-4.754E-03	1.623E-02	1.401E-02	8.282E-03	NOT IDENT.
CF-249	-4.087E-03	1.906E-02	1.665E-02	9.723E-03	NOT IDENT.
CF-251	2.181E-02	5.517E-02	5.155E-02	2.815E-02	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON , SC 29417                           *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT             *
*****

```

ENERGY	MDA COUNTS
--------	------------

46.50	82.1887
46.50	82.1887
46.50	82.1887
48.70	96.7267
49.72	96.2617
51.35	94.1967
52.39	90.9172
52.97	95.7971
53.15	97.7333
53.44	98.7873
54.07	94.3818
56.28	96.2045
56.28	96.2055
57.37	96.6377
57.53	96.7007
57.53	96.7015
57.60	94.8318
57.98	95.9281
57.98	95.9281
59.32	97.4008
59.32	97.4008
59.40	97.4317
59.54	97.4859
59.72	123.3793
60.01	123.5210
61.10	161.5541
61.14	161.5791
61.30	136.6579
63.00	108.4942
63.29	121.2211
63.29	121.2211
63.58	115.5293
64.28	111.9409
65.12	165.0217
65.20	159.2104
65.20	159.2104
66.05	182.2470
66.72	135.5475
66.83	135.6023
66.91	135.6423
67.20	119.0583
67.20	119.0583
67.75	114.3657
67.85	114.4073
68.90	107.9089
68.90	107.9089
69.30	106.0797
69.67	105.2269
70.82	125.5866
70.82	125.5866
70.83	125.5911
72.80	136.4849
72.87	136.5181
72.87	136.5181
74.67	130.2834
74.81	130.3444
74.81	130.3444
74.81	130.3444
74.81	130.3444
74.81	130.3444
74.81	130.3444
74.81	130.3444
74.97	130.4146
75.28	131.5618
75.70	118.5710
77.11	126.2510
77.11	126.2510

77.11	126.2510
77.11	126.2510
77.11	126.2510
77.11	126.2510
77.11	126.2510
78.38	142.1100
79.62	151.9166
79.80	138.6523
79.80	138.6523
80.11	139.8177
80.18	139.8488
80.30	124.4717
80.30	124.4717
80.57	124.5781
81.00	126.8100
81.07	126.8381
81.07	126.8381
81.07	126.8381
81.07	126.8381
82.60	106.7243
83.37	121.5191
83.78	127.9135
83.78	127.9135
83.78	127.9135
83.78	127.9135
84.21	130.1657
84.90	134.6145
85.43	137.9673
86.29	147.7571
86.50	147.8503
86.54	147.8683
86.59	151.0371
86.72	151.0964
86.79	149.8678
86.94	149.9361
87.30	129.2855
87.30	129.2855
87.30	129.2855
87.30	129.2855
87.30	129.2855
87.30	129.2855
87.57	129.3894
87.88	102.6595
88.03	102.7051
88.36	121.7847
88.47	121.8246
89.95	144.6008
91.11	148.2776
92.29	130.1171
92.38	130.1506
92.38	130.1506
93.35	130.5099
94.00	130.7500
94.67	148.1748
94.67	148.1769
94.90	148.2724
94.90	148.2724
94.90	148.2724
94.90	148.2724
95.87	142.2098
95.87	142.2098
96.73	132.8302
97.43	116.8555
98.44	117.1780
98.44	117.1785
98.88	118.4049
99.55	120.7965
99.55	120.7965
99.86	128.5211
100.00	128.5697
100.10	132.9653
103.18	125.2650
103.76	124.3553
105.00	128.0692
105.31	120.4373
108.00	154.6464
109.28	147.3331

111.00	134.5154
111.00	134.5154
111.76	122.4149
112.95	144.1745
115.19	137.0334
116.30	129.4508
117.00	151.2783
117.00	151.2783
117.66	152.6550
121.11	142.4100
121.62	124.1812
121.78	124.2268
122.06	130.0620
122.32	130.1396
122.32	130.1396
122.32	130.1396
122.32	130.1396
123.07	155.7449
127.23	143.2407
129.76	161.6121
131.20	184.1490
133.02	156.5698
133.54	146.1185
135.34	142.2363
136.00	179.8246
136.25	179.9201
136.48	178.2257
140.51	150.0747
140.51	0.0000
142.18	160.5099
142.65	158.8582
143.76	153.7888
144.24	143.9773
144.24	143.9773
144.24	143.9773
144.24	143.9773
145.22	137.0039
145.44	138.8804
147.16	161.2178
152.43	152.7691
152.70	154.6904
153.22	175.1229
154.21	166.2218
154.21	166.2218
154.21	166.2218
154.21	166.2218
155.03	131.3363
156.02	135.2910
158.56	152.7015
159.00	0.0000
159.00	165.8728
160.31	185.8960
161.27	143.1795
162.32	136.8928
162.64	140.7269
163.35	147.4858
163.89	150.4517
165.85	169.8624
167.43	161.8298
171.28	148.6482
171.86	159.2916
172.10	159.3592
176.55	143.2865
176.60	143.2991
181.06	151.9491
184.41	154.9471
185.71	155.2807
186.00	155.3559
190.27	155.8525
192.34	166.9788
193.63	153.3338
197.04	152.1759
198.01	163.3644
198.60	153.5441
200.40	163.9750
201.83	170.3515
202.84	150.5436
205.31	143.0541

208.36	149.7886
208.81	140.7753
209.75	152.1297
209.75	152.1297
210.97	176.7918
215.65	139.1398
216.55	162.8843
218.09	170.4365
222.10	149.7370
223.80	140.7833
226.40	163.1196
227.00	165.3371
227.08	165.3553
227.20	174.7445
228.16	154.1482
228.18	154.1527
228.18	154.1527
231.56	139.1806
235.69	194.6952
236.00	192.6727
236.00	192.6727
238.63	171.1696
238.63	171.1696
238.63	171.1696
238.63	171.1696
239.00	158.5693
240.98	166.4100
241.98	196.3508
241.98	196.3508
241.98	196.3508
244.69	161.9059
245.39	154.5924
247.94	99.4844
248.90	102.8218
249.79	121.1695
252.40	126.9586
252.85	132.4142
252.85	132.4142
254.15	0.0000
256.20	135.1447
256.20	135.1447
260.50	129.3573
260.90	139.2109
262.80	139.5410
264.65	109.2667
268.24	125.1137
268.79	127.3954
269.46	135.1938
269.46	135.1938
269.46	135.1938
269.46	135.1938
271.23	118.9622
273.65	122.6240
276.40	126.3539
277.35	130.9351
277.60	124.3132
277.60	124.3132
278.00	123.2626
278.60	106.6816
279.20	104.5337
279.53	104.5739
280.46	115.8257
281.68	118.2229
283.67	114.0263
284.30	115.2290
285.00	119.8019
285.90	133.3775
286.10	127.8029
286.10	127.8029
287.40	122.3805
288.45	0.0000
290.67	128.0253
290.80	128.0444
291.72	124.5689
293.26	118.4565
293.70	123.9439
295.21	115.0938
295.21	115.0938

295.21	115.0938
295.96	119.7265
296.50	122.5217
297.23	132.6137
298.57	131.9036
299.80	128.4405
299.80	128.4405
300.09	123.9273
300.09	123.9273
300.09	123.9273
300.12	123.9307
301.29	104.9305
302.84	112.4237
303.76	130.8366
303.91	130.8576
304.40	136.4227
304.40	136.4227
304.84	122.7477
306.84	109.2470
308.46	110.3599
311.98	124.6278
316.51	118.7406
318.01	122.6479
319.02	121.8482
319.41	129.3436
320.08	123.8465
323.87	111.2531
323.87	111.2531
323.87	111.2531
323.87	111.2531
325.23	112.3462
328.77	114.6386
333.44	120.8547
334.20	106.7748
334.20	106.7748
334.30	104.8958
338.28	105.3186
338.28	105.3186
338.28	105.3186
338.28	105.3186
338.32	105.3240
338.32	105.3240
338.32	105.3240
340.50	113.1618
340.57	113.1691
344.27	99.2697
345.85	86.0416
350.59	107.5744
351.07	115.3125
351.92	107.7139
351.92	107.7139
351.92	107.7139
355.39	0.0000
356.01	107.1762
364.48	102.2071
366.43	102.3955
367.43	110.3005
367.94	108.3998
369.80	91.9575
374.96	98.2983
383.85	92.1633
387.95	108.4185
388.63	99.5276
391.69	113.7718
391.69	113.7718
392.90	117.8905
398.62	103.4250
400.65	96.5672
401.10	89.5617
401.81	83.5755
402.60	91.6943
404.84	97.9295
410.95	95.4010
411.60	87.3301
413.65	78.3272
414.70	94.6881
415.30	88.6238

415.76	78.4682
417.63	0.0000
418.52	74.5648
423.70	82.0703
427.08	69.9557
427.89	64.8549
432.53	88.8702
433.93	100.3521
439.47	89.3730
439.56	89.3793
439.89	92.5222
443.98	84.4825
444.90	72.0196
445.03	72.0272
445.03	72.0272
445.03	72.0272
445.03	72.0272
453.90	71.4830
463.38	73.0716
468.07	71.2096
473.00	64.0093
475.06	77.9991
475.35	78.0170
476.78	71.6815
477.59	81.3595
477.96	72.8161
482.03	75.1859
484.57	77.4809
487.03	75.4653
490.36	79.9737
492.35	79.0088
497.08	72.7652
507.63	0.0000
510.53	0.0000
510.84	84.4556
511.00	84.4650
511.85	84.5153
511.85	84.5153
513.99	49.4670
513.99	49.4670
520.41	71.2726
520.65	71.2852
527.90	71.2241
528.96	0.0000
529.64	65.7521
529.87	0.0000
531.02	69.5236
537.32	58.6511
543.00	67.2876
546.56	0.0000
549.76	71.3474
552.65	64.9009
555.20	65.0104
563.23	73.8772
563.90	77.7008
568.70	57.9818
569.32	57.0532
569.50	55.1585
569.67	55.1644
573.80	73.4298
574.00	68.6704
574.64	71.5622
578.91	47.5650
579.30	49.2167
583.14	60.4378
585.48	60.9393
591.81	71.3789
592.07	71.3894
593.00	88.8068
595.88	94.7680
600.56	86.3147
602.52	0.0000
602.71	106.3365
602.71	106.3365
603.60	119.9280
604.41	116.6553
604.70	120.0084
609.31	92.6285

609.31	92.6285
609.31	92.6285
609.31	92.6285
610.33	93.6621
612.46	77.0362
614.37	75.4478
618.01	70.5732
621.84	68.7710
621.84	68.7710
631.29	60.2653
633.02	52.4156
633.10	50.4397
634.78	41.5796
635.90	49.5321
636.97	52.5374
645.85	52.8091
646.12	58.7971
656.30	62.1488
657.75	62.2006
657.90	0.0000
661.65	61.3326
661.65	61.3326
664.57	69.4913
666.33	62.5033
666.33	62.5033
675.00	58.7552
677.61	45.6519
685.20	48.9004
692.80	79.7932
695.00	54.2832
696.49	60.4776
696.49	60.4776
697.00	63.5704
697.49	67.6892
698.33	61.5637
698.50	61.5698
699.00	58.5064
702.63	66.8488
706.10	55.6392
706.58	0.0000
706.67	60.8101
709.31	61.9275
711.68	42.3705
713.82	45.5227
717.42	72.5606
720.50	48.7986
721.93	44.6788
722.20	43.6458
722.78	45.7384
722.78	45.7384
722.89	45.7411
722.95	45.7420
723.30	43.6714
724.18	42.6508
727.18	57.3040
733.00	56.4324
735.90	39.7720
739.58	55.5760
742.81	55.6688
744.21	48.3500
747.13	43.1588
751.79	41.1511
752.31	53.8275
753.82	53.8679
755.35	43.3390
756.15	34.8967
756.87	33.8516
763.93	58.3894
765.79	52.0675
766.42	49.9576
766.84	48.9049
776.49	59.8219
778.00	47.0374
778.57	49.1895
778.89	47.0579
783.80	48.2437
785.46	57.9397
792.07	54.8962

795.84	54.9958
796.30	53.9296
798.80	53.9947
801.93	43.2609
805.60	45.5034
810.29	55.8430
810.76	41.8917
815.85	46.6579
817.79	49.5027
818.51	47.6506
819.60	48.6094
826.30	50.6382
828.27	42.2369
831.60	47.0023
831.96	53.5916
834.83	52.7217
836.80	0.0000
846.75	46.3844
848.13	44.5190
856.28	0.0000
856.80	46.5963
860.37	30.4788
867.32	38.2178
867.82	35.3592
871.10	36.3678
873.19	43.1072
874.81	38.3447
875.33	0.0000
876.40	45.0870
879.36	29.7772
880.27	31.7109
880.51	31.7144
881.50	31.7282
883.24	37.5255
884.67	37.5493
889.25	47.2722
896.60	35.8096
898.02	34.8631
899.00	37.7840
903.28	44.6483
911.07	42.8498
911.07	42.8498
911.07	42.8498
919.63	35.1870
920.93	35.2065
925.00	55.8390
925.24	53.8855
926.50	48.0327
935.52	56.0865
937.48	44.3149
944.10	36.5367
946.00	35.5775
949.00	41.5583
962.29	50.7394
964.01	55.7520
966.15	46.8328
968.20	40.8877
969.11	43.8964
969.11	43.8964
969.11	43.8964
977.42	23.0225
980.50	33.0731
983.50	33.1128
989.30	32.1836
996.32	46.3931
1001.03	32.3331
1001.68	34.3629
1004.76	39.4638
1021.30	0.0000
1024.50	0.0000
1034.80	41.9724
1036.00	40.9668
1037.82	32.7958
1038.57	30.7554
1038.76	0.0000
1045.16	38.0259
1046.59	39.0748
1048.07	38.0685

1050.47	30.8936
1050.47	30.8936
1062.04	23.7877
1063.62	30.0114
1076.63	23.6569
1077.35	25.4835
1078.86	41.8896
1085.78	20.8670
1099.22	28.3089
1112.02	42.1317
1112.84	37.9298
1115.52	37.9662
1120.29	35.9175
1120.29	35.9175
1120.29	35.9175
1120.29	35.9175
1120.51	33.8080
1121.28	32.7602
1124.00	0.0000
1129.67	32.8575
1131.51	0.0000
1147.95	0.0000
1167.94	31.9549
1173.22	25.4213
1175.09	19.7849
1177.93	29.2347
1189.05	28.3978
1204.90	28.5489
1205.75	25.7014
1213.00	36.2593
1221.42	31.5760
1230.97	38.3936
1235.34	39.4097
1236.41	0.0000
1238.25	33.6745
1246.25	34.7256
1260.41	0.0000
1271.85	24.3134
1274.45	17.5199
1274.54	17.5204
1291.56	25.4430
1298.22	0.0000
1312.09	22.6512
1325.50	22.7445
1325.50	22.7445
1332.49	22.7929
1333.61	20.8180
1360.21	24.9825
1362.66	0.0000
1365.15	24.0183
1368.21	22.0369
1368.53	0.0000
1376.25	36.1461
1384.27	21.1352
1394.10	19.1774
1395.20	21.2025
1407.95	23.3081
1434.06	27.5669
1436.60	30.6528
1457.56	0.0000
1460.81	18.5175
1489.15	24.8840
1509.49	13.5538
1596.49	18.9665
1620.62	14.3132
1678.03	0.0000
1691.02	20.3933
1691.02	20.3933
1706.46	0.0000
1750.46	0.0000
1764.49	14.8254
1764.49	14.8254
1764.49	14.8254
1764.49	14.8254
1770.23	35.6289
1771.40	43.5584
1791.20	0.0000
1808.65	17.9741

1836.01

12.0579

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202037549

Total Uranium Activity	-4.7604E-01	ug/g
Total Uranium Counting Unc.	1.5453E+00	ug/g
Total Uranium Tpu	7.8842E-07	ug/g
Total Uranium Mda	1.3998E+00	ug/g

```

*****
*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                           *
*                               GROSS GAMMA REPORT                             *
*
*****
*
*  BATCH ID      : 950787                SAMPLE ID   : G1202037549                *
*  ANALYST       : MXR1                  DETECTOR    : GAM22                    *
*  SAMPLE DATE   : 11-FEB-2010 00:00:00.00  COUNT TIME : 0 02:00:00.00          *
*  ANALYSIS DATE : 18-FEB-2010 17:03:17.48  SAMPLE ALQT: 166.280 GRAM          *
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 5.447E-02
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.028E-01
GROSS GAMMA MDA     (pCi/GRAM ) : 1.508E-01
GROSS GAMMA DLC     (pCi/GRAM ) : 7.109E-02

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 19:29:54.38

```
*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037550.CNF;1
Sample date        : 2-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 17:29:20
Sample ID          : G1202037550          Sample quantity  : 1.20050E+02 GRAM
Detector name      : GAM12                Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00        Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance   : 1.50000 keV          Analyst Initials : MXR1
Abundance limit    : 75.00000             Sensitivity       : 5.00000
Batch ID           : 950787               Detector SN#      :
Matrix Spike ID    :                      LCS ID           : 1032-A
*****
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37*	103	481	0.89	126.21	122	8	1.43E-02	39.0	
2	3	74.63*	524	471	1.22	148.76	144	17	7.28E-02	8.2	2.24E+00
3	3	76.99	645	315	0.90	153.47	144	17	8.95E-02	5.8	
4	0	86.90	192	470	1.07	173.30	171	7	2.67E-02	20.0	
5	5	89.78	118	303	0.85	179.06	177	14	1.64E-02	23.3	2.80E+00
6	5	92.88*	284	471	1.54	185.27	177	14	3.94E-02	16.0	
7	0	129.23	89	380	1.38	258.01	254	9	1.24E-02	40.8	
8	0	185.93*	168	352	1.40	371.45	366	10	2.34E-02	23.3	
9	0	208.90	94	321	1.02	417.43	413	9	1.31E-02	35.8	
10	5	238.41*	1329	200	1.09	476.47	469	18	1.85E-01	3.3	2.01E+00
11	5	241.32	342	208	1.92	482.30	469	18	4.75E-02	9.2	
12	0	269.92	125	178	1.45	539.52	535	10	1.73E-02	21.9	
13	0	277.37	84	188	0.92	554.43	550	10	1.16E-02	32.5	
14	0	294.87*	402	243	1.19	589.44	583	12	5.58E-02	9.3	
15	0	299.77	99	137	1.36	599.25	595	8	1.37E-02	23.0	
16	0	327.78	127	189	1.48	655.29	649	13	1.76E-02	24.1	
17	0	337.98*	269	195	1.16	675.69	671	12	3.73E-02	12.0	
18	0	351.57*	680	165	1.22	702.89	697	13	9.45E-02	5.6	
19	0	462.76	75	124	0.85	925.35	919	11	1.05E-02	30.8	
20	0	510.77*	141	148	2.27	1021.40	1015	16	1.95E-02	24.1	
21	0	582.81*	452	87	1.47	1165.53	1161	11	6.28E-02	6.3	
22	0	608.95*	480	123	1.37	1217.82	1212	14	6.66E-02	6.8	
23	0	663.29	62	132	4.79	1326.53	1319	18	8.55E-03	46.0	
24	0	727.13	74	76	1.52	1454.23	1448	11	1.02E-02	25.8	
25	0	794.63*	59	42	1.49	1589.25	1585	11	8.19E-03	26.0	
26	0	860.13	49	72	1.90	1720.29	1714	12	6.81E-03	37.5	
27	0	910.62*	308	33	1.34	1821.27	1815	13	4.28E-02	7.0	
28	0	934.00	46	41	0.77	1868.03	1861	12	6.39E-03	31.7	
29	3	964.14	59	58	2.41	1928.32	1919	26	8.22E-03	30.2	2.34E+00
30	3	968.53*	164	42	1.97	1937.11	1919	26	2.28E-02	11.8	
31	0	1119.60*	82	62	1.21	2239.27	2234	11	1.14E-02	22.0	
32	0	1377.15	35	25	0.75	2754.34	2747	11	4.81E-03	32.7	
33	0	1459.97*	1443	45	2.06	2919.95	2909	18	2.00E-01	2.9	
34	0	1763.13*	107	0	2.17	3526.15	3517	15	1.48E-02	10.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-FEB-2010 19:29:56

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037550.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 2-FEB-2010 12:00:00   Acquisition date : 18-FEB-2010 17:29:20
Sample ID        : G1202037550           Sample quantity  : 120.05 GRAM
Sample type       : SOLID                 Sample geometry   :
Detector name     : GAMMA12              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.62   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	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.718E+01	3.397E+00	6.434E-01	4.587E-02	57.792
CD-109	+	88.03	*	2.940E+00	1.195E+00	1.231E+00	9.421E-02	2.388
SN-126	+	64.28		1.046E+00	8.292E-01	8.378E-01	1.176E-01	1.248
	+	86.94		1.199E+00	6.878E-01	6.298E-01	2.592E-01	1.904
	+	87.57	*	2.885E-01	1.173E-01	1.505E-01	1.147E-02	1.917
TL-208	+	277.35		8.554E-01	5.629E-01	5.790E-01	6.064E-02	1.477
	+	510.84		7.283E-01	3.589E-01	2.366E-01	2.442E-02	3.078
	+	583.14	*	6.699E-01	9.712E-02	6.626E-02	4.740E-03	10.109
	+	860.37		6.850E-01	5.167E-01	5.156E-01	4.505E-02	1.329
BI-211		72.87		5.536E+00	3.679E+00	5.865E+00	3.935E-01	0.944
	+	351.07	*	4.368E+00	5.574E-01	3.268E-01	2.054E-02	13.367
PB-212	+	74.81		3.345E+00	6.698E-01	5.701E-01	6.590E-02	5.868
	+	77.11		2.326E+00	3.137E-01	3.235E-01	2.240E-02	7.189
	+	87.30		1.334E+00	5.586E-01	6.980E-01	8.767E-02	1.912
	+	238.63	*	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
	+	300.09		2.125E+00	9.950E-01	1.147E+00	9.368E-02	1.852
PO-212	+	74.81		3.345E+00	6.698E-01	5.701E-01	6.590E-02	5.868
	+	77.11		2.326E+00	3.137E-01	3.235E-01	2.240E-02	7.189
	+	87.30		1.334E+00	5.586E-01	6.980E-01	8.767E-02	1.912
		115.19		1.376E+00	3.796E+00	6.328E+00	4.014E-01	0.218
	+	238.63	*	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
	+	300.09		2.125E+00	9.950E-01	1.147E+00	9.368E-02	1.852
BI-214	+	609.31	*	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
	+	1120.29		1.195E+00	5.363E-01	5.940E-01	5.396E-02	2.011
	+	1764.49		2.128E+00	4.555E-01	2.960E-01	1.754E-02	7.191
PB-214	+	74.81		5.764E+00	1.106E+00	9.823E-01	9.879E-02	5.868
	+	77.11		3.987E+00	6.177E-01	5.546E-01	5.709E-02	7.189
	+	87.30		2.286E+00	9.458E-01	1.196E+00	1.294E-01	1.912
	+	241.98		2.871E+00	5.746E-01	5.421E-01	4.266E-02	5.297
	+	295.21		1.519E+00	3.111E-01	2.272E-01	1.918E-02	6.688
	+	351.92	*	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
PO-214	+	74.81		5.764E+00	1.106E+00	9.823E-01	9.879E-02	5.868
	+	77.11		3.987E+00	6.177E-01	5.546E-01	5.709E-02	7.189
	+	87.30		2.286E+00	9.458E-01	1.196E+00	1.294E-01	1.912

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		2.871E+00	5.746E-01	5.421E-01	4.266E-02	5.297
	+	295.21		1.519E+00	3.111E-01	2.272E-01	1.918E-02	6.688
	+	351.92	*	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
	+	74.81		3.345E+00	6.698E-01	5.701E-01	6.590E-02	5.868
	+	77.11		2.326E+00	3.137E-01	3.235E-01	2.240E-02	7.189
	+	87.30		1.334E+00	5.586E-01	6.980E-01	8.767E-02	1.912
PO-218	+	238.63	*	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
	+	300.09		2.125E+00	9.950E-01	1.147E+00	9.368E-02	1.852
	+	74.81		5.764E+00	1.106E+00	9.823E-01	9.879E-02	5.868
	+	77.11		3.987E+00	6.177E-01	5.546E-01	5.709E-02	7.189
	+	87.30		2.286E+00	9.458E-01	1.196E+00	1.294E-01	1.912
	+	241.98		2.871E+00	5.746E-01	5.421E-01	4.266E-02	5.297
RA-224	+	295.21		1.519E+00	3.111E-01	2.272E-01	1.918E-02	6.688
	+	351.92	*	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
	+	240.98	*	5.444E+00	1.046E+00	1.088E+00	6.004E-02	5.002
RA-226	+	609.31	*	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
AC-228	+	1120.29		1.195E+00	5.363E-01	5.940E-01	5.396E-02	2.011
	+	1764.49		2.128E+00	4.555E-01	2.960E-01	1.754E-02	7.191
	+	338.32		1.899E+00	8.990E-01	4.071E-01	1.659E-01	4.664
RA-228	+	911.07	*	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
	+	969.11		1.909E+00	6.306E-01	4.160E-01	9.591E-02	4.589
	+	338.32		1.899E+00	8.990E-01	4.071E-01	1.659E-01	4.664
TH-228	+	911.07	*	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
	+	969.11		1.909E+00	6.306E-01	4.160E-01	9.591E-02	4.589
	+	74.81		3.400E+00	6.032E-01	5.794E-01	3.994E-02	5.868
TH-230	+	77.11		2.364E+00	3.188E-01	3.288E-01	2.276E-02	7.189
	+	87.30		1.356E+00	5.513E-01	7.093E-01	5.391E-02	1.912
	+	238.63	*	1.888E+00	1.835E-01	9.718E-02	6.900E-03	19.428
TH-232	+	300.09		2.160E+00	1.616E+00	1.166E+00	6.872E-01	1.852
	+	609.31	*	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
	+	1120.29		1.195E+00	5.363E-01	5.940E-01	5.396E-02	2.011
TH-234	+	1764.49		2.128E+00	4.555E-01	2.960E-01	1.754E-02	7.191
	+	338.32		1.899E+00	4.701E-01	4.071E-01	2.306E-02	4.664
	+	911.07	*	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
U-234	+	969.11		1.909E+00	6.306E-01	4.160E-01	9.591E-02	4.589
	+	63.29	*	2.642E+00	2.110E+00	2.263E+00	3.853E-01	1.168
	+	92.38		2.740E+00	9.970E-01	8.150E-01	1.425E-01	3.362
NP-237	+	609.31	*	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
	+	1120.29		1.195E+00	5.363E-01	5.940E-01	5.396E-02	2.011
	+	1764.49		2.128E+00	4.555E-01	2.960E-01	1.754E-02	7.191
U-238	+	86.50	*	8.471E-01	3.862E-01	4.470E-01	9.820E-02	1.895
	+	95.87		-3.653E-01	1.092E+00	1.589E+00	3.835E-01	-0.230
	+	63.29	*	2.642E+00	2.110E+00	2.263E+00	3.853E-01	1.168
AM-243	+	92.38		2.740E+00	8.968E-01	8.150E-01	5.933E-02	3.362
	+	74.67	*	5.424E-01	9.604E-02	9.270E-02	6.299E-03	5.851
	+	86.72		3.177E+01	1.292E+01	1.672E+01	1.263E+00	1.900
ANH-511	+	117.66		-5.257E+00	4.116E+00	6.361E+00	4.007E-01	-0.826
	+	142.18		5.353E+00	1.864E+01	3.033E+01	1.717E+00	0.177
	+	511.00	*	1.573E-01	7.641E-02	5.112E-02	3.115E-03	3.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.787E-02	3.429E-01	5.569E-01	3.832E-02	0.068
NA-22		1274.54	*	5.656E-03	5.368E-02	8.909E-02	5.737E-03	0.063
NA-24		1368.53	*	1.098E+00	5.368E-02	Half-Life too short		
AL-26		1129.67		-7.038E-01	2.042E+00	3.293E+00	2.007E-01	-0.214
		1808.65	*	7.937E-03	2.237E-02	4.052E-02	2.325E-03	0.196
TI-44		67.85		-2.861E-02	5.038E-02	7.929E-02	5.161E-03	-0.361
	+	78.38	*	4.292E-01	5.790E-02	7.768E-02	5.434E-03	5.525
SC-46		889.25	*	1.924E-02	4.632E-02	7.788E-02	6.455E-03	0.247
	+	1120.51		2.064E-01	9.164E-02	1.512E-01	9.397E-03	1.365
V-48		944.10		1.560E-01	1.103E+00	1.801E+00	1.446E-01	0.087
		983.50	*	-2.278E-02	8.215E-02	1.279E-01	9.857E-03	-0.178
		1312.09		-6.235E-02	9.924E-02	1.513E-01	1.026E-02	-0.412
CR-51		320.08	*	-6.361E-02	4.033E-01	6.625E-01	4.212E-02	-0.096
MN-52		744.21		-1.447E-01	2.840E-01	4.448E-01	3.177E-02	-0.325
		848.13		1.324E+00	8.480E+00	1.400E+01	1.115E+00	0.095
		935.52		4.453E-01	3.738E-01	5.998E-01	4.856E-02	0.742
		1246.25		-3.894E-01	1.002E+01	1.645E+01	1.014E+00	-0.024
		1333.61		-3.092E-01	7.095E+00	1.126E+01	7.863E-01	-0.027
		1434.06	*	-5.057E-02	2.780E-01	4.394E-01	3.018E-02	-0.115
MN-54		834.83	*	-9.316E-03	4.476E-02	7.165E-02	5.632E-03	-0.130
CO-56		846.75	*	-1.716E-02	4.331E-02	6.770E-02	5.386E-03	-0.253
		977.42		4.335E-01	3.248E+00	5.153E+00	3.998E-01	0.084
		1037.82		1.908E-01	3.580E-01	6.260E-01	4.835E-02	0.305
		1175.09		-3.541E-01	2.637E+00	4.315E+00	2.379E-01	-0.082
		1238.25		9.027E-02	1.120E-01	1.949E-01	1.254E-02	0.463
		1360.21		-2.256E-01	9.938E-01	1.570E+00	1.093E-01	-0.144
		1771.40		-4.139E-01	2.749E-01	3.201E-01	1.888E-02	-1.293
CO-57		122.06	*	1.908E-02	2.745E-02	4.573E-02	2.860E-03	0.417
		136.48		1.338E-01	2.189E-01	3.656E-01	2.458E-02	0.366
CO-58		810.76	*	-3.513E-02	4.420E-02	6.663E-02	5.127E-03	-0.527
FE-59		142.65		1.264E+00	2.955E+00	4.836E+00	2.732E-01	0.261
		192.34		1.783E-01	1.046E+00	1.680E+00	1.941E-01	0.106
		1099.22	*	-4.376E-02	1.083E-01	1.738E-01	1.284E-02	-0.252
		1291.56		-1.403E-01	1.485E-01	2.188E-01	1.762E-02	-0.641
CO-60		1173.22		-2.758E-02	5.399E-02	8.549E-02	4.699E-03	-0.323
		1332.49	*	-1.825E-02	4.794E-02	7.513E-02	5.247E-03	-0.243
ZN-65		1115.52	*	3.163E-02	1.089E-01	1.619E-01	1.018E-02	0.195
GE-68		1077.35	*	-5.027E-01	1.542E+00	2.501E+00	1.686E-01	-0.201
AS-73		53.44	*	-6.260E-02	8.376E-01	1.421E+00	9.176E-02	-0.044
AS-74		595.88	*	1.261E-02	9.875E-02	1.668E-01	1.062E-02	0.076
		634.78		-1.586E-01	4.137E-01	6.686E-01	4.309E-02	-0.237
SE-75		66.05		2.172E+00	5.532E+00	8.520E+00	7.438E-01	0.255
		96.73		-1.042E+00	9.367E-01	1.296E+00	1.641E-01	-0.804
		121.11		1.693E-01	1.484E-01	2.506E-01	2.386E-02	0.676
		136.00		1.036E-02	4.164E-02	6.851E-02	4.045E-03	0.151
		198.60		1.306E+00	1.899E+00	3.119E+00	2.096E-01	0.419
		264.65	*	-9.477E-03	4.989E-02	7.279E-02	4.126E-03	-0.130
		279.53		5.597E-02	1.231E-01	1.872E-01	1.147E-02	0.299
		303.91		-8.856E-01	2.383E+00	3.381E+00	3.202E-01	-0.262

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		2.815E-02	2.876E-01	4.721E-01	4.219E-02	0.060
		87.88		8.770E+02	3.566E+02	5.050E+02	3.861E+01	1.737
	+	200.40		-2.808E+02	2.415E+02	3.601E+02	1.910E+01	-0.780
		239.00		4.126E+02	3.558E+01	5.844E+01	3.218E+00	7.060
		249.79		2.194E+01	9.042E+01	1.541E+02	8.560E+00	0.142
		281.68		3.432E+01	1.359E+02	2.039E+02	1.153E+01	0.168
		297.23		1.930E+02	1.189E+02	1.499E+02	8.511E+00	1.287
		303.76		-8.899E+01	2.796E+02	3.987E+02	2.265E+01	-0.223
		439.47		1.444E+02	2.105E+02	3.577E+02	2.060E+01	0.404
		484.57		1.922E+01	3.467E+02	5.599E+02	3.350E+01	0.034
		520.65	*	5.974E+00	1.504E+01	2.485E+01	1.524E+00	0.240
		574.64		-5.341E+02	3.147E+02	4.581E+02	2.891E+01	-1.166
		578.91		1.041E+02	1.355E+02	2.136E+02	1.350E+01	0.487
		585.48		1.156E+03	3.412E+02	6.127E+02	3.884E+01	1.887
		755.35		-1.481E+02	2.455E+02	3.809E+02	2.754E+01	-0.389
		817.79		-4.297E+01	1.862E+02	2.966E+02	2.291E+01	-0.145
		698.33		-1.133E+01	3.768E+01	6.077E+01	4.118E+00	-0.186
		776.49	*	-5.258E-01	4.351E-01	6.311E-01	4.670E-02	-0.833
SR-82		1395.20		-1.279E+00	1.257E+01	2.022E+01	1.400E+00	-0.063
		520.41	*	5.916E-03	7.531E-02	1.212E-01	7.431E-03	0.049
RB-83		529.64		-8.933E-02	1.222E-01	1.832E-01	1.129E-02	-0.488
		552.65		-1.300E-01	2.016E-01	3.222E-01	2.012E-02	-0.403
RB-84		881.50	*	-3.500E-02	7.929E-02	1.227E-01	1.010E-02	-0.285
KR-85		513.99	*	1.307E+01	8.380E+00	1.351E+01	8.249E-01	0.968
SR-85		513.99	*	6.783E-02	4.347E-02	7.008E-02	4.279E-03	0.968
RB-86		1076.63	*	-2.928E-01	9.978E-01	1.623E+00	1.095E-01	-0.180
Y-88		898.02		-1.799E-02	4.430E-02	6.859E-02	5.762E-03	-0.262
		1836.01	*	1.983E-02	4.016E-02	7.190E-02	4.047E-03	0.276
ZR-88		392.90	*	-5.727E-03	3.436E-02	5.351E-02	2.935E-03	-0.107
Y-91		1204.90	*	7.060E+00	2.473E+01	4.172E+01	2.412E+00	0.169
NB-94		702.63	*	6.640E-03	3.512E-02	5.890E-02	4.012E-03	0.113
		871.10		6.851E-03	3.833E-02	6.326E-02	5.154E-03	0.108
NB-95		765.79	*	8.279E-02	4.697E-02	8.678E-02	6.348E-03	0.954
NB-95M		235.69	*	1.584E-01	1.437E-01	2.273E-01	1.658E-02	0.697
ZR-95		724.18		1.578E-01	1.153E-01	1.884E-01	1.485E-02	0.838
		756.15	*	2.393E-02	7.595E-02	1.281E-01	1.058E-02	0.187
NB-97		657.90	*	8.405E-03	7.595E-02	Half-Life	too short	
		1024.50		3.324E+00	7.595E-02	Half-Life	too short	
ZR-97		254.15		-4.483E+00	7.595E-02	Half-Life	too short	
		355.39		3.912E-01	7.595E-02	Half-Life	too short	
		507.63	*	9.371E+00	7.595E-02	Half-Life	too short	
		602.52		3.807E+00	7.595E-02	Half-Life	too short	
		1021.30		2.633E+00	7.595E-02	Half-Life	too short	
		1147.95		-5.518E+00	7.595E-02	Half-Life	too short	
		1362.66		-8.384E+00	7.595E-02	Half-Life	too short	
		1750.46		-1.298E+00	7.595E-02	Half-Life	too short	
MO-99		140.51		-5.309E+01	4.066E+01	5.703E+01	1.536E+01	-0.931
		181.06		-1.744E+01	2.735E+01	3.711E+01	6.288E+00	-0.470
		366.43		5.522E+01	1.141E+02	1.933E+02	1.081E+01	0.286

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		-6.474E+00	1.671E+01	2.652E+01	3.813E+00	-0.244
	778.00			-2.003E+01	4.869E+01	7.676E+01	5.690E+00	-0.261
TC-99M	140.51	*		-1.259E+12	4.869E+01	Half-Life	too short	
RH-101	127.23			2.915E-02	3.685E-02	5.615E-02	3.407E-03	0.519
	198.01	*		2.848E-02	3.526E-02	5.822E-02	3.080E-03	0.489
	325.23			1.375E-01	2.616E-01	3.960E-01	2.250E-02	0.347
RH-102	418.52			-8.679E-02	3.097E-01	4.937E-01	2.785E-02	-0.176
	475.06	*		-3.371E-03	3.105E-02	4.957E-02	2.944E-03	-0.068
	631.29			4.022E-03	5.956E-02	9.975E-02	6.422E-03	0.040
	697.49			-5.055E-02	8.315E-02	1.306E-01	8.843E-03	-0.387
	766.84			2.178E-02	1.239E-01	2.059E-01	1.508E-02	0.106
	1046.59			9.070E-02	1.316E-01	2.327E-01	1.649E-02	0.390
	1112.84			2.132E-01	2.578E-01	4.230E-01	2.670E-02	0.504
RU-103	497.08	*		-4.078E-02	4.754E-02	7.068E-02	9.015E-03	-0.577
	610.33	+		1.477E+01	3.071E+00	3.325E+00	5.204E-01	4.443
RH-106	511.85	+		7.874E-01	3.824E-01	4.815E-01	2.936E-02	1.635
	621.84	*		2.028E-01	3.467E-01	6.020E-01	7.257E-02	0.337
	1050.47			-2.298E+00	2.825E+00	4.388E+00	3.091E-01	-0.524
RU-106	511.85	+		7.874E-01	3.824E-01	4.815E-01	2.936E-02	1.635
	621.84	*		2.028E-01	3.461E-01	6.020E-01	3.865E-02	0.337
	1050.47			-2.298E+00	2.825E+00	4.388E+00	3.091E-01	-0.524
AG-108M	433.93	*		9.641E-03	3.319E-02	5.500E-02	3.427E-03	0.175
	614.37			1.091E-02	4.450E-02	6.634E-02	4.548E-03	0.164
	722.95			1.036E-02	4.903E-02	7.183E-02	5.306E-03	0.144
AG-110M	657.75	*		-8.585E-04	4.228E-02	6.083E-02	4.146E-03	-0.014
	677.61			-1.542E-01	3.326E-01	5.297E-01	3.668E-02	-0.291
	706.67			-1.380E-01	2.320E-01	3.645E-01	2.603E-02	-0.379
	763.93			-4.993E-02	1.861E-01	2.987E-01	2.266E-02	-0.167
	884.67			7.141E-03	5.542E-02	9.094E-02	7.768E-03	0.079
	937.48			-6.140E-02	1.362E-01	1.758E-01	1.479E-02	-0.349
	1384.27			3.854E-02	1.781E-01	2.861E-01	2.070E-02	0.135
IN-111	171.28			3.141E-01	1.409E+00	2.286E+00	1.176E-01	0.137
	245.39	*		9.829E-01	1.500E+00	2.331E+00	1.290E-01	0.422
IN-113M	391.69	*		2.301E-03	4.549E-02	7.459E-02	4.391E-03	0.031
SN-113	391.69	*		2.301E-03	4.549E-02	7.459E-02	4.391E-03	0.031
IN-114M	190.27	*		-1.497E-01	2.239E-01	3.033E-01	1.591E-02	-0.494
CD-115	260.90			9.390E+01	1.852E+02	3.190E+02	1.784E+01	0.294
	492.35			3.771E+00	5.703E+01	9.206E+01	5.539E+00	0.041
	527.90	*		9.840E+00	1.652E+01	2.766E+01	1.704E+00	0.356
SN-117M	156.02			-2.870E+00	2.596E+00	3.974E+00	2.122E-01	-0.722
	158.56	*		1.570E-02	5.979E-02	9.764E-02	5.158E-03	0.161
SB-122	563.90	*		1.464E+00	3.046E+00	5.279E+00	3.315E-01	0.277
	692.80			2.137E+01	6.678E+01	1.130E+02	7.609E+00	0.189
I-123	159.00	*		5.979E+00	6.678E+01	Half-Life	too short	
	528.96			-1.311E+03	6.678E+01	Half-Life	too short	
TE-123M	159.00	*		7.267E-03	2.948E-02	4.809E-02	2.577E-03	0.151
I-124	602.71	*		-8.980E-02	1.009E+00	1.454E+00	9.277E-02	-0.062
	722.78			1.030E+00	6.138E+00	8.947E+00	6.238E-01	0.115
	1325.50			3.912E+01	4.373E+01	7.912E+01	5.472E+00	0.494

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124	+	1376.25		8.327E+01	5.470E+01	8.857E+01	6.152E+00	0.940
		1509.49		1.883E+01	1.862E+01	3.473E+01	2.337E+00	0.542
		1691.02		1.389E+00	4.863E+00	8.492E+00	5.271E-01	0.164
		602.71		-4.396E-03	4.938E-02	7.117E-02	4.543E-03	-0.062
		645.85		-4.869E-01	5.748E-01	8.913E-01	6.361E-02	-0.546
		709.31		4.825E-01	3.203E+00	5.348E+00	3.671E-01	0.090
		713.82		9.213E-01	1.872E+00	3.203E+00	3.483E-01	0.288
		722.78		7.309E-02	4.356E-01	6.350E-01	4.572E-02	0.115
	+	968.20		1.990E+01	4.960E+00	8.527E+00	6.682E-01	2.334
		1045.16		1.537E+00	2.869E+00	5.013E+00	3.560E-01	0.307
SB-125		1325.50		2.965E+00	3.315E+00	5.997E+00	4.148E-01	0.494
		1368.21		5.061E-01	2.222E+00	3.472E+00	4.332E-01	0.146
		1436.60		-1.028E+00	4.052E+00	6.336E+00	4.350E-01	-0.162
		1691.02	*	2.325E-02	8.141E-02	1.422E-01	9.486E-03	0.164
		427.89	*	5.894E-02	9.533E-02	1.616E-01	9.605E-03	0.365
	+	463.38		7.605E-01	4.716E-01	6.257E-01	4.276E-02	1.215
		600.56		8.570E-02	1.967E-01	3.386E-01	2.442E-02	0.253
		635.90		-1.571E-02	2.960E-01	4.909E-01	3.609E-02	-0.032
	TE-125M	109.28	*	3.215E+00	9.997E+00	1.640E+01	1.415E+00	0.196
	I-126	388.63		-1.097E-01	2.325E-01	3.682E-01	2.022E-02	-0.298
SB-126		666.33	*	1.131E-01	2.412E-01	3.648E-01	2.379E-02	0.310
		753.82		-4.048E-01	1.655E+00	2.659E+00	1.920E-01	-0.152
		223.80		1.770E+00	4.398E+00	7.585E+00	4.121E-01	0.233
	+	278.60		6.018E+00	3.924E+00	4.918E+00	2.776E-01	1.224
		296.50		1.193E+01	2.704E+00	3.994E+00	2.267E-01	2.986
		414.70		-2.458E-02	8.218E-02	1.308E-01	7.351E-03	-0.188
		415.30		-1.229E+00	6.877E+00	1.105E+01	6.210E-01	-0.111
		555.20		4.046E-01	4.387E+00	7.431E+00	4.646E-01	0.054
		573.80		-6.830E-01	1.180E+00	1.895E+00	1.195E-01	-0.360
		593.00		-1.101E+00	9.890E-01	1.499E+00	9.532E-02	-0.735
SB-127		656.30		9.636E-02	4.282E+00	6.192E+00	4.010E-01	0.016
		666.33		4.738E-02	1.010E-01	1.528E-01	9.965E-03	0.310
		675.00		-3.449E-01	2.236E+00	3.659E+00	2.411E-01	-0.094
		695.00		-2.815E-02	9.303E-02	1.502E-01	1.014E-02	-0.187
		697.00		-1.465E-01	3.052E-01	4.847E-01	3.279E-02	-0.302
		720.50	*	-3.851E-02	1.814E-01	2.522E-01	1.754E-02	-0.153
		856.80		6.068E-01	6.464E-01	1.011E+00	8.124E-02	0.600
		989.30		2.408E-01	1.457E+00	2.380E+00	1.821E-01	0.101
		1034.80		6.385E+00	1.049E+01	1.847E+01	1.332E+00	0.346
		1213.00		-7.994E-01	6.295E+00	1.018E+01	5.963E-01	-0.078
SB-127		61.10		2.525E+01	7.693E+01	1.190E+02	1.176E+01	0.212
		252.40		-9.214E-01	5.304E+00	8.829E+00	3.673E+00	-0.104
		290.80		-1.475E+01	3.147E+01	4.461E+01	4.232E+00	-0.331
		411.60		-1.316E+01	1.639E+01	2.507E+01	3.650E+00	-0.525
		444.90		-1.490E+00	1.182E+01	1.893E+01	2.108E+00	-0.079
		473.00		-1.298E-01	2.157E+00	3.458E+00	4.003E-01	-0.038
		543.00		-2.997E+00	2.176E+01	3.632E+01	4.860E+00	-0.083
		603.60		-4.938E+00	1.790E+01	2.530E+01	2.890E+00	-0.195
		685.20	*	-9.084E-01	1.902E+00	3.028E+00	3.138E-01	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		-7.614E+00	1.977E+01	3.161E+01	4.789E+00	-0.241
		722.20		1.335E+01	4.331E+01	6.413E+01	6.616E+00	0.208
		783.80		-7.625E-01	5.041E+00	8.150E+00	9.750E-01	-0.094
		57.60		-6.891E-02	6.417E+00	1.088E+01	6.878E-01	-0.006
		145.22		3.926E-01	7.376E-01	1.223E+00	6.835E-02	0.321
		172.10		-5.010E-02	1.322E-01	2.084E-01	1.073E-02	-0.240
I-131		202.84	*	-1.297E-02	5.185E-02	8.131E-02	4.324E-03	-0.159
		374.96		5.115E-02	2.081E-01	3.467E-01	1.927E-02	0.148
		80.18		-2.254E+00	5.608E+00	8.255E+00	5.927E-01	-0.273
		284.30		-1.623E+00	1.682E+00	2.657E+00	1.682E-01	-0.611
		364.48	*	-6.011E-02	1.335E-01	2.127E-01	1.341E-02	-0.283
		636.97		-2.520E-01	1.824E+00	3.004E+00	2.130E-01	-0.084
TE-132		722.89		1.759E+00	9.076E+00	1.327E+01	9.356E-01	0.133
		49.72		-7.162E+00	2.414E+01	4.070E+01	3.924E+00	-0.176
		111.76		-2.986E+01	4.015E+01	6.324E+01	6.044E+00	-0.472
		116.30		2.087E+01	3.670E+01	6.161E+01	5.848E+00	0.339
		228.16	*	-3.153E-01	9.162E-01	1.527E+00	2.208E-01	-0.206
		53.15		8.371E-01	3.554E+00	6.105E+00	3.947E-01	0.137
BA-133		79.62		-2.202E-01	1.398E+00	2.083E+00	3.001E-01	-0.106
		81.00		-7.234E-02	1.111E-01	1.608E-01	2.433E-02	-0.450
	+	276.40		8.455E-01	5.600E-01	6.672E-01	8.602E-02	1.267
		302.84		8.185E-02	1.487E-01	2.272E-01	2.635E-02	0.360
		356.01	*	-1.656E-02	4.914E-02	6.867E-02	7.879E-03	-0.241
		383.85		-1.476E-01	3.252E-01	5.158E-01	5.531E-02	-0.286
I-133	+	510.53		3.894E+00	3.252E-01	Half-Life	too short	
		529.87	*	-1.096E-02	3.252E-01	Half-Life	too short	
		706.58		-6.378E-01	3.252E-01	Half-Life	too short	
		856.28		4.979E-01	3.252E-01	Half-Life	too short	
		875.33		9.817E-02	3.252E-01	Half-Life	too short	
		1236.41		1.732E+00	3.252E-01	Half-Life	too short	
CS-134		1298.22		4.288E-01	3.252E-01	Half-Life	too short	
		475.35		-4.705E-01	2.024E+00	3.200E+00	1.901E-01	-0.147
		563.23		1.331E-01	4.005E-01	6.878E-01	4.395E-02	0.194
		569.32		1.088E-01	2.280E-01	3.882E-01	2.506E-02	0.280
		604.70		-7.343E-03	4.294E-02	6.139E-02	3.938E-03	-0.120
	+	795.84	*	1.265E-01	6.642E-02	9.904E-02	7.551E-03	1.278
CS-135		801.93		-2.023E-01	5.236E-01	7.820E-01	5.987E-02	-0.259
		1038.57		-7.353E-01	4.481E+00	7.388E+00	5.298E-01	-0.100
		1167.94		8.450E-01	3.168E+00	5.356E+00	2.984E-01	0.158
		1365.15		1.290E-01	1.366E+00	2.258E+00	1.680E-01	0.057
		268.24	*	1.736E-01	1.771E-01	2.786E-01	2.095E-02	0.623
	I-135	288.45		5.618E+11	1.771E-01	Half-Life	too short	
I-135		417.63		-2.457E+11	1.771E-01	Half-Life	too short	
		546.56		1.868E+11	1.771E-01	Half-Life	too short	
		836.80		4.305E+11	1.771E-01	Half-Life	too short	
		1038.76		-6.159E+10	1.771E-01	Half-Life	too short	
		1124.00		-2.780E+11	1.771E-01	Half-Life	too short	
		1131.51		-5.372E+09	1.771E-01	Half-Life	too short	
		1260.41	*	-8.782E+10	1.771E-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
CS-136		1457.56		2.271E+13	1.771E-01	Half-Life	too short	
		1678.03		8.945E+10	1.771E-01	Half-Life	too short	
		1706.46		-2.508E+11	1.771E-01	Half-Life	too short	
		1791.20		-2.888E+11	1.771E-01	Half-Life	too short	
		66.91		9.852E-01	9.543E-01	1.495E+00	2.145E-01	0.659
	+	86.29		3.992E+00	1.667E+00	2.315E+00	2.812E-01	1.724
		153.22		9.045E-01	7.582E-01	1.284E+00	8.869E-02	0.705
		163.89		1.382E-01	1.190E+00	1.926E+00	1.301E-01	0.072
		176.55		-9.147E-02	4.137E-01	6.558E-01	3.912E-02	-0.139
		273.65		1.526E-01	6.383E-01	7.079E-01	4.580E-02	0.216
		340.57		2.132E-01	1.593E-01	2.531E-01	1.528E-02	0.842
		818.51		-4.652E-02	8.338E-02	1.283E-01	9.933E-03	-0.363
		1048.07	*	2.059E-02	1.349E-01	2.284E-01	1.716E-02	0.090
		1235.34		7.650E-01	7.969E-01	1.394E+00	1.414E-01	0.549
BA-137M		661.65	*	3.919E-02	4.977E-02	7.706E-02	4.996E-03	0.509
CS-137		661.65	*	4.143E-02	5.261E-02	8.146E-02	5.299E-03	0.509
CE-139		165.85	*	8.820E-03	3.190E-02	5.196E-02	2.663E-03	0.170
BA-140		162.64		7.009E-02	8.146E-01	1.317E+00	7.890E-02	0.053
LA-140		304.84		-1.297E+00	1.440E+00	2.110E+00	5.754E-01	-0.615
		423.70		-8.910E-02	2.174E+00	3.522E+00	1.119E+00	-0.025
		537.32	*	-1.229E-01	2.742E-01	4.417E-01	1.440E-01	-0.278
	+	328.77		1.177E+00	5.733E-01	6.297E-01	4.022E-02	1.870
		432.53		-1.622E+00	2.254E+00	3.450E+00	2.185E-01	-0.470
		487.03		-4.136E-02	1.665E-01	2.625E-01	1.769E-02	-0.158
		751.79		-8.583E-01	1.943E+00	3.064E+00	2.538E-01	-0.280
		815.85		1.357E-01	3.489E-01	5.910E-01	5.205E-02	0.230
		867.82		-1.823E-01	1.678E+00	2.620E+00	2.254E-01	-0.070
		919.63		9.723E-01	3.127E+00	5.213E+00	5.379E-01	0.187
		925.24		-2.825E-01	1.378E+00	2.114E+00	1.848E-01	-0.134
		1596.49	*	-5.418E-02	9.144E-02	1.385E-01	9.017E-03	-0.391
CE-141		145.44	*	9.607E-03	6.702E-02	1.093E-01	6.366E-03	0.088
CE-143		57.37		-9.549E-05	6.702E-02	Half-Life	too short	
		231.56		-1.030E-03	6.702E-02	Half-Life	too short	
		293.26	*	1.513E-03	6.702E-02	Half-Life	too short	
	+	350.59		6.064E-02	6.702E-02	Half-Life	too short	
		490.36		-8.634E-04	6.702E-02	Half-Life	too short	
	+	664.57		6.006E-03	6.702E-02	Half-Life	too short	
		721.93		4.879E-04	6.702E-02	Half-Life	too short	
CE-144		80.11		-9.174E-01	2.353E+00	3.466E+00	2.461E-01	-0.265
PM-144		133.54	*	-1.093E-01	2.434E-01	3.439E-01	4.896E-02	-0.318
		476.78		-1.144E-02	7.211E-02	1.146E-01	8.101E-03	-0.100
		618.01		2.068E-03	3.453E-02	5.788E-02	3.896E-03	0.036
PR-144		696.49	*	-2.676E-02	3.832E-02	5.980E-02	4.046E-03	-0.447
		778.57		5.429E-02	2.439E+00	4.005E+00	2.971E-01	0.014
		696.49	*	-1.814E+00	2.599E+00	4.055E+00	2.742E-01	-0.447
PM-146		1489.15		9.025E-01	1.323E+01	2.167E+01	1.467E+00	0.042
		453.90	*	-3.447E-03	4.553E-02	7.315E-02	6.325E-03	-0.047
		633.02		6.437E-01	1.547E+00	2.627E+00	9.702E-01	0.245
		735.90		5.234E-02	1.631E-01	2.747E-01	7.739E-02	0.191

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13	-6.342E-02	9.794E-02	1.510E-01	1.992E-02	-0.420
		91.11	6.336E-01	2.995E-01	5.634E-01	4.620E-02	1.125
		319.41	-1.262E+00	3.799E+00	6.179E+00	3.514E-01	-0.204
		439.89	5.807E+00	6.844E+00	1.173E+01	6.761E-01	0.495
PM-149	*	531.02	-1.426E-02	6.658E-01	1.061E+00	1.452E-01	-0.013
		285.90	-6.945E+01	1.341E+02	2.172E+02	3.068E+01	-0.320
		121.78	9.157E-02	7.896E-02	1.336E-01	1.063E-02	0.685
		244.69	7.785E-02	3.538E-01	5.346E-01	2.958E-02	0.146
EU-152	*	344.27	1.381E-03	1.137E-01	1.648E-01	1.056E-02	0.008
		443.98	-4.582E-01	9.849E-01	1.536E+00	8.882E-02	-0.298
		778.89	1.736E-02	2.843E-01	4.684E-01	3.474E-02	0.037
		867.32	-2.966E-01	9.966E-01	1.471E+00	1.194E-01	-0.202
	+	964.01	7.935E-01	4.835E-01	6.770E-01	5.329E-02	1.172
		1085.78	-2.242E-01	5.015E-01	8.047E-01	5.346E-02	-0.279
		1112.02	2.307E-01	3.664E-01	6.041E-01	3.819E-02	0.382
		1407.95	1.702E-01	2.103E-01	3.758E-01	2.596E-02	0.453
GD-153		69.67	-1.393E+00	1.921E+00	2.806E+00	1.845E-01	-0.496
		83.37	1.660E+01	1.903E+01	2.696E+01	1.972E+00	0.616
		97.43	-5.783E-02	9.832E-02	1.410E-01	9.807E-03	-0.410
		103.18	4.236E-02	1.120E-01	1.879E-01	1.255E-02	0.225
EU-154		123.07	-3.089E-02	5.551E-02	8.853E-02	8.555E-03	-0.349
		247.94	-5.928E-02	3.596E-01	6.011E-01	5.644E-02	-0.099
		591.81	-4.117E-01	6.188E-01	9.779E-01	9.890E-02	-0.421
		723.30	1.402E-01	1.975E-01	3.062E-01	2.472E-02	0.458
		756.87	6.586E-01	8.040E-01	1.410E+00	1.554E-01	0.467
		873.19	-7.357E-02	3.415E-01	5.424E-01	6.469E-02	-0.136
		996.32	-2.103E-01	4.237E-01	6.783E-01	1.173E-01	-0.310
		1004.76	-1.517E-01	2.394E-01	3.781E-01	4.100E-02	-0.401
EU-155	*	1274.45	1.328E-02	1.496E-01	2.479E-01	2.416E-02	0.054
		48.70	6.063E-02	2.407E+00	4.114E+00	2.688E-01	0.015
		60.01	1.976E+00	5.603E+00	8.686E+00	5.458E-01	0.228
		86.54	3.476E-01	1.414E-01	2.023E-01	1.546E-02	1.718
TB-160	+	105.31	8.851E-02	1.161E-01	1.972E-01	1.329E-02	0.449
		86.79	9.380E-01	3.814E-01	5.478E-01	4.142E-02	1.712
		197.04	2.479E-01	6.252E-01	1.013E+00	5.354E-02	0.245
		215.65	2.204E-01	7.933E-01	1.273E+00	6.861E-02	0.173
	+	298.57	3.126E-01	1.452E-01	2.210E-01	1.255E-02	1.415
		879.36	9.944E-03	1.572E-01	2.564E-01	2.105E-02	0.039
		962.29	1.196E+00	6.592E-01	1.199E+00	9.458E-02	0.998
		966.15	1.580E+00	3.421E-01	6.550E-01	5.144E-02	2.413
HO-166M		1177.93	-2.336E-01	4.213E-01	6.628E-01	3.671E-02	-0.353
		1271.85	1.230E-01	8.628E-01	1.438E+00	9.203E-02	0.086
		80.57	-1.388E-01	2.996E-01	4.394E-01	3.132E-02	-0.316
		184.41	5.473E-02	4.414E-02	6.933E-02	3.614E-03	0.789
		280.46	1.767E-02	9.511E-02	1.420E-01	8.021E-03	0.124
		410.95	8.097E-02	2.690E-01	4.465E-01	2.499E-02	0.181
		711.68	7.092E-03	7.216E-02	1.200E-01	8.257E-03	0.059
		752.31	-1.316E-01	2.903E-01	4.571E-01	3.294E-02	-0.288
		810.29	-7.493E-02	6.868E-02	1.005E-01	7.708E-03	-0.745

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-7.332E-01	3.025E+01	5.151E+01	3.357E+00	-0.014
		52.39		1.167E-01	1.573E+01	2.680E+01	1.739E+00	0.004
		59.40		1.192E+01	3.030E+01	4.707E+01	2.952E+00	0.253
		66.72	*	1.857E+01	3.315E+01	5.138E+01	3.325E+00	0.361
LU-176	+	88.36		4.072E-01	1.919E-01	3.817E-01	2.909E-02	1.067
		201.83		-3.110E-02	3.064E-02	4.606E-02	2.447E-03	-0.675
		306.84	*	3.275E-03	2.509E-02	4.203E-02	2.389E-03	0.078
		401.10		5.794E-01	7.428E+00	1.218E+01	6.743E-01	0.048
LU-177	+	112.95		-9.551E-01	1.965E+00	3.136E+00	2.003E-01	-0.305
		208.36	*	2.632E+00	1.888E+00	2.427E+00	1.298E-01	1.085
LU-177M	+	52.97		2.485E-01	1.610E+00	2.757E+00	1.784E-01	0.090
		54.07		-3.198E-01	8.518E-01	1.427E+00	9.183E-02	-0.224
		61.30		6.549E-01	1.638E+00	2.541E+00	1.606E-01	0.258
		121.62		4.992E-01	4.074E-01	6.923E-01	4.323E-02	0.721
		147.16		5.867E-02	6.666E-01	1.084E+00	6.009E-02	0.054
		171.86		-1.769E-01	5.251E-01	8.292E-01	4.268E-02	-0.213
		218.09		-4.710E-01	9.175E-01	1.409E+00	7.613E-02	-0.334
		268.79		2.681E+00	1.183E+00	1.541E+00	8.659E-02	1.740
		319.02		-7.008E-02	2.733E-01	4.465E-01	2.538E-02	-0.157
		367.43		3.826E-01	9.126E-01	1.540E+00	8.603E-02	0.248
		413.65	*	-1.291E-01	1.847E-01	2.854E-01	1.602E-02	-0.452
HF-181		56.28		7.728E-02	9.802E-01	1.670E+00	1.062E-01	0.046
		57.53		-1.194E-02	5.382E-01	9.125E-01	5.769E-02	-0.013
		65.20		4.035E-01	1.122E+00	1.727E+00	1.110E-01	0.234
		133.02		-3.754E-03	7.642E-02	1.109E-01	6.539E-03	-0.034
		136.25		1.902E-01	4.897E-01	8.104E-01	4.709E-02	0.235
		345.85		-1.003E-01	2.346E-01	3.270E-01	1.848E-02	-0.307
W-181		482.03	*	1.170E-02	4.735E-02	7.760E-02	4.633E-03	0.151
		56.28		3.068E-02	3.792E-01	6.460E-01	4.109E-02	0.047
		57.53		-4.694E-03	2.084E-01	3.533E-01	2.233E-02	-0.013
TA-182		65.20	*	1.550E-01	4.310E-01	6.633E-01	4.262E-02	0.234
		67.75		-9.391E-02	1.228E-01	1.908E-01	1.242E-02	-0.492
		100.10		1.206E-01	1.926E-01	3.262E-01	2.224E-02	0.370
		152.43		4.191E-01	3.691E-01	6.245E-01	3.385E-02	0.671
		222.10		-1.247E-01	3.440E-01	5.742E-01	3.115E-02	-0.217
		1001.68		-4.937E-01	2.421E+00	4.085E+00	3.079E-01	-0.121
		1121.28		5.281E-01	2.446E-01	4.117E-01	2.554E-02	1.283
		1189.05		5.090E-02	3.861E-01	6.452E-01	3.638E-02	0.079
		1221.42	*	1.827E-01	2.558E-01	4.435E-01	2.631E-02	0.412
		1230.97		-2.048E-01	6.268E-01	1.009E+00	6.072E-02	-0.203
		57.98		-6.245E-03	2.094E-01	3.549E-01	2.239E-02	-0.018
		59.32		5.961E-02	1.255E-01	1.957E-01	1.228E-02	0.305
		67.20		1.021E-01	2.308E-01	3.560E-01	2.310E-02	0.287
RE-183		162.32	*	-1.267E-02	1.138E-01	1.824E-01	9.481E-03	-0.069
		208.81		2.133E+00	1.530E+00	1.961E+00	1.049E-01	1.088
		291.72		-5.296E-01	1.147E+00	1.627E+00	9.225E-02	-0.325
RE-184		57.98		-2.286E-02	7.668E-01	1.299E+00	8.197E-02	-0.018
		59.32		2.181E-01	4.590E-01	7.160E-01	4.492E-02	0.305
		67.20		3.739E-01	8.448E-01	1.303E+00	8.454E-02	0.287

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		-2.193E-01	3.701E-01	5.792E-01	3.025E-02	-0.379
		216.55		3.640E-01	2.770E-01	4.674E-01	2.521E-02	0.779
		252.85	*	-5.678E-02	2.327E-01	3.869E-01	2.153E-02	-0.147
		318.01		-6.960E-02	4.722E-01	7.766E-01	4.414E-02	-0.090
		792.07		1.041E+00	1.365E+00	2.091E+00	1.573E-01	0.498
		903.28		4.953E-01	1.238E+00	1.901E+00	1.582E-01	0.261
		920.93		2.683E-01	4.929E-01	8.391E-01	6.883E-02	0.320
		59.72		1.880E-01	3.331E-01	5.215E-01	3.273E-02	0.360
		61.14		5.714E-02	1.804E-01	2.790E-01	1.762E-02	0.205
		69.30		-5.711E-02	3.135E-01	5.007E-01	3.285E-02	-0.114
		592.07		-1.778E+00	2.520E+00	3.970E+00	2.523E-01	-0.448
		646.12	*	-2.603E-02	4.785E-02	7.616E-02	4.922E-03	-0.342
		717.42		-4.831E-01	9.917E-01	1.568E+00	1.087E-01	-0.308
		874.81		-1.673E-01	6.744E-01	1.068E+00	8.728E-02	-0.157
		880.27		1.957E-01	8.873E-01	1.469E+00	1.207E-01	0.133
RE-188		155.03	*	-2.875E-04	1.883E-01	3.041E-01	1.631E-02	-0.001
		477.96		1.252E+00	3.242E+00	5.377E+00	3.201E-01	0.233
		633.10		1.275E+00	3.122E+00	5.357E+00	3.451E-01	0.238
W-188	+	63.58		1.074E+02	8.407E+01	1.034E+02	6.596E+00	1.038
		227.08		-1.287E+01	1.345E+01	2.181E+01	1.189E+00	-0.590
IR-192		290.67	*	-5.876E+00	9.053E+00	1.266E+01	7.176E-01	-0.464
	+	295.96		1.171E+00	2.286E-01	3.135E-01	1.808E-02	3.734
		308.46		1.341E-01	9.792E-02	1.746E-01	1.004E-02	0.768
		316.51	*	8.578E-03	3.596E-02	6.048E-02	3.456E-03	0.142
		468.07		4.920E-02	7.605E-02	1.199E-01	8.127E-03	0.410
AU-195		604.41		-1.313E-01	5.798E-01	8.237E-01	9.605E-02	-0.159
		612.46		6.952E-01	8.297E-01	1.306E+00	1.050E-01	0.532
		65.12		5.772E-02	2.005E-01	3.077E-01	1.976E-02	0.188
		66.83		6.521E-02	1.100E-01	1.707E-01	1.106E-02	0.382
	+	75.70		1.763E+00	3.121E-01	5.139E-01	3.519E-02	3.430
		98.88	*	3.497E-01	2.493E-01	4.292E-01	2.952E-02	0.815
	+	129.76		5.531E+00	4.525E+00	5.370E+00	3.218E-01	1.030
TL-200		367.94	*	5.027E-04	4.525E+00	Half-Life	too short	
		579.30		8.505E-03	4.525E+00	Half-Life	too short	
		828.27		1.641E-03	4.525E+00	Half-Life	too short	
		1205.75		1.539E-04	4.525E+00	Half-Life	too short	
TL-201		68.90		-9.256E-01	6.267E+00	1.050E+01	6.875E-01	-0.088
		70.82		-1.470E-01	3.945E+00	5.954E+00	3.942E-01	-0.025
		80.30		-3.019E+00	7.146E+00	1.051E+01	7.470E-01	-0.287
		135.34		-1.977E+01	3.486E+01	5.531E+01	3.227E+00	-0.357
TL-202		167.43	*	-1.179E+00	9.708E+00	1.552E+01	7.955E-01	-0.076
		68.90		-6.883E-02	4.661E-01	7.809E-01	5.112E-02	-0.088
		70.82		-1.090E-02	2.926E-01	4.415E-01	2.923E-02	-0.025
		80.30		-2.240E-01	5.301E-01	7.794E-01	5.541E-02	-0.287
HG-203		439.56	*	5.922E-02	7.888E-02	1.345E-01	7.747E-03	0.440
		70.83		-4.552E-02	1.210E+00	1.826E+00	2.271E-01	-0.025
		72.87		1.119E+00	7.523E-01	1.186E+00	1.428E-01	0.944
		82.60		-1.875E-01	1.432E+00	1.949E+00	2.521E-01	-0.096
		279.20	*	2.992E-02	4.691E-02	7.221E-02	4.342E-03	0.414

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		2.580E-01	2.125E-01	3.358E-01	2.252E-02	0.768
	+	74.97		9.736E-01	1.724E-01	2.599E-01	1.770E-02	3.747
		84.90		3.142E-01	2.202E-01	3.437E-01	2.550E-02	0.914
		569.67		2.945E-02	3.550E-02	6.172E-02	3.886E-03	0.477
		1063.62	*	3.165E-02	6.118E-02	1.066E-01	7.351E-03	0.297
TL-207		1770.23		-2.469E+00	7.901E-01	6.650E-01	3.925E-02	-3.713
		81.07		-1.522E-01	2.445E-01	3.557E-01	2.546E-02	-0.428
		83.78		1.801E-01	1.477E-01	2.291E-01	1.682E-02	0.786
		94.90		4.823E-01	2.559E-01	4.128E-01	2.933E-02	1.168
		122.32		1.070E+00	1.882E+00	3.119E+00	2.208E-01	0.343
		144.24		3.636E-01	7.313E-01	1.199E+00	8.492E-02	0.303
		154.21		3.568E-01	4.308E-01	7.197E-01	4.800E-02	0.496
	+	269.46		6.246E-01	2.759E-01	3.732E-01	2.199E-02	1.674
		323.87	*	2.679E-01	7.866E-01	1.174E+00	1.933E-01	0.228
	+	338.28		7.930E+00	2.083E+00	2.728E+00	2.853E-01	2.907
PO-209		445.03		-1.422E-01	2.250E+00	3.624E+00	3.719E-01	-0.039
		260.50		3.131E+00	9.675E+00	1.652E+01	9.238E-01	0.190
		262.80		-1.238E+01	2.658E+01	4.354E+01	2.438E+00	-0.284
		896.60	*	-4.161E+00	7.479E+00	1.133E+01	9.459E-01	-0.367
		46.50	*	1.875E+00	3.431E+00	5.897E+00	4.442E-01	0.318
PB-210		46.50	*	1.875E+00	3.431E+00	5.897E+00	4.442E-01	0.318
PO-210		46.50	*	1.875E+00	3.430E+00	5.897E+00	3.782E-01	0.318
PB-211		404.84	*	-1.014E+00	1.218E+00	1.589E+00	9.905E-01	-0.638
		427.08		1.552E+00	2.344E+00	3.652E+00	2.257E+00	0.425
		831.96		1.822E-01	1.427E+00	2.343E+00	1.466E+00	0.078
	+	727.18	*	9.406E-01	4.920E-01	6.920E-01	5.991E-02	1.359
		785.46		3.782E-01	2.016E+00	3.351E+00	2.503E-01	0.113
PO-215		1620.62		9.742E-01	1.271E+00	2.366E+00	1.524E-01	0.412
		81.07		-1.522E-01	2.445E-01	3.557E-01	2.546E-02	-0.428
		83.78		1.801E-01	1.477E-01	2.291E-01	1.682E-02	0.786
		94.90		4.823E-01	2.559E-01	4.128E-01	2.933E-02	1.168
		122.32		1.070E+00	1.882E+00	3.119E+00	2.208E-01	0.343
		144.24		3.636E-01	7.313E-01	1.199E+00	8.492E-02	0.303
		154.21		3.568E-01	4.308E-01	7.197E-01	4.800E-02	0.496
	+	269.46		6.246E-01	2.759E-01	3.732E-01	2.199E-02	1.674
		323.87	*	2.679E-01	7.866E-01	1.174E+00	1.933E-01	0.228
	+	338.28		7.930E+00	2.083E+00	2.728E+00	2.853E-01	2.907
RN-219		445.03		-1.422E-01	2.250E+00	3.624E+00	3.719E-01	-0.039
	+	271.23		8.014E-01	3.566E-01	4.681E-01	3.735E-02	1.712
		401.81	*	8.395E-02	4.481E-01	7.395E-01	9.982E-02	0.114
RN-220		549.76	*	-3.269E+00	2.655E+01	4.430E+01	2.762E+00	-0.074
RA-223		81.07		-1.522E-01	2.445E-01	3.557E-01	2.546E-02	-0.428
		83.78		1.801E-01	1.477E-01	2.291E-01	1.682E-02	0.786
		94.90		4.823E-01	2.559E-01	4.128E-01	2.933E-02	1.168
		122.32		1.070E+00	1.882E+00	3.119E+00	2.208E-01	0.343
		144.24		3.636E-01	7.313E-01	1.199E+00	8.492E-02	0.303
		154.21		3.568E-01	4.308E-01	7.197E-01	4.800E-02	0.496
	+	269.46		6.246E-01	2.759E-01	3.732E-01	2.199E-02	1.674
		323.87	*	2.679E-01	7.866E-01	1.174E+00	1.933E-01	0.228

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28		7.930E+00	2.083E+00	2.728E+00	2.853E-01	2.907
		445.03		-1.422E-01	2.250E+00	3.624E+00	3.719E-01	-0.039
		79.80		-1.568E-01	1.777E+00	2.656E+00	5.560E-01	-0.059
		236.00		7.524E-01	2.951E-01	4.819E-01	4.956E-02	1.561
		256.20	*	1.152E-01	3.819E-01	6.514E-01	9.035E-02	0.177
TH-227		286.10		-2.276E-01	1.570E+00	2.602E+00	2.990E-01	-0.087
	+	299.80		3.939E+00	1.925E+00	2.759E+00	4.481E-01	1.428
		304.40		-1.545E+00	2.020E+00	2.917E+00	5.035E-01	-0.530
		334.20		1.209E+00	2.800E+00	3.603E+00	6.590E-01	0.335
		79.80		-1.568E-01	1.777E+00	2.656E+00	5.635E-01	-0.059
TH-229	+	94.00		1.059E+01	4.061E+00	4.094E+00	8.697E-01	2.587
		236.00		7.524E-01	2.925E-01	4.819E-01	4.271E-02	1.561
		256.20	*	1.152E-01	3.821E-01	6.514E-01	1.096E-01	0.177
		286.10		-2.276E-01	1.587E+00	2.602E+00	2.607E+00	-0.087
	+	299.80		3.939E+00	1.925E+00	2.759E+00	4.481E-01	1.428
PA-231		304.40		-1.545E+00	2.020E+00	2.917E+00	5.035E-01	-0.530
		334.20		1.209E+00	2.800E+00	3.603E+00	6.590E-01	0.335
	+	85.43		6.469E-01	2.630E-01	3.506E-01	2.615E-02	1.845
	+	88.47		2.344E-01	1.105E-01	2.182E-01	1.661E-02	1.074
		100.00		1.250E-01	2.018E-01	3.388E-01	2.311E-02	0.369
TH-231		193.63	*	5.410E-02	5.658E-01	9.054E-01	4.767E-02	0.060
		210.97		8.035E-01	8.703E-01	1.300E+00	6.971E-02	0.618
		283.67	*	-5.192E-01	1.607E+00	2.545E+00	3.492E-01	-0.204
		301.29		1.338E+00	6.522E-01	1.073E+00	1.114E-01	1.247
		81.07		-1.522E-01	2.445E-01	3.557E-01	2.546E-02	-0.428
U-231		83.78		1.801E-01	1.477E-01	2.291E-01	1.682E-02	0.786
		94.90		4.823E-01	2.559E-01	4.128E-01	2.933E-02	1.168
		122.32		1.070E+00	1.882E+00	3.119E+00	2.208E-01	0.343
		144.24		3.636E-01	7.313E-01	1.199E+00	8.492E-02	0.303
		154.21		3.568E-01	4.308E-01	7.197E-01	4.800E-02	0.496
PA-233	+	269.46		6.246E-01	2.759E-01	3.732E-01	2.199E-02	1.674
		323.87	*	2.679E-01	7.866E-01	1.174E+00	1.933E-01	0.228
	+	338.28		7.930E+00	2.083E+00	2.728E+00	2.853E-01	2.907
		445.03		-1.422E-01	2.250E+00	3.624E+00	3.719E-01	-0.039
		84.21		7.690E+00	7.672E+00	1.180E+01	8.696E-01	0.652
PA-234	+	92.29		1.256E+01	4.111E+00	5.287E+00	3.853E-01	2.376
		95.87	*	-4.973E-01	1.483E+00	2.164E+00	1.524E-01	-0.230
		108.00		1.369E-01	2.660E+00	4.323E+00	2.817E-01	0.032
	+	75.28		2.841E+01	6.190E+00	7.853E+00	1.132E+00	3.618
	+	86.59		5.648E+00	2.707E+00	3.292E+00	8.722E-01	1.715
U-234	+	300.12		1.098E+00	5.271E-01	7.654E-01	1.025E-01	1.435
		311.98	*	-1.585E-02	6.323E-02	1.034E-01	6.257E-03	-0.153
		340.50		1.103E+00	7.751E-01	1.179E+00	2.704E-01	0.936
		398.62		9.078E-01	2.269E+00	3.780E+00	9.750E-01	0.240
		415.76		2.121E-01	1.688E+00	2.770E+00	5.689E-01	0.077
PA-234	+	63.00		3.080E+00	2.444E+00	2.984E+00	4.288E-01	1.032
		94.67		4.515E-01	1.920E-01	3.075E-01	3.509E-02	1.468
		98.44		1.168E-01	1.224E-01	1.711E-01	9.504E-02	0.683
		99.86		5.086E-01	5.092E-01	8.661E-01	5.914E-02	0.587

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.684E-01	1.936E-01	3.055E-01	3.251E-02	-0.551
		131.20		4.996E-02	1.186E-01	1.770E-01	1.053E-02	0.282
		152.70		4.051E-01	3.595E-01	5.998E-01	9.400E-02	0.675
	+	186.00		4.495E+00	2.503E+00	2.758E+00	8.398E-01	1.630
		226.40		-1.374E-01	4.199E-01	7.014E-01	7.987E-02	-0.196
		227.20		-4.028E-01	4.470E-01	7.269E-01	3.962E-02	-0.554
		248.90		-3.196E-01	8.152E-01	1.342E+00	2.875E-01	-0.238
	+	293.70		7.293E+00	1.794E+00	1.910E+00	3.063E-01	3.819
		369.80		-1.317E-01	8.387E-01	1.361E+00	2.825E-01	-0.097
		568.70		-5.837E-03	1.154E+00	1.906E+00	1.200E-01	-0.003
		569.50		1.784E-01	3.172E-01	5.428E-01	3.418E-02	0.329
		574.00		-1.045E+00	1.583E+00	2.525E+00	1.593E-01	-0.414
		699.00		-2.761E-01	7.547E-01	1.207E+00	2.212E-01	-0.229
		706.10		-1.130E-01	1.122E+00	1.836E+00	8.131E-01	-0.062
		733.00		1.029E-03	4.515E-01	6.751E-01	1.461E-01	0.002
		742.81		-1.905E-01	1.386E+00	2.241E+00	1.502E+00	-0.085
		796.30		1.094E+00	1.255E+00	1.915E+00	5.119E-01	0.571
		805.60		1.382E+00	1.299E+00	2.183E+00	6.634E-01	0.633
		819.60		-5.797E-01	1.364E+00	2.104E+00	7.961E-01	-0.276
		826.30		-3.304E-02	9.855E-01	1.602E+00	7.143E-01	-0.021
		831.60		-7.810E-02	7.384E-01	1.192E+00	3.530E-01	-0.066
		876.40		5.898E-01	1.109E+00	1.597E+00	1.641E+00	0.369
		880.51		7.774E-02	3.131E-01	5.198E-01	4.273E-02	0.150
		883.24		-2.215E-01	3.605E-01	4.968E-01	3.337E-01	-0.446
		899.00		-4.265E-01	9.267E-01	1.398E+00	6.103E-01	-0.305
		925.00		3.137E-01	1.310E+00	2.166E+00	1.770E-01	0.145
		926.50		-1.242E-01	2.305E-01	3.102E-01	7.794E-02	-0.400
		946.00	*	-1.063E-01	3.583E-01	5.598E-01	1.035E-01	-0.190
		949.00		-7.957E-02	5.115E-01	8.111E-01	6.483E-02	-0.098
		980.50		4.588E-02	7.633E-01	1.234E+00	9.541E-02	0.037
		1394.10		6.022E-02	1.197E+00	1.965E+00	1.275E+00	0.031
PA-234M		766.42		1.166E+01	1.390E+01	2.211E+01	1.117E+01	0.528
		1001.03	*	-3.845E-01	5.447E+00	9.286E+00	8.404E-01	-0.041
U-235	+	89.95		2.353E+00	1.310E+00	1.955E+00	5.974E-01	1.203
	+	93.35		3.295E+00	1.391E+00	1.407E+00	3.887E-01	2.341
		105.00		1.168E+00	1.187E+00	1.952E+00	5.724E-01	0.598
		143.76	*	5.976E-02	2.269E-01	3.684E-01	5.984E-02	0.162
		163.35		3.083E-01	4.852E-01	7.997E-01	1.423E-01	0.386
	+	185.71		1.665E-01	7.808E-02	1.014E-01	5.294E-03	1.641
		205.31		6.176E-02	6.440E-01	9.133E-01	1.629E-01	0.068
NP-236		94.67		3.442E-01	1.425E-01	2.335E-01	1.662E-02	1.474
		98.44		8.824E-02	7.871E-02	1.293E-01	8.923E-03	0.682
		111.00		-1.274E-01	1.460E-01	2.311E-01	1.487E-02	-0.551
		160.31	*	-6.052E-02	8.238E-02	1.280E-01	6.711E-03	-0.473
NP-239		99.55		2.160E-01	1.720E-01	2.949E-01	2.018E-02	0.732
		117.00	*	-4.187E-02	2.035E-01	3.312E-01	2.090E-02	-0.126
	+	209.75		1.664E+00	1.194E+00	1.529E+00	8.189E-02	1.089
		228.18		-4.975E-02	2.351E-01	3.947E-01	2.153E-02	-0.126
	+	277.60		4.125E-01	2.690E-01	3.426E-01	1.933E-02	1.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		7.086E-01	1.583E+00	2.046E+00	1.160E-01	0.346
AM-241		59.54	*	6.815E-02	1.757E-01	2.728E-01	1.939E-02	0.250
CM-243		99.55		2.223E-01	1.770E-01	3.035E-01	2.077E-02	0.732
		103.76	*	1.202E-01	1.030E-01	1.775E-01	1.182E-02	0.677
		117.00		-4.308E-02	2.094E-01	3.407E-01	2.150E-02	-0.126
	+	209.75		1.641E+00	1.177E+00	1.507E+00	8.074E-02	1.089
		228.18		-5.027E-02	2.376E-01	3.988E-01	2.176E-02	-0.126
	+	277.60		4.159E-01	2.712E-01	3.454E-01	1.949E-02	1.204
AM-246		798.80		-1.088E-01	1.776E-01	2.306E-01	1.747E-02	-0.472
		1036.00		9.330E-02	3.389E-01	5.807E-01	4.179E-02	0.161
		1062.04		-3.776E-02	2.754E-01	4.546E-01	3.145E-02	-0.083
		1078.86	*	-9.250E-03	1.774E-01	2.946E-01	1.981E-02	-0.031
CM-247	+	278.00		1.711E+00	1.116E+00	1.419E+00	8.007E-02	1.206
		287.40		4.428E-01	1.286E+00	2.185E+00	1.237E-01	0.203
		402.60	*	1.807E-02	4.019E-02	6.742E-02	3.739E-03	0.268
CF-249		252.85		-2.121E-01	8.692E-01	1.445E+00	8.043E-02	-0.147
		333.44		1.507E-01	2.325E-01	2.697E-01	1.530E-02	0.559
		387.95	*	1.211E-02	4.285E-02	7.135E-02	3.922E-03	0.170
CF-251		176.60	*	-2.739E-02	1.347E-01	2.136E-01	1.105E-02	-0.128
		227.00		-3.679E-01	3.996E-01	6.495E-01	3.539E-02	-0.566
		285.00		-1.496E+00	1.798E+00	2.866E+00	1.621E-01	-0.522

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 Savage Road      *
*               Charleston, SC 29414  *
*                                     *
*****
*               DETECTOR DATA        *
*                                     *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037550 *
* Acquisition date   : 18-FEB-2010 17:29:20 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 02:00:01.62 Half life ratio         : 8.000  *
*****
*               SAMPLE DATA          *
*                                     *
* Sample date       : 2-FEB-2010 12:00:00 Nuclide Library    : SOLID *
* Sample ID         : G1202037550    Analyst initials       : MXR1  *
* Batch Number      : 950787         Sample Quantity        : 1.2005E+02 GRAM *
* Recovery          : 1.00000        Carrier Weight         : 0.00000 *
*****
*               QC DATA              *
*                                     *
* Standard Weight   : 0.00000        *
* CALIB. DATE/TIME  : 10-FEB-2009 09:20:24 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	3.718E+01	3.329E+00	6.418E-01	0.000E+00
CD-109	2.940E+00	1.171E+00	1.269E+00	0.000E+00
SN-126	2.885E-01	1.149E-01	1.551E-01	0.000E+00
TL-208	6.699E-01	9.518E-02	6.684E-02	0.000E+00
BI-211	4.368E+00	5.463E-01	3.315E-01	0.000E+00
PB-212	1.858E+00	1.770E-01	9.746E-02	0.000E+00
PO-212	1.858E+00	1.770E-01	9.746E-02	0.000E+00
BI-214	1.342E+00	2.099E-01	1.184E-01	0.000E+00
PB-214	1.519E+00	2.053E-01	1.156E-01	0.000E+00
PO-214	1.519E+00	2.053E-01	1.156E-01	0.000E+00
PO-216	1.858E+00	1.770E-01	9.746E-02	0.000E+00
PO-218	1.519E+00	2.053E-01	1.156E-01	0.000E+00
RA-224	5.444E+00	1.025E+00	1.109E+00	0.000E+00
RA-226	1.342E+00	2.099E-01	1.184E-01	0.000E+00
AC-228	2.039E+00	3.550E-01	2.017E-01	0.000E+00
RA-228	2.039E+00	3.550E-01	2.017E-01	0.000E+00
TH-228	1.888E+00	1.798E-01	9.905E-02	0.000E+00
TH-230	1.342E+00	2.099E-01	1.184E-01	0.000E+00
TH-232	2.039E+00	3.550E-01	2.017E-01	0.000E+00
TH-234	2.642E+00	2.068E+00	2.342E+00	0.000E+00
U-234	1.342E+00	2.099E-01	1.184E-01	0.000E+00
NP-237	8.471E-01	3.785E-01	4.609E-01	0.000E+00
U-238	2.642E+00	2.068E+00	2.342E+00	0.000E+00
AM-243	5.424E-01	9.412E-02	9.575E-02	0.000E+00
ANH-511	1.573E-01	7.488E-02	5.164E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	3.787E-02	3.361E-01	5.630E-01	0.000E+00 NOT IDENT.
NA-22	5.656E-03	5.260E-02	8.902E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	3.024E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	7.937E-03	2.192E-02	4.032E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.674E-02	8.019E-02	0.000E+00	FAIL ABUN
SC-46	1.924E-02	4.540E-02	7.815E-02	0.000E+00	FAIL ABUN
V-48	-2.278E-02	8.051E-02	1.282E-01	0.000E+00	NOT IDENT.
CR-51	-6.361E-02	3.952E-01	6.729E-01	0.000E+00	NOT IDENT.
MN-52	-5.057E-02	2.725E-01	4.384E-01	0.000E+00	NOT IDENT.
MN-54	-9.316E-03	4.386E-02	7.196E-02	0.000E+00	NOT IDENT.
CO-56	-1.716E-02	4.244E-02	6.798E-02	0.000E+00	NOT IDENT.
CO-57	1.908E-02	2.691E-02	4.697E-02	0.000E+00	NOT IDENT.
CO-58	-3.513E-02	4.332E-02	6.694E-02	0.000E+00	NOT IDENT.
FE-59	-4.376E-02	1.061E-01	1.740E-01	0.000E+00	NOT IDENT.
CO-60	-1.825E-02	4.698E-02	7.503E-02	0.000E+00	NOT IDENT.
ZN-65	3.163E-02	1.067E-01	1.620E-01	0.000E+00	NOT IDENT.
GE-68	-5.027E-01	1.511E+00	2.504E+00	0.000E+00	NOT IDENT.
AS-73	-6.260E-02	8.209E-01	1.474E+00	0.000E+00	NOT IDENT.
AS-74	1.261E-02	9.678E-02	1.682E-01	0.000E+00	NOT IDENT.
SE-75	-9.477E-03	4.889E-02	7.410E-02	0.000E+00	NOT IDENT.
BR-77	5.974E+00	1.474E+01	2.510E+01	0.000E+00	FAIL ABUN
SR-82	-5.258E-01	4.264E-01	6.344E-01	0.000E+00	NOT IDENT.
RB-83	5.916E-03	7.380E-02	1.224E-01	0.000E+00	NOT IDENT.
RB-84	-3.500E-02	7.770E-02	1.232E-01	0.000E+00	NOT IDENT.
KR-85	1.307E+01	8.212E+00	1.365E+01	0.000E+00	NOT IDENT.
SR-85	6.783E-02	4.260E-02	7.079E-02	0.000E+00	NOT IDENT.
RB-86	-2.928E-01	9.779E-01	1.625E+00	0.000E+00	NOT IDENT.
Y-88	1.983E-02	3.936E-02	7.152E-02	0.000E+00	NOT IDENT.
ZR-88	-5.727E-03	3.367E-02	5.422E-02	0.000E+00	NOT IDENT.
Y-91	7.060E+00	2.424E+01	4.171E+01	0.000E+00	NOT IDENT.
NB-94	6.640E-03	3.441E-02	5.928E-02	0.000E+00	NOT IDENT.
NB-95	8.279E-02	4.603E-02	8.725E-02	0.000E+00	NOT IDENT.
NB-95M	1.584E-01	1.408E-01	2.317E-01	0.000E+00	NOT IDENT.
ZR-95	2.393E-02	7.443E-02	1.289E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.452E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.198E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.474E+00	1.638E+01	2.667E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.608E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	3.455E-02	5.947E-02	0.000E+00	NOT IDENT.
RH-102	-3.371E-03	3.043E-02	5.012E-02	0.000E+00	NOT IDENT.
RU-103	-4.078E-02	4.659E-02	7.142E-02	0.000E+00	FAIL ABUN
RH-106	2.028E-01	3.398E-01	6.067E-01	0.000E+00	FAIL ABUN
RU-106	2.028E-01	3.392E-01	6.067E-01	0.000E+00	FAIL ABUN
AG-108M	9.641E-03	3.252E-02	5.566E-02	0.000E+00	NOT IDENT.
AG-110M	-8.585E-04	4.144E-02	6.127E-02	0.000E+00	NOT IDENT.
IN-111	9.829E-01	1.470E+00	2.375E+00	0.000E+00	NOT IDENT.
IN-113M	2.301E-03	4.458E-02	7.559E-02	0.000E+00	NOT IDENT.
SN-113	2.301E-03	4.458E-02	7.559E-02	0.000E+00	NOT IDENT.
IN-114M	-1.497E-01	2.194E-01	3.100E-01	0.000E+00	NOT IDENT.
CD-115	9.840E+00	1.619E+01	2.794E+01	0.000E+00	NOT IDENT.
SN-117M	1.570E-02	5.860E-02	9.998E-02	0.000E+00	NOT IDENT.
SB-122	1.464E+00	2.985E+00	5.327E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.377E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	7.267E-03	2.889E-02	4.925E-02	0.000E+00	NOT IDENT.
I-124	-8.980E-02	9.884E-01	1.466E+00	0.000E+00	FAIL ABUN
SB-124	2.325E-02	7.978E-02	1.416E-01	0.000E+00	FAIL ABUN
SB-125	5.894E-02	9.343E-02	1.636E-01	0.000E+00	FAIL ABUN
TE-125M	3.215E+00	9.797E+00	1.687E+01	0.000E+00	NOT IDENT.
I-126	1.131E-01	2.364E-01	3.674E-01	0.000E+00	NOT IDENT.
SB-126	-3.851E-02	1.778E-01	2.538E-01	0.000E+00	FAIL ABUN
SB-127	-9.084E-01	1.864E+00	3.048E+00	0.000E+00	NOT IDENT.
XE-127	-1.297E-02	5.081E-02	8.303E-02	0.000E+00	NOT IDENT.
I-131	-6.011E-02	1.308E-01	2.157E-01	0.000E+00	NOT IDENT.
TE-132	-3.153E-01	8.979E-01	1.558E+00	0.000E+00	NOT IDENT.
BA-133	-1.656E-02	4.816E-02	6.967E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.668E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.509E-02	9.953E-02	0.000E+00	FAIL ABUN
CS-135	1.736E-01	1.736E-01	2.836E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.088E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.059E-02	1.322E-01	2.287E-01	0.000E+00	FAIL ABUN
BA-137M	3.919E-02	4.878E-02	7.761E-02	0.000E+00	NOT IDENT.
CS-137	4.143E-02	5.156E-02	8.204E-02	0.000E+00	NOT IDENT.
CE-139	8.820E-03	3.126E-02	5.319E-02	0.000E+00	NOT IDENT.
BA-140	-1.229E-01	2.687E-01	4.459E-01	0.000E+00	NOT IDENT.
LA-140	-5.418E-02	8.961E-02	1.380E-01	0.000E+00	FAIL ABUN
CE-141	9.607E-03	6.568E-02	1.121E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.625E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.093E-01	2.385E-01	3.529E-01	0.000E+00	NOT IDENT.
PM-144	-2.676E-02	3.756E-02	6.019E-02	0.000E+00	NOT IDENT.
PR-144	-1.814E+00	2.547E+00	4.081E+00	0.000E+00	NOT IDENT.

PM-146	-3.447E-03	4.462E-02	7.400E-02	0.000E+00	NOT IDENT.
ND-147	-1.426E-02	6.524E-01	1.071E+00	0.000E+00	FAIL ABUN
PM-149	-6.945E+01	1.314E+02	2.209E+02	0.000E+00	NOT IDENT.
EU-152	1.381E-03	1.115E-01	1.673E-01	0.000E+00	FAIL ABUN
GD-153	-5.783E-02	9.635E-02	1.452E-01	0.000E+00	NOT IDENT.
EU-154	1.328E-02	1.466E-01	2.477E-01	0.000E+00	NOT IDENT.
EU-155	8.851E-02	1.138E-01	2.029E-01	0.000E+00	FAIL ABUN
TB-160	9.944E-03	1.540E-01	2.574E-01	0.000E+00	FAIL ABUN
HO-166M	7.092E-03	7.072E-02	1.207E-01	0.000E+00	NOT IDENT.
TM-171	1.857E+01	3.249E+01	5.314E+01	0.000E+00	NOT IDENT.
LU-176	3.275E-03	2.459E-02	4.271E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.850E+00	2.477E+00	0.000E+00	FAIL ABUN
LU-177M	-1.291E-01	1.810E-01	2.890E-01	0.000E+00	FAIL ABUN
HF-181	1.170E-02	4.640E-02	7.844E-02	0.000E+00	NOT IDENT.
W-181	1.550E-01	4.224E-01	6.862E-01	0.000E+00	NOT IDENT.
TA-182	1.827E-01	2.507E-01	4.434E-01	0.000E+00	NOT IDENT.
RE-183	-1.267E-02	1.116E-01	1.867E-01	0.000E+00	FAIL ABUN
RE-184	-5.678E-02	2.280E-01	3.941E-01	0.000E+00	NOT IDENT.
OS-185	-2.603E-02	4.690E-02	7.672E-02	0.000E+00	NOT IDENT.
RE-188	-2.875E-04	1.845E-01	3.115E-01	0.000E+00	NOT IDENT.
W-188	-5.876E+00	8.872E+00	1.288E+01	0.000E+00	FAIL ABUN
IR-192	8.578E-03	3.525E-02	6.144E-02	0.000E+00	FAIL ABUN
AU-195	3.497E-01	2.443E-01	4.419E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	9.182E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.179E+00	9.514E+00	1.588E+01	0.000E+00	NOT IDENT.
TL-202	5.922E-02	7.730E-02	1.361E-01	0.000E+00	NOT IDENT.
HG-203	2.992E-02	4.597E-02	7.347E-02	0.000E+00	NOT IDENT.
BI-207	3.165E-02	5.996E-02	1.067E-01	0.000E+00	FAIL ABUN
TL-207	2.679E-01	7.709E-01	1.192E+00	0.000E+00	FAIL ABUN
PO-209	-4.161E+00	7.329E+00	1.137E+01	0.000E+00	NOT IDENT.
BI-210	1.875E+00	3.362E+00	6.123E+00	0.000E+00	NOT IDENT.
PB-210	1.875E+00	3.362E+00	6.123E+00	0.000E+00	NOT IDENT.
PO-210	1.875E+00	3.361E+00	6.123E+00	0.000E+00	NOT IDENT.
PB-211	-1.014E+00	1.194E+00	1.610E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.822E-01	6.961E-01	0.000E+00	FAIL ABUN
PO-215	2.679E-01	7.709E-01	1.192E+00	0.000E+00	FAIL ABUN
RN-219	8.395E-02	4.391E-01	7.492E-01	0.000E+00	FAIL ABUN
RN-220	-3.269E+00	2.602E+01	4.471E+01	0.000E+00	NOT IDENT.
RA-223	2.679E-01	7.709E-01	1.192E+00	0.000E+00	FAIL ABUN
AC-227	1.152E-01	3.743E-01	6.634E-01	0.000E+00	FAIL ABUN
TH-227	1.152E-01	3.744E-01	6.634E-01	0.000E+00	FAIL ABUN
TH-229	5.410E-02	5.545E-01	9.251E-01	0.000E+00	FAIL ABUN
PA-231	-5.192E-01	1.575E+00	2.589E+00	0.000E+00	NOT IDENT.
TH-231	2.679E-01	7.709E-01	1.192E+00	0.000E+00	FAIL ABUN
U-231	-4.973E-01	1.453E+00	2.228E+00	0.000E+00	FAIL ABUN
PA-233	-1.585E-02	6.196E-02	1.051E-01	0.000E+00	FAIL ABUN
PA-234	-1.063E-01	3.511E-01	5.614E-01	0.000E+00	FAIL ABUN
PA-234M	-3.845E-01	5.338E+00	9.306E+00	0.000E+00	NOT IDENT.
U-235	5.976E-02	2.223E-01	3.777E-01	0.000E+00	FAIL ABUN
NP-236	-6.052E-02	8.073E-02	1.311E-01	0.000E+00	NOT IDENT.
NP-239	-4.187E-02	1.995E-01	3.403E-01	0.000E+00	FAIL ABUN
AM-241	6.815E-02	1.721E-01	2.825E-01	0.000E+00	NOT IDENT.
CM-243	1.202E-01	1.010E-01	1.827E-01	0.000E+00	FAIL ABUN
AM-246	-9.250E-03	1.739E-01	2.950E-01	0.000E+00	NOT IDENT.
CM-247	1.807E-02	3.938E-02	6.830E-02	0.000E+00	FAIL ABUN
CF-249	1.211E-02	4.200E-02	7.231E-02	0.000E+00	NOT IDENT.
CF-251	-2.739E-02	1.320E-01	2.185E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 19:29:55.35

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037550.CNF;1
Sample date        : 2-FEB-2010 12:00:00. Acquisition date : 18-FEB-2010 17:29:20
Sample ID          : G1202037550      Sample quantity   : 1.20050E+02 GRAM
Detector name      : GAM12            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 950787           Detector SN#      :
Matrix Spike ID    :                  LCS ID             : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1443	10.67*	1.138E+00	3.718E+01	3.718E+01	9.14
CD-109	88.03	192	3.72*	5.630E+00	2.869E+00	2.940E+00	40.66
SN-126	64.28	103	9.60	3.216E+00	1.046E+00	1.046E+00	79.28
	86.94	192	8.90	5.630E+00	1.199E+00	1.199E+00	57.35
	87.57	192	37.00*	5.630E+00	2.885E-01	2.885E-01	40.66
TL-208	277.35	84	6.80	4.504E+00	8.554E-01	8.554E-01	65.80
	510.84	141	21.60	2.794E+00	7.283E-01	7.283E-01	49.28
	583.14	452	84.20*	2.506E+00	6.699E-01	6.699E-01	14.50
	860.37	49	12.46	1.795E+00	6.850E-01	6.850E-01	75.44
BI-211	72.87	-----	1.27	4.387E+00	-----	Line Not Found	-----
	351.07	680	12.94*	3.764E+00	4.368E+00	4.368E+00	12.76
PB-212	74.81	524	10.70	4.577E+00	3.345E+00	3.345E+00	20.02
	77.11	645	18.00	4.815E+00	2.326E+00	2.326E+00	13.49
	87.30	192	8.00	5.630E+00	1.334E+00	1.334E+00	41.87
	238.63	1329	44.60*	5.017E+00	1.858E+00	1.858E+00	9.72
	300.09	99	3.41	4.252E+00	2.125E+00	2.125E+00	46.82
PO-212	74.81	524	10.70	4.577E+00	3.345E+00	3.345E+00	20.02
	77.11	645	18.00	4.815E+00	2.326E+00	2.326E+00	13.49
	87.30	192	8.00	5.630E+00	1.334E+00	1.334E+00	41.87
	115.19	-----	0.60	6.604E+00	-----	Line Not Found	-----
	238.63	1329	44.60*	5.017E+00	1.858E+00	1.858E+00	9.72
	300.09	99	3.41	4.252E+00	2.125E+00	2.125E+00	46.82
BI-214	609.31	480	46.30*	2.415E+00	1.342E+00	1.342E+00	15.97
	1120.29	82	15.10	1.423E+00	1.195E+00	1.195E+00	44.89
	1764.49	107	15.80	9.906E-01	2.128E+00	2.128E+00	21.40
PB-214	74.81	524	6.21	4.577E+00	5.764E+00	5.764E+00	19.19
	77.11	645	10.50	4.815E+00	3.987E+00	3.987E+00	15.49
	87.30	192	4.67	5.630E+00	2.286E+00	2.286E+00	41.38
	241.98	342	7.49	4.975E+00	2.871E+00	2.871E+00	20.01
	295.21	402	19.20	4.305E+00	1.519E+00	1.519E+00	20.48
	351.92	680	37.20*	3.764E+00	1.519E+00	1.519E+00	13.79
PO-214	74.81	524	6.21	4.577E+00	5.764E+00	5.764E+00	19.19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	645	10.50	4.815E+00	3.987E+00	3.987E+00	15.49
	87.30	192	4.67	5.630E+00	2.286E+00	2.286E+00	41.38
	241.98	342	7.49	4.975E+00	2.871E+00	2.871E+00	20.01
	295.21	402	19.20	4.305E+00	1.519E+00	1.519E+00	20.48
	351.92	680	37.20*	3.764E+00	1.519E+00	1.519E+00	13.79
PO-216	74.81	524	10.70	4.577E+00	3.345E+00	3.345E+00	20.02
	77.11	645	18.00	4.815E+00	2.326E+00	2.326E+00	13.49
	87.30	192	8.00	5.630E+00	1.334E+00	1.334E+00	41.87
	238.63	1329	44.60*	5.017E+00	1.858E+00	1.858E+00	9.72
	300.09	99	3.41	4.252E+00	2.125E+00	2.125E+00	46.82
PO-218	74.81	524	6.21	4.577E+00	5.764E+00	5.764E+00	19.19
	77.11	645	10.50	4.815E+00	3.987E+00	3.987E+00	15.49
	87.30	192	4.67	5.630E+00	2.286E+00	2.286E+00	41.38
	241.98	342	7.49	4.975E+00	2.871E+00	2.871E+00	20.01
	295.21	402	19.20	4.305E+00	1.519E+00	1.519E+00	20.48
	351.92	680	37.20*	3.764E+00	1.519E+00	1.519E+00	13.79
RA-224	240.98	342	3.95*	4.975E+00	5.444E+00	5.444E+00	19.21
RA-226	609.31	480	46.30*	2.415E+00	1.342E+00	1.342E+00	15.97
	1120.29	82	15.10	1.423E+00	1.195E+00	1.195E+00	44.89
	1764.49	107	15.80	9.906E-01	2.128E+00	2.128E+00	21.40
AC-228	338.32	269	11.40	3.881E+00	1.899E+00	1.899E+00	47.34
	911.07	308	27.70*	1.707E+00	2.039E+00	2.039E+00	17.76
	969.11	164	16.60	1.617E+00	1.909E+00	1.909E+00	33.04
RA-228	338.32	269	11.40	3.881E+00	1.899E+00	1.899E+00	47.34
	911.07	308	27.70*	1.707E+00	2.039E+00	2.039E+00	17.76
	969.11	164	16.60	1.617E+00	1.909E+00	1.909E+00	33.04
TH-228	74.81	524	10.70	4.577E+00	3.345E+00	3.400E+00	17.74
	77.11	645	18.00	4.815E+00	2.326E+00	2.364E+00	13.49
	87.30	192	8.00	5.630E+00	1.334E+00	1.356E+00	40.66
	238.63	1329	44.60*	5.017E+00	1.858E+00	1.888E+00	9.72
	300.09	99	3.41	4.252E+00	2.125E+00	2.160E+00	74.82
TH-230	609.31	480	46.30*	2.415E+00	1.342E+00	1.342E+00	15.97
	1120.29	82	15.10	1.423E+00	1.195E+00	1.195E+00	44.89
	1764.49	107	15.80	9.906E-01	2.128E+00	2.128E+00	21.40
TH-232	338.32	269	11.40	3.881E+00	1.899E+00	1.899E+00	24.76
	911.07	308	27.70*	1.707E+00	2.039E+00	2.039E+00	17.76
	969.11	164	16.60	1.617E+00	1.909E+00	1.909E+00	33.04
TH-234	63.29	103	3.80*	3.216E+00	2.642E+00	2.642E+00	79.87
	92.38	284	5.41	5.983E+00	2.740E+00	2.740E+00	36.38
U-234	609.31	480	46.30*	2.415E+00	1.342E+00	1.342E+00	15.97
	1120.29	82	15.10	1.423E+00	1.195E+00	1.195E+00	44.89
	1764.49	107	15.80	9.906E-01	2.128E+00	2.128E+00	21.40
NP-237	86.50	192	12.60*	5.630E+00	8.471E-01	8.471E-01	45.59
	95.87	-----	2.60	6.124E+00	-----	Line Not Found	-----
U-238	63.29	103	3.80*	3.216E+00	2.642E+00	2.642E+00	79.87
	92.38	284	5.41	5.983E+00	2.740E+00	2.740E+00	32.73
AM-243	74.67	524	66.00*	4.577E+00	5.424E-01	5.424E-01	17.71
	86.72	192	0.34	5.630E+00	3.177E+01	3.177E+01	40.66
	117.66	-----	0.55	6.624E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	6.534E+00	-----	Line Not Found	-----
ANH-511	511.00	141	100.00*	2.794E+00	1.573E-01	1.573E-01	48.57

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202037550

Page : 4
Acquisition date : 18-FEB-2010 17:29:20

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.718E+01	3.718E+01	0.340E+01	9.14	
CD-109	464.00D	1.02	2.869E+00	2.940E+00	1.195E+00	40.66	
SN-126	1.00E+05Y	1.00	2.885E-01	2.885E-01	1.173E-01	40.66	
TL-208	1.41E+10Y	1.00	6.699E-01	6.699E-01	0.971E-01	14.50	
BI-211	7.04E+08Y	1.00	4.368E+00	4.368E+00	0.557E+00	12.76	
PB-212	1.41E+10Y	1.00	1.858E+00	1.858E+00	0.181E+00	9.72	
PO-212	1.41E+10Y	1.00	1.858E+00	1.858E+00	0.181E+00	9.72	
BI-214	1600.00Y	1.00	1.342E+00	1.342E+00	0.214E+00	15.97	
PB-214	1600.00Y	1.00	1.519E+00	1.519E+00	0.209E+00	13.79	
PO-214	1600.00Y	1.00	1.519E+00	1.519E+00	0.209E+00	13.79	
PO-216	1.41E+10Y	1.00	1.858E+00	1.858E+00	0.181E+00	9.72	
PO-218	1600.00Y	1.00	1.519E+00	1.519E+00	0.209E+00	13.79	
RA-224	1.41E+10Y	1.00	5.444E+00	5.444E+00	1.046E+00	19.21	
RA-226	1600.00Y	1.00	1.342E+00	1.342E+00	0.214E+00	15.97	
AC-228	1.41E+10Y	1.00	2.039E+00	2.039E+00	0.362E+00	17.76	
RA-228	1.41E+10Y	1.00	2.039E+00	2.039E+00	0.362E+00	17.76	
TH-228	1.91Y	1.02	1.858E+00	1.888E+00	0.184E+00	9.72	
TH-230	4.47E+09Y	1.00	1.342E+00	1.342E+00	0.214E+00	15.97	
TH-232	1.41E+10Y	1.00	2.039E+00	2.039E+00	0.362E+00	17.76	
TH-234	4.47E+09Y	1.00	2.642E+00	2.642E+00	2.110E+00	79.87	
U-234	4.47E+09Y	1.00	1.342E+00	1.342E+00	0.214E+00	15.97	
NP-237	2.14E+06Y	1.00	8.471E-01	8.471E-01	3.862E-01	45.59	
U-238	4.47E+09Y	1.00	2.642E+00	2.642E+00	2.110E+00	79.87	
AM-243	7380.00Y	1.00	5.424E-01	5.424E-01	0.960E-01	17.71	
ANH-511	1.00E+09Y	1.00	1.573E-01	1.573E-01	0.764E-01	48.57	

Total Activity : 8.112E+01 8.123E+01

Grand Total Activity : 8.112E+01 8.123E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202037550

Page : 5
Acquisition date : 18-FEB-2010 17:29:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.78	118	303	0.85	179.06	177	14	1.64E-02	46.5	5.81E+00	T
0	129.23	89	380	1.38	258.01	254	9	1.24E-02	81.6	6.63E+00	T
0	185.93	168	352	1.40	371.45	366	10	2.34E-02	46.6	5.86E+00	T
0	208.90	94	321	1.02	417.43	413	9	1.31E-02	71.5	5.47E+00	T
0	269.92	125	178	1.45	539.52	535	10	1.73E-02	43.8	4.59E+00	T
0	327.78	127	189	1.48	655.29	649	13	1.76E-02	48.3	3.97E+00	T
0	462.76	75	124	0.85	925.35	919	11	1.05E-02	61.6	3.03E+00	T
0	663.29	62	132	4.79	1326.53	1319	18	8.55E-03	92.0	2.25E+00	T
0	727.13	74	76	1.52	1454.23	1448	11	1.02E-02	51.6	2.08E+00	T
0	794.63	59	42	1.49	1589.25	1585	11	8.19E-03	51.9	1.92E+00	T
0	934.00	46	41	0.77	1868.03	1861	12	6.39E-03	63.5	1.67E+00	
3	964.14	59	58	2.41	1928.32	1919	26	8.22E-03	60.4	1.62E+00	T
0	1377.15	35	25	0.75	2754.34	2747	11	4.81E-03	65.3	1.19E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037550.CNF;1
* Acquisition date   : 18-FEB-2010 17:29:20   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 02:00:01.62           Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 2-FEB-2010 12:00:00.   Nuclide Library : SOLID
* Sample ID          : G1202037550           Analyst initials: MXR1
* Batch Number       : 950787                Sample Quantity : 1.20050E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 10-FEB-2009 09:20:24.5MS 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	3.718E+01	3.397E+00	6.434E-01	4.587E-02	57.792
CD-109	2.940E+00	1.195E+00	1.231E+00	9.421E-02	2.388
SN-126	2.885E-01	1.173E-01	1.505E-01	1.147E-02	1.917
TL-208	6.699E-01	9.712E-02	6.626E-02	4.740E-03	10.109
BI-211	4.368E+00	5.574E-01	3.268E-01	2.054E-02	13.367
PB-212	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
PO-212	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
BI-214	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
PB-214	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
PO-214	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
PO-216	1.858E+00	1.806E-01	9.562E-02	6.790E-03	19.428
PO-218	1.519E+00	2.095E-01	1.139E-01	9.306E-03	13.337
RA-224	5.444E+00	1.046E+00	1.088E+00	6.004E-02	5.002
RA-226	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
AC-228	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
RA-228	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
TH-228	1.888E+00	1.835E-01	9.718E-02	6.900E-03	19.428
TH-230	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	2.039E+00	3.622E-01	2.011E-01	2.208E-02	10.141
TH-234	2.642E+00	2.110E+00	2.263E+00	3.853E-01	1.168
U-234	1.342E+00	2.142E-01	1.174E-01	9.666E-03	11.426
NP-237	8.471E-01	3.862E-01	4.470E-01	9.820E-02	1.895
U-238	2.642E+00	2.110E+00	2.263E+00	3.853E-01	1.168
AM-243	5.424E-01	9.604E-02	9.270E-02	6.299E-03	5.851
ANH-511	1.573E-01	7.641E-02	5.112E-02	3.115E-03	3.077

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.787E-02		3.429E-01	5.569E-01	3.832E-02	0.068
NA-22	5.656E-03		5.368E-02	8.909E-02	5.737E-03	0.063
NA-24	1.098E+00		1.543E+00	Half-Life too short		
AL-26	7.937E-03		2.237E-02	4.052E-02	2.325E-03	0.196
TI-44	4.292E-01	+	5.790E-02	7.768E-02	5.434E-03	5.525
SC-46	1.924E-02		4.632E-02	7.788E-02	6.455E-03	0.247
V-48	-2.278E-02		8.215E-02	1.279E-01	9.857E-03	-0.178
CR-51	-6.361E-02		4.033E-01	6.625E-01	4.212E-02	-0.096
MN-52	-5.057E-02		2.780E-01	4.394E-01	3.018E-02	-0.115
MN-54	-9.316E-03		4.476E-02	7.165E-02	5.632E-03	-0.130
CO-56	-1.716E-02		4.331E-02	6.770E-02	5.386E-03	-0.253
CO-57	1.908E-02		2.745E-02	4.573E-02	2.860E-03	0.417
CO-58	-3.513E-02		4.420E-02	6.663E-02	5.127E-03	-0.527
FE-59	-4.376E-02		1.083E-01	1.738E-01	1.284E-02	-0.252
CO-60	-1.825E-02		4.794E-02	7.513E-02	5.247E-03	-0.243
ZN-65	3.163E-02		1.089E-01	1.619E-01	1.018E-02	0.195
GE-68	-5.027E-01		1.542E+00	2.501E+00	1.686E-01	-0.201
AS-73	-6.260E-02		8.376E-01	1.421E+00	9.176E-02	-0.044
AS-74	1.261E-02		9.875E-02	1.668E-01	1.062E-02	0.076
SE-75	-9.477E-03		4.989E-02	7.279E-02	4.126E-03	-0.130
BR-77	5.974E+00		1.504E+01	2.485E+01	1.524E+00	0.240
SR-82	-5.258E-01		4.351E-01	6.311E-01	4.670E-02	-0.833
RB-83	5.916E-03		7.531E-02	1.212E-01	7.431E-03	0.049
RB-84	-3.500E-02		7.929E-02	1.227E-01	1.010E-02	-0.285
KR-85	1.307E+01		8.380E+00	1.351E+01	8.249E-01	0.968
SR-85	6.783E-02		4.347E-02	7.008E-02	4.279E-03	0.968
RB-86	-2.928E-01		9.978E-01	1.623E+00	1.095E-01	-0.180
Y-88	1.983E-02		4.016E-02	7.190E-02	4.047E-03	0.276
ZR-88	-5.727E-03		3.436E-02	5.351E-02	2.935E-03	-0.107
Y-91	7.060E+00		2.473E+01	4.172E+01	2.412E+00	0.169
NB-94	6.640E-03		3.512E-02	5.890E-02	4.012E-03	0.113
NB-95	8.279E-02		4.697E-02	8.678E-02	6.348E-03	0.954
NB-95M	1.584E-01		1.437E-01	2.273E-01	1.658E-02	0.697
ZR-95	2.393E-02		7.595E-02	1.281E-01	1.058E-02	0.187
NB-97	8.405E-03		1.761E-01	Half-Life too short		
ZR-97	9.371E+00		3.673E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-6.474E+00		1.671E+01	2.652E+01	3.813E+00	-0.244
TC-99M	-1.259E+12		4.902E+11	Half-Life too short		
RH-101	2.848E-02		3.526E-02	5.822E-02	3.080E-03	0.489
RH-102	-3.371E-03		3.105E-02	4.957E-02	2.944E-03	-0.068
RU-103	-4.078E-02		4.754E-02	7.068E-02	9.015E-03	-0.577
RH-106	2.028E-01		3.467E-01	6.020E-01	7.257E-02	0.337
RU-106	2.028E-01		3.461E-01	6.020E-01	3.865E-02	0.337
AG-108M	9.641E-03		3.319E-02	5.500E-02	3.427E-03	0.175
AG-110M	-8.585E-04		4.228E-02	6.083E-02	4.146E-03	-0.014
IN-111	9.829E-01		1.500E+00	2.331E+00	1.290E-01	0.422
IN-113M	2.301E-03		4.549E-02	7.459E-02	4.391E-03	0.031
SN-113	2.301E-03		4.549E-02	7.459E-02	4.391E-03	0.031
IN-114M	-1.497E-01		2.239E-01	3.033E-01	1.591E-02	-0.494
CD-115	9.840E+00		1.652E+01	2.766E+01	1.704E+00	0.356
SN-117M	1.570E-02		5.979E-02	9.764E-02	5.158E-03	0.161
SB-122	1.464E+00		3.046E+00	5.279E+00	3.315E-01	0.277
I-123	5.979E+00		1.213E+01	Half-Life too short		
TE-123M	7.267E-03		2.948E-02	4.809E-02	2.577E-03	0.151
I-124	-8.980E-02		1.009E+00	1.454E+00	9.277E-02	-0.062
SB-124	2.325E-02		8.141E-02	1.422E-01	9.486E-03	0.164
SB-125	5.894E-02		9.533E-02	1.616E-01	9.605E-03	0.365
TE-125M	3.215E+00		9.997E+00	1.640E+01	1.415E+00	0.196
I-126	1.131E-01		2.412E-01	3.648E-01	2.379E-02	0.310
SB-126	-3.851E-02		1.814E-01	2.522E-01	1.754E-02	-0.153
SB-127	-9.084E-01		1.902E+00	3.028E+00	3.138E-01	-0.300
XE-127	-1.297E-02		5.185E-02	8.131E-02	4.324E-03	-0.159
I-131	-6.011E-02		1.335E-01	2.127E-01	1.341E-02	-0.283
TE-132	-3.153E-01		9.162E-01	1.527E+00	2.208E-01	-0.206
BA-133	-1.656E-02		4.914E-02	6.867E-02	7.879E-03	-0.241
I-133	-1.096E-02		8.510E-03	Half-Life too short		
CS-134	1.265E-01	+	6.642E-02	9.904E-02	7.551E-03	1.278
CS-135	1.736E-01		1.771E-01	2.786E-01	2.095E-02	0.623
I-135	-8.782E+10		5.552E+10	Half-Life too short		
CS-136	2.059E-02		1.349E-01	2.284E-01	1.716E-02	0.090
BA-137M	3.919E-02		4.977E-02	7.706E-02	4.996E-03	0.509
CS-137	4.143E-02		5.261E-02	8.146E-02	5.299E-03	0.509
CE-139	8.820E-03		3.190E-02	5.196E-02	2.663E-03	0.170
BA-140	-1.229E-01		2.742E-01	4.417E-01	1.440E-01	-0.278
LA-140	-5.418E-02		9.144E-02	1.385E-01	9.017E-03	-0.391
CE-141	9.607E-03		6.702E-02	1.093E-01	6.366E-03	0.088
CE-143	1.513E-03		2.360E-04	Half-Life too short		
CE-144	-1.093E-01		2.434E-01	3.439E-01	4.896E-02	-0.318
PM-144	-2.676E-02		3.832E-02	5.980E-02	4.046E-03	-0.447
PR-144	-1.814E+00		2.599E+00	4.055E+00	2.742E-01	-0.447
PM-146	-3.447E-03		4.553E-02	7.315E-02	6.325E-03	-0.047
ND-147	-1.426E-02		6.658E-01	1.061E+00	1.452E-01	-0.013
PM-149	-6.945E+01		1.341E+02	2.172E+02	3.068E+01	-0.320
EU-152	1.381E-03		1.137E-01	1.648E-01	1.056E-02	0.008

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-5.783E-02		9.832E-02	1.410E-01	9.807E-03	-0.410
EU-154	1.328E-02		1.496E-01	2.479E-01	2.416E-02	0.054
EU-155	8.851E-02		1.161E-01	1.972E-01	1.329E-02	0.449
TB-160	9.944E-03		1.572E-01	2.564E-01	2.105E-02	0.039
HO-166M	7.092E-03		7.216E-02	1.200E-01	8.257E-03	0.059
TM-171	1.857E+01		3.315E+01	5.138E+01	3.325E+00	0.361
LU-176	3.275E-03		2.509E-02	4.203E-02	2.389E-03	0.078
LU-177	2.632E+00	+	1.888E+00	2.427E+00	1.298E-01	1.085
LU-177M	-1.291E-01		1.847E-01	2.854E-01	1.602E-02	-0.452
HF-181	1.170E-02		4.735E-02	7.760E-02	4.633E-03	0.151
W-181	1.550E-01		4.310E-01	6.633E-01	4.262E-02	0.234
TA-182	1.827E-01		2.558E-01	4.435E-01	2.631E-02	0.412
RE-183	-1.267E-02		1.138E-01	1.824E-01	9.481E-03	-0.069
RE-184	-5.678E-02		2.327E-01	3.869E-01	2.153E-02	-0.147
OS-185	-2.603E-02		4.785E-02	7.616E-02	4.922E-03	-0.342
RE-188	-2.875E-04		1.883E-01	3.041E-01	1.631E-02	-0.001
W-188	-5.876E+00		9.053E+00	1.266E+01	7.176E-01	-0.464
IR-192	8.578E-03		3.596E-02	6.048E-02	3.456E-03	0.142
AU-195	3.497E-01		2.493E-01	4.292E-01	2.952E-02	0.815
TL-200	5.027E-04		4.685E-04	Half-Life too short		
TL-201	-1.179E+00		9.708E+00	1.552E+01	7.955E-01	-0.076
TL-202	5.922E-02		7.888E-02	1.345E-01	7.747E-03	0.440
HG-203	2.992E-02		4.691E-02	7.221E-02	4.342E-03	0.414
BI-207	3.165E-02		6.118E-02	1.066E-01	7.351E-03	0.297
TL-207	2.679E-01		7.866E-01	1.174E+00	1.933E-01	0.228
PO-209	-4.161E+00		7.479E+00	1.133E+01	9.459E-01	-0.367
BI-210	1.875E+00		3.431E+00	5.897E+00	4.442E-01	0.318
PB-210	1.875E+00		3.431E+00	5.897E+00	4.442E-01	0.318
PO-210	1.875E+00		3.430E+00	5.897E+00	3.782E-01	0.318
PB-211	-1.014E+00		1.218E+00	1.589E+00	9.905E-01	-0.638
BI-212	9.406E-01	+	4.920E-01	6.920E-01	5.991E-02	1.359
PO-215	2.679E-01		7.866E-01	1.174E+00	1.933E-01	0.228
RN-219	8.395E-02		4.481E-01	7.395E-01	9.982E-02	0.114
RN-220	-3.269E+00		2.655E+01	4.430E+01	2.762E+00	-0.074
RA-223	2.679E-01		7.866E-01	1.174E+00	1.933E-01	0.228
AC-227	1.152E-01		3.819E-01	6.514E-01	9.035E-02	0.177
TH-227	1.152E-01		3.821E-01	6.514E-01	1.096E-01	0.177
TH-229	5.410E-02		5.658E-01	9.054E-01	4.767E-02	0.060
PA-231	-5.192E-01		1.607E+00	2.545E+00	3.492E-01	-0.204
TH-231	2.679E-01		7.866E-01	1.174E+00	1.933E-01	0.228
U-231	-4.973E-01		1.483E+00	2.164E+00	1.524E-01	-0.230
PA-233	-1.585E-02		6.323E-02	1.034E-01	6.257E-03	-0.153
PA-234	-1.063E-01		3.583E-01	5.598E-01	1.035E-01	-0.190
PA-234M	-3.845E-01		5.447E+00	9.286E+00	8.404E-01	-0.041
U-235	5.976E-02		2.269E-01	3.684E-01	5.984E-02	0.162
NP-236	-6.052E-02		8.238E-02	1.280E-01	6.711E-03	-0.473
NP-239	-4.187E-02		2.035E-01	3.312E-01	2.090E-02	-0.126
AM-241	6.815E-02		1.757E-01	2.728E-01	1.939E-02	0.250

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.202E-01		1.030E-01	1.775E-01	1.182E-02	0.677
AM-246	-9.250E-03		1.774E-01	2.946E-01	1.981E-02	-0.031
CM-247	1.807E-02		4.019E-02	6.742E-02	3.739E-03	0.268
CF-249	1.211E-02		4.285E-02	7.135E-02	3.922E-03	0.170
CF-251	-2.739E-02		1.347E-01	2.136E-01	1.105E-02	-0.128

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202037550
* Acquisition date   : 18-FEB-2010 17:29:20 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 02:00:01.62 Half life ratio : 8.000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 2-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G1202037550 Analyst initials: MXR1
* Batch Number       : 950787 Sample Quantity : 1.2005E+02 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 10-FEB-2009 09:20:24 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	DLC (pCi/GRAM)	TPU
K-40	3.718E+01	3.329E+00	3.211E-01	1.698E+00
CD-109	2.940E+00	1.171E+00	6.350E-01	5.976E-01
SN-126	2.885E-01	1.149E-01	7.762E-02	5.864E-02
TL-208	6.699E-01	9.518E-02	3.344E-02	4.856E-02
BI-211	4.368E+00	5.463E-01	1.659E-01	2.787E-01
PB-212	1.858E+00	1.770E-01	4.876E-02	9.029E-02
PO-212	1.858E+00	1.770E-01	4.876E-02	9.029E-02
BI-214	1.342E+00	2.099E-01	5.922E-02	1.071E-01
PB-214	1.519E+00	2.053E-01	5.783E-02	1.047E-01
PO-214	1.519E+00	2.053E-01	5.783E-02	1.047E-01
PO-216	1.858E+00	1.770E-01	4.876E-02	9.029E-02
PO-218	1.519E+00	2.053E-01	5.783E-02	1.047E-01
RA-224	5.444E+00	1.025E+00	5.549E-01	5.229E-01
RA-226	1.342E+00	2.099E-01	5.922E-02	1.071E-01
AC-228	2.039E+00	3.550E-01	1.009E-01	1.811E-01
RA-228	2.039E+00	3.550E-01	1.009E-01	1.811E-01
TH-228	1.888E+00	1.798E-01	4.955E-02	9.176E-02
TH-230	1.342E+00	2.099E-01	5.922E-02	1.071E-01
TH-232	2.039E+00	3.550E-01	1.009E-01	1.811E-01
TH-234	2.642E+00	2.068E+00	1.172E+00	1.055E+00
U-234	1.342E+00	2.099E-01	5.922E-02	1.071E-01
NP-237	8.471E-01	3.785E-01	2.306E-01	1.931E-01
U-238	2.642E+00	2.068E+00	1.172E+00	1.055E+00
AM-243	5.424E-01	9.412E-02	4.790E-02	4.802E-02
ANH-511	1.573E-01	7.488E-02	2.583E-02	3.820E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	3.787E-02	3.361E-01	2.817E-01	1.715E-01 NOT IDENT.
NA-22	5.656E-03	5.260E-02	4.454E-02	2.684E-02 NOT IDENT.

NA-24	1.098E+06	3.024E+06	0.000E+00	1.543E+06	SHORT HLIF
AL-26	7.937E-03	2.192E-02	2.017E-02	1.119E-02	NOT IDENT.
TI-44	4.292E-01	5.674E-02	4.012E-02	2.895E-02	FAIL ABUN
SC-46	1.924E-02	4.540E-02	3.910E-02	2.316E-02	FAIL ABUN
V-48	-2.278E-02	8.051E-02	6.416E-02	4.108E-02	NOT IDENT.
CR-51	-6.361E-02	3.952E-01	3.367E-01	2.016E-01	NOT IDENT.
MN-52	-5.057E-02	2.725E-01	2.193E-01	1.390E-01	NOT IDENT.
MN-54	-9.316E-03	4.386E-02	3.600E-02	2.238E-02	NOT IDENT.
CO-56	-1.716E-02	4.244E-02	3.401E-02	2.165E-02	NOT IDENT.
CO-57	1.908E-02	2.691E-02	2.350E-02	1.373E-02	NOT IDENT.
CO-58	-3.513E-02	4.332E-02	3.349E-02	2.210E-02	NOT IDENT.
FE-59	-4.376E-02	1.061E-01	8.705E-02	5.415E-02	NOT IDENT.
CO-60	-1.825E-02	4.698E-02	3.754E-02	2.397E-02	NOT IDENT.
ZN-65	3.163E-02	1.067E-01	8.106E-02	5.443E-02	NOT IDENT.
GE-68	-5.027E-01	1.511E+00	1.253E+00	7.708E-01	NOT IDENT.
AS-73	-6.260E-02	8.209E-01	7.372E-01	4.188E-01	NOT IDENT.
AS-74	1.261E-02	9.678E-02	8.417E-02	4.938E-02	NOT IDENT.
SE-75	-9.477E-03	4.889E-02	3.707E-02	2.495E-02	NOT IDENT.
BR-77	5.974E+00	1.474E+01	1.256E+01	7.519E+00	FAIL ABUN
SR-82	-5.258E-01	4.264E-01	3.174E-01	2.175E-01	NOT IDENT.
RB-83	5.916E-03	7.380E-02	6.124E-02	3.766E-02	NOT IDENT.
RB-84	-3.500E-02	7.770E-02	6.162E-02	3.964E-02	NOT IDENT.
KR-85	1.307E+01	8.212E+00	6.827E+00	4.190E+00	NOT IDENT.
SR-85	6.783E-02	4.260E-02	3.541E-02	2.173E-02	NOT IDENT.
RB-86	-2.928E-01	9.779E-01	8.129E-01	4.989E-01	NOT IDENT.
Y-88	1.983E-02	3.936E-02	3.578E-02	2.008E-02	NOT IDENT.
ZR-88	-5.727E-03	3.367E-02	2.713E-02	1.718E-02	NOT IDENT.
Y-91	7.060E+00	2.424E+01	2.087E+01	1.237E+01	NOT IDENT.
NB-94	6.640E-03	3.441E-02	2.966E-02	1.756E-02	NOT IDENT.
NB-95	8.279E-02	4.603E-02	4.365E-02	2.349E-02	NOT IDENT.
NB-95M	1.584E-01	1.408E-01	1.159E-01	7.186E-02	NOT IDENT.
ZR-95	2.393E-02	7.443E-02	6.446E-02	3.798E-02	NOT IDENT.
NB-97	8.405E+03	3.452E+05	0.000E+00	1.761E+05	SHORT HLIF
ZR-97	9.371E+06	7.198E+06	0.000E+00	3.673E+06	SHORT HLIF
MO-99	-6.474E+00	1.638E+01	1.334E+01	8.355E+00	NOT IDENT.
TC-99M	-1.259E+18	9.608E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	3.455E-02	2.975E-02	1.763E-02	NOT IDENT.
RH-102	-3.371E-03	3.043E-02	2.508E-02	1.552E-02	NOT IDENT.
RU-103	-4.078E-02	4.659E-02	3.573E-02	2.377E-02	FAIL ABUN
RH-106	2.028E-01	3.398E-01	3.035E-01	1.734E-01	FAIL ABUN
RU-106	2.028E-01	3.392E-01	3.035E-01	1.730E-01	FAIL ABUN
AG-108M	9.641E-03	3.252E-02	2.785E-02	1.659E-02	NOT IDENT.
AG-110M	-8.585E-04	4.144E-02	3.065E-02	2.114E-02	NOT IDENT.
IN-111	9.829E-01	1.470E+00	1.188E+00	7.498E-01	NOT IDENT.
IN-113M	2.301E-03	4.458E-02	3.782E-02	2.274E-02	NOT IDENT.
SN-113	2.301E-03	4.458E-02	3.782E-02	2.274E-02	NOT IDENT.
IN-114M	-1.497E-01	2.194E-01	1.551E-01	1.120E-01	NOT IDENT.
CD-115	9.840E+00	1.619E+01	1.398E+01	8.260E+00	NOT IDENT.
SN-117M	1.570E-02	5.860E-02	5.002E-02	2.990E-02	NOT IDENT.
SB-122	1.464E+00	2.985E+00	2.665E+00	1.523E+00	NOT IDENT.
I-123	5.979E+06	2.377E+07	0.000E+00	1.213E+07	SHORT HLIF
TE-123M	7.267E-03	2.889E-02	2.464E-02	1.474E-02	NOT IDENT.
I-124	-8.980E-02	9.884E-01	7.333E-01	5.043E-01	FAIL ABUN
SB-124	2.325E-02	7.978E-02	7.082E-02	4.070E-02	FAIL ABUN
SB-125	5.894E-02	9.343E-02	8.183E-02	4.767E-02	FAIL ABUN
TE-125M	3.215E+00	9.797E+00	8.440E+00	4.998E+00	NOT IDENT.
I-126	1.131E-01	2.364E-01	1.838E-01	1.206E-01	NOT IDENT.
SB-126	-3.851E-02	1.778E-01	1.270E-01	9.071E-02	FAIL ABUN
SB-127	-9.084E-01	1.864E+00	1.525E+00	9.511E-01	NOT IDENT.
XE-127	-1.297E-02	5.081E-02	4.154E-02	2.593E-02	NOT IDENT.
I-131	-6.011E-02	1.308E-01	1.079E-01	6.673E-02	NOT IDENT.
TE-132	-3.153E-01	8.979E-01	7.793E-01	4.581E-01	NOT IDENT.
BA-133	-1.656E-02	4.816E-02	3.486E-02	2.457E-02	FAIL ABUN
I-133	-1.096E+04	1.668E+04	0.000E+00	8.510E+03	SHORT HLIF
CS-134	1.265E-01	6.509E-02	4.979E-02	3.321E-02	FAIL ABUN
CS-135	1.736E-01	1.736E-01	1.419E-01	8.855E-02	NOT IDENT.
I-135	-8.782E+16	1.088E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.059E-02	1.322E-01	1.144E-01	6.744E-02	FAIL ABUN
BA-137M	3.919E-02	4.878E-02	3.883E-02	2.489E-02	NOT IDENT.
CS-137	4.143E-02	5.156E-02	4.104E-02	2.631E-02	NOT IDENT.
CE-139	8.820E-03	3.126E-02	2.661E-02	1.595E-02	NOT IDENT.
BA-140	-1.229E-01	2.687E-01	2.231E-01	1.371E-01	NOT IDENT.
LA-140	-5.418E-02	8.961E-02	6.903E-02	4.572E-02	FAIL ABUN
CE-141	9.607E-03	6.568E-02	5.608E-02	3.351E-02	NOT IDENT.
CE-143	1.513E+03	4.625E+02	0.000E+00	2.360E+02	SHORT HLIF
CE-144	-1.093E-01	2.385E-01	1.765E-01	1.217E-01	NOT IDENT.
PM-144	-2.676E-02	3.756E-02	3.011E-02	1.916E-02	NOT IDENT.
PR-144	-1.814E+00	2.547E+00	2.042E+00	1.299E+00	NOT IDENT.

PM-146	-3.447E-03	4.462E-02	3.702E-02	2.276E-02	NOT IDENT.
ND-147	-1.426E-02	6.524E-01	5.359E-01	3.329E-01	FAIL ABUN
PM-149	-6.945E+01	1.314E+02	1.105E+02	6.705E+01	NOT IDENT.
EU-152	1.381E-03	1.115E-01	8.370E-02	5.687E-02	FAIL ABUN
GD-153	-5.783E-02	9.635E-02	7.266E-02	4.916E-02	NOT IDENT.
EU-154	1.328E-02	1.466E-01	1.239E-01	7.481E-02	NOT IDENT.
EU-155	8.851E-02	1.138E-01	1.015E-01	5.807E-02	FAIL ABUN
TB-160	9.944E-03	1.540E-01	1.288E-01	7.858E-02	FAIL ABUN
HO-166M	7.092E-03	7.072E-02	6.039E-02	3.608E-02	NOT IDENT.
TM-171	1.857E+01	3.249E+01	2.659E+01	1.657E+01	NOT IDENT.
LU-176	3.275E-03	2.459E-02	2.137E-02	1.255E-02	FAIL ABUN
LU-177	2.632E+00	1.850E+00	1.239E+00	9.440E-01	FAIL ABUN
LU-177M	-1.291E-01	1.810E-01	1.446E-01	9.235E-02	FAIL ABUN
HF-181	1.170E-02	4.640E-02	3.925E-02	2.367E-02	NOT IDENT.
W-181	1.550E-01	4.224E-01	3.433E-01	2.155E-01	NOT IDENT.
TA-182	1.827E-01	2.507E-01	2.218E-01	1.279E-01	NOT IDENT.
RE-183	-1.267E-02	1.116E-01	9.341E-02	5.691E-02	FAIL ABUN
RE-184	-5.678E-02	2.280E-01	1.972E-01	1.163E-01	NOT IDENT.
OS-185	-2.603E-02	4.690E-02	3.838E-02	2.393E-02	NOT IDENT.
RE-188	-2.875E-04	1.845E-01	1.558E-01	9.415E-02	NOT IDENT.
W-188	-5.876E+00	8.872E+00	6.442E+00	4.527E+00	FAIL ABUN
IR-192	8.578E-03	3.525E-02	3.074E-02	1.798E-02	FAIL ABUN
AU-195	3.497E-01	2.443E-01	2.211E-01	1.246E-01	FAIL ABUN
TL-200	5.027E+02	9.182E+02	0.000E+00	4.685E+02	SHORT HLIF
TL-201	-1.179E+00	9.514E+00	7.946E+00	4.854E+00	NOT IDENT.
TL-202	5.922E-02	7.730E-02	6.811E-02	3.944E-02	NOT IDENT.
HG-203	2.992E-02	4.597E-02	3.675E-02	2.346E-02	NOT IDENT.
BI-207	3.165E-02	5.996E-02	5.338E-02	3.059E-02	FAIL ABUN
TL-207	2.679E-01	7.709E-01	5.963E-01	3.933E-01	FAIL ABUN
PO-209	-4.161E+00	7.329E+00	5.690E+00	3.739E+00	NOT IDENT.
BI-210	1.875E+00	3.362E+00	3.063E+00	1.715E+00	NOT IDENT.
PB-210	1.875E+00	3.362E+00	3.063E+00	1.715E+00	NOT IDENT.
PO-210	1.875E+00	3.361E+00	3.063E+00	1.715E+00	NOT IDENT.
PB-211	-1.014E+00	1.194E+00	8.055E-01	6.091E-01	NOT IDENT.
BI-212	9.406E-01	4.822E-01	3.483E-01	2.460E-01	FAIL ABUN
PO-215	2.679E-01	7.709E-01	5.963E-01	3.933E-01	FAIL ABUN
RN-219	8.395E-02	4.391E-01	3.748E-01	2.240E-01	FAIL ABUN
RN-220	-3.269E+00	2.602E+01	2.237E+01	1.328E+01	NOT IDENT.
RA-223	2.679E-01	7.709E-01	5.963E-01	3.933E-01	FAIL ABUN
AC-227	1.152E-01	3.743E-01	3.319E-01	1.910E-01	FAIL ABUN
TH-227	1.152E-01	3.744E-01	3.319E-01	1.910E-01	FAIL ABUN
TH-229	5.410E-02	5.545E-01	4.628E-01	2.829E-01	FAIL ABUN
PA-231	-5.192E-01	1.575E+00	1.295E+00	8.035E-01	NOT IDENT.
TH-231	2.679E-01	7.709E-01	5.963E-01	3.933E-01	FAIL ABUN
U-231	-4.973E-01	1.453E+00	1.115E+00	7.413E-01	FAIL ABUN
PA-233	-1.585E-02	6.196E-02	5.256E-02	3.161E-02	FAIL ABUN
PA-234	-1.063E-01	3.511E-01	2.809E-01	1.791E-01	FAIL ABUN
PA-234M	-3.845E-01	5.338E+00	4.656E+00	2.723E+00	NOT IDENT.
U-235	5.976E-02	2.223E-01	1.890E-01	1.134E-01	FAIL ABUN
NP-236	-6.052E-02	8.073E-02	6.557E-02	4.119E-02	NOT IDENT.
NP-239	-4.187E-02	1.995E-01	1.703E-01	1.018E-01	FAIL ABUN
AM-241	6.815E-02	1.721E-01	1.413E-01	8.783E-02	NOT IDENT.
CM-243	1.202E-01	1.010E-01	9.140E-02	5.151E-02	FAIL ABUN
AM-246	-9.250E-03	1.739E-01	1.476E-01	8.871E-02	NOT IDENT.
CM-247	1.807E-02	3.938E-02	3.417E-02	2.009E-02	FAIL ABUN
CF-249	1.211E-02	4.200E-02	3.618E-02	2.143E-02	NOT IDENT.
CF-251	-2.739E-02	1.320E-01	1.093E-01	6.733E-02	NOT IDENT.

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD      *
*               CHARLESTON ,SC 29417  *
*               GAMMA SPECTROSCOPY BACKGROUND REPORT *
*****

```

ENERGY	MDA COUNTS
46.50	234.5408
46.50	234.5408
46.50	234.5408
48.70	261.8989
49.72	264.5033
51.35	257.3135
52.39	262.4940
52.97	255.1939
53.15	255.3394
53.44	267.7024
54.07	272.5740
56.28	284.9267
56.28	284.9291
57.37	0.0000
57.53	305.3098
57.53	305.3116
57.60	305.3744
57.98	311.8718
57.98	311.8718
59.32	304.2931
59.32	304.2931
59.40	308.3341
59.54	308.4612
59.72	299.3519
60.01	311.5374
61.10	308.5343
61.14	308.5702
61.30	308.7118
63.00	359.2401
63.29	359.5332
63.29	359.5332
63.58	359.8268
64.28	340.8508
65.12	365.8569
65.20	359.2111
65.20	359.2111
66.05	341.1713
66.72	356.6534
66.83	356.7621
66.91	328.4557
67.20	344.9461
67.20	344.9461
67.75	393.4132
67.85	393.5218
68.90	373.2472
68.90	373.2472
69.30	363.4860
69.67	405.7827
70.82	381.0558
70.82	381.0558
70.83	381.0664
72.80	406.3474
72.87	406.4219
72.87	406.4219
74.67	371.4984
74.81	371.6299
74.81	371.6299
74.81	371.6299
74.81	371.6299
74.81	371.6299
74.81	371.6299
74.81	371.6299
74.97	371.7789
75.28	372.0676
75.70	372.4581
77.11	373.7608
77.11	373.7608

77.11	373.7608
77.11	373.7608
77.11	373.7608
77.11	373.7608
77.11	373.7608
78.38	374.9239
79.62	349.0562
79.80	349.2069
79.80	349.2069
80.11	373.2321
80.18	373.2932
80.30	373.4012
80.30	373.4012
80.57	373.6415
81.00	395.0371
81.07	395.1038
81.07	395.1038
81.07	395.1038
81.07	395.1038
82.60	403.0944
83.37	371.8885
83.78	359.5568
83.78	359.5568
83.78	359.5568
83.78	359.5568
84.21	374.0291
84.90	350.5929
85.43	396.3135
86.29	450.9820
86.50	471.0620
86.54	471.1050
86.59	471.1582
86.72	471.2975
86.79	471.3710
86.94	471.5331
87.30	471.9156
87.30	471.9156
87.30	471.9156
87.30	471.9156
87.30	471.9156
87.30	471.9156
87.57	472.2043
87.88	307.4315
88.03	307.5353
88.36	307.7628
88.47	307.8386
89.95	324.5806
91.11	325.4119
92.29	326.2502
92.38	326.3142
92.38	326.3142
93.35	326.9983
94.00	327.4555
94.67	268.6933
94.67	268.6962
94.90	268.8281
94.90	268.8281
94.90	268.8281
94.90	268.8281
95.87	321.5199
95.87	321.5199
96.73	354.0264
97.43	344.3726
98.44	276.0767
98.44	276.0781
98.88	273.9979
99.55	274.3766
99.55	274.3766
99.86	274.5515
100.00	287.2907
100.10	294.1707
103.18	287.1909
103.76	265.9359
105.00	278.3982
105.31	285.4599
108.00	285.9793
109.28	268.8332

111.00	305.5510
111.00	305.5510
111.76	302.0060
112.95	300.6877
115.19	281.8861
116.30	264.3725
117.00	289.8750
117.00	289.8750
117.66	319.4507
121.11	243.3691
121.62	239.5314
121.78	239.5999
122.06	255.9721
122.32	256.0900
122.32	256.0900
122.32	256.0900
122.32	256.0900
123.07	293.0640
127.23	256.7667
129.76	267.6648
131.20	249.2287
133.02	262.4147
133.54	287.5071
135.34	295.1226
136.00	268.3957
136.25	263.3049
136.48	255.0737
140.51	317.5329
140.51	0.0000
142.18	263.7435
142.65	268.1464
143.76	274.9416
144.24	265.6608
144.24	265.6608
144.24	265.6608
144.24	265.6608
145.22	263.9593
145.44	272.5004
147.16	258.4086
152.43	263.7114
152.70	265.9556
153.22	260.8187
154.21	269.7726
154.21	269.7726
154.21	269.7726
154.21	269.7726
155.03	288.3272
156.02	309.1494
158.56	243.5114
159.00	0.0000
159.00	243.6678
160.31	266.8220
161.27	265.0328
162.32	249.1854
162.64	242.7965
163.35	231.1097
163.89	255.1786
165.85	255.8958
167.43	268.4769
171.28	249.0825
171.86	267.9522
172.10	268.0416
176.55	254.2110
176.60	254.2286
181.06	276.8904
184.41	252.9923
185.71	232.7241
186.00	232.8130
190.27	268.4362
192.34	249.4006
193.63	263.3741
197.04	255.4298
198.01	230.7332
198.60	224.0779
200.40	266.7610
201.83	263.8063
202.84	253.8443
205.31	261.4912

208.36	248.6448
208.81	248.7788
209.75	214.4684
209.75	214.4684
210.97	206.1201
215.65	210.1669
216.55	182.4911
218.09	230.5609
222.10	219.3489
223.80	217.1370
226.40	239.8220
227.00	251.4537
227.08	251.4776
227.20	247.9803
228.16	239.4138
228.18	234.1192
228.18	234.1192
231.56	0.0000
235.69	220.9318
236.00	230.9884
236.00	230.9884
238.63	216.2809
238.63	216.2809
238.63	216.2809
238.63	216.2809
239.00	216.3658
240.98	216.8311
241.98	192.3077
241.98	192.3077
241.98	192.3077
244.69	174.1546
245.39	162.7617
247.94	182.3382
248.90	184.3303
249.79	169.1278
252.40	178.6575
252.85	179.6490
252.85	179.6490
254.15	0.0000
256.20	170.2563
256.20	170.2563
260.50	167.3488
260.90	162.8416
262.80	175.9893
264.65	168.9708
268.24	159.2552
268.79	150.4898
269.46	147.6367
269.46	147.6367
269.46	147.6367
269.46	147.6367
271.23	146.0468
273.65	129.7162
276.40	142.6969
277.35	148.7817
277.60	148.8159
277.60	148.8159
278.00	148.8745
278.60	163.8560
279.20	156.5002
279.53	156.5490
280.46	156.6899
281.68	144.9198
283.67	165.7227
284.30	178.7944
285.00	177.9771
285.90	173.4403
286.10	164.0972
286.10	164.0972
287.40	161.4810
288.45	0.0000
290.67	192.8656
290.80	188.3698
291.72	191.5480
293.26	0.0000
293.70	166.2112
295.21	166.4448
295.21	166.4448

295.21	166.4448
295.96	158.9894
296.50	159.0663
297.23	159.1740
298.57	159.3688
299.80	132.1971
299.80	132.1971
300.09	130.7133
300.09	130.7133
300.09	130.7133
300.09	130.7133
300.12	130.7154
301.29	123.2482
302.84	117.3254
303.76	152.4976
303.91	152.5171
304.40	157.6716
304.40	157.6716
304.84	161.3691
306.84	141.4509
308.46	116.7708
311.98	136.3383
316.51	137.8461
318.01	148.6447
319.02	151.6745
319.41	157.5232
320.08	150.8465
323.87	144.3544
323.87	144.3544
323.87	144.3544
323.87	144.3544
325.23	141.4166
328.77	138.3360
333.44	97.8043
334.20	107.0011
334.20	107.0011
334.30	107.0094
338.28	153.1912
338.28	153.1912
338.28	153.1912
338.28	153.1912
338.32	153.1983
338.32	153.1983
338.32	153.1983
340.50	136.9464
340.57	136.9528
344.27	131.0553
345.85	143.8715
350.59	0.0000
351.07	120.0713
351.92	120.1544
351.92	120.1544
351.92	120.1544
355.39	0.0000
356.01	122.7394
364.48	128.3789
366.43	106.4755
367.43	103.5422
367.94	0.0000
369.80	107.7608
374.96	111.2236
383.85	131.3168
387.95	118.4479
388.63	129.7460
391.69	107.5138
391.69	107.5138
392.90	112.7342
398.62	114.2367
400.65	127.8050
401.10	126.8156
401.81	119.6604
402.60	115.5991
404.84	145.7677
410.95	121.4864
411.60	136.0872
413.65	119.6396
414.70	108.2751
415.30	107.2796

415.76	100.0225
417.63	0.0000
418.52	115.8745
423.70	110.0084
427.08	90.3134
427.89	90.3646
432.53	105.4108
433.93	88.6284
439.47	91.0811
439.56	91.0863
439.89	94.2855
443.98	98.7941
444.90	87.1625
445.03	86.1070
445.03	86.1070
445.03	86.1070
445.03	86.1070
453.90	95.1695
463.38	110.1781
468.07	84.8977
473.00	90.9393
475.06	93.2266
475.35	94.3279
476.78	94.4142
477.59	87.9473
477.96	82.5382
482.03	91.4597
484.57	93.7869
487.03	104.8528
490.36	0.0000
492.35	94.2410
497.08	111.0004
507.63	0.0000
510.53	0.0000
510.84	96.4134
511.00	96.4227
511.85	96.4718
511.85	96.4718
513.99	74.6110
513.99	74.6110
520.41	83.5876
520.65	73.5692
527.90	75.0008
528.96	0.0000
529.64	103.0901
529.87	0.0000
531.02	86.3524
537.32	81.9400
543.00	91.2403
546.56	0.0000
549.76	80.7084
552.65	85.3803
555.20	80.0443
563.23	92.2809
563.90	89.5733
568.70	98.0581
569.32	90.7581
569.50	90.7677
569.67	85.2735
573.80	94.6564
574.00	94.6665
574.64	113.0873
578.91	69.1150
579.30	0.0000
583.14	92.3657
585.48	80.1497
591.81	79.8020
592.07	78.8865
593.00	85.4234
595.88	77.1843
600.56	88.5615
602.52	0.0000
602.71	96.4386
602.71	96.4386
603.60	101.1525
604.41	101.1949
604.70	102.7678
609.31	81.4754

609.31	81.4754
609.31	81.4754
609.31	81.4754
610.33	81.5179
612.46	73.4796
614.37	73.5522
618.01	80.9022
621.84	72.5766
621.84	72.5766
631.29	77.6618
633.02	74.8841
633.10	74.8880
634.78	86.3367
635.90	78.7912
636.97	76.9322
645.85	93.4924
646.12	86.8255
656.30	71.9183
657.75	73.5689
657.90	0.0000
661.65	89.7308
661.65	89.7308
664.57	0.0000
666.33	75.4800
666.33	75.4800
675.00	72.5702
677.61	78.4727
685.20	87.5061
692.80	82.9393
695.00	87.9082
696.49	90.9021
696.49	90.9021
697.00	82.1235
697.49	86.0535
698.33	81.1965
698.50	81.2026
699.00	79.2657
702.63	70.5762
706.10	76.5794
706.58	0.0000
706.67	87.4030
709.31	80.6247
711.68	86.6186
713.82	71.9235
717.42	78.9512
720.50	67.5309
721.93	0.0000
722.20	65.9342
722.78	65.9521
722.78	65.9521
722.89	65.9554
722.95	65.9570
723.30	56.0718
724.18	59.3936
727.18	69.3865
733.00	70.9874
735.90	64.6810
739.58	71.7645
742.81	59.8887
744.21	66.9166
747.13	72.0035
751.79	70.1453
752.31	69.1600
753.82	67.1996
755.35	72.2619
756.15	60.2388
756.87	52.2234
763.93	82.6046
765.79	54.4417
766.42	69.5829
766.84	84.7260
776.49	82.0362
778.00	68.9147
778.57	61.8355
778.89	62.8582
783.80	77.2116
785.46	73.1988
792.07	73.0629

795.84	61.2642
796.30	64.6801
798.80	73.2676
801.93	80.6130
805.60	65.6141
810.29	81.1486
810.76	71.9175
815.85	47.3589
817.79	52.5477
818.51	60.8077
819.60	62.8973
826.30	71.3399
828.27	0.0000
831.60	74.5998
831.96	71.5016
834.83	81.9586
836.80	0.0000
846.75	62.5430
848.13	56.3190
856.28	0.0000
856.80	54.0696
860.37	62.8784
867.32	63.0483
867.82	58.3889
871.10	55.7742
873.19	62.1387
874.81	62.1776
875.33	0.0000
876.40	49.5611
879.36	55.9515
880.27	55.9709
880.51	53.8638
881.50	60.2243
883.24	66.6068
884.67	55.0075
889.25	57.2234
896.60	51.0059
898.02	55.2868
899.00	58.4979
903.28	54.7872
911.07	42.7363
911.07	42.7363
911.07	42.7363
919.63	46.0875
920.93	46.1095
925.00	51.5484
925.24	56.0879
926.50	66.0057
935.52	44.9188
937.48	53.9417
944.10	58.3967
946.00	64.9292
949.00	59.5829
962.29	58.7777
964.01	58.8133
966.15	58.8582
968.20	58.9003
969.11	58.9201
969.11	58.9201
969.11	58.9201
977.42	46.2043
980.50	44.9148
983.50	53.7349
989.30	47.2507
996.32	67.9267
1001.03	57.9230
1001.68	59.7751
1004.76	66.2827
1021.30	0.0000
1024.50	0.0000
1034.80	48.3607
1036.00	53.9620
1037.82	52.1331
1038.57	61.4561
1038.76	0.0000
1045.16	53.1940
1046.59	51.3499
1048.07	60.7180

1050.47	76.6581
1050.47	76.6581
1062.04	66.6261
1063.62	55.3941
1076.63	68.8296
1077.35	71.6737
1078.86	69.8206
1085.78	75.6510
1099.22	66.4795
1112.02	48.3143
1112.84	42.9218
1115.52	52.3661
1120.29	77.0274
1120.29	77.0274
1120.29	77.0274
1120.29	77.0274
1120.51	78.6730
1121.28	86.8903
1124.00	0.0000
1129.67	71.9116
1131.51	0.0000
1147.95	0.0000
1167.94	73.7271
1173.22	75.7878
1175.09	67.0824
1177.93	71.0306
1189.05	75.1702
1204.90	82.3901
1205.75	0.0000
1213.00	81.6018
1221.42	78.8444
1230.97	98.8281
1235.34	83.1216
1236.41	0.0000
1238.25	81.2092
1246.25	68.4918
1260.41	0.0000
1271.85	53.9912
1274.45	57.0325
1274.54	57.0348
1291.56	59.3145
1298.22	0.0000
1312.09	50.5513
1325.50	25.3682
1325.50	25.3682
1332.49	46.7655
1333.61	40.6771
1360.21	26.6284
1362.66	0.0000
1365.15	29.7399
1368.21	31.4753
1368.53	0.0000
1376.25	33.9413
1384.27	25.9731
1394.10	23.7665
1395.20	29.9747
1407.95	25.9257
1434.06	24.0107
1436.60	26.1149
1457.56	0.0000
1460.81	28.8259
1489.15	22.2253
1509.49	13.8268
1596.49	23.2640
1620.62	13.1001
1678.03	0.0000
1691.02	13.3076
1691.02	13.3076
1706.46	0.0000
1750.46	0.0000
1764.49	10.1396
1764.49	10.1396
1764.49	10.1396
1764.49	10.1396
1770.23	62.8441
1771.40	26.1110
1791.20	0.0000
1808.65	4.8730

1836.01

12.7416

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202037550

Total Uranium Activity	7.8883E+00	ug/g
Total Uranium Counting Unc.	6.1535E+00	ug/g
Total Uranium Tpu	3.1395E-06	ug/g
Total Uranium Mda	3.4865E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G1202037550
*  ANALYST       : MXR1                             DETECTOR    : GAM12
*  SAMPLE DATE   : 2-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 17:29:20.84          SAMPLE ALQT  : 120.050 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.127E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.618E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 3.453E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.672E+00

```

VAX/VMS Nuclide Identification Report Generated 18-FEB-2010 18:30:22.45

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037551.CNF;1
Sample date        : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:29:53
Sample ID          : G1202037551      Sample quantity   : 1.55440E+02 GRAM
Detector name      : GAM16             Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00     Elapsed real time: 0 01:00:02.05 0.1%
Energy tolerance   : 1.50000 keV       Analyst Initials : MXR1
Abundance limit    : 75.00000          Sensitivity       : 5.00000
Batch ID           : 950787            Detector SN#      :
Matrix Spike ID    :                   LCS ID           : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.56	2940	838	0.93	119.31	115	10	8.17E-01	2.6	
2	0	76.26*	391	710	3.00	152.70	146	12	1.09E-01	14.6	
3	0	87.96	1444	599	0.86	176.11	171	10	4.01E-01	4.1	
4	0	92.79*	65	373	1.37	185.77	182	9	1.80E-02	56.7	
5	0	121.98	322	323	1.01	244.15	239	10	8.94E-02	11.8	
6	0	185.57*	170	313	1.53	371.33	366	12	4.74E-02	22.5	
7	0	238.53*	461	341	1.02	477.24	472	9	1.28E-01	8.5	
8	0	241.05*	66	242	1.40	482.30	481	7	1.84E-02	41.3	
9	0	270.33	92	155	1.83	540.85	537	8	2.56E-02	25.8	
10	0	295.03*	199	169	1.32	590.26	585	9	5.54E-02	13.8	
11	0	338.12*	115	219	1.39	676.43	670	11	3.20E-02	26.7	
12	0	351.83*	311	187	1.10	703.84	697	13	8.63E-02	10.8	
13	0	510.75*	79	213	1.78	1021.66	1014	17	2.20E-02	45.4	
14	0	583.03*	163	111	1.17	1166.20	1160	12	4.52E-02	15.3	
15	0	608.88*	178	132	1.15	1217.89	1211	14	4.95E-02	15.7	
16	0	661.59	2550	136	1.41	1323.30	1317	12	7.08E-01	2.2	
17	0	728.43	27	102	0.70	1456.95	1451	10	7.40E-03	74.3	
18	0	911.07*	108	124	1.00	1822.15	1818	10	3.00E-02	21.6	
19	0	968.88*	88	101	1.70	1937.72	1933	11	2.44E-02	24.8	
20	0	1173.19	1894	95	1.87	2346.22	2337	19	5.26E-01	2.6	
21	0	1332.44	1795	15	1.99	2664.59	2657	17	4.99E-01	2.4	
22	0	1460.44*	19	8	3.06	2920.49	2915	11	5.39E-03	40.1	
23	0	1764.45*	35	3	1.52	3528.18	3521	13	9.70E-03	21.4	

Flag: "*" = Peak area was modified by background subtraction

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037551.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:29:53
Sample ID         : G1202037551 Sample quantity      : 155.44 GRAM
Sample type       : SOLID Sample geometry         :
Detector name     : GAMMA16 Detector geometry    : CAN
Elapsed live time : 0 01:00:00.00 Elapsed real time: 0 01:00:02.05 0.1%
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	+	1460.81	*	7.264E-01	5.864E-01	4.900E-01	4.307E-02	1.482
CO-57	+	122.06	*	2.586E-01	6.487E-02	5.272E-02	4.381E-03	4.906
		136.48		3.903E-01	2.782E-01	4.882E-01	4.438E-02	0.799
CO-60	+	1173.22		6.305E+00	6.042E-01	1.040E-01	8.363E-03	60.615
	+	1332.49	*	6.673E+00	6.487E-01	8.585E-02	7.241E-03	77.726
CD-109	+	88.03	*	3.006E+01	3.814E+00	1.847E+00	1.779E-01	16.280
SN-126		64.28		-2.455E-01	7.288E-01	1.033E+00	1.506E-01	-0.238
	+	86.94		1.242E+01	5.265E+00	7.713E-01	3.205E-01	16.104
	+	87.57	*	2.988E+00	3.790E-01	1.843E-01	1.768E-02	16.207
BA-137M	+	661.65	*	5.693E+00	5.629E-01	1.072E-01	9.517E-03	53.081
CS-137	+	661.65	*	6.018E+00	5.959E-01	1.134E-01	1.008E-02	53.081
TL-208		277.35		4.441E-01	5.742E-01	9.527E-01	1.416E-01	0.466
	+	510.84		5.969E-01	5.474E-01	3.380E-01	4.274E-02	1.766
	+	583.14	*	3.499E-01	1.126E-01	9.006E-02	8.927E-03	3.885
		860.37		2.745E-01	5.527E-01	9.553E-01	9.564E-02	0.287
BI-211		72.87		3.232E+00	4.006E+00	6.421E+00	5.219E-01	0.503
	+	351.07	*	2.943E+00	7.116E-01	5.214E-01	5.701E-02	5.643
PB-212	+	74.81		3.350E+00	1.063E+00	7.321E-01	9.147E-02	4.576
	+	77.11		1.992E+00	6.037E-01	4.154E-01	3.528E-02	4.795
	+	87.30		1.382E+01	2.232E+00	8.549E-01	1.183E-01	16.163
	+	238.63	*	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
		300.09		1.327E+00	1.197E+00	2.009E+00	2.632E-01	0.661
PO-212	+	74.81		3.350E+00	1.063E+00	7.321E-01	9.147E-02	4.576
	+	77.11		1.992E+00	6.037E-01	4.154E-01	3.528E-02	4.795
	+	87.30		1.382E+01	2.232E+00	8.549E-01	1.183E-01	16.163
		115.19		-2.057E+00	4.438E+00	7.288E+00	6.081E-01	-0.282
	+	238.63	*	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
		300.09		1.327E+00	1.197E+00	2.009E+00	2.632E-01	0.661
BI-214	+	609.31	*	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
		1120.29		4.475E-01	5.349E-01	9.303E-01	9.988E-02	0.481
	+	1764.49		1.011E+00	4.405E-01	3.501E-01	2.898E-02	2.888
PB-214	+	74.81		5.773E+00	1.801E+00	1.262E+00	1.403E-01	4.576
	+	77.11		3.414E+00	1.067E+00	7.121E-01	8.125E-02	4.795
	+	87.30		2.367E+01	3.514E+00	1.465E+00	1.798E-01	16.163

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	241.98		8.223E-01	6.860E-01	8.439E-01	1.045E-01	0.974
	+	295.21		1.118E+00	3.420E-01	3.208E-01	4.282E-02	3.485
	+	351.92	*	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
	+	74.81		5.773E+00	1.801E+00	1.262E+00	1.403E-01	4.576
	+	77.11		3.414E+00	1.067E+00	7.121E-01	8.125E-02	4.795
	+	87.30		2.367E+01	3.514E+00	1.465E+00	1.798E-01	16.163
PO-216	+	241.98		8.223E-01	6.860E-01	8.439E-01	1.045E-01	0.974
	+	295.21		1.118E+00	3.420E-01	3.208E-01	4.282E-02	3.485
	+	351.92	*	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
	+	74.81		3.350E+00	1.063E+00	7.321E-01	9.147E-02	4.576
	+	77.11		1.992E+00	6.037E-01	4.154E-01	3.528E-02	4.795
	+	87.30		1.382E+01	2.232E+00	8.549E-01	1.183E-01	16.163
PO-218	+	238.63	*	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
	+	300.09		1.327E+00	1.197E+00	2.009E+00	2.632E-01	0.661
	+	74.81		5.773E+00	1.801E+00	1.262E+00	1.403E-01	4.576
	+	77.11		3.414E+00	1.067E+00	7.121E-01	8.125E-02	4.795
	+	87.30		2.367E+01	3.514E+00	1.465E+00	1.798E-01	16.163
	+	241.98		8.223E-01	6.860E-01	8.439E-01	1.045E-01	0.974
RA-224	+	295.21		1.118E+00	3.420E-01	3.208E-01	4.282E-02	3.485
	+	351.92	*	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
	+	240.98	*	1.559E+00	1.298E+00	1.684E+00	1.855E-01	0.926
RA-226	+	609.31	*	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
AC-228	+	1120.29		4.475E-01	5.349E-01	9.303E-01	9.988E-02	0.481
	+	1764.49		1.011E+00	4.405E-01	3.501E-01	2.898E-02	2.888
	+	338.32		1.203E+00	8.157E-01	6.116E-01	2.556E-01	1.967
RA-228	+	911.07	*	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
	+	969.11		1.479E+00	8.111E-01	9.035E-01	2.130E-01	1.637
	+	338.32		1.203E+00	8.157E-01	6.116E-01	2.556E-01	1.967
TH-228	+	911.07	*	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
	+	969.11		1.479E+00	8.111E-01	9.035E-01	2.130E-01	1.637
	+	74.81		3.376E+00	1.024E+00	7.378E-01	6.173E-02	4.576
TH-230	+	77.11		2.007E+00	6.084E-01	4.186E-01	3.555E-02	4.795
	+	87.30		1.392E+01	1.767E+00	8.615E-01	8.233E-02	16.163
	+	238.63	*	9.626E-01	2.001E-01	1.491E-01	1.765E-02	6.458
TH-232	+	300.09		1.338E+00	1.437E+00	2.024E+00	1.211E+00	0.661
	+	609.31	*	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
	+	1120.29		4.475E-01	5.349E-01	9.303E-01	9.988E-02	0.481
U-234	+	1764.49		1.011E+00	4.405E-01	3.501E-01	2.898E-02	2.888
	+	338.32		1.203E+00	6.555E-01	6.116E-01	6.675E-02	1.967
	+	911.07	*	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
NP-237	+	969.11		1.479E+00	8.111E-01	9.035E-01	2.130E-01	1.637
	+	609.31	*	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
	+	1120.29		4.475E-01	5.349E-01	9.303E-01	9.988E-02	0.481
AM-241	+	1764.49		1.011E+00	4.405E-01	3.501E-01	2.898E-02	2.888
	+	86.50	*	8.773E+00	2.125E+00	5.473E-01	1.242E-01	16.030
	+	95.87		-5.832E-01	1.218E+00	1.789E+00	4.430E-01	-0.326
ANH-511	+	59.54	*	1.342E+01	1.271E+00	4.393E-01	3.447E-02	30.549
ANH-511	+	511.00	*	1.289E-01	1.178E-01	7.303E-02	6.946E-03	1.765

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.587E-02	5.399E-01	8.880E-01	8.983E-02	-0.074

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	1274.54	*		-7.129E-03	4.974E-02	7.886E-02	6.562E-03	-0.090
NA-24	1368.53	*		-2.153E-04	4.974E-02	Half-Life too short		
AL-26	1129.67			-8.926E-02	3.061E+00	5.003E+00	4.194E-01	-0.018
	1808.65	*		-1.841E-02	3.474E-02	4.837E-02	3.956E-03	-0.381
TI-44	67.85			-3.722E-02	6.336E-02	9.547E-02	7.394E-03	-0.390
	78.38	*		8.845E-02	5.261E-02	8.608E-02	7.413E-03	1.028
SC-46	889.25	*		-4.067E-03	7.486E-02	1.246E-01	1.178E-02	-0.033
	1120.51			5.425E-02	8.723E-02	1.497E-01	1.264E-02	0.362
V-48	944.10			8.895E-01	1.482E+00	2.553E+00	2.385E-01	0.348
	983.50	*		4.711E-02	1.041E-01	1.781E-01	1.639E-02	0.265
	1312.09			-9.808E-03	6.461E-02	1.017E-01	8.537E-03	-0.096
CR-51	320.08	*		-5.204E-02	5.345E-01	8.408E-01	9.831E-02	-0.062
MN-52	744.21			1.166E-02	1.874E-01	3.016E-01	2.769E-02	0.039
	848.13			-1.995E+00	5.374E+00	8.778E+00	8.261E-01	-0.227
	935.52			-4.007E-02	2.287E-01	3.763E-01	3.525E-02	-0.106
	1246.25			-1.997E+00	2.903E+00	4.167E+00	3.435E-01	-0.479
	+ 1333.61			3.430E+02	3.335E+01	3.722E+01	3.140E+00	9.218
	1434.06	*		-2.154E-02	1.216E-01	1.886E-01	1.609E-02	-0.114
MN-54	834.83	*		4.801E-02	6.857E-02	1.201E-01	1.128E-02	0.400
CO-56	846.75	*		-3.578E-02	7.132E-02	1.153E-01	1.085E-02	-0.310
	977.42			-2.673E+00	5.696E+00	9.110E+00	8.407E-01	-0.293
	1037.82			2.827E-01	5.662E-01	9.695E-01	9.114E-02	0.292
	1175.09			2.386E+02	2.295E+01	2.879E+01	2.317E+00	8.288
	1238.25			1.145E-02	8.289E-02	1.373E-01	1.165E-02	0.083
	1360.21			-9.030E-01	1.048E+00	1.373E+00	1.163E-01	-0.658
	1771.40			-1.363E-01	3.298E-01	4.990E-01	4.123E-02	-0.273
CO-58	810.76	*		-7.107E-03	7.015E-02	1.172E-01	1.098E-02	-0.061
FE-59	142.65			-1.839E+00	3.216E+00	5.202E+00	4.441E-01	-0.353
	192.34			-5.607E-01	1.161E+00	1.846E+00	2.613E-01	-0.304
	1099.22	*		-6.899E-02	1.717E-01	2.733E-01	2.541E-02	-0.252
	1291.56			6.035E-02	1.276E-01	2.213E-01	2.113E-02	0.273
ZN-65	1115.52	*		-1.728E-01	1.832E-01	2.789E-01	2.368E-02	-0.620
GE-68	1077.35	*		-3.969E-01	2.522E+00	4.099E+00	3.580E-01	-0.097
AS-73	53.44	*		2.856E-01	1.644E+00	2.593E+00	1.978E-01	0.110
AS-74	595.88	*		2.362E-05	1.119E-01	1.825E-01	1.694E-02	0.000
	634.78			-3.081E-01	4.622E-01	7.086E-01	6.423E-02	-0.435
SE-75	66.05			-4.258E+00	6.367E+00	9.557E+00	9.195E-01	-0.446
	96.73			-9.573E-01	9.717E-01	1.376E+00	1.902E-01	-0.696
	+ 121.11			1.358E+00	3.542E-01	4.123E-01	4.527E-02	3.293
	136.00			6.823E-02	5.129E-02	8.987E-02	7.627E-03	0.759
	198.60			2.256E+00	2.462E+00	4.179E+00	4.480E-01	0.540
	264.65	*		-1.323E-02	6.741E-02	1.068E-01	1.247E-02	-0.124
	279.53			-1.163E-01	1.617E-01	2.461E-01	3.012E-02	-0.473
	303.91			-4.350E+00	3.378E+00	4.848E+00	6.738E-01	-0.897
	400.65			-6.205E-02	4.218E-01	7.016E-01	8.168E-02	-0.088
BR-77	+ 87.88			7.568E+02	9.602E+01	1.018E+02	9.799E+00	7.434
	200.40			6.046E+00	2.719E+01	4.483E+01	4.454E+00	0.135
	+ 239.00			1.768E+01	3.589E+00	4.899E+00	5.374E-01	3.608
	249.79			6.744E+00	1.175E+01	1.948E+01	2.192E+00	0.346

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	281.68			-3.850E+00	1.596E+01	2.510E+01	3.007E+00	-0.153
	297.23			2.562E+00	1.079E+01	1.551E+01	1.825E+00	0.165
	303.76			-3.873E+01	3.432E+01	5.022E+01	5.853E+00	-0.771
	439.47			-1.144E+01	3.080E+01	5.024E+01	4.741E+00	-0.228
	484.57			-8.310E-01	4.581E+01	7.575E+01	7.205E+00	-0.011
	520.65	*		3.590E+00	2.056E+00	3.726E+00	3.541E-01	0.963
	574.64			-4.457E+00	3.922E+01	6.356E+01	5.956E+00	-0.070
	578.91			2.823E+00	1.817E+01	2.642E+01	2.471E+00	0.107
	585.48			2.423E+01	3.795E+01	5.739E+01	5.353E+00	0.422
	755.35			2.645E+01	3.237E+01	5.527E+01	5.093E+00	0.479
	817.79			1.092E+01	3.026E+01	5.207E+01	4.875E+00	0.210
SR-82	698.33			-2.259E+01	4.769E+01	7.380E+01	6.659E+00	-0.306
	776.49	*		-3.874E-02	5.800E-01	9.208E-01	8.537E-02	-0.042
	1395.20			9.365E+00	1.075E+01	1.990E+01	1.693E+00	0.470
RB-83	520.41	*		1.885E-01	1.106E-01	2.003E-01	1.903E-02	0.941
	529.64			-3.576E-02	1.760E-01	2.855E-01	2.709E-02	-0.125
	552.65			-8.984E-02	2.943E-01	4.709E-01	4.445E-02	-0.191
RB-84	881.50	*		5.122E-02	1.217E-01	2.091E-01	1.975E-02	0.245
KR-85	513.99	*		1.214E+01	1.236E+01	1.943E+01	1.848E+00	0.625
SR-85	513.99	*		5.757E-02	5.862E-02	9.217E-02	8.764E-03	0.625
RB-86	1076.63	*		-9.601E-04	1.222E+00	2.011E+00	1.757E-01	0.000
Y-88	898.02			6.502E-02	8.621E-02	1.504E-01	1.428E-02	0.432
	1836.01	*		5.099E-02	4.483E-02	9.009E-02	7.314E-03	0.566
ZR-88	392.90	*		1.972E-02	5.016E-02	8.591E-02	7.947E-03	0.229
Y-91	1204.90	*		8.570E+00	2.112E+01	3.606E+01	2.933E+00	0.238
NB-94	702.63	*		5.616E-02	5.912E-02	1.016E-01	9.184E-03	0.553
	871.10			4.854E-03	6.578E-02	1.107E-01	1.044E-02	0.044
NB-95	765.79	*		1.543E-02	6.965E-02	1.132E-01	1.047E-02	0.136
NB-95M	235.69	*		4.512E-02	1.810E-01	2.650E-01	3.151E-02	0.170
ZR-95	724.18			4.897E-04	1.671E-01	2.351E-01	2.310E-02	0.002
	756.15	*		8.423E-02	1.154E-01	1.953E-01	1.960E-02	0.431
NB-97	657.90	*		-8.857E-05	1.154E-01	Half-Life	too short	
	1024.50			1.120E-02	1.154E-01	Half-Life	too short	
ZR-97	254.15			-1.343E-03	1.154E-01	Half-Life	too short	
	355.39			-9.023E-05	1.154E-01	Half-Life	too short	
	507.63	*		2.489E-03	1.154E-01	Half-Life	too short	
	602.52			-2.430E-03	1.154E-01	Half-Life	too short	
	1021.30			-6.832E-03	1.154E-01	Half-Life	too short	
	1147.95			9.911E-04	1.154E-01	Half-Life	too short	
	1362.66			3.866E-03	1.154E-01	Half-Life	too short	
	1750.46			-1.396E-04	1.154E-01	Half-Life	too short	
MO-99	140.51			1.284E+00	5.216E+00	8.756E+00	2.421E+00	0.147
	181.06			-3.080E+00	4.082E+00	5.623E+00	1.051E+00	-0.548
	366.43			-1.438E+01	2.129E+01	3.447E+01	3.486E+00	-0.417
	739.58	*		-1.356E+00	3.445E+00	5.339E+00	8.276E-01	-0.254
	778.00			1.933E+00	9.791E+00	1.588E+01	1.473E+00	0.122
TC-99M	140.51	*		1.552E+01	9.791E+00	Half-Life	too short	
RH-101	127.23			-3.954E-02	3.978E-02	6.309E-02	5.253E-03	-0.627
	198.01	*		3.851E-03	4.745E-02	7.780E-02	7.681E-03	0.049

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-102		325.23		-1.912E-02	3.723E-01	5.867E-01	6.587E-02	-0.033
		418.52		1.280E-02	5.004E-01	8.379E-01	7.849E-02	0.015
		475.06	*	6.168E-03	5.523E-02	9.212E-02	8.756E-03	0.067
		631.29		7.368E-03	8.888E-02	1.461E-01	1.328E-02	0.050
		697.49		-1.854E-02	1.306E-01	2.083E-01	1.879E-02	-0.089
		766.84		3.860E-02	1.957E-01	3.173E-01	2.934E-02	0.122
		1046.59		-1.223E-02	2.267E-01	3.722E-01	3.317E-02	-0.033
RU-103		1112.84		5.846E-01	4.404E-01	7.885E-01	6.704E-02	0.741
		497.08	*	-2.623E-02	6.522E-02	1.049E-01	1.544E-02	-0.250
RH-106	+	610.33		6.844E+00	2.447E+00	2.831E+00	4.812E-01	2.418
	+	511.85		6.351E-01	5.800E-01	5.613E-01	5.338E-02	1.131
RU-106		621.84	*	8.502E-02	5.174E-01	8.516E-01	1.167E-01	0.100
	+	1050.47		2.832E+00	4.679E+00	8.044E+00	7.150E-01	0.352
AG-108M		511.85		6.351E-01	5.800E-01	5.613E-01	5.338E-02	1.131
		621.84	*	8.502E-02	5.174E-01	8.516E-01	7.788E-02	0.100
AG-110M		1050.47		2.832E+00	4.679E+00	8.044E+00	7.150E-01	0.352
		433.93	*	-1.234E-02	5.883E-02	9.694E-02	9.436E-03	-0.127
AG-110M		614.37		4.853E-02	6.943E-02	1.060E-01	1.007E-02	0.458
		722.95		1.846E-02	7.868E-02	1.137E-01	1.072E-02	0.162
IN-111		657.75	*	-8.287E-02	8.006E-02	1.013E-01	9.270E-03	-0.818
		677.61		-1.297E-01	5.270E-01	8.335E-01	7.648E-02	-0.156
IN-113M		706.67		-1.696E-03	3.656E-01	5.879E-01	5.457E-02	-0.003
		763.93		-3.585E-02	2.956E-01	4.680E-01	4.430E-02	-0.077
SN-113		884.67		3.314E-02	1.011E-01	1.725E-01	1.674E-02	0.192
		937.48		1.617E-01	2.447E-01	4.229E-01	4.081E-02	0.382
IN-114M		1384.27		1.097E-01	1.684E-01	3.053E-01	2.669E-02	0.359
		171.28		-3.676E-02	2.129E-01	3.471E-01	3.192E-02	-0.106
CD-115		245.39	*	1.016E-01	2.855E-01	4.204E-01	4.682E-02	0.242
		391.69	*	-3.132E-03	7.439E-02	1.246E-01	1.183E-02	-0.025
SN-117M		391.69	*	-3.132E-03	7.439E-02	1.246E-01	1.183E-02	-0.025
		190.27	*	2.192E-01	2.388E-01	3.700E-01	3.578E-02	0.592
SB-122		260.90		-1.518E+01	2.060E+01	3.151E+01	3.637E+00	-0.482
		492.35		6.169E-01	6.340E+00	1.055E+01	1.004E+00	0.058
I-123		527.90	*	7.669E-01	1.864E+00	3.149E+00	2.989E-01	0.244
		156.02		2.856E-01	2.070E+00	3.446E+00	3.040E-01	0.083
TE-123M		158.56	*	6.557E-03	4.899E-02	8.150E-02	7.239E-03	0.080
		563.90	*	2.801E-01	5.088E-01	8.647E-01	8.135E-02	0.324
I-124		692.80		-5.358E+00	1.096E+01	1.693E+01	1.524E+00	-0.316
		159.00	*	-2.617E-04	1.096E+01	Half-Life too short		
SB-124		528.96		-4.369E-03	1.096E+01	Half-Life too short		
		159.00	*	-1.477E-02	3.649E-02	5.907E-02	5.283E-03	-0.250
SB-124		602.71	*	-1.291E-01	3.534E-01	4.835E-01	4.471E-02	-0.267
		722.78		4.169E-01	2.396E+00	3.439E+00	3.134E-01	0.121
SB-124		1325.50		5.589E+00	1.761E+01	2.599E+01	2.189E+00	0.215
		1376.25		1.867E+01	1.117E+01	2.226E+01	1.890E+00	0.839
SB-124		1509.49		2.547E-01	5.173E+00	8.729E+00	7.464E-01	0.029
		1691.02		5.097E-01	1.299E+00	2.343E+00	1.970E-01	0.218
SB-124		602.71		-2.355E-02	6.444E-02	8.814E-02	8.153E-03	-0.267
		645.85		-5.052E-01	8.141E-01	1.252E+00	1.188E-01	-0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		709.31		-2.073E-01	4.269E+00	6.838E+00	6.198E-01	-0.030
		713.82		-3.337E-01	2.668E+00	4.244E+00	5.251E-01	-0.079
		722.78		1.102E-01	6.332E-01	9.090E-01	8.443E-02	0.121
	+	968.20		1.398E+01	7.042E+00	9.867E+00	9.139E-01	1.417
		1045.16		-2.597E+00	4.591E+00	7.230E+00	6.448E-01	-0.359
		1325.50		1.578E+00	4.972E+00	7.338E+00	6.179E-01	0.215
		1368.21		-1.947E+00	1.923E+00	2.410E+00	3.226E-01	-0.808
		1436.60		-2.043E-02	4.134E+00	6.936E+00	5.919E-01	-0.003
		1691.02	*	3.178E-02	8.101E-02	1.461E-01	1.279E-02	0.218
SB-125		427.89	*	-1.518E-01	1.616E-01	2.539E-01	2.425E-02	-0.598
		463.38		3.114E-01	5.340E-01	9.120E-01	9.218E-02	0.341
		600.56		5.185E-02	2.844E-01	4.697E-01	4.628E-02	0.110
		635.90		5.287E-02	4.526E-01	7.410E-01	7.205E-02	0.071
TE-125M		109.28	*	-3.199E+00	1.068E+01	1.774E+01	1.803E+00	-0.180
I-126		388.63		8.553E-02	2.318E-01	3.971E-01	3.715E-02	0.215
		666.33	*	2.122E-01	2.183E-01	3.412E-01	3.034E-02	0.622
		753.82		-5.781E-01	1.675E+00	2.595E+00	2.390E-01	-0.223
SB-126		223.80		-1.329E-01	4.030E+00	6.520E+00	6.886E-01	-0.020
		278.60		1.484E-01	2.465E+00	3.953E+00	4.741E-01	0.038
	+	296.50		7.356E+00	2.203E+00	2.791E+00	3.287E-01	2.635
		414.70		-2.310E-03	8.450E-02	1.412E-01	1.320E-02	-0.016
		415.30		5.850E-01	7.188E+00	1.208E+01	1.130E+00	0.048
		555.20		-5.636E-02	4.175E+00	6.836E+00	6.449E-01	-0.008
		573.80		3.978E-02	1.093E+00	1.793E+00	1.680E-01	0.022
		593.00		6.449E-02	9.948E-01	1.631E+00	1.516E-01	0.040
		656.30		-2.901E+00	4.885E+00	6.484E+00	5.780E-01	-0.447
		666.33		8.716E-02	8.970E-02	1.402E-01	1.247E-02	0.622
		675.00		1.827E-01	2.228E+00	3.621E+00	3.234E-01	0.050
		695.00		5.569E-02	8.580E-02	1.454E-01	1.310E-02	0.383
		697.00		3.972E-02	2.988E-01	4.873E-01	4.394E-02	0.082
		720.50	*	-1.474E-01	1.688E-01	2.504E-01	2.280E-02	-0.589
		856.80		-3.596E-01	6.156E-01	9.892E-01	9.321E-02	-0.364
		989.30		5.662E-01	1.614E+00	2.745E+00	2.520E-01	0.206
		1034.80		-6.150E+00	1.124E+01	1.770E+01	1.589E+00	-0.347
		1213.00		-9.751E-01	3.451E+00	5.404E+00	4.407E-01	-0.180
SB-127		61.10		2.837E+02	3.931E+01	6.104E+01	4.941E+00	4.648
		252.40		1.324E+00	1.851E+00	2.956E+00	1.248E+00	0.448
		290.80		5.941E-01	1.017E+01	1.447E+01	1.794E+00	0.041
		411.60		-3.214E+00	5.501E+00	8.871E+00	1.325E+00	-0.362
		444.90		-2.150E+00	4.695E+00	7.600E+00	8.829E-01	-0.283
		473.00		1.105E-01	8.375E-01	1.399E+00	1.681E-01	0.079
		543.00		9.555E+00	7.282E+00	1.286E+01	1.751E+00	0.743
		603.60		-3.405E+00	5.406E+00	7.138E+00	8.154E-01	-0.477
		685.20	*	-1.995E-01	5.655E-01	8.823E-01	8.764E-02	-0.226
		698.50		-3.948E+00	6.923E+00	1.060E+01	1.572E+00	-0.373
		722.20		-9.099E+00	1.595E+01	2.096E+01	2.055E+00	-0.434
		783.80		-5.514E-01	1.721E+00	2.670E+00	3.033E-01	-0.207
XE-127		57.60		2.614E+01	1.322E+01	2.024E+01	1.463E+00	1.291
		145.22		1.508E-02	7.792E-01	1.295E+00	1.112E-01	0.012

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	172.10			1.242E-03	1.367E-01	2.250E-01	2.074E-02	0.006
	202.84	*		-3.990E-02	5.885E-02	9.241E-02	9.242E-03	-0.432
	374.96			-3.986E-02	2.722E-01	4.545E-01	4.471E-02	-0.088
	80.18			2.686E-01	3.427E+00	5.292E+00	4.657E-01	0.051
	284.30			4.919E-01	1.262E+00	2.058E+00	2.521E-01	0.239
TE-132	364.48	*		1.034E-02	9.772E-02	1.658E-01	1.748E-02	0.062
	636.97			6.330E-01	1.409E+00	2.362E+00	2.237E-01	0.268
	722.89			1.522E+00	6.988E+00	1.008E+01	9.199E-01	0.151
	49.72			-4.864E+00	8.022E+00	1.229E+01	1.077E+00	-0.396
	111.76			7.761E+00	7.760E+00	1.357E+01	1.228E+00	0.572
BA-133	116.30			6.035E+00	7.212E+00	1.206E+01	1.084E+00	0.501
	228.16	*		1.699E-01	2.127E-01	3.557E-01	5.676E-02	0.477
	53.15			1.503E+00	7.495E+00	1.184E+01	9.069E-01	0.127
	79.62			-1.106E-01	1.832E+00	2.812E+00	4.299E-01	-0.039
	81.00			-4.366E-02	1.343E-01	2.161E-01	3.460E-02	-0.202
I-133	276.40			1.875E-01	5.692E-01	9.259E-01	1.541E-01	0.202
	302.84			-2.868E-02	2.380E-01	3.754E-01	5.797E-02	-0.076
	356.01	*		8.295E-03	6.981E-02	1.049E-01	1.515E-02	0.079
	383.85			3.521E-01	4.915E-01	8.553E-01	1.133E-01	0.412
	510.53	+		3.504E-03	4.915E-01	Half-Life	too short	
CS-134	529.87	*		-2.714E-06	4.915E-01	Half-Life	too short	
	706.58			9.171E-05	4.915E-01	Half-Life	too short	
	856.28			-8.860E-04	4.915E-01	Half-Life	too short	
	875.33			-5.031E-05	4.915E-01	Half-Life	too short	
	1236.41			1.573E-03	4.915E-01	Half-Life	too short	
CS-135	1298.22			-4.261E-04	4.915E-01	Half-Life	too short	
	475.35			8.242E-01	3.557E+00	5.973E+00	5.677E-01	0.138
	563.23			4.512E-01	5.902E-01	1.016E+00	9.641E-02	0.444
	569.32			1.839E-05	3.044E-01	4.975E-01	4.725E-02	0.000
	604.70			1.069E-02	5.622E-02	8.182E-02	7.576E-03	0.131
I-135	795.84	*		-3.524E-02	7.933E-02	1.295E-01	1.214E-02	-0.272
	801.93			-1.899E-03	6.960E-01	1.183E+00	1.109E-01	-0.002
	1038.57			3.516E+00	7.601E+00	1.297E+01	1.162E+00	0.271
	1167.94			-7.771E-01	4.714E+00	6.511E+00	5.263E-01	-0.119
	1365.15			9.010E-01	1.368E+00	2.473E+00	2.195E-01	0.364
CS-136	268.24	*		1.021E-01	2.728E-01	3.994E-01	5.094E-02	0.256
	288.45			-1.938E+00	2.728E-01	Half-Life	too short	
	417.63			-1.339E+02	2.728E-01	Half-Life	too short	
	546.56			3.574E+01	2.728E-01	Half-Life	too short	
	836.80			2.289E+02	2.728E-01	Half-Life	too short	
CS-136	1038.76			1.652E+02	2.728E-01	Half-Life	too short	
	1124.00			-8.401E+02	2.728E-01	Half-Life	too short	
	1131.51			-8.604E+01	2.728E-01	Half-Life	too short	
	1260.41	*		-1.903E+01	2.728E-01	Half-Life	too short	
	1457.56			1.044E+02	2.728E-01	Half-Life	too short	
CS-136	1678.03			2.794E+01	2.728E-01	Half-Life	too short	
	1706.46			1.036E+02	2.728E-01	Half-Life	too short	
	1791.20			-1.814E+01	2.728E-01	Half-Life	too short	
	66.91			3.335E-01	6.977E-01	1.108E+00	1.654E-01	0.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		86.29		3.329E+00	1.306E+00	2.073E+00	2.780E-01	1.606
		153.22		7.487E-02	5.934E-01	9.883E-01	9.638E-02	0.076
		163.89		-3.323E-01	9.907E-01	1.603E+00	1.604E-01	-0.207
		176.55		-2.198E-02	3.356E-01	5.496E-01	5.374E-02	-0.040
		273.65		-2.272E-01	5.187E-01	7.115E-01	8.740E-02	-0.319
		340.57		1.251E-01	1.475E-01	2.328E-01	2.573E-02	0.538
		818.51		-6.706E-03	1.002E-01	1.677E-01	1.570E-02	-0.040
		1048.07	*	2.051E-02	1.507E-01	2.510E-01	2.322E-02	0.082
		1235.34		2.333E-01	3.894E-01	6.837E-01	7.899E-02	0.341
CE-139		165.85	*	1.261E-02	3.929E-02	6.575E-02	5.963E-03	0.192
BA-140		162.64		-2.118E-01	6.792E-01	1.101E+00	1.042E-01	-0.192
		304.84		-8.533E-01	1.421E+00	2.138E+00	6.219E-01	-0.399
		423.70		-2.143E-01	2.280E+00	3.787E+00	1.236E+00	-0.057
		537.32	*	-2.589E-01	2.943E-01	4.298E-01	1.434E-01	-0.602
LA-140		328.77		-7.089E-03	3.144E-01	4.959E-01	5.716E-02	-0.014
		432.53		6.753E-01	2.441E+00	4.135E+00	4.053E-01	0.163
		487.03		1.007E-02	1.589E-01	2.640E-01	2.639E-02	0.038
		751.79		-2.184E+00	1.936E+00	2.749E+00	2.769E-01	-0.794
		815.85		1.230E-03	4.306E-01	7.243E-01	7.447E-02	0.002
		867.82		7.499E-01	1.847E+00	3.175E+00	3.128E-01	0.236
		919.63		-2.126E+00	3.985E+00	6.386E+00	7.214E-01	-0.333
		925.24		2.560E-01	1.734E+00	2.914E+00	2.883E-01	0.088
		1596.49	*	-2.115E-02	7.280E-02	1.147E-01	9.767E-03	-0.184
CE-141		145.44	*	2.112E-03	6.958E-02	1.157E-01	1.012E-02	0.018
CE-143		57.37		5.238E+01	6.190E+01	9.174E+01	7.942E+00	0.571
		231.56		-8.858E+00	8.855E+01	1.421E+02	4.578E+01	-0.062
		293.26	*	7.772E+00	6.002E+00	8.902E+00	2.040E+00	0.873
	+	350.59		5.570E+02	2.132E+02	1.593E+02	5.036E+01	3.497
		490.36		-6.755E-02	1.179E+02	1.950E+02	6.207E+01	0.000
		664.57		4.299E+02	1.604E+02	1.548E+02	5.012E+01	2.777
		721.93		-2.542E+01	6.261E+01	8.864E+01	2.598E+01	-0.287
CE-144		80.11		3.061E-01	2.938E+00	4.542E+00	3.987E-01	0.067
		133.54	*	-2.793E-01	2.741E-01	4.300E-01	6.640E-02	-0.649
PM-144		476.78		1.824E-02	1.226E-01	2.049E-01	2.099E-02	0.089
		618.01		2.858E-02	5.175E-02	8.761E-02	8.226E-03	0.326
		696.49	*	4.613E-02	5.632E-02	9.657E-02	8.708E-03	0.478
		778.57		2.870E-01	4.136E+00	6.640E+00	6.160E-01	0.043
PR-144		696.49	*	3.114E+00	3.802E+00	6.518E+00	5.877E-01	0.478
		1489.15		8.548E+00	1.453E+01	2.670E+01	2.284E+00	0.320
PM-146		453.90	*	5.656E-02	8.362E-02	1.437E-01	1.641E-02	0.394
		633.02		-1.363E+00	2.331E+00	3.505E+00	1.314E+00	-0.389
		735.90		2.171E-01	2.614E-01	4.363E-01	1.255E-01	0.498
		747.13		1.385E-01	1.665E-01	2.825E-01	4.067E-02	0.490
ND-147		91.11		-6.525E-02	2.601E-01	3.316E-01	3.314E-02	-0.197
		319.41		1.450E+00	3.555E+00	5.762E+00	6.542E-01	0.252
		439.89		1.600E+00	6.719E+00	1.134E+01	1.070E+00	0.141
		531.02	*	1.061E-01	6.133E-01	1.020E+00	1.577E-01	0.104
PM-149		285.90	*	2.547E+00	1.452E+01	2.339E+01	4.112E+00	0.109
EU-152	+	121.78		7.643E-01	1.953E-01	2.444E-01	2.359E-02	3.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		244.69		9.720E-02	5.488E-01	7.980E-01	8.872E-02	0.122
		344.27 *		-9.562E-02	1.563E-01	2.555E-01	2.855E-02	-0.374
		443.98		3.760E-01	1.705E+00	2.875E+00	2.717E-01	0.131
		778.89		-1.277E-02	4.803E-01	7.648E-01	7.096E-02	-0.017
		867.32		5.262E-01	1.657E+00	2.831E+00	2.671E-01	0.186
		964.01		8.187E-01	6.895E-01	1.089E+00	1.011E-01	0.752
		1085.78		-1.777E-01	8.237E-01	1.332E+00	1.156E-01	-0.133
		1112.02		6.776E-01	6.314E-01	1.113E+00	9.472E-02	0.609
		1407.95		6.726E-03	2.136E-01	3.454E-01	2.941E-02	0.019
GD-153		69.67		-1.291E+00	1.941E+00	3.243E+00	2.555E-01	-0.398
		83.37		1.612E+01	2.130E+01	3.380E+01	3.081E+00	0.477
		97.43 *		-9.462E-02	1.032E-01	1.478E-01	1.313E-02	-0.640
		103.18		2.261E-02	1.259E-01	2.143E-01	1.846E-02	0.106
EU-154	+	123.07		5.363E-01	1.402E-01	1.640E-01	1.824E-02	3.270
		247.94		9.787E-02	5.452E-01	8.866E-01	1.199E-01	0.110
		591.81		-5.073E-01	1.038E+00	1.626E+00	1.980E-01	-0.312
		723.30		-2.051E-02	3.395E-01	4.744E-01	4.733E-02	-0.043
		756.87		1.156E+00	1.375E+00	2.339E+00	2.904E-01	0.494
		873.19		-1.403E-01	5.541E-01	9.089E-01	1.167E-01	-0.154
		996.32		-6.793E-01	7.318E-01	1.107E+00	1.996E-01	-0.614
		1004.76		-4.833E-01	4.376E-01	6.570E-01	7.891E-02	-0.736
		1274.45 *		-4.307E-02	1.425E-01	2.202E-01	2.440E-02	-0.196
EU-155		48.70		5.136E+00	4.755E+00	7.772E+00	6.386E-01	0.661
	+	60.01		4.353E+02	3.856E+01	3.787E+01	2.705E+00	11.494
	+	86.54		3.588E+00	4.573E-01	3.478E-01	3.321E-02	10.316
		105.31 *		1.795E-02	1.307E-01	2.219E-01	1.920E-02	0.081
TB-160	+	86.79		8.953E+00	1.136E+00	1.035E+00	9.830E-02	8.648
		197.04		-6.900E-01	7.597E-01	1.180E+00	1.162E-01	-0.585
		215.65		-4.984E-01	1.055E+00	1.671E+00	1.728E-01	-0.298
		298.57		-1.350E-01	1.881E-01	2.495E-01	2.929E-02	-0.541
		879.36 *		-6.286E-02	2.545E-01	4.179E-01	3.947E-02	-0.150
		962.29		-4.480E-01	1.130E+00	1.723E+00	1.600E-01	-0.260
		966.15		5.263E-01	4.681E-01	7.328E-01	6.793E-02	0.718
		1177.93		-6.671E-02	5.310E-01	7.342E-01	5.913E-02	-0.091
		1271.85		5.444E-01	7.158E-01	1.294E+00	1.074E-01	0.421
HO-166M		80.57		-1.318E-01	3.902E-01	5.905E-01	5.210E-02	-0.223
	+	184.41		1.859E-01	8.554E-02	8.435E-02	8.029E-03	2.204
		280.46		-2.526E-02	1.292E-01	2.039E-01	2.445E-02	-0.124
		410.95		1.743E-01	4.257E-01	7.277E-01	6.793E-02	0.240
		711.68 *		-4.012E-02	1.044E-01	1.623E-01	1.472E-02	-0.247
		752.31		-5.551E-01	4.670E-01	6.597E-01	6.073E-02	-0.842
		810.29		3.967E-02	1.103E-01	1.901E-01	1.777E-02	0.209
TM-171		51.35		-2.348E+01	6.117E+01	9.453E+01	7.449E+00	-0.248
		52.39		7.052E+00	3.201E+01	5.063E+01	3.925E+00	0.139
	+	59.40		2.279E+03	2.019E+02	2.104E+02	1.494E+01	10.832
		66.72 *		2.299E+01	3.686E+01	5.907E+01	4.526E+00	0.389
LU-176	+	88.36		7.086E+00	8.990E-01	9.327E-01	8.954E-02	7.597
		201.83		-4.626E-02	4.202E-02	6.429E-02	6.413E-03	-0.720
		306.84 *		3.630E-02	3.848E-02	6.442E-02	7.472E-03	0.564

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-177		401.10		3.435E+00	1.146E+01	1.952E+01	1.813E+00	0.176
		112.95		7.759E-02	9.454E-01	1.595E+00	1.336E-01	0.049
		208.36	*	7.369E-01	7.771E-01	1.313E+00	1.332E-01	0.561
LU-177M		52.97		2.735E-01	3.281E+00	5.160E+00	3.964E-01	0.053
		54.07		3.132E-01	1.762E+00	2.777E+00	2.099E-01	0.113
		61.30		9.478E+00	2.605E+00	4.258E+00	3.089E-01	2.226
+		121.62		3.800E+00	9.530E-01	1.208E+00	1.003E-01	3.145
		147.16		1.658E-01	8.037E-01	1.347E+00	1.161E-01	0.123
		171.86		-4.016E-02	6.119E-01	1.004E+00	9.241E-02	-0.040
HF-181		218.09		-1.321E+00	1.233E+00	1.876E+00	1.952E-01	-0.704
		268.79		1.713E+00	1.331E+00	2.056E+00	2.414E-01	0.833
		319.02		2.559E-01	4.210E-01	6.900E-01	7.839E-02	0.371
+		367.43		-7.867E-01	1.426E+00	2.327E+00	2.347E-01	-0.338
		413.65	*	3.892E-03	2.859E-01	4.788E-01	4.475E-02	0.008
		56.28		-2.450E-02	2.014E+00	2.896E+00	2.125E-01	-0.008
W-181		57.53		1.766E+00	1.119E+00	1.697E+00	1.227E-01	1.041
		65.20		-4.500E-01	1.129E+00	1.718E+00	1.297E-01	-0.262
		133.02		-4.829E-02	7.718E-02	1.248E-01	1.047E-02	-0.387
TA-182		136.25		7.960E-01	5.510E-01	9.691E-01	8.169E-02	0.821
		345.85		1.792E-01	3.016E-01	4.697E-01	5.035E-02	0.381
		482.03	*	-3.664E-02	6.746E-02	1.078E-01	1.025E-02	-0.340
RE-183		56.28		-8.839E-03	8.531E-01	1.226E+00	9.001E-02	-0.007
		57.53		7.427E-01	4.740E-01	7.185E-01	5.198E-02	1.034
		65.20	*	-1.892E-01	4.745E-01	7.221E-01	5.453E-02	-0.262
+		67.75		-7.863E-02	1.449E-01	2.190E-01	1.694E-02	-0.359
		100.10		1.365E-01	2.094E-01	3.635E-01	3.179E-02	0.376
		152.43		2.555E-01	4.276E-01	7.271E-01	6.352E-02	0.351
RE-184		222.10		3.390E-01	4.852E-01	8.131E-01	8.551E-02	0.417
		1001.68		4.164E+00	3.684E+00	6.570E+00	5.998E-01	0.634
		1121.28		1.712E-01	2.458E-01	4.234E-01	3.574E-02	0.404
+		1189.05		-1.061E-01	4.131E-01	6.548E-01	5.295E-02	-0.162
		1221.42	*	7.308E-02	2.109E-01	3.584E-01	2.931E-02	0.204
		1230.97		1.272E-01	4.882E-01	8.277E-01	6.790E-02	0.154
RE-183		57.98		2.508E+00	5.272E-01	8.340E-01	6.004E-02	3.008
		59.32		8.742E+00	7.745E-01	8.105E-01	5.760E-02	10.786
		67.20		1.360E-01	2.437E-01	3.893E-01	2.996E-02	0.349
+		162.32	*	-4.296E-02	1.378E-01	2.234E-01	2.005E-02	-0.192
		208.81		1.474E+00	1.392E+00	2.360E+00	2.398E-01	0.625
		291.72		-6.728E-01	1.617E+00	2.213E+00	2.622E-01	-0.304
RE-184		57.98		9.648E+00	2.028E+00	3.208E+00	2.310E-01	3.008
		59.32		3.360E+01	2.977E+00	3.115E+00	2.214E-01	10.786
		67.20		5.229E-01	9.372E-01	1.497E+00	1.152E-01	0.349
+		161.27		5.525E-02	4.494E-01	7.465E-01	6.680E-02	0.074
		216.55		1.265E-02	3.859E-01	6.276E-01	6.507E-02	0.020
		252.85	*	2.546E-01	3.509E-01	5.851E-01	6.631E-02	0.435
RE-184		318.01		7.689E-02	7.395E-01	1.178E+00	1.341E-01	0.065
		792.07		6.791E-01	1.648E+00	2.856E+00	2.658E-01	0.238
		903.28		-5.049E-01	2.078E+00	3.412E+00	3.223E-01	-0.148
		920.93		1.407E-01	9.398E-01	1.581E+00	1.487E-01	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185	+	59.72		2.429E+01	2.152E+00	2.185E+00	1.555E-01	11.120
		61.14		2.523E+00	3.647E-01	5.944E-01	4.304E-02	4.245
		69.30		1.957E-04	3.347E-01	5.745E-01	4.511E-02	0.000
		592.07		-2.040E+00	4.008E+00	6.272E+00	5.833E-01	-0.325
	*	646.12		-5.309E-02	7.287E-02	1.111E-01	9.986E-03	-0.478
		717.42		6.611E-01	1.513E+00	2.514E+00	2.286E-01	0.263
		874.81		-2.114E-01	1.018E+00	1.676E+00	1.582E-01	-0.126
		880.27		-6.311E-01	1.467E+00	2.376E+00	2.245E-01	-0.266
RE-188	*	155.03		-6.960E-02	2.137E-01	3.479E-01	3.061E-02	-0.200
		477.96		-6.071E-01	5.310E+00	8.739E+00	8.309E-01	-0.069
		633.10		-3.183E+00	4.324E+00	6.569E+00	5.962E-01	-0.485
W-188		63.58		-3.229E+01	7.288E+01	1.028E+02	7.638E+00	-0.314
		227.08		2.870E+00	1.810E+01	2.953E+01	3.145E+00	0.097
		290.67	*	8.017E-01	1.242E+01	1.768E+01	2.097E+00	0.045
IR-192	+	295.96		7.953E-01	2.383E-01	3.147E-01	3.722E-02	2.527
		308.46		-6.559E-02	1.423E-01	2.186E-01	2.537E-02	-0.300
		316.51	*	-6.312E-03	5.514E-02	8.672E-02	9.911E-03	-0.073
		468.07		6.300E-02	1.188E-01	2.026E-01	2.039E-02	0.311
		604.41		5.126E-02	7.081E-01	1.018E+00	1.367E-01	0.050
		612.46		-2.815E-01	1.264E+00	1.758E+00	1.830E-01	-0.160
AU-195		65.12		-7.960E-02	2.235E-01	3.409E-01	2.572E-02	-0.234
		66.83		7.552E-02	1.193E-01	1.913E-01	1.467E-02	0.395
	+	75.70		1.709E+00	5.181E-01	4.689E-01	3.924E-02	3.645
		98.88	*	2.389E-01	2.659E-01	4.661E-01	4.104E-02	0.513
		129.76		1.909E+00	3.507E+00	5.996E+00	5.006E-01	0.318
TL-200	*	367.94		-5.395E+00	6.686E+00	1.073E+01	1.080E+00	-0.503
		579.30		1.325E+01	5.718E+01	8.376E+01	7.834E+00	0.158
		828.27		-2.626E+01	8.226E+01	1.350E+02	1.266E+01	-0.194
		1205.75		1.756E+01	2.662E+01	4.671E+01	3.800E+00	0.376
TL-201		68.90		2.075E-01	1.061E+00	1.834E+00	1.435E-01	0.113
		70.82		-1.660E-01	6.611E-01	1.010E+00	8.048E-02	-0.164
		80.30		4.442E-02	1.307E+00	2.013E+00	1.771E-01	0.022
		135.34		5.821E+00	6.381E+00	1.103E+01	9.282E-01	0.528
		167.43	*	4.658E-01	1.732E+00	2.892E+00	2.632E-01	0.161
TL-202		68.90		6.625E-02	3.387E-01	5.857E-01	4.581E-02	0.113
		70.82		-5.287E-02	2.105E-01	3.216E-01	2.563E-02	-0.164
		80.30		1.415E-02	4.162E-01	6.413E-01	5.642E-02	0.022
		439.56	*	-2.661E-02	8.503E-02	1.392E-01	1.314E-02	-0.191
HG-203		70.83		-3.093E-01	1.244E+00	1.900E+00	2.509E-01	-0.163
		72.87		5.758E-01	7.160E-01	1.144E+00	1.474E-01	0.503
		82.60		-5.438E-01	1.397E+00	2.243E+00	3.142E-01	-0.242
		279.20	*	-3.696E-02	5.667E-02	8.667E-02	1.056E-02	-0.426
BI-207	+	72.80		1.900E-01	2.339E-01	3.750E-01	3.046E-02	0.507
		74.97		9.746E-01	2.954E-01	2.530E-01	2.101E-02	3.852
		84.90		9.947E-02	2.840E-01	4.430E-01	4.112E-02	0.225
		569.67		1.007E-02	4.770E-02	7.920E-02	7.436E-03	0.127
		1063.62	*	1.184E-02	1.037E-01	1.723E-01	1.519E-02	0.069
		1770.23		-1.504E+00	8.609E-01	9.434E-01	7.796E-02	-1.595
TL-207		81.07		-1.012E-01	2.963E-01	4.768E-01	4.232E-02	-0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.78		1.793E-01	1.849E-01	2.956E-01	2.708E-02	0.606
		94.90		2.552E-01	2.792E-01	4.476E-01	4.047E-02	0.570
	+	122.32		1.822E+01	4.610E+00	5.836E+00	5.226E-01	3.122
		144.24		2.386E-01	9.045E-01	1.521E+00	1.459E-01	0.157
		154.21		-2.232E-01	5.383E-01	8.730E-01	8.401E-02	-0.256
	+	269.46		6.848E-01	3.629E-01	5.090E-01	6.054E-02	1.345
		323.87	*	1.704E-01	1.111E+00	1.774E+00	3.392E-01	0.096
	+	338.28		5.024E+00	2.773E+00	3.279E+00	4.596E-01	1.532
		445.03		-1.933E+00	4.151E+00	6.714E+00	8.523E-01	-0.288
PO-209		260.50		-6.470E+00	1.503E+01	2.349E+01	2.709E+00	-0.275
		262.80		2.513E+01	4.201E+01	6.950E+01	8.057E+00	0.362
		896.60	*	3.627E+00	1.612E+01	2.730E+01	2.582E+00	0.133
BI-210		46.50	*	-5.864E+00	6.727E+00	1.021E+01	9.520E-01	-0.574
PB-210		46.50	*	-5.864E+00	6.727E+00	1.021E+01	9.520E-01	-0.574
PO-210		46.50	*	-5.864E+00	6.723E+00	1.021E+01	8.623E-01	-0.574
PB-211		404.84	*	-6.033E-01	1.644E+00	2.625E+00	1.647E+00	-0.230
		427.08		-1.319E+00	3.703E+00	5.902E+00	3.674E+00	-0.224
		831.96		-6.510E-01	2.310E+00	3.743E+00	2.349E+00	-0.174
BI-212	+	727.18	*	4.915E-01	7.321E-01	9.417E-01	9.838E-02	0.522
		785.46		2.662E-01	2.996E+00	5.085E+00	4.726E-01	0.052
		1620.62		-6.373E-02	1.413E+00	2.326E+00	1.976E-01	-0.027
PO-215		81.07		-1.012E-01	2.963E-01	4.768E-01	4.232E-02	-0.212
		83.78		1.793E-01	1.849E-01	2.956E-01	2.708E-02	0.606
		94.90		2.552E-01	2.792E-01	4.476E-01	4.047E-02	0.570
	+	122.32		1.822E+01	4.610E+00	5.836E+00	5.226E-01	3.122
		144.24		2.386E-01	9.045E-01	1.521E+00	1.459E-01	0.157
		154.21		-2.232E-01	5.383E-01	8.730E-01	8.401E-02	-0.256
	+	269.46		6.848E-01	3.629E-01	5.090E-01	6.054E-02	1.345
		323.87	*	1.704E-01	1.111E+00	1.774E+00	3.392E-01	0.096
	+	338.28		5.024E+00	2.773E+00	3.279E+00	4.596E-01	1.532
		445.03		-1.933E+00	4.151E+00	6.714E+00	8.523E-01	-0.288
RN-219	+	271.23		8.786E-01	4.681E-01	6.312E-01	8.266E-02	1.392
		401.81	*	2.992E-01	7.149E-01	1.223E+00	1.886E-01	0.245
RN-220		549.76	*	1.262E+01	4.195E+01	7.033E+01	6.645E+00	0.179
RA-223		81.07		-1.012E-01	2.963E-01	4.768E-01	4.232E-02	-0.212
		83.78		1.793E-01	1.849E-01	2.956E-01	2.708E-02	0.606
		94.90		2.552E-01	2.792E-01	4.476E-01	4.047E-02	0.570
	+	122.32		1.822E+01	4.610E+00	5.836E+00	5.226E-01	3.122
		144.24		2.386E-01	9.045E-01	1.521E+00	1.459E-01	0.157
		154.21		-2.232E-01	5.383E-01	8.730E-01	8.401E-02	-0.256
	+	269.46		6.848E-01	3.629E-01	5.090E-01	6.054E-02	1.345
		323.87	*	1.704E-01	1.111E+00	1.774E+00	3.392E-01	0.096
	+	338.28		5.024E+00	2.773E+00	3.279E+00	4.596E-01	1.532
		445.03		-1.933E+00	4.151E+00	6.714E+00	8.523E-01	-0.288
AC-227		79.80		1.291E-02	2.332E+00	3.590E+00	7.737E-01	0.004
		236.00		1.709E-01	3.605E-01	5.350E-01	7.455E-02	0.319
		256.20	*	-2.765E-02	5.930E-01	9.502E-01	1.623E-01	-0.029
		286.10		-7.008E-01	2.547E+00	3.993E+00	6.214E-01	-0.176
		299.80		1.537E+00	2.340E+00	3.667E+00	7.044E-01	0.419

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-227		304.40		-2.269E+00	3.093E+00	4.635E+00	9.282E-01	-0.489
		334.20		9.348E-01	3.790E+00	5.780E+00	1.190E+00	0.162
		79.80		1.291E-02	2.332E+00	3.590E+00	7.836E-01	0.004
	+	94.00		3.384E+00	3.906E+00	4.011E+00	8.813E-01	0.844
		236.00		1.709E-01	3.604E-01	5.350E-01	6.913E-02	0.319
		256.20	*	-2.765E-02	5.930E-01	9.502E-01	1.858E-01	-0.029
		286.10		-7.008E-01	2.640E+00	3.993E+00	4.021E+00	-0.176
TH-229		299.80		1.537E+00	2.340E+00	3.667E+00	7.044E-01	0.419
		304.40		-2.269E+00	3.093E+00	4.635E+00	9.282E-01	-0.489
		334.20		9.348E-01	3.790E+00	5.780E+00	1.190E+00	0.162
		85.43		7.836E-02	2.786E-01	4.332E-01	4.047E-02	0.181
	+	88.47		4.079E+00	5.175E-01	5.338E-01	5.119E-02	7.641
		100.00		1.635E-01	2.281E-01	3.969E-01	3.473E-02	0.412
		193.63	*	-3.091E-01	7.098E-01	1.133E+00	1.106E-01	-0.273
PA-231		210.97		-1.017E+00	1.176E+00	1.827E+00	1.866E-01	-0.557
		283.67	*	-2.034E-01	2.436E+00	3.867E+00	6.689E-01	-0.053
TH-231		301.29		1.146E+00	9.084E-01	1.526E+00	2.224E-01	0.751
		81.07		-1.012E-01	2.963E-01	4.768E-01	4.232E-02	-0.212
		83.78		1.793E-01	1.849E-01	2.956E-01	2.708E-02	0.606
		94.90		2.552E-01	2.792E-01	4.476E-01	4.047E-02	0.570
	+	122.32		1.822E+01	4.610E+00	5.836E+00	5.226E-01	3.122
		144.24		2.386E-01	9.045E-01	1.521E+00	1.459E-01	0.157
		154.21		-2.232E-01	5.383E-01	8.730E-01	8.401E-02	-0.256
U-231	+	269.46		6.848E-01	3.629E-01	5.090E-01	6.054E-02	1.345
		323.87	*	1.704E-01	1.111E+00	1.774E+00	3.392E-01	0.096
	+	338.28		5.024E+00	2.773E+00	3.279E+00	4.596E-01	1.532
		445.03		-1.933E+00	4.151E+00	6.714E+00	8.523E-01	-0.288
		84.21		1.426E+00	2.366E+00	3.730E+00	3.434E-01	0.382
	+	92.29		9.839E-01	1.119E+00	1.276E+00	1.179E-01	0.771
		95.87	*	-1.946E-01	4.039E-01	5.969E-01	5.359E-02	-0.326
PA-233		108.00		-5.464E-01	7.386E-01	1.199E+00	1.016E-01	-0.456
	+	75.28		2.845E+01	9.351E+00	7.452E+00	1.132E+00	3.818
	+	86.59		5.849E+01	1.660E+01	5.908E+00	1.601E+00	9.901
		300.12		6.908E-01	6.233E-01	1.039E+00	1.751E-01	0.665
		311.98	*	3.720E-02	1.039E-01	1.684E-01	1.968E-02	0.221
		340.50		1.019E+00	1.088E+00	1.689E+00	4.177E-01	0.604
		398.62		-5.919E-01	3.513E+00	5.831E+00	1.566E+00	-0.102
PA-234		415.76		-2.392E-01	2.843E+00	4.732E+00	1.034E+00	-0.051
		63.00		1.505E+00	2.201E+00	3.312E+00	4.918E-01	0.455
		94.67		2.203E-01	2.031E-01	3.266E-01	4.151E-02	0.675
		98.44		4.108E-02	1.117E-01	1.881E-01	1.050E-01	0.218
		99.86		5.491E-01	5.756E-01	1.010E+00	8.846E-02	0.544
		111.00		2.905E-01	2.350E-01	4.124E-01	4.923E-02	0.704
		131.20		1.050E-01	1.371E-01	2.362E-01	1.976E-02	0.445
		152.70		2.379E-01	4.359E-01	7.370E-01	1.261E-01	0.323
	+	186.00		6.693E+00	3.676E+00	3.284E+00	1.034E+00	2.038
		226.40		9.105E-02	6.044E-01	9.860E-01	1.439E-01	0.092
		227.20		1.231E-01	6.592E-01	1.077E+00	1.148E-01	0.114
		248.90		-6.971E-02	1.247E+00	2.001E+00	4.710E-01	-0.035

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234M	+	293.70		5.366E+00	1.797E+00	2.070E+00	3.953E-01	2.592
		369.80		4.487E-01	1.406E+00	2.404E+00	5.377E-01	0.187
		568.70		-2.110E-01	1.574E+00	2.545E+00	2.391E-01	-0.083
		569.50		1.744E-02	4.254E-01	6.975E-01	6.548E-02	0.025
		574.00		-1.279E-01	2.360E+00	3.842E+00	3.601E-01	-0.033
		699.00		-1.038E+00	1.241E+00	1.834E+00	3.533E-01	-0.566
		706.10		7.111E-01	1.877E+00	3.065E+00	1.369E+00	0.232
		733.00		-1.014E+00	8.224E-01	9.417E-01	2.110E-01	-1.077
		742.81		-3.795E-01	2.642E+00	4.166E+00	2.804E+00	-0.091
		796.30		-8.589E-01	1.574E+00	2.518E+00	6.870E-01	-0.341
		805.60		4.155E-01	1.791E+00	3.056E+00	9.432E-01	0.136
		819.60		5.490E-01	2.478E+00	4.212E+00	1.609E+00	0.130
		826.30		-6.604E-01	1.585E+00	2.538E+00	1.139E+00	-0.260
		831.60		-2.245E-01	1.187E+00	1.965E+00	5.908E-01	-0.114
		876.40		-3.306E-01	1.608E+00	2.587E+00	2.661E+00	-0.128
		880.51		-1.780E-01	5.621E-01	9.185E-01	8.677E-02	-0.194
		883.24		2.407E-01	6.110E-01	1.012E+00	6.813E-01	0.238
		899.00		1.396E+00	1.922E+00	3.187E+00	1.399E+00	0.438
		925.00		6.510E-01	2.664E+00	4.505E+00	4.233E-01	0.145
		926.50		-5.490E-02	4.045E-01	6.674E-01	1.705E-01	-0.082
		946.00	*	-1.716E-01	6.869E-01	1.122E+00	2.144E-01	-0.153
		949.00		-3.482E-01	1.007E+00	1.635E+00	1.525E-01	-0.213
		980.50		4.579E-01	1.474E+00	2.498E+00	2.302E-01	0.183
		1394.10		1.860E+00	1.797E+00	2.678E+00	1.743E+00	0.694
		766.42		4.799E+00	2.086E+01	3.369E+01	1.713E+01	0.142
		1001.03	*	1.061E+01	8.717E+00	1.560E+01	1.625E+00	0.680
	TH-234	63.29	*	1.213E+00	1.865E+00	2.797E+00	4.879E-01	0.434
	+	92.38		8.756E-01	1.005E+00	1.140E+00	2.095E-01	0.768
	U-235	89.95		1.321E+00	1.719E+00	2.176E+00	6.767E-01	0.607
	+	93.35		1.053E+00	1.229E+00	1.350E+00	3.806E-01	0.780
		105.00		1.062E-01	1.291E+00	2.185E+00	6.517E-01	0.049
		143.76	*	2.993E-02	2.717E-01	4.539E-01	7.933E-02	0.066
		163.35		-4.196E-01	6.484E-01	1.025E+00	1.974E-01	-0.409
	+	185.71		2.479E-01	1.141E-01	1.222E-01	1.167E-02	2.029
		205.31		2.140E-02	7.774E-01	1.266E+00	2.503E-01	0.017
	NP-236	94.67		1.678E-01	1.534E-01	2.478E-01	2.244E-02	0.677
		98.44		3.098E-02	8.270E-02	1.422E-01	1.255E-02	0.218
		111.00		2.197E-01	1.768E-01	3.120E-01	2.622E-02	0.704
		160.31	*	-7.132E-03	1.050E-01	1.729E-01	1.543E-02	-0.041
	U-238	63.29	*	1.213E+00	1.865E+00	2.797E+00	4.879E-01	0.434
	+	92.38		8.756E-01	9.955E-01	1.140E+00	1.051E-01	0.768
	NP-239	99.55		1.814E-01	1.932E-01	3.388E-01	2.972E-02	0.535
		117.00	*	1.621E-01	2.613E-01	4.088E-01	3.403E-02	0.397
		209.75		1.350E-01	1.171E+00	1.915E+00	1.951E-01	0.070
		228.18		2.683E-01	3.348E-01	5.626E-01	6.009E-02	0.477
		277.60		2.429E-01	2.756E-01	4.605E-01	5.512E-02	0.527
		334.30		3.556E-01	2.136E+00	3.242E+00	3.571E-01	0.110
	AM-243	74.67	*	1.969E-01	7.898E-02	1.425E-01	1.179E-02	1.382
	+	86.72		3.290E+02	4.174E+01	3.647E+01	3.460E+00	9.022

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243		117.66		2.984E+00	5.188E+00	8.096E+00	6.736E-01	0.369
		142.18		-1.538E+01	2.308E+01	3.713E+01	3.166E+00	-0.414
		99.55		1.865E-01	1.987E-01	3.484E-01	3.057E-02	0.535
		103.76	*	5.088E-02	1.177E-01	2.025E-01	1.741E-02	0.251
		117.00		1.667E-01	2.687E-01	4.204E-01	3.500E-02	0.397
		209.75		1.330E-01	1.154E+00	1.887E+00	1.922E-01	0.070
		228.18		2.710E-01	3.382E-01	5.682E-01	6.068E-02	0.477
AM-246		277.60		2.447E-01	2.777E-01	4.640E-01	5.554E-02	0.527
		798.80		4.304E-03	2.346E-01	3.956E-01	3.689E-02	0.011
		1036.00		-6.145E-02	5.836E-01	9.550E-01	8.563E-02	-0.064
		1062.04		2.344E-01	4.517E-01	7.725E-01	6.817E-02	0.303
CM-247		1078.86	*	-3.900E-02	2.972E-01	4.841E-01	4.223E-02	-0.081
		278.00		7.129E-01	1.145E+00	1.890E+00	2.264E-01	0.377
		287.40		-6.899E-01	2.026E+00	3.163E+00	3.766E-01	-0.218
CF-249		402.60	*	6.335E-02	6.388E-02	1.122E-01	1.044E-02	0.564
		252.85		9.849E-01	1.357E+00	2.263E+00	2.565E-01	0.435
		333.44		1.493E-01	2.823E-01	4.392E-01	4.847E-02	0.340
CF-251		387.95	*	-7.150E-03	6.646E-02	1.110E-01	1.041E-02	-0.064
		176.60	*	-5.581E-03	1.712E-01	2.809E-01	2.619E-02	-0.020
		227.00		1.079E-01	5.825E-01	9.518E-01	1.013E-01	0.113
		285.00		5.329E-01	2.780E+00	4.485E+00	5.354E-01	0.119

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037551      *
* Acquisition date   : 18-FEB-2010 17:29:53 Detector SN#      :              *
* Detector ID        : GAM16 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 01:00:02.05 Half life ratio : 8.000   *
*****
*                                     SAMPLE DATA                            *
*
* Sample date       : 11-FEB-2010 00:00:00 Nuclide Library : SOLID      *
* Sample ID         : G1202037551 Analyst initials: MXR1          *
* Batch Number      : 950787 Sample Quantity : 1.5544E+02 GRAM      *
* Recovery          : 1.00000 Carrier Weight  : 0.00000          *
*****
*                                     QC DATA                               *
*
* Standard Weight   : 0.00000                                              *
* CALIB. DATE/TIME  : 16-NOV-2009 11:22:16 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	7.264E-01	5.747E-01	4.942E-01	0.000E+00
CO-57	2.586E-01	6.357E-02	5.678E-02	0.000E+00
CO-60	6.673E+00	6.357E-01	8.680E-02	0.000E+00
CD-109	3.006E+01	3.737E+00	2.005E+00	0.000E+00
SN-126	2.988E+00	3.714E-01	2.002E-01	0.000E+00
BA-137M	5.693E+00	5.517E-01	1.106E-01	0.000E+00
CS-137	6.018E+00	5.840E-01	1.169E-01	0.000E+00
TL-208	3.499E-01	1.103E-01	9.316E-02	0.000E+00
BI-211	2.943E+00	6.974E-01	5.467E-01	0.000E+00
PB-212	9.552E-01	1.946E-01	1.566E-01	0.000E+00
PO-212	9.552E-01	1.946E-01	1.566E-01	0.000E+00
BI-214	7.222E-01	2.348E-01	1.765E-01	0.000E+00
PB-214	1.024E+00	2.482E-01	1.906E-01	0.000E+00
PO-214	1.024E+00	2.482E-01	1.906E-01	0.000E+00
PO-216	9.552E-01	1.946E-01	1.566E-01	0.000E+00
PO-218	1.024E+00	2.482E-01	1.906E-01	0.000E+00
RA-224	1.559E+00	1.272E+00	1.782E+00	0.000E+00
RA-226	7.222E-01	2.348E-01	1.765E-01	0.000E+00
AC-228	1.031E+00	4.530E-01	4.732E-01	0.000E+00
RA-228	1.031E+00	4.530E-01	4.732E-01	0.000E+00
TH-228	9.626E-01	1.961E-01	1.578E-01	0.000E+00
TH-230	7.222E-01	2.348E-01	1.765E-01	0.000E+00
TH-232	1.031E+00	4.530E-01	4.732E-01	0.000E+00
U-234	7.222E-01	2.348E-01	1.765E-01	0.000E+00
NP-237	8.773E+00	2.083E+00	5.945E-01	0.000E+00
AM-241	1.342E+01	1.245E+00	4.814E-01	0.000E+00
ANH-511	1.289E-01	1.154E-01	7.581E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)
---------	-------------------------------------	--------------------------	--------------------

BE-7	-6.587E-02	5.291E-01	9.235E-01	0.000E+00	NOT IDENT.
NA-22	-7.129E-03	4.874E-02	7.984E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.369E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.841E-02	3.405E-02	4.849E-02	0.000E+00	NOT IDENT.
TI-44	8.845E-02	5.156E-02	9.373E-02	0.000E+00	NOT IDENT.
SC-46	-4.067E-03	7.337E-02	1.274E-01	0.000E+00	NOT IDENT.
V-48	4.711E-02	1.020E-01	1.816E-01	0.000E+00	NOT IDENT.
CR-51	-5.204E-02	5.238E-01	8.837E-01	0.000E+00	NOT IDENT.
MN-52	-2.154E-02	1.192E-01	1.903E-01	0.000E+00	FAIL ABUN
MN-54	4.801E-02	6.720E-02	1.231E-01	0.000E+00	NOT IDENT.
CO-56	-3.578E-02	6.990E-02	1.180E-01	0.000E+00	NOT IDENT.
CO-58	-7.107E-03	6.874E-02	1.202E-01	0.000E+00	NOT IDENT.
FE-59	-6.899E-02	1.682E-01	2.779E-01	0.000E+00	NOT IDENT.
ZN-65	-1.728E-01	1.796E-01	2.834E-01	0.000E+00	NOT IDENT.
GE-68	-3.969E-01	2.471E+00	4.169E+00	0.000E+00	NOT IDENT.
AS-73	2.856E-01	1.611E+00	2.849E+00	0.000E+00	NOT IDENT.
AS-74	2.362E-05	1.097E-01	1.886E-01	0.000E+00	NOT IDENT.
SE-75	-1.323E-02	6.606E-02	1.128E-01	0.000E+00	FAIL ABUN
BR-77	3.590E+00	2.015E+00	3.866E+00	0.000E+00	FAIL ABUN
SR-82	-3.874E-02	5.684E-01	9.451E-01	0.000E+00	NOT IDENT.
RB-83	1.885E-01	1.084E-01	2.078E-01	0.000E+00	NOT IDENT.
RB-84	5.122E-02	1.192E-01	2.138E-01	0.000E+00	NOT IDENT.
KR-85	1.214E+01	1.211E+01	2.017E+01	0.000E+00	NOT IDENT.
SR-85	5.757E-02	5.745E-02	9.566E-02	0.000E+00	NOT IDENT.
RB-86	-9.601E-04	1.198E+00	2.045E+00	0.000E+00	NOT IDENT.
Y-88	5.099E-02	4.393E-02	9.026E-02	0.000E+00	NOT IDENT.
ZR-88	1.972E-02	4.916E-02	8.981E-02	0.000E+00	NOT IDENT.
Y-91	8.570E+00	2.070E+01	3.657E+01	0.000E+00	NOT IDENT.
NB-94	5.616E-02	5.793E-02	1.046E-01	0.000E+00	NOT IDENT.
NB-95	1.543E-02	6.825E-02	1.163E-01	0.000E+00	NOT IDENT.
NB-95M	4.512E-02	1.774E-01	2.807E-01	0.000E+00	NOT IDENT.
ZR-95	8.423E-02	1.131E-01	2.006E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.481E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.029E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.356E+00	3.376E+00	5.487E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.173E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.851E-03	4.650E-02	8.278E-02	0.000E+00	NOT IDENT.
RH-102	6.168E-03	5.413E-02	9.582E-02	0.000E+00	NOT IDENT.
RU-103	-2.623E-02	6.392E-02	1.089E-01	0.000E+00	FAIL ABUN
RH-106	8.502E-02	5.071E-01	8.794E-01	0.000E+00	FAIL ABUN
RU-106	8.502E-02	5.070E-01	8.794E-01	0.000E+00	FAIL ABUN
AG-108M	-1.234E-02	5.765E-02	1.011E-01	0.000E+00	NOT IDENT.
AG-110M	-8.287E-02	7.846E-02	1.044E-01	0.000E+00	NOT IDENT.
IN-111	1.016E-01	2.798E-01	4.448E-01	0.000E+00	NOT IDENT.
IN-113M	-3.132E-03	7.290E-02	1.303E-01	0.000E+00	NOT IDENT.
SN-113	-3.132E-03	7.290E-02	1.303E-01	0.000E+00	NOT IDENT.
IN-114M	2.192E-01	2.340E-01	3.941E-01	0.000E+00	NOT IDENT.
CD-115	7.669E-01	1.826E+00	3.266E+00	0.000E+00	NOT IDENT.
SN-117M	6.557E-03	4.801E-02	8.721E-02	0.000E+00	NOT IDENT.
SB-122	2.801E-01	4.987E-01	8.953E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.336E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.477E-02	3.576E-02	6.320E-02	0.000E+00	NOT IDENT.
I-124	-1.291E-01	3.464E-01	4.997E-01	0.000E+00	NOT IDENT.
SB-124	3.178E-02	7.939E-02	1.467E-01	0.000E+00	FAIL ABUN
SB-125	-1.518E-01	1.583E-01	2.648E-01	0.000E+00	NOT IDENT.
TE-125M	-3.199E+00	1.047E+01	1.916E+01	0.000E+00	NOT IDENT.
I-126	2.122E-01	2.140E-01	3.516E-01	0.000E+00	NOT IDENT.
SB-126	-1.474E-01	1.654E-01	2.576E-01	0.000E+00	FAIL ABUN
SB-127	-1.995E-01	5.542E-01	9.087E-01	0.000E+00	NOT IDENT.
XE-127	-3.990E-02	5.767E-02	9.827E-02	0.000E+00	NOT IDENT.
I-131	1.034E-02	9.577E-02	1.737E-01	0.000E+00	NOT IDENT.
TE-132	1.699E-01	2.084E-01	3.772E-01	0.000E+00	NOT IDENT.
BA-133	8.295E-03	6.842E-02	1.099E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.770E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-3.524E-02	7.775E-02	1.328E-01	0.000E+00	NOT IDENT.
CS-135	1.021E-01	2.674E-01	4.217E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.156E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.051E-02	1.477E-01	2.555E-01	0.000E+00	NOT IDENT.
CE-139	1.261E-02	3.850E-02	7.027E-02	0.000E+00	NOT IDENT.
BA-140	-2.589E-01	2.884E-01	4.456E-01	0.000E+00	NOT IDENT.
LA-140	-2.115E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
CE-141	2.112E-03	6.818E-02	1.241E-01	0.000E+00	NOT IDENT.
CE-143	7.772E+00	5.882E+00	9.377E+00	0.000E+00	FAIL ABUN
CE-144	-2.793E-01	2.686E-01	4.621E-01	0.000E+00	NOT IDENT.
PM-144	4.613E-02	5.520E-02	9.941E-02	0.000E+00	NOT IDENT.
PR-144	3.114E+00	3.726E+00	6.710E+00	0.000E+00	NOT IDENT.
PM-146	5.656E-02	8.195E-02	1.496E-01	0.000E+00	NOT IDENT.
ND-147	1.061E-01	6.010E-01	1.058E+00	0.000E+00	NOT IDENT.

PM-149	2.547E+00	1.423E+01	2.466E+01	0.000E+00	NOT IDENT.
EU-152	-9.562E-02	1.532E-01	2.680E-01	0.000E+00	FAIL ABUN
GD-153	-9.462E-02	1.011E-01	1.601E-01	0.000E+00	NOT IDENT.
EU-154	-4.307E-02	1.396E-01	2.230E-01	0.000E+00	FAIL ABUN
EU-155	1.795E-02	1.281E-01	2.398E-01	0.000E+00	FAIL ABUN
TB-160	-6.286E-02	2.494E-01	4.274E-01	0.000E+00	FAIL ABUN
HO-166M	-4.012E-02	1.023E-01	1.670E-01	0.000E+00	FAIL ABUN
TM-171	2.299E+01	3.612E+01	6.456E+01	0.000E+00	FAIL ABUN
LU-176	3.630E-02	3.771E-02	6.778E-02	0.000E+00	FAIL ABUN
LU-177	7.369E-01	7.615E-01	1.395E+00	0.000E+00	NOT IDENT.
LU-177M	3.892E-03	2.802E-01	4.998E-01	0.000E+00	FAIL ABUN
HF-181	-3.664E-02	6.612E-02	1.120E-01	0.000E+00	NOT IDENT.
W-181	-1.892E-01	4.651E-01	7.898E-01	0.000E+00	NOT IDENT.
TA-182	7.308E-02	2.067E-01	3.633E-01	0.000E+00	NOT IDENT.
RE-183	-4.296E-02	1.350E-01	2.388E-01	0.000E+00	FAIL ABUN
RE-184	2.546E-01	3.439E-01	6.187E-01	0.000E+00	FAIL ABUN
OS-185	-5.309E-02	7.141E-02	1.146E-01	0.000E+00	FAIL ABUN
RE-188	-6.960E-02	2.094E-01	3.725E-01	0.000E+00	NOT IDENT.
W-188	8.017E-01	1.217E+01	1.862E+01	0.000E+00	NOT IDENT.
IR-192	-6.312E-03	5.404E-02	9.117E-02	0.000E+00	FAIL ABUN
AU-195	2.389E-01	2.606E-01	5.046E-01	0.000E+00	FAIL ABUN
TL-200	-5.395E+00	6.552E+00	1.123E+01	0.000E+00	NOT IDENT.
TL-201	4.658E-01	1.698E+00	3.090E+00	0.000E+00	NOT IDENT.
TL-202	-2.661E-02	8.333E-02	1.451E-01	0.000E+00	NOT IDENT.
HG-203	-3.696E-02	5.554E-02	9.141E-02	0.000E+00	NOT IDENT.
BI-207	1.184E-02	1.017E-01	1.753E-01	0.000E+00	FAIL ABUN
TL-207	1.704E-01	1.089E+00	1.863E+00	0.000E+00	FAIL ABUN
PO-209	3.627E+00	1.580E+01	2.791E+01	0.000E+00	NOT IDENT.
BI-210	-5.864E+00	6.592E+00	1.126E+01	0.000E+00	NOT IDENT.
PB-210	-5.864E+00	6.592E+00	1.126E+01	0.000E+00	NOT IDENT.
PO-210	-5.864E+00	6.588E+00	1.126E+01	0.000E+00	NOT IDENT.
PB-211	-6.033E-01	1.611E+00	2.741E+00	0.000E+00	NOT IDENT.
BI-212	4.915E-01	7.174E-01	9.683E-01	0.000E+00	FAIL ABUN
PO-215	1.704E-01	1.089E+00	1.863E+00	0.000E+00	FAIL ABUN
RN-219	2.992E-01	7.006E-01	1.277E+00	0.000E+00	FAIL ABUN
RN-220	1.262E+01	4.111E+01	7.286E+01	0.000E+00	NOT IDENT.
RA-223	1.704E-01	1.089E+00	1.863E+00	0.000E+00	FAIL ABUN
AC-227	-2.765E-02	5.812E-01	1.004E+00	0.000E+00	NOT IDENT.
TH-227	-2.765E-02	5.812E-01	1.004E+00	0.000E+00	FAIL ABUN
TH-229	-3.091E-01	6.956E-01	1.206E+00	0.000E+00	FAIL ABUN
PA-231	-2.034E-01	2.387E+00	4.077E+00	0.000E+00	NOT IDENT.
TH-231	1.704E-01	1.089E+00	1.863E+00	0.000E+00	FAIL ABUN
U-231	-1.946E-01	3.958E-01	6.467E-01	0.000E+00	FAIL ABUN
PA-233	3.720E-02	1.018E-01	1.771E-01	0.000E+00	FAIL ABUN
PA-234	-1.716E-01	6.731E-01	1.146E+00	0.000E+00	FAIL ABUN
PA-234M	1.061E+01	8.543E+00	1.590E+01	0.000E+00	NOT IDENT.
TH-234	1.213E+00	1.828E+00	3.062E+00	0.000E+00	FAIL ABUN
U-235	2.993E-02	2.663E-01	4.869E-01	0.000E+00	FAIL ABUN
NP-236	-7.132E-03	1.029E-01	1.849E-01	0.000E+00	NOT IDENT.
U-238	1.213E+00	1.828E+00	3.062E+00	0.000E+00	FAIL ABUN
NP-239	1.621E-01	2.561E-01	4.407E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	7.740E-02	1.553E-01	0.000E+00	FAIL ABUN
CM-243	5.088E-02	1.154E-01	2.190E-01	0.000E+00	NOT IDENT.
AM-246	-3.900E-02	2.913E-01	4.924E-01	0.000E+00	NOT IDENT.
CM-247	6.335E-02	6.260E-02	1.172E-01	0.000E+00	NOT IDENT.
CF-249	-7.150E-03	6.513E-02	1.161E-01	0.000E+00	NOT IDENT.
CF-251	-5.581E-03	1.678E-01	2.998E-01	0.000E+00	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037551.CNF;1
Sample date        : 11-FEB-2010 00:00:00 Acquisition date : 18-FEB-2010 17:29:53
Sample ID          : G1202037551          Sample quantity  : 1.55440E+02 GRAM
Detector name      : GAM16                Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00        Elapsed real time: 0 01:00:02.05 0.1%
Energy tolerance   : 1.50000 keV          Analyst Initials : MXR1
Abundance limit    : 75.00000             Sensitivity       : 5.00000
Batch ID           : 950787               Detector SN#      :
Matrix Spike ID    :                     LCS ID           : 1032-A
*****

```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	19	10.67*	1.208E+00	7.264E-01	7.264E-01	80.72
CO-57	122.06	322	85.51*	7.173E+00	2.536E-01	2.586E-01	25.08
	136.48	-----	10.60	7.049E+00	-----	Line Not Found	-----
CO-60	1173.22	1894	100.00	1.455E+00	6.287E+00	6.305E+00	9.58
	1332.49	1795	100.00*	1.303E+00	6.654E+00	6.673E+00	9.72
CD-109	88.03	1444	3.72*	6.308E+00	2.972E+01	3.006E+01	12.69
SN-126	64.28	-----	9.60	3.681E+00	-----	Line Not Found	-----
	86.94	1444	8.90	6.308E+00	1.242E+01	1.242E+01	42.39
	87.57	1444	37.00*	6.308E+00	2.988E+00	2.988E+00	12.69
BA-137M	661.65	2550	89.98*	2.405E+00	5.690E+00	5.693E+00	9.89
CS-137	661.65	2550	85.12*	2.405E+00	6.015E+00	6.018E+00	9.90
TL-208	277.35	-----	6.80	4.695E+00	-----	Line Not Found	-----
	510.84	79	21.60	2.965E+00	5.969E-01	5.969E-01	91.72
	583.14	163	84.20*	2.668E+00	3.499E-01	3.499E-01	32.18
	860.37	-----	12.46	1.920E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	4.872E+00	-----	Line Not Found	-----
	351.07	311	12.94*	3.940E+00	2.943E+00	2.943E+00	24.18
PB-212	74.81	391	10.70	5.269E+00	3.350E+00	3.350E+00	31.72
	77.11	391	18.00	5.269E+00	1.992E+00	1.992E+00	30.31
	87.30	1444	8.00	6.308E+00	1.382E+01	1.382E+01	16.15
	238.63	461	44.60*	5.226E+00	9.552E-01	9.552E-01	20.79
	300.09	-----	3.41	4.433E+00	-----	Line Not Found	-----
PO-212	74.81	391	10.70	5.269E+00	3.350E+00	3.350E+00	31.72
	77.11	391	18.00	5.269E+00	1.992E+00	1.992E+00	30.31
	87.30	1444	8.00	6.308E+00	1.382E+01	1.382E+01	16.15
	115.19	-----	0.60	7.166E+00	-----	Line Not Found	-----
	238.63	461	44.60*	5.226E+00	9.552E-01	9.552E-01	20.79
	300.09	-----	3.41	4.433E+00	-----	Line Not Found	-----
BI-214	609.31	178	46.30*	2.576E+00	7.222E-01	7.222E-01	33.18
	1120.29	-----	15.10	1.516E+00	-----	Line Not Found	-----
	1764.49	35	15.80	1.056E+00	1.011E+00	1.011E+00	43.57
PB-214	74.81	391	6.21	5.269E+00	5.773E+00	5.773E+00	31.21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	391	10.50	5.269E+00	3.414E+00	3.414E+00	31.26
	87.30	1444	4.67	6.308E+00	2.367E+01	2.367E+01	14.84
	241.98	66	7.49	5.188E+00	8.223E-01	8.223E-01	83.43
	295.21	199	19.20	4.488E+00	1.118E+00	1.118E+00	30.60
	351.92	311	37.20*	3.940E+00	1.024E+00	1.024E+00	24.74
PO-214	74.81	391	6.21	5.269E+00	5.773E+00	5.773E+00	31.21
	77.11	391	10.50	5.269E+00	3.414E+00	3.414E+00	31.26
	87.30	1444	4.67	6.308E+00	2.367E+01	2.367E+01	14.84
	241.98	66	7.49	5.188E+00	8.223E-01	8.223E-01	83.43
	295.21	199	19.20	4.488E+00	1.118E+00	1.118E+00	30.60
	351.92	311	37.20*	3.940E+00	1.024E+00	1.024E+00	24.74
PO-216	74.81	391	10.70	5.269E+00	3.350E+00	3.350E+00	31.72
	77.11	391	18.00	5.269E+00	1.992E+00	1.992E+00	30.31
	87.30	1444	8.00	6.308E+00	1.382E+01	1.382E+01	16.15
	238.63	461	44.60*	5.226E+00	9.552E-01	9.552E-01	20.79
	300.09	-----	3.41	4.433E+00	-----	Line Not Found	-----
PO-218	74.81	391	6.21	5.269E+00	5.773E+00	5.773E+00	31.21
	77.11	391	10.50	5.269E+00	3.414E+00	3.414E+00	31.26
	87.30	1444	4.67	6.308E+00	2.367E+01	2.367E+01	14.84
	241.98	66	7.49	5.188E+00	8.223E-01	8.223E-01	83.43
	295.21	199	19.20	4.488E+00	1.118E+00	1.118E+00	30.60
	351.92	311	37.20*	3.940E+00	1.024E+00	1.024E+00	24.74
RA-224	240.98	66	3.95*	5.188E+00	1.559E+00	1.559E+00	83.24
RA-226	609.31	178	46.30*	2.576E+00	7.222E-01	7.222E-01	33.18
	1120.29	-----	15.10	1.516E+00	-----	Line Not Found	-----
	1764.49	35	15.80	1.056E+00	1.011E+00	1.011E+00	43.57
AC-228	338.32	115	11.40	4.059E+00	1.203E+00	1.203E+00	67.80
	911.07	108	27.70*	1.825E+00	1.031E+00	1.031E+00	44.83
	969.11	88	16.60	1.727E+00	1.479E+00	1.479E+00	54.84
RA-228	338.32	115	11.40	4.059E+00	1.203E+00	1.203E+00	67.80
	911.07	108	27.70*	1.825E+00	1.031E+00	1.031E+00	44.83
	969.11	88	16.60	1.727E+00	1.479E+00	1.479E+00	54.84
TH-228	74.81	391	10.70	5.269E+00	3.350E+00	3.376E+00	30.33
	77.11	391	18.00	5.269E+00	1.992E+00	2.007E+00	30.31
	87.30	1444	8.00	6.308E+00	1.382E+01	1.392E+01	12.69
	238.63	461	44.60*	5.226E+00	9.552E-01	9.626E-01	20.79
	300.09	-----	3.41	4.433E+00	-----	Line Not Found	-----
TH-230	609.31	178	46.30*	2.576E+00	7.222E-01	7.222E-01	33.18
	1120.29	-----	15.10	1.516E+00	-----	Line Not Found	-----
	1764.49	35	15.80	1.056E+00	1.011E+00	1.011E+00	43.57
TH-232	338.32	115	11.40	4.059E+00	1.203E+00	1.203E+00	54.48
	911.07	108	27.70*	1.825E+00	1.031E+00	1.031E+00	44.83
	969.11	88	16.60	1.727E+00	1.479E+00	1.479E+00	54.84
U-234	609.31	178	46.30*	2.576E+00	7.222E-01	7.222E-01	33.18
	1120.29	-----	15.10	1.516E+00	-----	Line Not Found	-----
	1764.49	35	15.80	1.056E+00	1.011E+00	1.011E+00	43.57
NP-237	86.50	1444	12.60*	6.308E+00	8.773E+00	8.773E+00	24.22
	95.87	-----	2.60	6.742E+00	-----	Line Not Found	-----
AM-241	59.54	2940	35.90*	2.948E+00	1.342E+01	1.342E+01	9.47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
ANH-511	511.00	79	100.00*	2.965E+00	1.289E-01	1.289E-01	91.34

Flag: "*" = Keyline

Total number of lines in spectrum 23
Number of unidentified lines 0
Number of lines tentatively identified by NID 23 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	7.264E-01	7.264E-01	5.864E-01	80.72	
CO-57	270.90D	1.02	2.536E-01	2.586E-01	0.649E-01	25.08	
CO-60	5.27Y	1.00	6.654E+00	6.673E+00	0.649E+00	9.72	
CD-109	464.00D	1.01	2.972E+01	3.006E+01	0.381E+01	12.69	
SN-126	1.00E+05Y	1.00	2.988E+00	2.988E+00	0.379E+00	12.69	
BA-137M	30.17Y	1.00	5.690E+00	5.693E+00	0.563E+00	9.89	
CS-137	30.17Y	1.00	6.015E+00	6.018E+00	0.596E+00	9.90	
TL-208	1.41E+10Y	1.00	3.499E-01	3.499E-01	1.126E-01	32.18	
BI-211	7.04E+08Y	1.00	2.943E+00	2.943E+00	0.712E+00	24.18	
PB-212	1.41E+10Y	1.00	9.552E-01	9.552E-01	1.986E-01	20.79	
PO-212	1.41E+10Y	1.00	9.552E-01	9.552E-01	1.986E-01	20.79	
BI-214	1600.00Y	1.00	7.222E-01	7.222E-01	2.396E-01	33.18	
PB-214	1600.00Y	1.00	1.024E+00	1.024E+00	0.253E+00	24.74	
PO-214	1600.00Y	1.00	1.024E+00	1.024E+00	0.253E+00	24.74	
PO-216	1.41E+10Y	1.00	9.552E-01	9.552E-01	1.986E-01	20.79	
PO-218	1600.00Y	1.00	1.024E+00	1.024E+00	0.253E+00	24.74	
RA-224	1.41E+10Y	1.00	1.559E+00	1.559E+00	1.298E+00	83.24	
RA-226	1600.00Y	1.00	7.222E-01	7.222E-01	2.396E-01	33.18	
AC-228	1.41E+10Y	1.00	1.031E+00	1.031E+00	0.462E+00	44.83	
RA-228	1.41E+10Y	1.00	1.031E+00	1.031E+00	0.462E+00	44.83	
TH-228	1.91Y	1.01	9.552E-01	9.626E-01	2.001E-01	20.79	
TH-230	4.47E+09Y	1.00	7.222E-01	7.222E-01	2.396E-01	33.18	
TH-232	1.41E+10Y	1.00	1.031E+00	1.031E+00	0.462E+00	44.83	
U-234	4.47E+09Y	1.00	7.222E-01	7.222E-01	2.396E-01	33.18	
NP-237	2.14E+06Y	1.00	8.773E+00	8.773E+00	2.125E+00	24.22	
AM-241	432.20Y	1.00	1.342E+01	1.342E+01	0.127E+01	9.47	
ANH-511	1.00E+09Y	1.00	1.289E-01	1.289E-01	1.178E-01	91.34	
Total Activity :			9.209E+01	9.247E+01			

Grand Total Activity : 9.209E+01 9.247E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202037551

Page : 5
Acquisition date : 18-FEB-2010 17:29:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.79	65	373	1.37	185.77	182	9	1.80E-02	****	6.60E+00	T
0	185.57	170	313	1.53	371.33	366	12	4.74E-02	45.0	6.15E+00	T
0	270.33	92	155	1.83	540.85	537	8	2.56E-02	51.6	4.78E+00	T
0	728.43	27	102	0.70	1456.95	1451	10	7.40E-03	****	2.22E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202037551.CNF;1 *
* Acquisition date   : 18-FEB-2010 17:29:53   Detector SN#      :          *
* Detector ID        : GAM16                  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 01:00:02.05          Half life ratio  : 8.00000    *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 11-FEB-2010 00:00:00   Nuclide Library  : SOLID      *
* Sample ID          : G1202037551           Analyst initials: MXR1       *
* Batch Number       : 950787                Sample Quantity  : 1.55440E+02 GRAM *
*****
*                                     QC DATA                                *
*
* CALIB. DATE/TIME   : 16-NOV-2009 11:22:16.1MS 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	7.264E-01	5.864E-01	4.900E-01	4.307E-02	1.482
CO-57	2.586E-01	6.487E-02	5.272E-02	4.381E-03	4.906
CO-60	6.673E+00	6.487E-01	8.585E-02	7.241E-03	77.726
CD-109	3.006E+01	3.814E+00	1.847E+00	1.779E-01	16.280
SN-126	2.988E+00	3.790E-01	1.843E-01	1.768E-02	16.207
BA-137M	5.693E+00	5.629E-01	1.072E-01	9.517E-03	53.081
CS-137	6.018E+00	5.959E-01	1.134E-01	1.008E-02	53.081
TL-208	3.499E-01	1.126E-01	9.006E-02	8.927E-03	3.885
BI-211	2.943E+00	7.116E-01	5.214E-01	5.701E-02	5.643
PB-212	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
PO-212	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
BI-214	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
PB-214	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
PO-214	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
PO-216	9.552E-01	1.986E-01	1.479E-01	1.751E-02	6.458
PO-218	1.024E+00	2.532E-01	1.818E-01	2.198E-02	5.631
RA-224	1.559E+00	1.298E+00	1.684E+00	1.855E-01	0.926
RA-226	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
RA-228	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
TH-228	9.626E-01	2.001E-01	1.491E-01	1.765E-02	6.458
TH-230	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
TH-232	1.031E+00	4.623E-01	4.630E-01	5.499E-02	2.227
U-234	7.222E-01	2.396E-01	1.708E-01	1.806E-02	4.227
NP-237	8.773E+00	2.125E+00	5.473E-01	1.242E-01	16.030
AM-241	1.342E+01	1.271E+00	4.393E-01	3.447E-02	30.549
ANH-511	1.289E-01	1.178E-01	7.303E-02	6.946E-03	1.765

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.587E-02		5.399E-01	8.880E-01	8.983E-02	-0.074
NA-22	-7.129E-03		4.974E-02	7.886E-02	6.562E-03	-0.090
NA-24	-2.153E-04		1.209E-04	Half-Life too short		
AL-26	-1.841E-02		3.474E-02	4.837E-02	3.956E-03	-0.381
TI-44	8.845E-02		5.261E-02	8.608E-02	7.413E-03	1.028
SC-46	-4.067E-03		7.486E-02	1.246E-01	1.178E-02	-0.033
V-48	4.711E-02		1.041E-01	1.781E-01	1.639E-02	0.265
CR-51	-5.204E-02		5.345E-01	8.408E-01	9.831E-02	-0.062
MN-52	-2.154E-02		1.216E-01	1.886E-01	1.609E-02	-0.114
MN-54	4.801E-02		6.857E-02	1.201E-01	1.128E-02	0.400
CO-56	-3.578E-02		7.132E-02	1.153E-01	1.085E-02	-0.310
CO-58	-7.107E-03		7.015E-02	1.172E-01	1.098E-02	-0.061
FE-59	-6.899E-02		1.717E-01	2.733E-01	2.541E-02	-0.252
ZN-65	-1.728E-01		1.832E-01	2.789E-01	2.368E-02	-0.620
GE-68	-3.969E-01		2.522E+00	4.099E+00	3.580E-01	-0.097
AS-73	2.856E-01		1.644E+00	2.593E+00	1.978E-01	0.110
AS-74	2.362E-05		1.119E-01	1.825E-01	1.694E-02	0.000
SE-75	-1.323E-02		6.741E-02	1.068E-01	1.247E-02	-0.124
BR-77	3.590E+00		2.056E+00	3.726E+00	3.541E-01	0.963
SR-82	-3.874E-02		5.800E-01	9.208E-01	8.537E-02	-0.042
RB-83	1.885E-01		1.106E-01	2.003E-01	1.903E-02	0.941
RB-84	5.122E-02		1.217E-01	2.091E-01	1.975E-02	0.245
KR-85	1.214E+01		1.236E+01	1.943E+01	1.848E+00	0.625
SR-85	5.757E-02		5.862E-02	9.217E-02	8.764E-03	0.625
RB-86	-9.601E-04		1.222E+00	2.011E+00	1.757E-01	0.000
Y-88	5.099E-02		4.483E-02	9.009E-02	7.314E-03	0.566
ZR-88	1.972E-02		5.016E-02	8.591E-02	7.947E-03	0.229
Y-91	8.570E+00		2.112E+01	3.606E+01	2.933E+00	0.238
NB-94	5.616E-02		5.912E-02	1.016E-01	9.184E-03	0.553
NB-95	1.543E-02		6.965E-02	1.132E-01	1.047E-02	0.136
NB-95M	4.512E-02		1.810E-01	2.650E-01	3.151E-02	0.170
ZR-95	8.423E-02		1.154E-01	1.953E-01	1.960E-02	0.431
NB-97	-8.857E-05		7.557E-05	Half-Life too short		
ZR-97	2.489E-03		1.035E-03	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.356E+00		3.445E+00	5.339E+00	8.276E-01	-0.254
TC-99M	1.552E+01		3.150E+01	Half-Life too short		
RH-101	3.851E-03		4.745E-02	7.780E-02	7.681E-03	0.049
RH-102	6.168E-03		5.523E-02	9.212E-02	8.756E-03	0.067
RU-103	-2.623E-02		6.522E-02	1.049E-01	1.544E-02	-0.250
RH-106	8.502E-02		5.174E-01	8.516E-01	1.167E-01	0.100
RU-106	8.502E-02		5.174E-01	8.516E-01	7.788E-02	0.100
AG-108M	-1.234E-02		5.883E-02	9.694E-02	9.436E-03	-0.127
AG-110M	-8.287E-02		8.006E-02	1.013E-01	9.270E-03	-0.818
IN-111	1.016E-01		2.855E-01	4.204E-01	4.682E-02	0.242
IN-113M	-3.132E-03		7.439E-02	1.246E-01	1.183E-02	-0.025
SN-113	-3.132E-03		7.439E-02	1.246E-01	1.183E-02	-0.025
IN-114M	2.192E-01		2.388E-01	3.700E-01	3.578E-02	0.592
CD-115	7.669E-01		1.864E+00	3.149E+00	2.989E-01	0.244
SN-117M	6.557E-03		4.899E-02	8.150E-02	7.239E-03	0.080
SB-122	2.801E-01		5.088E-01	8.647E-01	8.135E-02	0.324
I-123	-2.617E-04		3.233E-04	Half-Life too short		
TE-123M	-1.477E-02		3.649E-02	5.907E-02	5.283E-03	-0.250
I-124	-1.291E-01		3.534E-01	4.835E-01	4.471E-02	-0.267
SB-124	3.178E-02		8.101E-02	1.461E-01	1.279E-02	0.218
SB-125	-1.518E-01		1.616E-01	2.539E-01	2.425E-02	-0.598
TE-125M	-3.199E+00		1.068E+01	1.774E+01	1.803E+00	-0.180
I-126	2.122E-01		2.183E-01	3.412E-01	3.034E-02	0.622
SB-126	-1.474E-01		1.688E-01	2.504E-01	2.280E-02	-0.589
SB-127	-1.995E-01		5.655E-01	8.823E-01	8.764E-02	-0.226
XE-127	-3.990E-02		5.885E-02	9.241E-02	9.242E-03	-0.432
I-131	1.034E-02		9.772E-02	1.658E-01	1.748E-02	0.062
TE-132	1.699E-01		2.127E-01	3.557E-01	5.676E-02	0.477
BA-133	8.295E-03		6.981E-02	1.049E-01	1.515E-02	0.079
I-133	-2.714E-06		1.413E-05	Half-Life too short		
CS-134	-3.524E-02		7.933E-02	1.295E-01	1.214E-02	-0.272
CS-135	1.021E-01		2.728E-01	3.994E-01	5.094E-02	0.256
I-135	-1.903E+01		2.120E+01	Half-Life too short		
CS-136	2.051E-02		1.507E-01	2.510E-01	2.322E-02	0.082
CE-139	1.261E-02		3.929E-02	6.575E-02	5.963E-03	0.192
BA-140	-2.589E-01		2.943E-01	4.298E-01	1.434E-01	-0.602
LA-140	-2.115E-02		7.280E-02	1.147E-01	9.767E-03	-0.184
CE-141	2.112E-03		6.958E-02	1.157E-01	1.012E-02	0.018
CE-143	7.772E+00		6.002E+00	8.902E+00	2.040E+00	0.873
CE-144	-2.793E-01		2.741E-01	4.300E-01	6.640E-02	-0.649
PM-144	4.613E-02		5.632E-02	9.657E-02	8.708E-03	0.478
PR-144	3.114E+00		3.802E+00	6.518E+00	5.877E-01	0.478
PM-146	5.656E-02		8.362E-02	1.437E-01	1.641E-02	0.394
ND-147	1.061E-01		6.133E-01	1.020E+00	1.577E-01	0.104
PM-149	2.547E+00		1.452E+01	2.339E+01	4.112E+00	0.109
EU-152	-9.562E-02		1.563E-01	2.555E-01	2.855E-02	-0.374
GD-153	-9.462E-02		1.032E-01	1.478E-01	1.313E-02	-0.640
EU-154	-4.307E-02		1.425E-01	2.202E-01	2.440E-02	-0.196

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.795E-02		1.307E-01	2.219E-01	1.920E-02	0.081
TB-160	-6.286E-02		2.545E-01	4.179E-01	3.947E-02	-0.150
HO-166M	-4.012E-02		1.044E-01	1.623E-01	1.472E-02	-0.247
TM-171	2.299E+01		3.686E+01	5.907E+01	4.526E+00	0.389
LU-176	3.630E-02		3.848E-02	6.442E-02	7.472E-03	0.564
LU-177	7.369E-01		7.771E-01	1.313E+00	1.332E-01	0.561
LU-177M	3.892E-03		2.859E-01	4.788E-01	4.475E-02	0.008
HF-181	-3.664E-02		6.746E-02	1.078E-01	1.025E-02	-0.340
W-181	-1.892E-01		4.745E-01	7.221E-01	5.453E-02	-0.262
TA-182	7.308E-02		2.109E-01	3.584E-01	2.931E-02	0.204
RE-183	-4.296E-02		1.378E-01	2.234E-01	2.005E-02	-0.192
RE-184	2.546E-01		3.509E-01	5.851E-01	6.631E-02	0.435
OS-185	-5.309E-02		7.287E-02	1.111E-01	9.986E-03	-0.478
RE-188	-6.960E-02		2.137E-01	3.479E-01	3.061E-02	-0.200
W-188	8.017E-01		1.242E+01	1.768E+01	2.097E+00	0.045
IR-192	-6.312E-03		5.514E-02	8.672E-02	9.911E-03	-0.073
AU-195	2.389E-01		2.659E-01	4.661E-01	4.104E-02	0.513
TL-200	-5.395E+00		6.686E+00	1.073E+01	1.080E+00	-0.503
TL-201	4.658E-01		1.732E+00	2.892E+00	2.632E-01	0.161
TL-202	-2.661E-02		8.503E-02	1.392E-01	1.314E-02	-0.191
HG-203	-3.696E-02		5.667E-02	8.667E-02	1.056E-02	-0.426
BI-207	1.184E-02		1.037E-01	1.723E-01	1.519E-02	0.069
TL-207	1.704E-01		1.111E+00	1.774E+00	3.392E-01	0.096
PO-209	3.627E+00		1.612E+01	2.730E+01	2.582E+00	0.133
BI-210	-5.864E+00		6.727E+00	1.021E+01	9.520E-01	-0.574
PB-210	-5.864E+00		6.727E+00	1.021E+01	9.520E-01	-0.574
PO-210	-5.864E+00		6.723E+00	1.021E+01	8.623E-01	-0.574
PB-211	-6.033E-01		1.644E+00	2.625E+00	1.647E+00	-0.230
BI-212	4.915E-01	+	7.321E-01	9.417E-01	9.838E-02	0.522
PO-215	1.704E-01		1.111E+00	1.774E+00	3.392E-01	0.096
RN-219	2.992E-01		7.149E-01	1.223E+00	1.886E-01	0.245
RN-220	1.262E+01		4.195E+01	7.033E+01	6.645E+00	0.179
RA-223	1.704E-01		1.111E+00	1.774E+00	3.392E-01	0.096
AC-227	-2.765E-02		5.930E-01	9.502E-01	1.623E-01	-0.029
TH-227	-2.765E-02		5.930E-01	9.502E-01	1.858E-01	-0.029
TH-229	-3.091E-01		7.098E-01	1.133E+00	1.106E-01	-0.273
PA-231	-2.034E-01		2.436E+00	3.867E+00	6.689E-01	-0.053
TH-231	1.704E-01		1.111E+00	1.774E+00	3.392E-01	0.096
U-231	-1.946E-01		4.039E-01	5.969E-01	5.359E-02	-0.326
PA-233	3.720E-02		1.039E-01	1.684E-01	1.968E-02	0.221
PA-234	-1.716E-01		6.869E-01	1.122E+00	2.144E-01	-0.153
PA-234M	1.061E+01		8.717E+00	1.560E+01	1.625E+00	0.680
TH-234	1.213E+00		1.865E+00	2.797E+00	4.879E-01	0.434
U-235	2.993E-02		2.717E-01	4.539E-01	7.933E-02	0.066
NP-236	-7.132E-03		1.050E-01	1.729E-01	1.543E-02	-0.041
U-238	1.213E+00		1.865E+00	2.797E+00	4.879E-01	0.434
NP-239	1.621E-01		2.613E-01	4.088E-01	3.403E-02	0.397
AM-243	1.969E-01		7.898E-02	1.425E-01	1.179E-02	1.382

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.088E-02		1.177E-01	2.025E-01	1.741E-02	0.251
AM-246	-3.900E-02		2.972E-01	4.841E-01	4.223E-02	-0.081
CM-247	6.335E-02		6.388E-02	1.122E-01	1.044E-02	0.564
CF-249	-7.150E-03		6.646E-02	1.110E-01	1.041E-02	-0.064
CF-251	-5.581E-03		1.712E-01	2.809E-01	2.619E-02	-0.020

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202037551          *
* Acquisition date   : 18-FEB-2010 17:29:53 Detector SN# :                   *
* Detector ID        : GAM16 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 01:00:02.05 Half life ratio : 8.000              *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 11-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202037551 Analyst initials: MXR1                 *
* Batch Number       : 950787 Sample Quantity : 1.5544E+02 GRAM           *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*
*                                     QC DATA                                *
*
* CALIB. DATE/TIME   : 16-NOV-2009 11:22:16 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	DLC (pCi/GRAM)	TPU
K-40	7.264E-01	5.747E-01	2.472E-01	2.932E-01
CO-57	2.586E-01	6.357E-02	2.841E-02	3.243E-02
CO-60	6.673E+00	6.357E-01	4.343E-02	3.244E-01
CD-109	3.006E+01	3.737E+00	1.003E+00	1.907E+00
SN-126	2.988E+00	3.714E-01	1.001E-01	1.895E-01
BA-137M	5.693E+00	5.517E-01	5.531E-02	2.815E-01
CS-137	6.018E+00	5.840E-01	5.847E-02	2.980E-01
TL-208	3.499E-01	1.103E-01	4.661E-02	5.629E-02
BI-211	2.943E+00	6.974E-01	2.735E-01	3.558E-01
PB-212	9.552E-01	1.946E-01	7.836E-02	9.929E-02
PO-212	9.552E-01	1.946E-01	7.836E-02	9.929E-02
BI-214	7.222E-01	2.348E-01	8.831E-02	1.198E-01
PB-214	1.024E+00	2.482E-01	9.534E-02	1.266E-01
PO-214	1.024E+00	2.482E-01	9.534E-02	1.266E-01
PO-216	9.552E-01	1.946E-01	7.836E-02	9.929E-02
PO-218	1.024E+00	2.482E-01	9.534E-02	1.266E-01
RA-224	1.559E+00	1.272E+00	8.917E-01	6.490E-01
RA-226	7.222E-01	2.348E-01	8.831E-02	1.198E-01
AC-228	1.031E+00	4.530E-01	2.367E-01	2.311E-01
RA-228	1.031E+00	4.530E-01	2.367E-01	2.311E-01
TH-228	9.626E-01	1.961E-01	7.897E-02	1.001E-01
TH-230	7.222E-01	2.348E-01	8.831E-02	1.198E-01
TH-232	1.031E+00	4.530E-01	2.367E-01	2.311E-01
U-234	7.222E-01	2.348E-01	8.831E-02	1.198E-01
NP-237	8.773E+00	2.083E+00	2.974E-01	1.063E+00
AM-241	1.342E+01	1.245E+00	2.409E-01	6.353E-01
ANH-511	1.289E-01	1.154E-01	3.793E-02	5.888E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
---------	-------------------------------------	---------------	--------------------	-----

BE-7	-6.587E-02	5.291E-01	4.620E-01	2.699E-01	NOT IDENT.
NA-22	-7.129E-03	4.874E-02	3.994E-02	2.487E-02	NOT IDENT.
NA-24	-2.153E+02	2.369E+02	0.000E+00	1.209E+02	SHORT HLIF
AL-26	-1.841E-02	3.405E-02	2.426E-02	1.737E-02	NOT IDENT.
TI-44	8.845E-02	5.156E-02	4.689E-02	2.631E-02	NOT IDENT.
SC-46	-4.067E-03	7.337E-02	6.374E-02	3.743E-02	NOT IDENT.
V-48	4.711E-02	1.020E-01	9.087E-02	5.207E-02	NOT IDENT.
CR-51	-5.204E-02	5.238E-01	4.421E-01	2.672E-01	NOT IDENT.
MN-52	-2.154E-02	1.192E-01	9.519E-02	6.081E-02	FAIL ABUN
MN-54	4.801E-02	6.720E-02	6.157E-02	3.429E-02	NOT IDENT.
CO-56	-3.578E-02	6.990E-02	5.905E-02	3.566E-02	NOT IDENT.
CO-58	-7.107E-03	6.874E-02	6.012E-02	3.507E-02	NOT IDENT.
FE-59	-6.899E-02	1.682E-01	1.390E-01	8.584E-02	NOT IDENT.
ZN-65	-1.728E-01	1.796E-01	1.418E-01	9.162E-02	NOT IDENT.
GE-68	-3.969E-01	2.471E+00	2.086E+00	1.261E+00	NOT IDENT.
AS-73	2.856E-01	1.611E+00	1.426E+00	8.220E-01	NOT IDENT.
AS-74	2.362E-05	1.097E-01	9.437E-02	5.596E-02	NOT IDENT.
SE-75	-1.323E-02	6.606E-02	5.645E-02	3.370E-02	FAIL ABUN
BR-77	3.590E+00	2.015E+00	1.934E+00	1.028E+00	FAIL ABUN
SR-82	-3.874E-02	5.684E-01	4.728E-01	2.900E-01	NOT IDENT.
RB-83	1.885E-01	1.084E-01	1.039E-01	5.532E-02	NOT IDENT.
RB-84	5.122E-02	1.192E-01	1.070E-01	6.084E-02	NOT IDENT.
KR-85	1.214E+01	1.211E+01	1.009E+01	6.180E+00	NOT IDENT.
SR-85	5.757E-02	5.745E-02	4.786E-02	2.931E-02	NOT IDENT.
RB-86	-9.601E-04	1.198E+00	1.023E+00	6.111E-01	NOT IDENT.
Y-88	5.099E-02	4.393E-02	4.516E-02	2.242E-02	NOT IDENT.
ZR-88	1.972E-02	4.916E-02	4.493E-02	2.508E-02	NOT IDENT.
Y-91	8.570E+00	2.070E+01	1.829E+01	1.056E+01	NOT IDENT.
NB-94	5.616E-02	5.793E-02	5.231E-02	2.956E-02	NOT IDENT.
NB-95	1.543E-02	6.825E-02	5.816E-02	3.482E-02	NOT IDENT.
NB-95M	4.512E-02	1.774E-01	1.404E-01	9.049E-02	NOT IDENT.
ZR-95	8.423E-02	1.131E-01	1.004E-01	5.770E-02	NOT IDENT.
NB-97	-8.857E+01	1.481E+02	0.000E+00	7.557E+01	SHORT HLIF
ZR-97	2.489E+03	2.029E+03	0.000E+00	1.035E+03	SHORT HLIF
MO-99	-1.356E+00	3.376E+00	2.745E+00	1.722E+00	NOT IDENT.
TC-99M	1.552E+07	6.173E+07	0.000E+00	3.150E+07	SHORT HLIF
RH-101	3.851E-03	4.650E-02	4.141E-02	2.373E-02	NOT IDENT.
RH-102	6.168E-03	5.413E-02	4.794E-02	2.762E-02	NOT IDENT.
RU-103	-2.623E-02	6.392E-02	5.450E-02	3.261E-02	FAIL ABUN
RH-106	8.502E-02	5.071E-01	4.400E-01	2.587E-01	FAIL ABUN
RU-106	8.502E-02	5.070E-01	4.400E-01	2.587E-01	FAIL ABUN
AG-108M	-1.234E-02	5.765E-02	5.056E-02	2.941E-02	NOT IDENT.
AG-110M	-8.287E-02	7.846E-02	5.224E-02	4.003E-02	NOT IDENT.
IN-111	1.016E-01	2.798E-01	2.226E-01	1.427E-01	NOT IDENT.
IN-113M	-3.132E-03	7.290E-02	6.519E-02	3.719E-02	NOT IDENT.
SN-113	-3.132E-03	7.290E-02	6.519E-02	3.719E-02	NOT IDENT.
IN-114M	2.192E-01	2.340E-01	1.972E-01	1.194E-01	NOT IDENT.
CD-115	7.669E-01	1.826E+00	1.634E+00	9.319E-01	NOT IDENT.
SN-117M	6.557E-03	4.801E-02	4.363E-02	2.450E-02	NOT IDENT.
SB-122	2.801E-01	4.987E-01	4.479E-01	2.544E-01	NOT IDENT.
I-123	-2.617E+02	6.336E+02	0.000E+00	3.233E+02	SHORT HLIF
TE-123M	-1.477E-02	3.576E-02	3.162E-02	1.824E-02	NOT IDENT.
I-124	-1.291E-01	3.464E-01	2.500E-01	1.767E-01	NOT IDENT.
SB-124	3.178E-02	7.939E-02	7.339E-02	4.051E-02	FAIL ABUN
SB-125	-1.518E-01	1.583E-01	1.325E-01	8.079E-02	NOT IDENT.
TE-125M	-3.199E+00	1.047E+01	9.586E+00	5.342E+00	NOT IDENT.
I-126	2.122E-01	2.140E-01	1.759E-01	1.092E-01	NOT IDENT.
SB-126	-1.474E-01	1.654E-01	1.289E-01	8.439E-02	FAIL ABUN
SB-127	-1.995E-01	5.542E-01	4.546E-01	2.828E-01	NOT IDENT.
XE-127	-3.990E-02	5.767E-02	4.916E-02	2.942E-02	NOT IDENT.
I-131	1.034E-02	9.577E-02	8.690E-02	4.886E-02	NOT IDENT.
TE-132	1.699E-01	2.084E-01	1.887E-01	1.063E-01	NOT IDENT.
BA-133	8.295E-03	6.842E-02	5.498E-02	3.491E-02	NOT IDENT.
I-133	-2.714E+00	2.770E+01	0.000E+00	1.413E+01	SHORT HLIF
CS-134	-3.524E-02	7.775E-02	6.646E-02	3.967E-02	NOT IDENT.
CS-135	1.021E-01	2.674E-01	2.110E-01	1.364E-01	NOT IDENT.
I-135	-1.903E+07	4.156E+07	0.000E+00	2.120E+07	SHORT HLIF
CS-136	2.051E-02	1.477E-01	1.278E-01	7.536E-02	NOT IDENT.
CE-139	1.261E-02	3.850E-02	3.516E-02	1.965E-02	NOT IDENT.
BA-140	-2.589E-01	2.884E-01	2.229E-01	1.472E-01	NOT IDENT.
LA-140	-2.115E-02	7.135E-02	5.771E-02	3.640E-02	NOT IDENT.
CE-141	2.112E-03	6.818E-02	6.206E-02	3.479E-02	NOT IDENT.
CE-143	7.772E+00	5.882E+00	4.691E+00	3.001E+00	FAIL ABUN
CE-144	-2.793E-01	2.686E-01	2.312E-01	1.370E-01	NOT IDENT.
PM-144	4.613E-02	5.520E-02	4.974E-02	2.816E-02	NOT IDENT.
PR-144	3.114E+00	3.726E+00	3.357E+00	1.901E+00	NOT IDENT.
PM-146	5.656E-02	8.195E-02	7.485E-02	4.181E-02	NOT IDENT.
ND-147	1.061E-01	6.010E-01	5.292E-01	3.066E-01	NOT IDENT.

PM-149	2.547E+00	1.423E+01	1.234E+01	7.261E+00	NOT IDENT.
EU-152	-9.562E-02	1.532E-01	1.341E-01	7.814E-02	FAIL ABUN
GD-153	-9.462E-02	1.011E-01	8.008E-02	5.161E-02	NOT IDENT.
EU-154	-4.307E-02	1.396E-01	1.115E-01	7.124E-02	FAIL ABUN
EU-155	1.795E-02	1.281E-01	1.200E-01	6.537E-02	FAIL ABUN
TB-160	-6.286E-02	2.494E-01	2.138E-01	1.272E-01	FAIL ABUN
HO-166M	-4.012E-02	1.023E-01	8.353E-02	5.219E-02	FAIL ABUN
TM-171	2.299E+01	3.612E+01	3.230E+01	1.843E+01	FAIL ABUN
LU-176	3.630E-02	3.771E-02	3.391E-02	1.924E-02	FAIL ABUN
LU-177	7.369E-01	7.615E-01	6.979E-01	3.885E-01	NOT IDENT.
LU-177M	3.892E-03	2.802E-01	2.500E-01	1.429E-01	FAIL ABUN
HF-181	-3.664E-02	6.612E-02	5.605E-02	3.373E-02	NOT IDENT.
W-181	-1.892E-01	4.651E-01	3.951E-01	2.373E-01	NOT IDENT.
TA-182	7.308E-02	2.067E-01	1.818E-01	1.055E-01	NOT IDENT.
RE-183	-4.296E-02	1.350E-01	1.195E-01	6.890E-02	FAIL ABUN
RE-184	2.546E-01	3.439E-01	3.095E-01	1.754E-01	FAIL ABUN
OS-185	-5.309E-02	7.141E-02	5.734E-02	3.643E-02	FAIL ABUN
RE-188	-6.960E-02	2.094E-01	1.864E-01	1.068E-01	NOT IDENT.
W-188	8.017E-01	1.217E+01	9.317E+00	6.208E+00	NOT IDENT.
IR-192	-6.312E-03	5.404E-02	4.561E-02	2.757E-02	FAIL ABUN
AU-195	2.389E-01	2.606E-01	2.525E-01	1.330E-01	FAIL ABUN
TL-200	-5.395E+00	6.552E+00	5.619E+00	3.343E+00	NOT IDENT.
TL-201	4.658E-01	1.698E+00	1.546E+00	8.661E-01	NOT IDENT.
TL-202	-2.661E-02	8.333E-02	7.258E-02	4.251E-02	NOT IDENT.
HG-203	-3.696E-02	5.554E-02	4.573E-02	2.834E-02	NOT IDENT.
BI-207	1.184E-02	1.017E-01	8.771E-02	5.187E-02	FAIL ABUN
TL-207	1.704E-01	1.089E+00	9.323E-01	5.557E-01	FAIL ABUN
PO-209	3.627E+00	1.580E+01	1.396E+01	8.059E+00	NOT IDENT.
BI-210	-5.864E+00	6.592E+00	5.631E+00	3.363E+00	NOT IDENT.
PB-210	-5.864E+00	6.592E+00	5.631E+00	3.363E+00	NOT IDENT.
PO-210	-5.864E+00	6.588E+00	5.631E+00	3.361E+00	NOT IDENT.
PB-211	-6.033E-01	1.611E+00	1.371E+00	8.218E-01	NOT IDENT.
BI-212	4.915E-01	7.174E-01	4.844E-01	3.660E-01	FAIL ABUN
PO-215	1.704E-01	1.089E+00	9.323E-01	5.557E-01	FAIL ABUN
RN-219	2.992E-01	7.006E-01	6.391E-01	3.574E-01	FAIL ABUN
RN-220	1.262E+01	4.111E+01	3.645E+01	2.098E+01	NOT IDENT.
RA-223	1.704E-01	1.089E+00	9.323E-01	5.557E-01	FAIL ABUN
AC-227	-2.765E-02	5.812E-01	5.025E-01	2.965E-01	NOT IDENT.
TH-227	-2.765E-02	5.812E-01	5.025E-01	2.965E-01	FAIL ABUN
TH-229	-3.091E-01	6.956E-01	6.035E-01	3.549E-01	FAIL ABUN
PA-231	-2.034E-01	2.387E+00	2.040E+00	1.218E+00	NOT IDENT.
TH-231	1.704E-01	1.089E+00	9.323E-01	5.557E-01	FAIL ABUN
U-231	-1.946E-01	3.958E-01	3.236E-01	2.019E-01	FAIL ABUN
PA-233	3.720E-02	1.018E-01	8.860E-02	5.196E-02	FAIL ABUN
PA-234	-1.716E-01	6.731E-01	5.732E-01	3.434E-01	FAIL ABUN
PA-234M	1.061E+01	8.543E+00	7.957E+00	4.359E+00	NOT IDENT.
TH-234	1.213E+00	1.828E+00	1.532E+00	9.326E-01	FAIL ABUN
U-235	2.993E-02	2.663E-01	2.436E-01	1.359E-01	FAIL ABUN
NP-236	-7.132E-03	1.029E-01	9.253E-02	5.251E-02	NOT IDENT.
U-238	1.213E+00	1.828E+00	1.532E+00	9.326E-01	FAIL ABUN
NP-239	1.621E-01	2.561E-01	2.205E-01	1.307E-01	NOT IDENT.
AM-243	1.969E-01	7.740E-02	7.770E-02	3.949E-02	FAIL ABUN
CM-243	5.088E-02	1.154E-01	1.095E-01	5.887E-02	NOT IDENT.
AM-246	-3.900E-02	2.913E-01	2.463E-01	1.486E-01	NOT IDENT.
CM-247	6.335E-02	6.260E-02	5.866E-02	3.194E-02	NOT IDENT.
CF-249	-7.150E-03	6.513E-02	5.808E-02	3.323E-02	NOT IDENT.
CF-251	-5.581E-03	1.678E-01	1.500E-01	8.562E-02	NOT IDENT.

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD       *
*               CHARLESTON ,SC 29417   *
*               GAMMA SPECTROSCOPY BACKGROUND REPORT *
*****

```

ENERGY	MDA COUNTS
--------	------------

46.50	393.7845
46.50	393.7845
46.50	393.7845
48.70	363.3528
49.72	430.9711
51.35	434.2745
52.39	437.9996
52.97	465.1141
53.15	465.3576
53.44	476.5518
54.07	490.6447
56.28	563.0973
56.28	563.1008
57.37	568.0435
57.53	560.1989
57.53	560.2015
57.60	560.3071
57.98	562.5125
57.98	562.5125
59.32	427.0845
59.32	427.0845
59.40	427.1767
59.54	427.3382
59.72	427.5445
60.01	427.8776
61.10	271.3677
61.14	271.3960
61.30	271.5104
63.00	226.7197
63.29	226.8902
63.29	226.8902
63.58	283.0024
64.28	263.7309
65.12	282.4669
65.20	282.5229
65.20	282.5229
66.05	294.3062
66.72	240.0691
66.83	240.1353
66.91	247.6508
67.20	244.0923
67.20	244.0923
67.75	291.8127
67.85	291.8859
68.90	269.2948
68.90	269.2948
69.30	272.0613
69.67	291.5185
70.82	285.2065
70.82	285.2065
70.83	285.2134
72.80	271.4041
72.87	271.4483
72.87	271.4483
74.67	316.9670
74.81	317.0681
74.81	317.0681
74.81	317.0681
74.81	317.0681
74.81	317.0681
74.81	317.0681
74.81	317.0681
74.97	317.1864
75.28	317.4133
75.70	317.7185
77.11	318.7408
77.11	318.7408

77.11	318.7408
77.11	318.7408
77.11	318.7408
77.11	318.7408
77.11	318.7408
78.38	319.6545
79.62	324.3860
79.80	324.5153
79.80	324.5153
80.11	318.3195
80.18	318.3687
80.30	318.4520
80.30	318.4520
80.57	341.7684
81.00	349.8074
81.07	349.8613
81.07	349.8613
81.07	349.8613
81.07	349.8613
82.60	361.3519
83.37	323.1697
83.78	318.2805
83.78	318.2805
83.78	318.2805
83.78	318.2805
84.21	339.2935
84.90	355.3542
85.43	357.0518
86.29	394.1205
86.50	363.0627
86.54	363.0925
86.59	363.1308
86.72	363.2288
86.79	363.2798
86.94	363.3969
87.30	363.6694
87.30	363.6694
87.30	363.6694
87.30	363.6694
87.30	363.6694
87.30	363.6694
87.57	363.8737
87.88	364.1078
88.03	364.2207
88.36	364.4697
88.47	364.5527
89.95	235.9094
91.11	236.4656
92.29	206.7417
92.38	206.7788
92.38	206.7788
93.35	207.1789
94.00	192.9127
94.67	185.2272
94.67	185.2293
94.90	183.9890
94.90	183.9890
94.90	183.9890
94.90	183.9890
95.87	216.1673
95.87	216.1673
96.73	227.1590
97.43	228.7957
98.44	197.2524
98.44	197.2535
98.88	191.1946
99.55	195.0007
99.55	195.0007
99.86	192.4431
100.00	199.6230
100.10	199.6629
103.18	202.6101
103.76	193.8538
105.00	203.2917
105.31	200.7077
108.00	219.7775
109.28	222.0960

111.00	188.2213
111.00	188.2213
111.76	194.8464
112.95	209.8507
115.19	214.3298
116.30	172.8916
117.00	183.2971
117.00	183.2971
117.66	180.7427
121.11	198.9063
121.62	199.0747
121.78	199.1272
122.06	199.2201
122.32	199.3054
122.32	199.3054
122.32	199.3054
122.32	199.3054
123.07	213.0096
127.23	224.2639
129.76	201.7134
131.20	201.2324
133.02	235.7534
133.54	250.0981
135.34	209.1524
136.00	198.9450
136.25	194.2812
136.48	194.3500
140.51	206.0288
140.51	0.0000
142.18	223.7525
142.65	229.6509
143.76	201.2735
144.24	209.0874
144.24	209.0874
144.24	209.0874
144.24	209.0874
145.22	212.2705
145.44	212.3380
147.16	198.4204
152.43	201.8618
152.70	206.7923
153.22	213.7449
154.21	232.5256
154.21	232.5256
154.21	232.5256
154.21	232.5256
155.03	224.0268
156.02	209.7050
158.56	193.8025
159.00	0.0000
159.00	215.4637
160.31	202.1149
161.27	193.5371
162.32	207.5851
162.64	207.6731
163.35	218.7097
163.89	212.9524
165.85	205.6027
167.43	195.1363
171.28	187.1604
171.86	187.3020
172.10	187.3593
176.55	197.4509
176.60	197.4649
181.06	223.7750
184.41	191.3033
185.71	191.6071
186.00	191.6763
190.27	163.6168
192.34	205.4124
193.63	204.7038
197.04	233.2740
198.01	211.9346
198.60	187.3709
200.40	209.4284
201.83	240.7766
202.84	226.5722
205.31	229.2866

208.36	230.0779
208.81	224.9868
209.75	242.9501
209.75	242.9501
210.97	266.2527
215.65	225.6511
216.55	209.0650
218.09	225.2024
222.10	179.6756
223.80	205.4145
226.40	197.4888
227.00	200.8010
227.08	202.9433
227.20	202.9686
228.16	176.5810
228.18	176.5844
228.18	176.5844
231.56	184.6819
235.69	192.9767
236.00	186.6043
236.00	186.6043
238.63	235.4967
238.63	235.4967
238.63	235.4967
238.63	235.4967
239.00	235.5836
240.98	236.0581
241.98	212.0195
241.98	212.0195
241.98	212.0195
244.69	178.5150
245.39	167.2728
247.94	168.2383
248.90	173.8297
249.79	164.1962
252.40	160.2564
252.85	162.5080
252.85	162.5080
254.15	0.0000
256.20	177.2608
256.20	177.2608
260.50	181.2912
260.90	190.1515
262.80	161.8669
264.65	182.0029
268.24	170.9961
268.79	152.8130
269.46	161.2187
269.46	161.2187
269.46	161.2187
269.46	161.2187
271.23	153.1583
273.65	178.5282
276.40	166.1548
277.35	154.0203
277.60	150.7077
277.60	150.7077
278.00	156.3464
278.60	162.0187
279.20	178.8737
279.53	178.9290
280.46	161.1709
281.68	162.4671
283.67	165.0042
284.30	157.2351
285.00	158.4557
285.90	164.2084
286.10	181.1086
286.10	181.1086
287.40	179.0659
288.45	0.0000
290.67	171.1125
290.80	171.1310
291.72	189.9229
293.26	166.4068
293.70	178.3603
295.21	151.3799
295.21	151.3799

295.21	151.3799
295.96	144.6722
296.50	137.9284
297.23	166.9810
298.57	185.9367
299.80	151.6386
299.80	151.6386
300.09	141.2003
300.09	141.2003
300.09	141.2003
300.09	141.2003
300.12	141.2054
301.29	142.4866
302.84	175.7753
303.76	189.6207
303.91	193.0716
304.40	177.1501
304.40	177.1501
304.84	174.9296
306.84	123.6885
308.46	152.5284
311.98	142.6257
316.51	165.0965
318.01	158.3644
319.02	145.7695
319.41	155.0738
320.08	167.8952
323.87	159.1226
323.87	159.1226
323.87	159.1226
323.87	159.1226
325.23	166.2747
328.77	152.7534
333.44	134.8313
334.20	137.7216
334.20	137.7216
334.30	137.7336
338.28	158.6069
338.28	158.6069
338.28	158.6069
338.28	158.6069
338.32	158.6124
338.32	158.6124
338.32	158.6124
340.50	148.2894
340.57	148.2971
344.27	166.4277
345.85	137.5595
350.59	140.5500
351.07	140.6006
351.92	140.6922
351.92	140.6922
351.92	140.6922
355.39	0.0000
356.01	114.3311
364.48	135.7286
366.43	152.1273
367.43	149.5358
367.94	155.8996
369.80	138.0656
374.96	134.9608
383.85	125.7953
387.95	146.2744
388.63	141.7696
391.69	157.6570
391.69	157.6570
392.90	146.7822
398.62	145.5237
400.65	153.1047
401.10	143.9268
401.81	144.9188
402.60	132.9917
404.84	157.2427
410.95	147.6796
411.60	157.9639
413.65	138.6417
414.70	140.6017
415.30	144.3830

415.76	143.4962
417.63	0.0000
418.52	144.6928
423.70	148.9363
427.08	147.3887
427.89	156.8606
432.53	134.7236
433.93	147.1022
439.47	159.9306
439.56	158.9919
439.89	144.8266
443.98	133.8162
444.90	150.9864
445.03	151.0010
445.03	151.0010
445.03	151.0010
445.03	151.0010
453.90	145.1580
463.38	157.5387
468.07	145.4656
473.00	143.0024
475.06	144.1482
475.35	138.3676
476.78	134.6117
477.59	139.5220
477.96	140.5219
482.03	135.0338
484.57	118.6976
487.03	114.9733
490.36	114.2221
492.35	116.3108
497.08	133.2939
507.63	0.0000
510.53	0.0000
510.84	92.8597
511.00	92.8683
511.85	92.9121
511.85	92.9121
513.99	90.2537
513.99	90.2537
520.41	77.4692
520.65	77.4811
527.90	99.7345
528.96	0.0000
529.64	114.8070
529.87	0.0000
531.02	104.9039
537.32	105.2660
543.00	75.4211
546.56	0.0000
549.76	84.7819
552.65	88.9561
555.20	86.0402
563.23	85.3894
563.90	88.4682
568.70	85.6329
569.32	81.5820
569.50	81.5894
569.67	78.5368
573.80	86.8832
574.00	86.8910
574.64	93.0551
578.91	90.1860
579.30	90.2048
583.14	81.1385
585.48	102.0063
591.81	98.0035
592.07	98.0151
593.00	84.6426
595.88	88.9001
600.56	88.0739
602.52	0.0000
602.71	94.5983
602.71	94.5983
603.60	94.6400
604.41	78.0686
604.70	78.0801
609.31	82.2113

609.31	82.2113
609.31	82.2113
609.31	82.2113
610.33	98.2863
612.46	106.7281
614.37	76.7827
618.01	78.3829
621.84	81.6705
621.84	81.6705
631.29	76.7850
633.02	88.4297
633.10	91.5905
634.78	97.9866
635.90	82.2252
636.97	82.2680
645.85	99.5594
646.12	104.8703
656.30	119.2051
657.75	139.7363
657.90	0.0000
661.65	106.6986
661.65	106.6986
664.57	75.2168
666.33	65.0119
666.33	65.0119
675.00	81.5873
677.61	90.2831
685.20	74.4159
692.80	90.9009
695.00	73.6591
696.49	70.4550
696.49	70.4550
697.00	82.3967
697.49	88.9218
698.33	96.5479
698.50	98.7259
699.00	100.9184
702.63	80.4294
706.10	88.1711
706.58	0.0000
706.67	94.7261
709.31	81.7543
711.68	88.3861
713.82	89.5599
717.42	82.0427
720.50	99.6784
721.93	92.0673
722.20	98.2160
722.78	77.1891
722.78	77.1891
722.89	77.1934
722.95	77.1955
723.30	85.9797
724.18	86.0132
727.18	94.9113
733.00	103.9587
735.90	66.1560
739.58	100.4921
742.81	98.4193
744.21	99.5828
747.13	74.2238
751.79	86.5789
752.31	88.8184
753.82	78.8761
755.35	64.4747
756.15	71.1680
756.87	71.1895
763.93	97.0546
765.79	90.4304
766.42	97.1555
766.84	97.1714
776.49	89.7046
778.00	84.1507
778.57	83.0468
778.89	83.0580
783.80	89.9707
785.46	83.7295
792.07	81.2417

795.84	90.4053
796.30	94.9435
798.80	79.6490
801.93	81.5603
805.60	82.5865
810.29	85.4675
810.76	97.3057
815.85	100.2327
817.79	92.1009
818.51	100.3347
819.60	96.7276
826.30	96.0637
828.27	93.3913
831.60	99.0114
831.96	99.0246
834.83	88.1180
836.80	0.0000
846.75	100.5057
848.13	103.3266
856.28	0.0000
856.80	110.1418
860.37	89.9002
867.32	91.0615
867.82	88.2902
871.10	85.6054
873.19	83.8081
874.81	81.0634
875.33	0.0000
876.40	84.8393
879.36	92.3992
880.27	98.0325
880.51	97.1064
881.50	89.6695
883.24	91.5951
884.67	95.3834
889.25	95.5428
896.60	105.1887
898.02	98.6656
899.00	98.7015
903.28	113.9161
911.07	108.5677
911.07	108.5677
911.07	108.5677
919.63	109.8460
920.93	100.4231
925.00	110.0527
925.24	113.8564
926.50	120.5539
935.52	121.8844
937.48	105.7698
944.10	106.0137
946.00	119.4611
949.00	119.5862
962.29	135.7462
964.01	104.1730
966.15	118.6842
968.20	162.0989
969.11	132.9328
969.11	132.9328
969.11	132.9328
977.42	97.5627
980.50	82.1923
983.50	81.3073
989.30	74.6765
996.32	97.2070
1001.03	63.2830
1001.68	65.2449
1004.76	106.2510
1021.30	0.0000
1024.50	0.0000
1034.80	82.6834
1036.00	79.7621
1037.82	71.9235
1038.57	74.8979
1038.76	0.0000
1045.16	92.8342
1046.59	82.9951
1048.07	86.9859

1050.47	80.1299
1050.47	80.1299
1062.04	73.4725
1063.62	79.4688
1076.63	85.7732
1077.35	89.7847
1078.86	91.8203
1085.78	91.0178
1099.22	99.4254
1112.02	72.5906
1112.84	67.5692
1115.52	115.0576
1120.29	68.7305
1120.29	68.7305
1120.29	68.7305
1120.29	68.7305
1120.51	73.7877
1121.28	70.7725
1124.00	0.0000
1129.67	70.9502
1131.51	0.0000
1147.95	0.0000
1167.94	61.5000
1173.22	45.1688
1175.09	45.1945
1177.93	42.8324
1189.05	47.4375
1204.90	32.1125
1205.75	29.0117
1213.00	32.1867
1221.42	28.0995
1230.97	26.0864
1235.34	21.9393
1236.41	0.0000
1238.25	26.1389
1246.25	26.1975
1260.41	0.0000
1271.85	15.8276
1274.45	26.3989
1274.54	24.2870
1291.56	19.0942
1298.22	0.0000
1312.09	19.1979
1325.50	28.5417
1325.50	28.5417
1332.49	24.6610
1333.61	24.6688
1360.21	19.4379
1362.66	0.0000
1365.15	10.8125
1368.21	21.6416
1368.53	0.0000
1376.25	9.7585
1384.27	9.7783
1394.10	6.5350
1395.20	10.8945
1407.95	15.3009
1434.06	17.5992
1436.60	15.5923
1457.56	0.0000
1460.81	7.9077
1489.15	11.1455
1509.49	13.0652
1596.49	16.1824
1620.62	10.5269
1678.03	0.0000
1691.02	6.8012
1691.02	6.8012
1706.46	0.0000
1750.46	0.0000
1764.49	6.7648
1764.49	6.7648
1764.49	6.7648
1764.49	6.7648
1770.23	31.6055
1771.40	15.8066
1791.20	0.0000
1808.65	8.9583

1836.01

5.0039

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202037551

Total Uranium Activity	3.6234E+00	ug/g
Total Uranium Counting Unc.	5.4394E+00	ug/g
Total Uranium Tpu	2.7752E-06	ug/g
Total Uranium Mda	4.5583E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON , SC 29417              *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 950787                          SAMPLE ID   : G1202037551
*  ANALYST       : MXR1                             DETECTOR    : GAM16
*  SAMPLE DATE   : 11-FEB-2010 00:00:00.00          COUNT TIME   : 0 01:00:00.00
*  ANALYSIS DATE : 18-FEB-2010 17:29:53.30          SAMPLE ALQT  : 155.440 GRAM
*
*****

```

```

GROSS GAMMA ACTIVITY (pCi/GRAM ) : 2.764E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 2.824E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 4.426E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 2.157E+00

```

Radiochemistry Batch Checklist, Rev10

Batch# 953095 Product: H3 Date: 2-23-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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%.			NA
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.	✓		
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] 2/23/10

LANL 3-5-10

Tritium Que Sheet

15-FEB-10

Vacuum

Batch #: 953095 Analyst: KXK2 First Client Due Date 05-MAR-10 Internal Due Date: 22-FEB-10

Spike Isotope: Hydrogen-3 Spike Code: Expiration Date: Vol: 0.1

LCS Isotope: Hydrogen-3 LCS Code: 0134K Expiration Date: 3/27/10 Vol: 0.1

Prep Date: 2/17/10 Initials: xyj Pipet ID: 2970968 Witness: QJM 2-18-10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Alquot 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)
246341001-1	RE15-10-8304	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-2	1		458.66	365.55	93.11
246341002-1	RE15-10-8305	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-3	2		319.80	197.32	122.48
246341003-1	RE15-10-8306	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-4	3		437.58	344.81	92.77
246341004-1	RE15-10-8307	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-5	4		386.16	330.55	55.61
246341005-1	RE15-10-8309	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-6	5		434.27	388.24	46.03
246341006-1	RE15-10-8308	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-7	6		355.44	257.34	98.10
246341007-1	RE15-10-8301	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-8	7		415.11	390.62	24.49
246341008-1	RE15-10-8300	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-9	8		291.44	202.26	89.18
246341009-1	RE15-10-8324	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-10	9		409.04	323.96	85.08
246344001-1	RE15-10-7981	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-11	10		296.44	221.14	75.30
246344002-1	RE15-10-7983	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-12	11		304.60	228.36	76.23
246344003-1	RE15-10-7984	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-1	12		426.35	304.18	122.17
246344004-1	RE15-10-7982	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-2	13		504.50	425.80	78.70
246344005-1	RE15-10-7985	SAMPLE		.25 pCi/mL SOIL	LANL010		01-FEB-10	10	14-3	14		197.52	163.36	94.22
246444001-1	RE15-10-8361	SAMPLE		.25 pCi/mL SOIL	LANL010		03-FEB-10	10	14-4	15		431.60	353.91	77.69
246444002-1	RE15-10-8362	SAMPLE		.25 pCi/mL SOIL	LANL010		03-FEB-10	10	14-5	16		335.90	267.04	68.86
246444003-1	RE15-10-8359	SAMPLE		.25 pCi/mL SOIL	LANL010		03-FEB-10	10	14-6	17		469.19	437.29	31.90
246444004-1	RE15-10-8358	SAMPLE		.25 pCi/mL SOIL	LANL010		03-FEB-10	10	14-7	18		448.33	374.80	73.53
246444005-1	RE15-10-8360	SAMPLE		.25 pCi/mL SOIL	LANL010		03-FEB-10	10	14-8	19		285.47	207.25	78.22
1202042910-1	MB for batch 953095	MB		.25 pCi/mL SOIL	QC ACCOUNT		01-FEB-10	10	14-9	20		20.00	0	20.00
1202042911-1	RE15-10-8364 (246444001) DUP	DUP		.25 pCi/mL SOIL	QC ACCOUNT		03-FEB-10	10	14-10	1		458.66	365.55	93.11
1202042912-1	LCS for batch 953095	LCS		.25 pCi/mL SOIL	QC ACCOUNT		03-FEB-10	10	20-1	21		20.00	0	20.00

Bkg Rack #: 14-1
Jody

Bkg prepared with dead water? Yes No

Comments:

Instrument Used (circle as appropriate): LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140122, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange D660695168

Calibration Used: Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)
Data Reviewed By: JN 2-23-10

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1

Tritium Solid

Filename : H3VAC.XLS
 File type : Excel
 Version # : 1.2.8
 Batch : 953085
 Analyst : KXK2
 Prep Date : 2/17/2010

Spike S/N :
 Spike Exp Date :
 Spike Activity (dpm/ml):
 Spike Volume Added:

LCS S/N : 0134-K
 LCS Exp Date : 3/27/2010
 LCS Activity (dpm/ml): 2465.92
 LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
 Penname : Tritium
 Required MDC : 250 pCi/L
 Half-life of Tritium : 12.32 years

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 : +/- 0.025728 ml

H-3 Abundance : 1
 Method Uncertainty : 0.0691
 Geometry: 10mL DW/13mL
 Eosclnt Ultra

Sample Characteristics			Total Moisture		Sample Aliquot in Vial		Sample Aliquot Stdev.		Dry Sample Weight (g)		% Moisture of Sample		Rtg number		Sample Date/Time	
Pos.	Sample ID	Wet Sample Weight (g)	L	L	L	L	L	L	g	g	%	%				
1	246341001.1	458.66	0.0831	0.0100	0.0100	2.5729E-05	2.5729E-05	365.55	20.30%	1	20.30%	1	21/2010 12:00			
2	246341002.1	319.80	0.1225	0.0100	0.0100	2.5729E-05	2.5729E-05	197.32	38.30%	2	38.30%	2	21/2010 12:00			
3	246341003.1	437.58	0.0928	0.0100	0.0100	2.5729E-05	2.5729E-05	344.81	21.20%	3	21.20%	3	21/2010 12:00			
4	246341004.1	386.16	0.0556	0.0100	0.0100	2.5729E-05	2.5729E-05	330.55	14.40%	4	14.40%	4	21/2010 12:00			
5	246341005.1	434.27	0.0460	0.0100	0.0100	2.5729E-05	2.5729E-05	388.24	10.60%	5	10.60%	5	21/2010 12:00			
6	246341006.1	355.44	0.0981	0.0100	0.0100	2.5729E-05	2.5729E-05	257.34	27.60%	6	27.60%	6	21/2010 12:00			
7	246341007.1	415.11	0.0245	0.0100	0.0100	2.5729E-05	2.5729E-05	390.62	5.90%	7	5.90%	7	21/2010 12:00			
8	246341008.1	291.44	0.0892	0.0100	0.0100	2.5729E-05	2.5729E-05	202.26	30.60%	8	30.60%	8	21/2010 12:00			
9	246341009.1	409.04	0.0851	0.0100	0.0100	2.5729E-05	2.5729E-05	323.96	20.60%	9	20.60%	9	21/2010 12:00			
10	246341001.1	296.44	0.0753	0.0100	0.0100	2.5729E-05	2.5729E-05	221.14	25.40%	10	25.40%	10	21/2010 12:00			
11	246341002.1	304.50	0.0761	0.0100	0.0100	2.5729E-05	2.5729E-05	228.38	25.00%	11	25.00%	11	21/2010 12:00			
12	246341003.1	426.35	0.0222	0.0100	0.0100	2.5729E-05	2.5729E-05	404.18	5.20%	12	5.20%	12	21/2010 12:00			
13	246341004.1	504.50	0.0787	0.0100	0.0100	2.5729E-05	2.5729E-05	425.80	15.60%	13	15.60%	13	21/2010 12:00			
14	246341005.1	197.52	0.0942	0.0100	0.0100	2.5729E-05	2.5729E-05	103.30	47.70%	14	47.70%	14	21/2010 12:00			
15	246441001.1	431.80	0.0777	0.0100	0.0100	2.5729E-05	2.5729E-05	353.91	18.00%	15	18.00%	15	21/2010 12:00			
16	246441002.1	335.90	0.0689	0.0100	0.0100	2.5729E-05	2.5729E-05	267.04	20.50%	16	20.50%	16	21/2010 12:00			
17	246441003.1	469.19	0.0319	0.0100	0.0100	2.5729E-05	2.5729E-05	437.29	6.80%	17	6.80%	17	21/2010 12:00			
18	246441004.1	448.33	0.0735	0.0100	0.0100	2.5729E-05	2.5729E-05	374.80	16.40%	18	16.40%	18	21/2010 12:00			
19	246441005.1	285.47	0.0782	0.0100	0.0100	2.5729E-05	2.5729E-05	207.25	27.40%	19	27.40%	19	21/2010 12:00			
20	1202042910.1	20.00	0.0200	0.0100	0.0100	2.5729E-05	2.5729E-05	0.00	100.00%	20	100.00%	20	21/2010 12:00			
21	1202042911.1	458.66	0.0831	0.0100	0.0100	2.5729E-05	2.5729E-05	365.55	20.30%	1	20.30%	1	21/2010 12:00			
22	1202042912.1	20.00	0.0200	0.0100	0.0100	2.5729E-05	2.5729E-05	0.00	100.00%	21	100.00%	21	21/2010 12:00			

Count raw data				Background				Calibration Data				Detector				Backgrounds	
Pos.	Rack	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 Error (cpm/dpm)	Rack	Position #	Count Start Date/Time	
1	14-2	95	109.5	3.85	3.37	95	2/19/2010 8:55	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	14-1		2/19/2010 7:17	
2	14-3	95	110.4	3.64	3.37	95	2/19/2010 10:33	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	14-1		2/19/2010 7:17	
3	14-4	95	110.3	5.34	3.37	95	2/19/2010 12:11	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	14-1		2/19/2010 7:17	
4	14-5	95	112.7	7.18	3.37	95	2/19/2010 13:49	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2350	0.00792	14-1		2/19/2010 7:17	
5	14-6	95	109.5	4.85	3.37	95	2/19/2010 15:27	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	14-1		2/19/2010 7:17	
6	14-7	95	113	3.65	3.37	95	2/19/2010 17:05	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2348	0.00792	14-1		2/19/2010 7:17	
7	14-8	95	109.4	6.82	3.37	95	2/19/2010 18:43	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	14-1		2/19/2010 7:17	
8	14-9	95	110.1	3.37	3.37	95	2/19/2010 20:21	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	14-1		2/19/2010 7:17	
9	14-10	95	110.4	5.27	3.37	95	2/19/2010 22:00	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	14-1		2/19/2010 7:17	
10	14-11	95	112	5.12	3.37	95	2/19/2010 23:38	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2354	0.00792	14-1		2/19/2010 7:17	
11	14-12	95	110.6	4.41	3.37	95	2/20/2010 1:16	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	14-1		2/19/2010 7:17	
12	49-1	95	109.4	3.97	3.37	95	2/20/2010 4:08	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	14-1		2/19/2010 7:17	
13	49-2	95	108.9	4.44	3.37	95	2/20/2010 5:46	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	14-1		2/19/2010 7:17	
14	49-3	95	108.7	4.62	3.37	95	2/20/2010 7:24	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2372	0.00792	14-1		2/19/2010 7:17	
15	49-4	95	108.5	4.6	3.37	95	2/20/2010 9:02	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	14-1		2/19/2010 7:17	
16	49-5	95	108.2	3.47	3.37	95	2/20/2010 10:40	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2370	0.00792	14-1		2/19/2010 7:17	
17	49-6	95	108.9	7.34	3.37	95	2/20/2010 12:18	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	14-1		2/19/2010 7:17	
18	49-7	95	109	5.56	3.37	95	2/20/2010 13:56	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	14-1		2/19/2010 7:17	
19	49-8	95	109.4	3.85	3.37	95	2/20/2010 15:34	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	14-1		2/19/2010 7:17	
20	49-9	95	109	3.45	3.37	95	2/20/2010 17:12	0.998	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	14-1		2/19/2010 7:17	
21	49-10	95	108.1	3.45	3.37	95	2/20/2010 18:50	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2375	0.00792	14-1		2/19/2010 7:17	
22	20-1	15	108.4	30.13	3.37	95	2/20/2010 20:27	0.998	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	14-1		2/19/2010 7:17	

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 1202042911.1

Pos.	Results		Critical Level	Required MDC	MDC	Sample Act. Conc.	Sample Act. Error	Net Count Rate	Net Count Rate Error	1 SIGMA		Sample QC	Sample Type	RPD	RER	Nominal	Recovery
	Decision Level	pc/L				pc/L	pc/L	CPM	CPM	Counting Uncertainty	Total Prop. Uncertainty						
1	118.3672	83.5882	250	173.1583	53.4029	0.971	0.280	0.272	51.8458	51.9791		SAMPLE					
2	118.6066	83.7373	250	173.5096	51.5999	1.006	0.270	0.272	51.9137	52.0378		SAMPLE					
3	118.5804	83.7188	250	173.4713	378.4047	0.154	1.970	0.303	57.8544	83.5168		SAMPLE					
4	119.3080	84.2325	250	174.5357	782.4374	0.088	3.810	0.333	64.0634	81.8925		SAMPLE					
5	118.3721	83.5717	250	173.1868	282.2845	0.199	1.480	0.294	56.1047	59.4497		SAMPLE					
6	119.4111	84.3053	250	174.6865	53.8739	0.871	0.280	0.272	52.3031	52.4375		SAMPLE					
7	118.3494	83.5557	250	173.1333	678.9713	0.093	3.550	0.329	62.7607	78.4982		SAMPLE					
8	118.5324	83.6848	250	173.4011	0.000E+00	0.000	0.000	0.266	50.8723	50.8725		SAMPLE					
9	118.6153	83.7434	250	173.5224	383.1368	0.159	1.900	0.302	57.6384	62.9432		SAMPLE					
10	119.0882	84.0780	250	174.2156	335.8044	0.171	1.750	0.289	57.3641	61.9487		SAMPLE					
11	118.6734	83.7845	250	173.6074	198.8670	0.275	1.040	0.286	54.7214	56.4471		SAMPLE					
12	118.3565	83.5807	250	173.1438	114.4248	0.463	0.600	0.278	53.0086	53.6053		SAMPLE					
13	118.2354	83.4752	250	172.8666	203.8483	0.288	1.070	0.287	54.8245	56.4394		SAMPLE					
14	118.1894	83.4428	250	172.8994	238.0480	0.232	1.250	0.290	55.2289	57.6637		SAMPLE					
15	118.3480	83.5554	250	173.1328	234.9555	0.238	1.230	0.290	55.2342	57.5984		SAMPLE					
16	118.2753	83.5034	250	173.0250	18.0577	2.683	0.100	0.268	51.1371	51.1544		SAMPLE					
17	118.4549	83.6301	250	173.2876	757.7384	0.085	3.970	0.336	64.0858	83.0190		SAMPLE					
18	118.2291	83.4708	250	172.9574	417.2002	0.140	2.190	0.307	58.4089	65.2355		SAMPLE					
19	118.3287	83.5411	250	173.1032	91.5182	0.574	0.490	0.276	52.5821	52.9472		SAMPLE					
20	117.9880	83.2991	250	172.8017	15.2089	3.349	0.080	0.268	50.9374	50.9484		MB					
21	118.0626	83.3532	250	172.7138	15.2187	3.349	0.080	0.268	50.9705	50.9815	246341001.1	DJP	0.0%	0.1854	5553.8788	91.7%	
22	226.1177	159.6410	250	357.3365	5091.8778	0.054	26.760	1.430	272.0384	446.9476		LCS					

Instrument Type LS 6000
 Data Capture Date 19 Feb 2010 07:14:54
 User Filename C:\LSCCAPTURE\BROWN\USER13\UN021901.BSF

User Number 13
 User Id TRITIUM
 User Comments BROWN

Scintillator Choice: LIQUID

Sam	Rack	Time	H#	Raw CPM1	CPM Iso1	%Err1	LumEx	EITime
1	14-1	95.00	110.1	3.61	3.37	11.58	0.57	97.57
2	14-2	95.00	109.5	3.92	3.65	11.12	0.66	195.66
3	14-3	95.00	110.4	3.91	3.64	11.13	0.63	293.75
4	14-4	95.00	110.3	5.59	5.34	9.09	0.57	391.82
5	14-5	95.00	112.7	7.40	7.18	7.78	0.49	489.87
6	14-6	95.00	109.5	5.07	4.85	9.52	0.55	587.93
7	14-7	95.00	113.0	3.87	3.65	11.06	0.56	685.98
8	14-8	95.00	109.4	7.13	6.92	7.92	0.49	784.03
9	14-9	95.00	110.1	3.59	3.37	11.54	0.56	882.09
10	14-10	95.00	110.4	5.53	5.27	9.15	0.59	980.17
11	14-11	95.00	112.0	5.33	5.12	9.26	0.49	1078.20
12	14-12	95.00	110.6	4.61	4.41	9.99	0.50	1176.24

Instrument Type LS 6000
 Data Capture Date 20 Feb 2010 04:05:38
 User Filename C:\LSCCAPTURE\BROWN\USER13\UN022001.BSF

User Number 13
 User Id TRITIUM
 User Comments BROWN

Scintillator Choice: LIQUID

Sam	Rack	Time	H#	Raw CPM1	CPM Iso1	%Err1	LumEx	ElTime
1	49-1	95.00	109.4	4.15	3.97	10.53	0.44	97.54
2	49-2	95.00	108.9	4.62	4.44	9.93	0.43	195.55
3	49-3	95.00	108.7	4.79	4.62	9.72	0.40	293.55
4	49-4	95.00	109.5	4.78	4.60	9.75	0.44	391.58
5	49-5	95.00	109.2	3.65	3.47	11.29	0.42	489.60
6	49-6	95.00	109.9	7.49	7.34	7.66	0.37	587.60
7	49-7	95.00	109.0	5.72	5.56	8.83	0.40	685.62
8	49-8	95.00	109.4	4.03	3.85	10.69	0.45	783.63
9	49-9	95.00	109.0	3.63	3.45	11.33	0.43	881.64
10	49-10	95.00	108.1	3.64	3.45	11.34	0.44	979.66

Filename: 2:02 P Mab

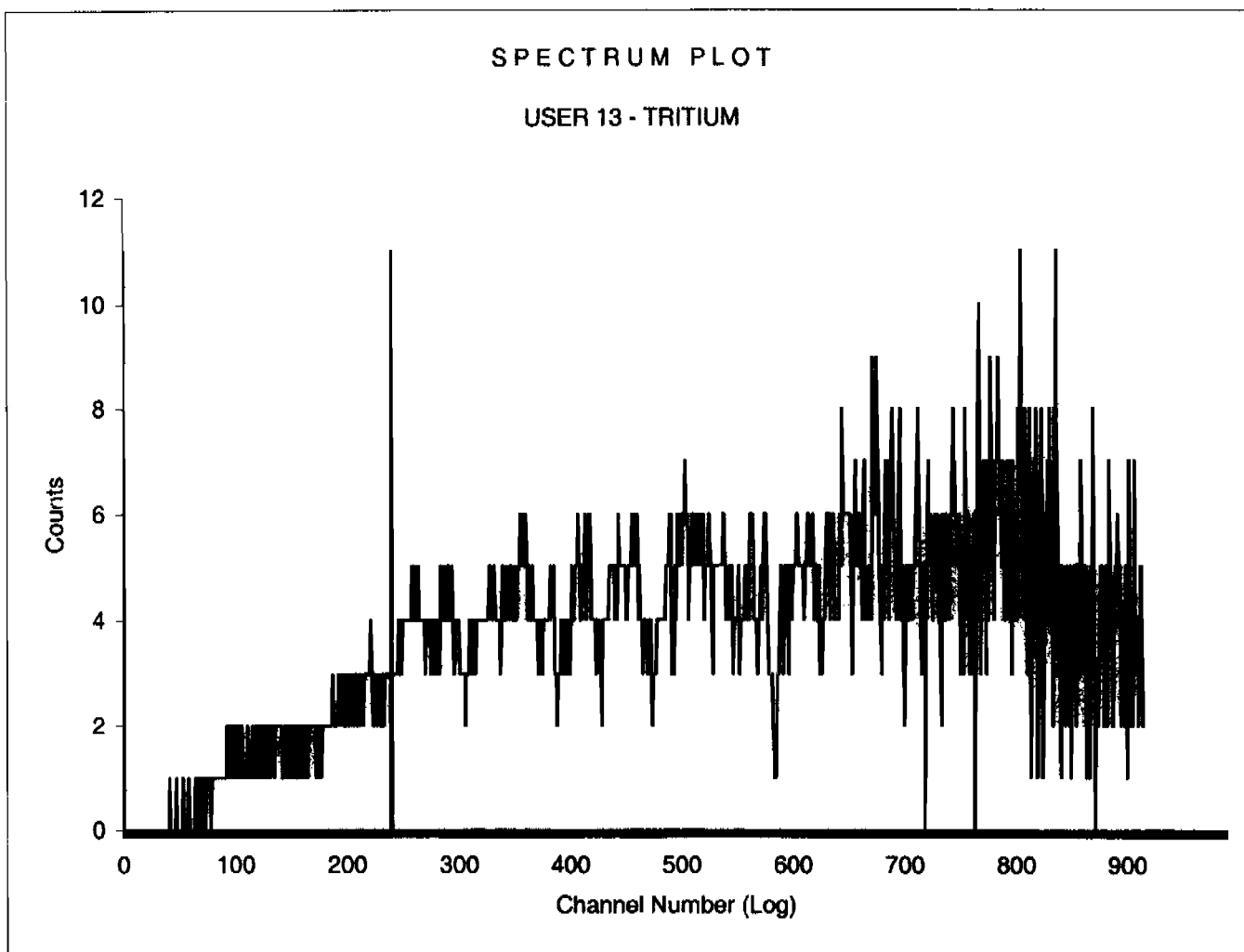
Instrument Type LS 6000
Data Capture Date 20 Feb 2010 20:26:15
User Filename C:\LSCCAPTURE\BROWN\USER06\UN022001.BSF

User Number 6
User Id TRITIUM
User Comments BROWN

Scintillator Choice: LIQUID

Sam	Rack	Time	H#	Raw CPM1	CPM Iso1	%Err1	LumEx	ElTime
1	20-1	15.00	109.4	30.20	30.13	9.42	0.21	15.78

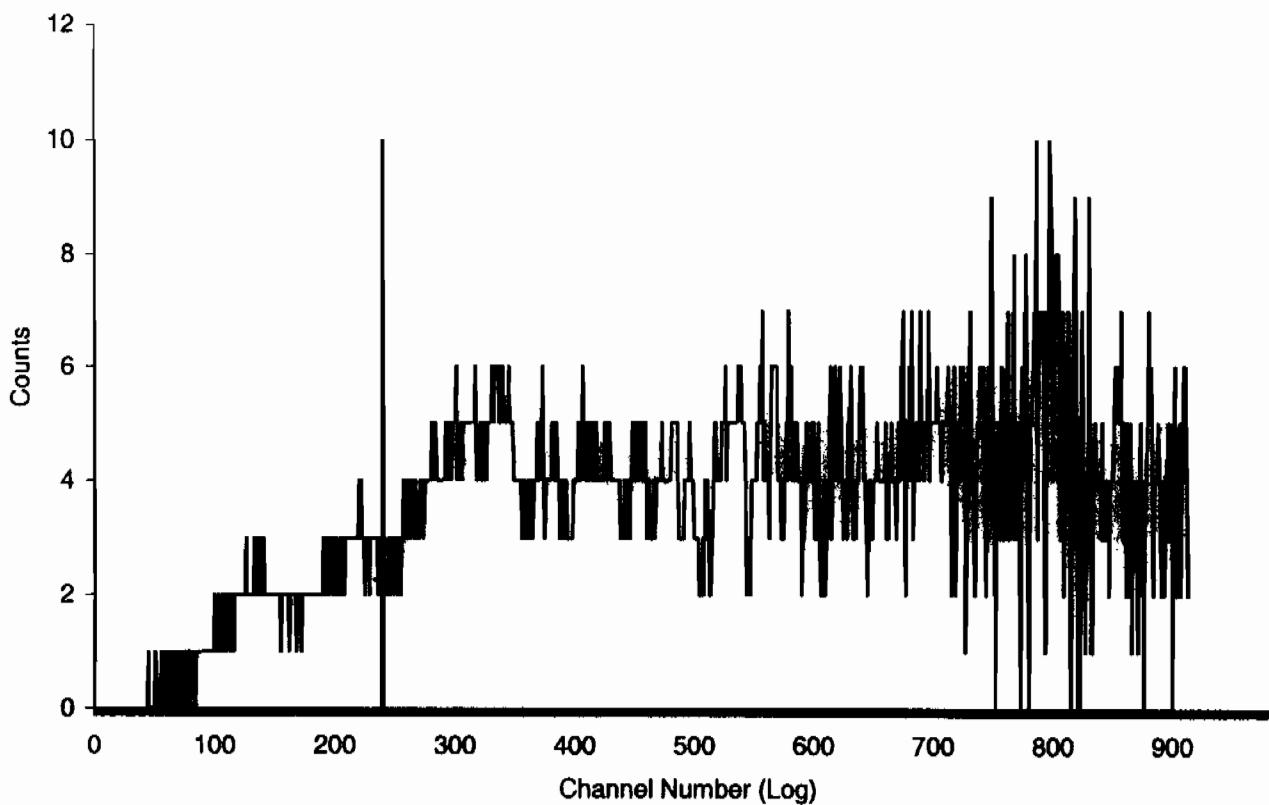
Sample Count Start Time:	19 Feb 2010 07:17:28		
Data Capture Date	19 Feb 2010 08:52:36		
User Filename	S13021914-1A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	14-1	95.00
H#, Total Counts:	110.1	3393	
Win1: Tritium - Start, End, Counts:	0	240	320
Win2: - Start, End, Counts:	0	990	3393



Sample Count Start Time:	19 Feb 2010 08:55:34		
Data Capture Date	19 Feb 2010 10:30:41		
User Filename	S13021914-2A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	14-2	95.00
H#, Total Counts:	109.5	3215	
Win1: Tritium - Start, End, Counts:	0	240	347
Win2: - Start, End, Counts:	0	990	3215

SPECTRUM PLOT

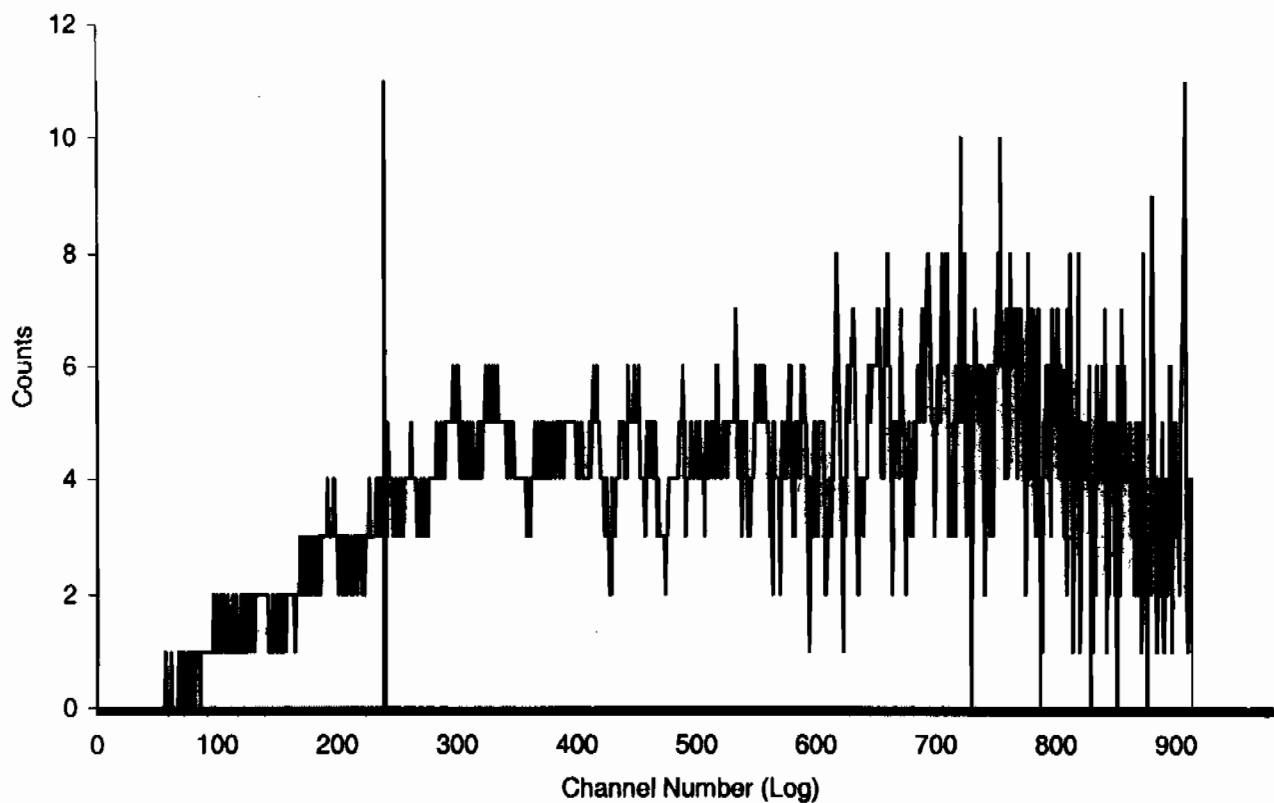
USER 13 - TRITIUM



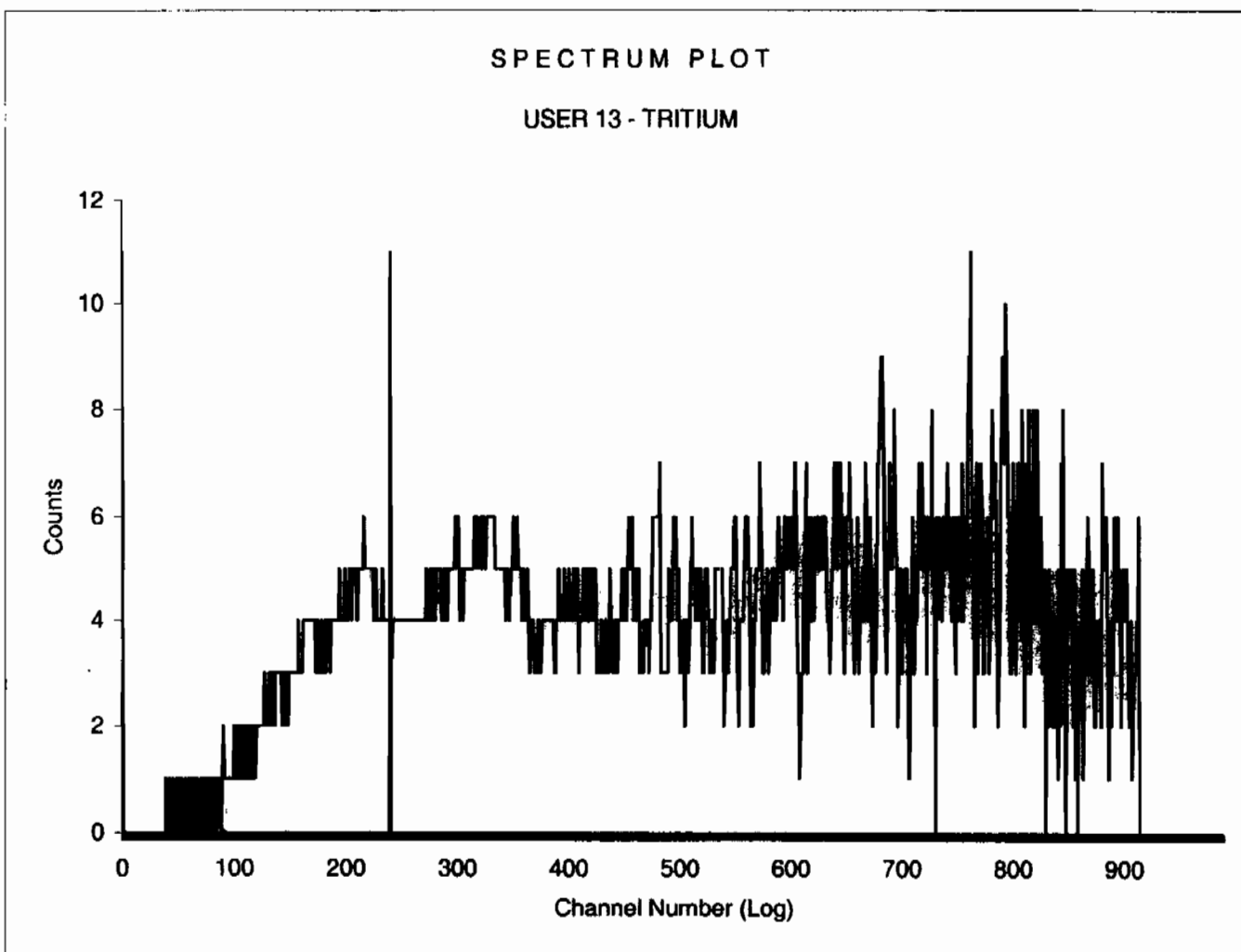
Sample Count Start Time:	19 Feb 2010 10:33:39		
Data Capture Date	19 Feb 2010 12:09:01		
User Filename	S13021914-3A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	14-3	95.00
H#, Total Counts:	110.4	3392	
Win1: Tritium - Start, End, Counts:	0	240	346
Win2: - Start, End, Counts:	0	990	3392

SPECTRUM PLOT

USER 13 - TRITIUM



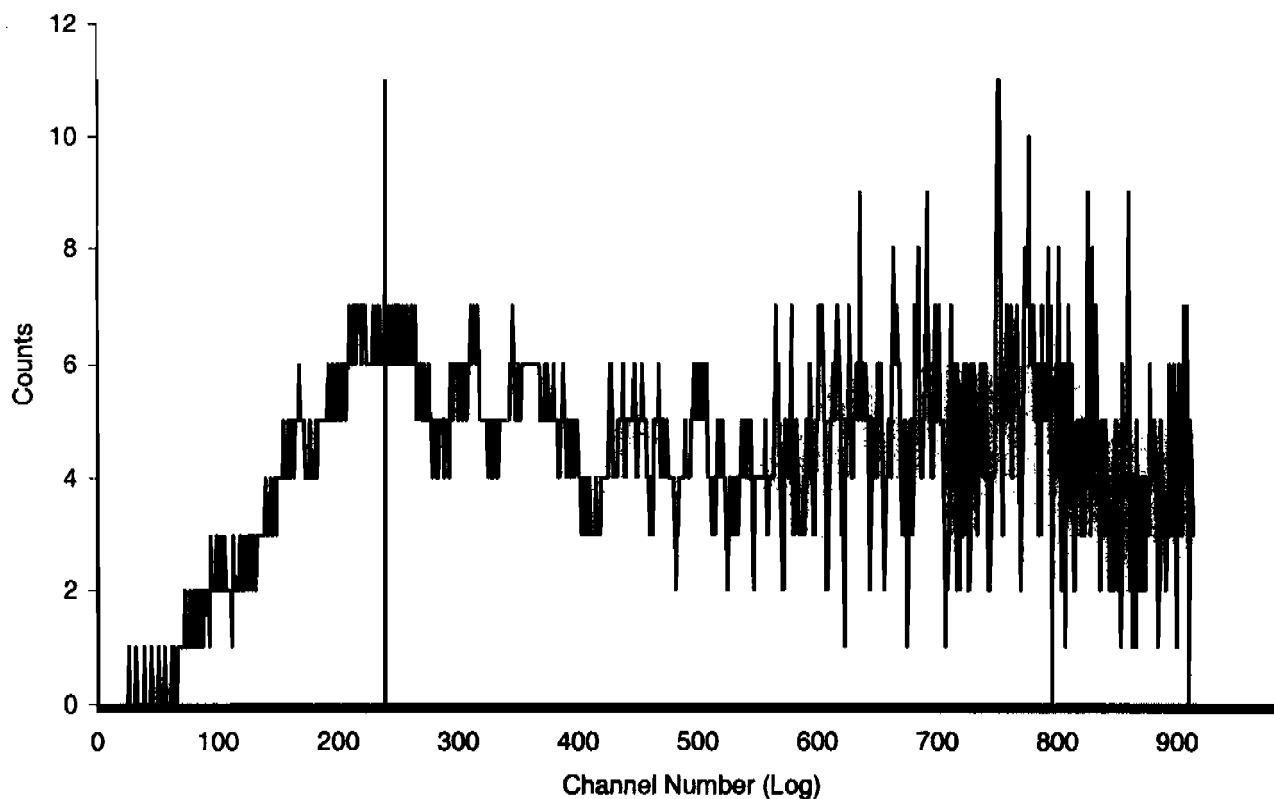
Sample Count Start Time:	19 Feb 2010 12:11:43		
Data Capture Date	19 Feb 2010 13:46:51		
User Filename	S13021914-4A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	14-4	95.00
H#, Total Counts:	110.3	3587	
Win1: Tritium - Start, End, Counts:	0	240	507
Win2: - Start, End, Counts:	0	990	3587



Sample Count Start Time:	19 Feb 2010 13:49:46		
Data Capture Date	19 Feb 2010 15:24:54		
User Filename	S13021914-5A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	14-5	95.00
H#, Total Counts:	112.7	3867	
Win1: Tritium - Start, End, Counts:	0	240	682
Win2: - Start, End, Counts:	0	990	3867

SPECTRUM PLOT

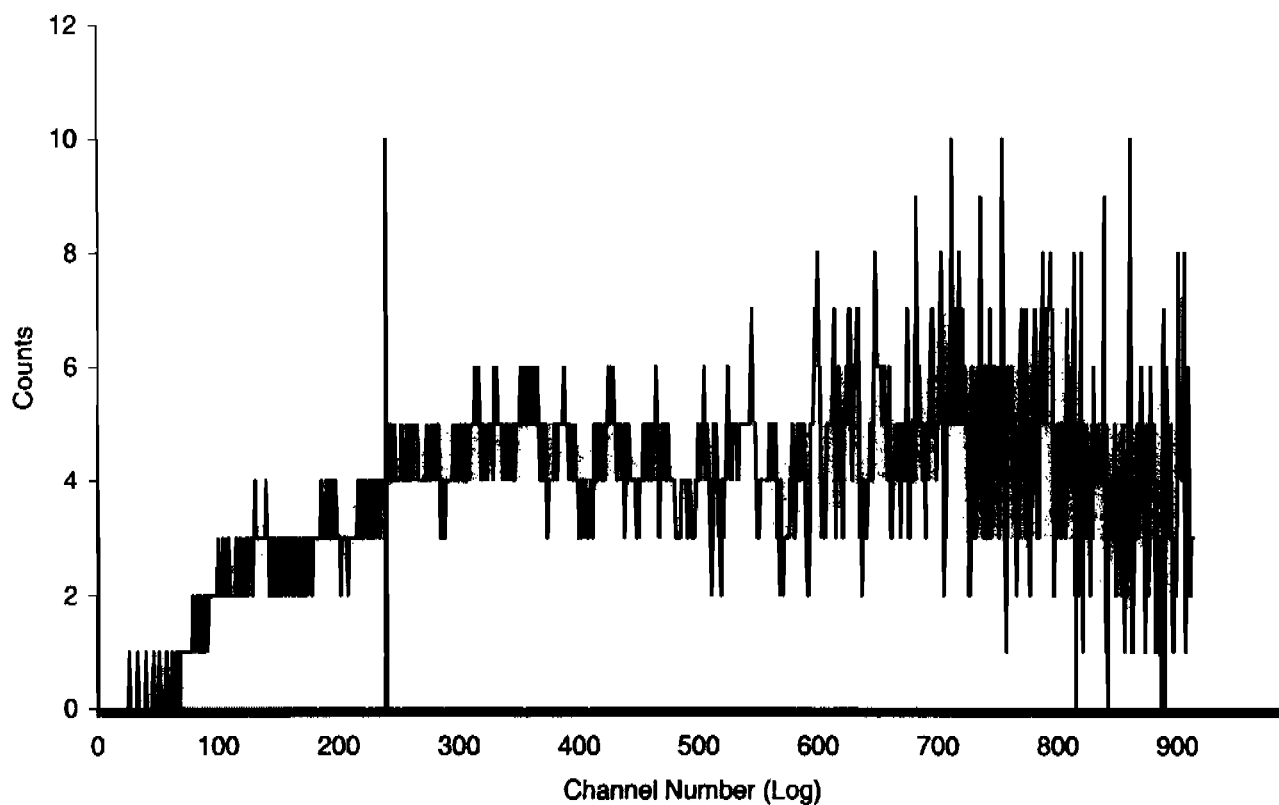
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 15:27:50		
Data Capture Date	19 Feb 2010 17:02:57		
User Filename	S13021914-6A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	14-6	95.00
H#, Total Counts:	109.5	3475	
Win1: Tritium - Start, End, Counts:	0	240	461
Win2: - Start, End, Counts:	0	990	3475

SPECTRUM PLOT

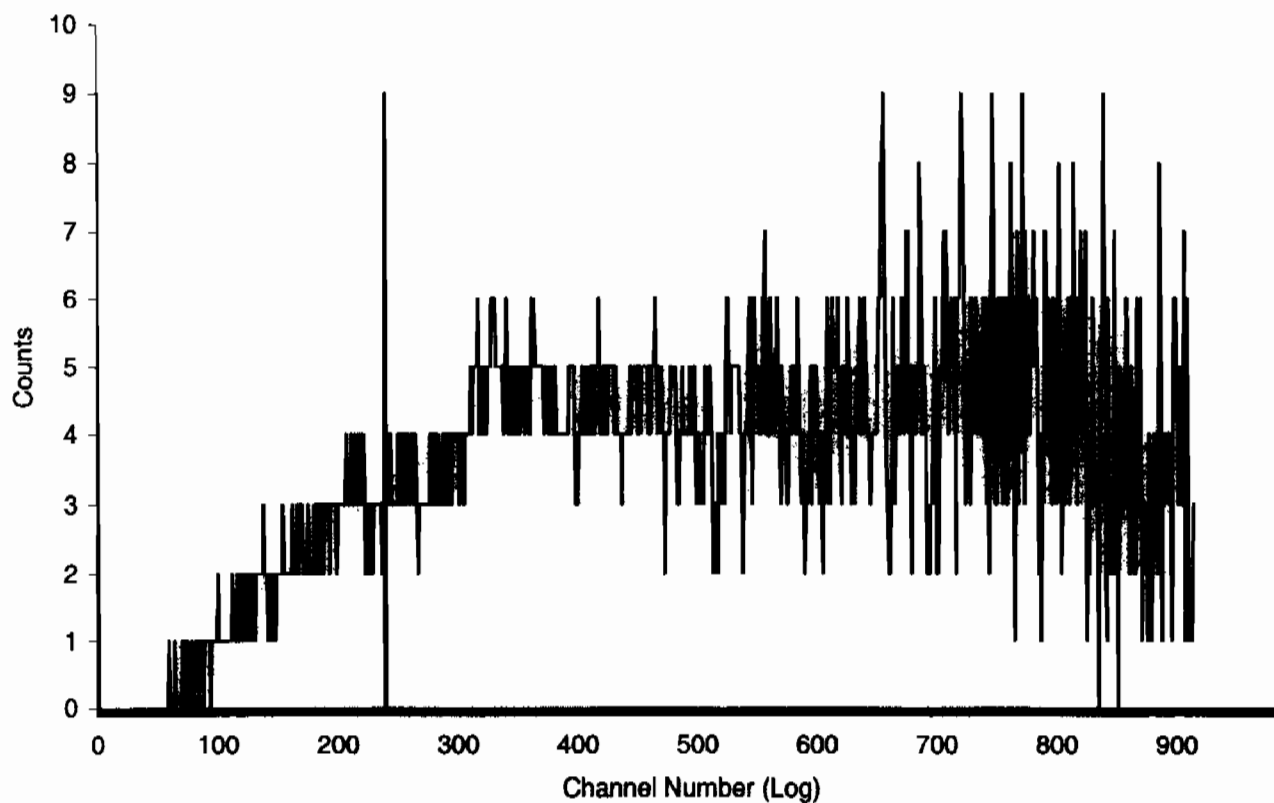
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 17:05:53		
Data Capture Date	19 Feb 2010 18:41:01		
User Filename	S13021914-7A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	14-7	95.00
H#, Total Counts:	113.0	3258	
Win1: Tritium - Start, End, Counts:	0	240	347
Win2: - Start, End, Counts:	0	990	3258

SPECTRUM PLOT

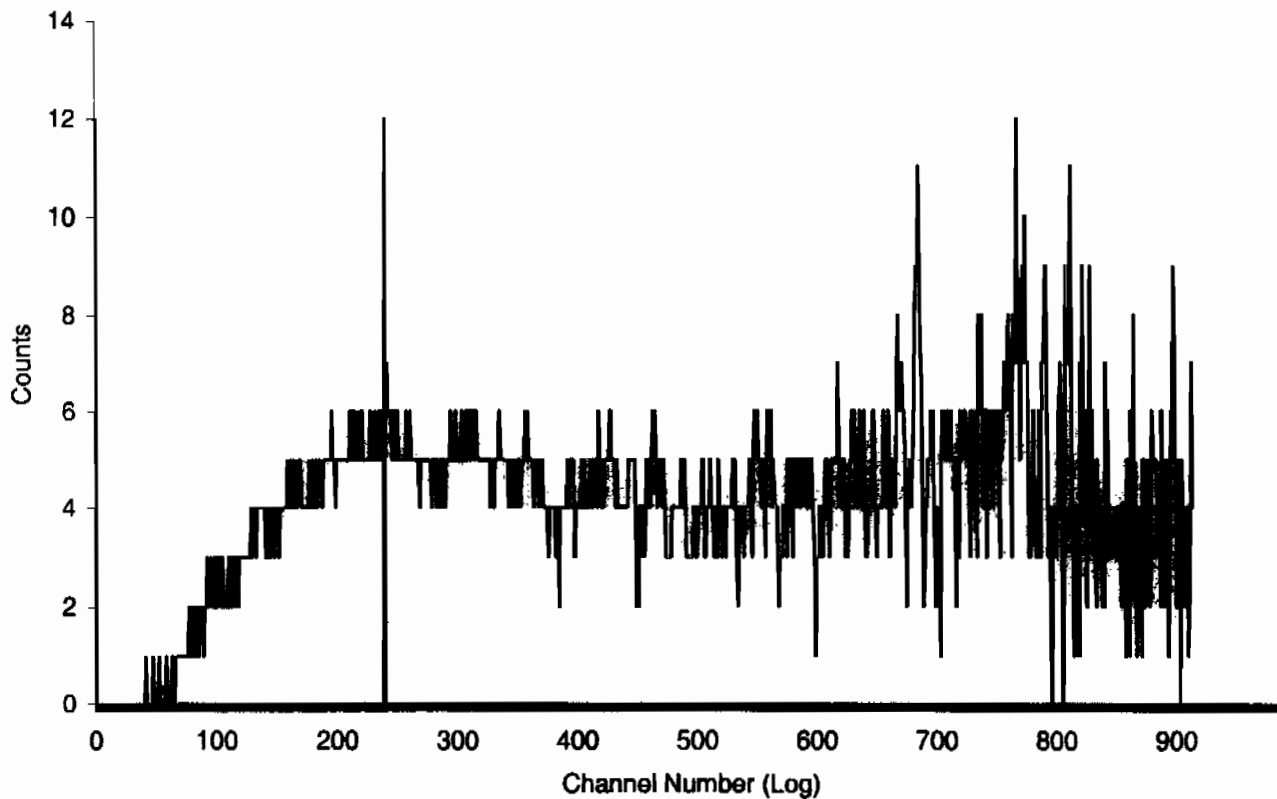
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 18:43:56		
Data Capture Date	19 Feb 2010 20:19:04		
User Filename	S13021914-8A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	14-8	95.00
H#, Total Counts:	109.4	3737	
Win1: Tritium - Start, End, Counts:	0	240	657
Win2: - Start, End, Counts:	0	990	3737

SPECTRUM PLOT

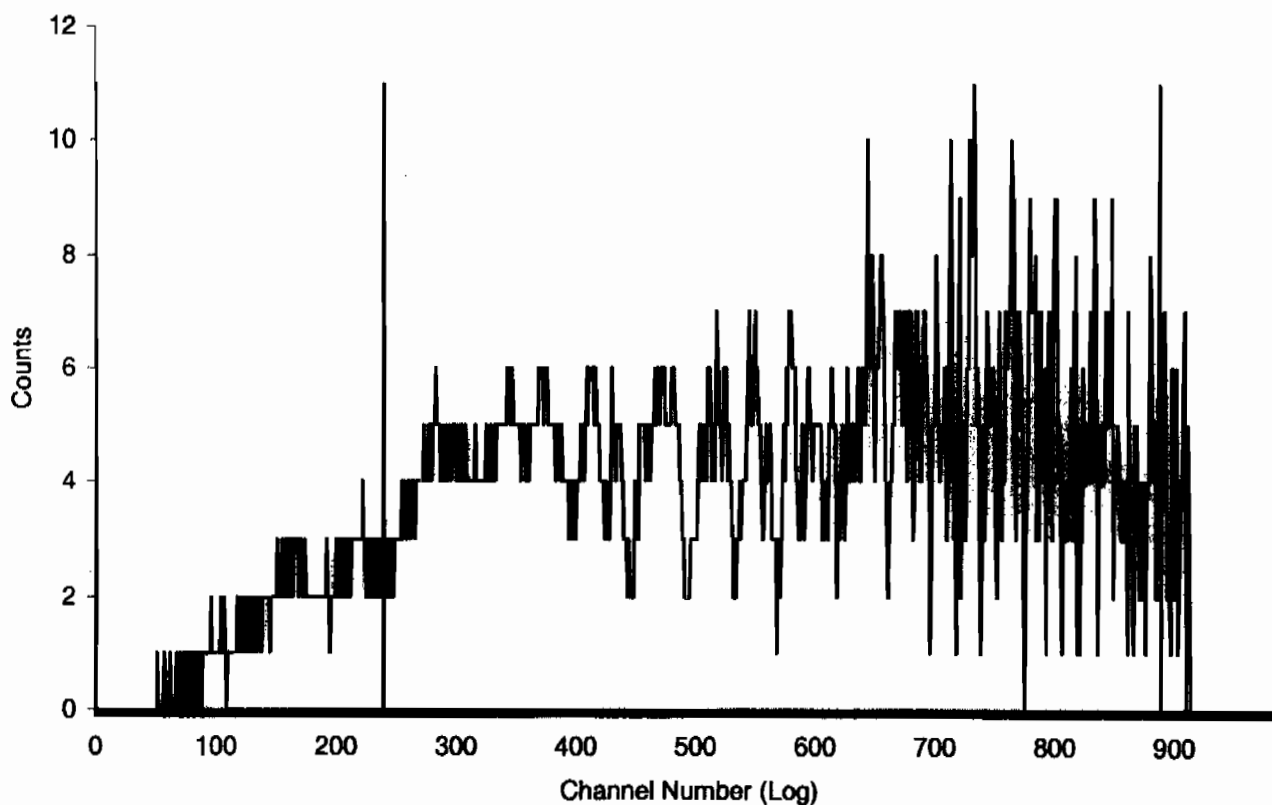
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 20:21:59		
Data Capture Date	19 Feb 2010 21:57:08		
User Filename	S13021914-9A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	14-9	95.00
H#, Total Counts:	110.1	3447	
Win1: Tritium - Start, End, Counts:	0	240	320
Win2: - Start, End, Counts:	0	990	3447

SPECTRUM PLOT

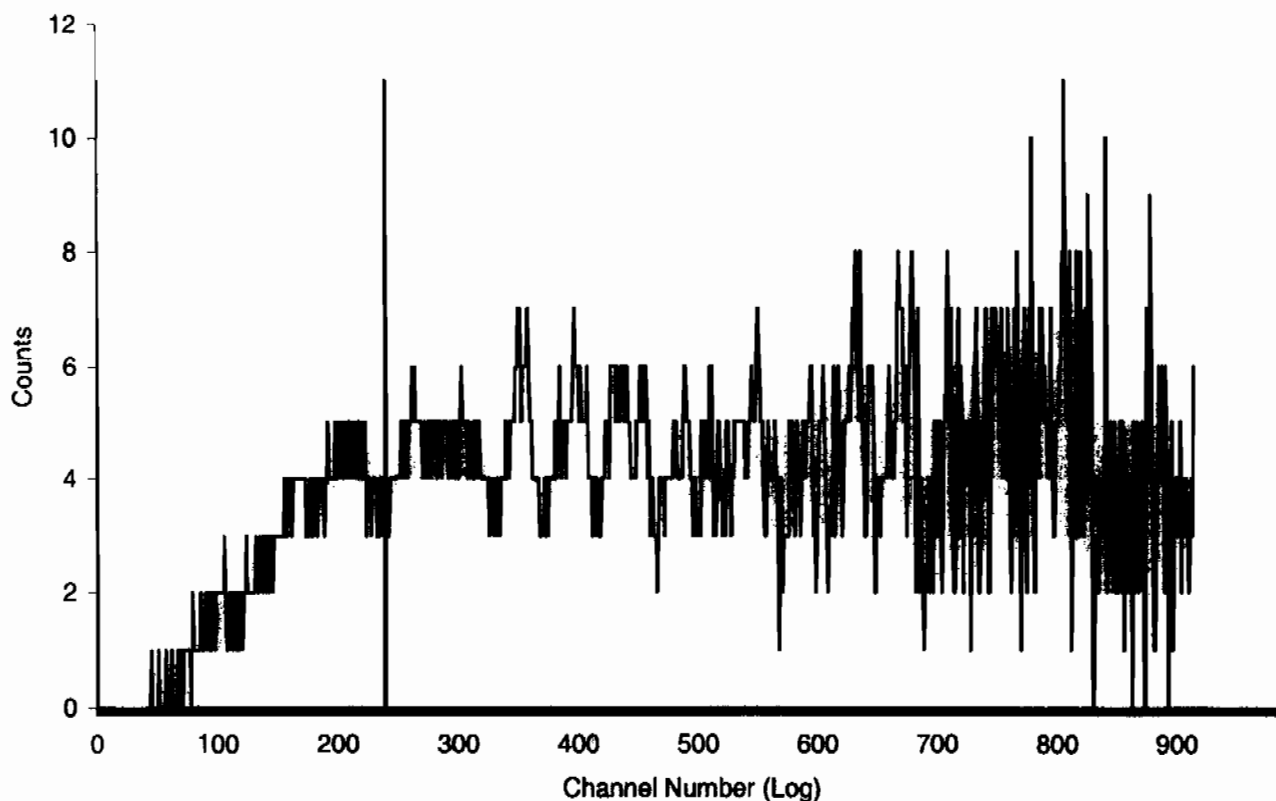
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 22:00:04		
Data Capture Date	19 Feb 2010 23:35:13		
User Filename	S13021914-10A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	14-10	95.00
H#, Total Counts:	110.4	3511	
Win1: Tritium - Start, End, Counts:	0	240	501
Win2: - Start, End, Counts:	0	990	3511

SPECTRUM PLOT

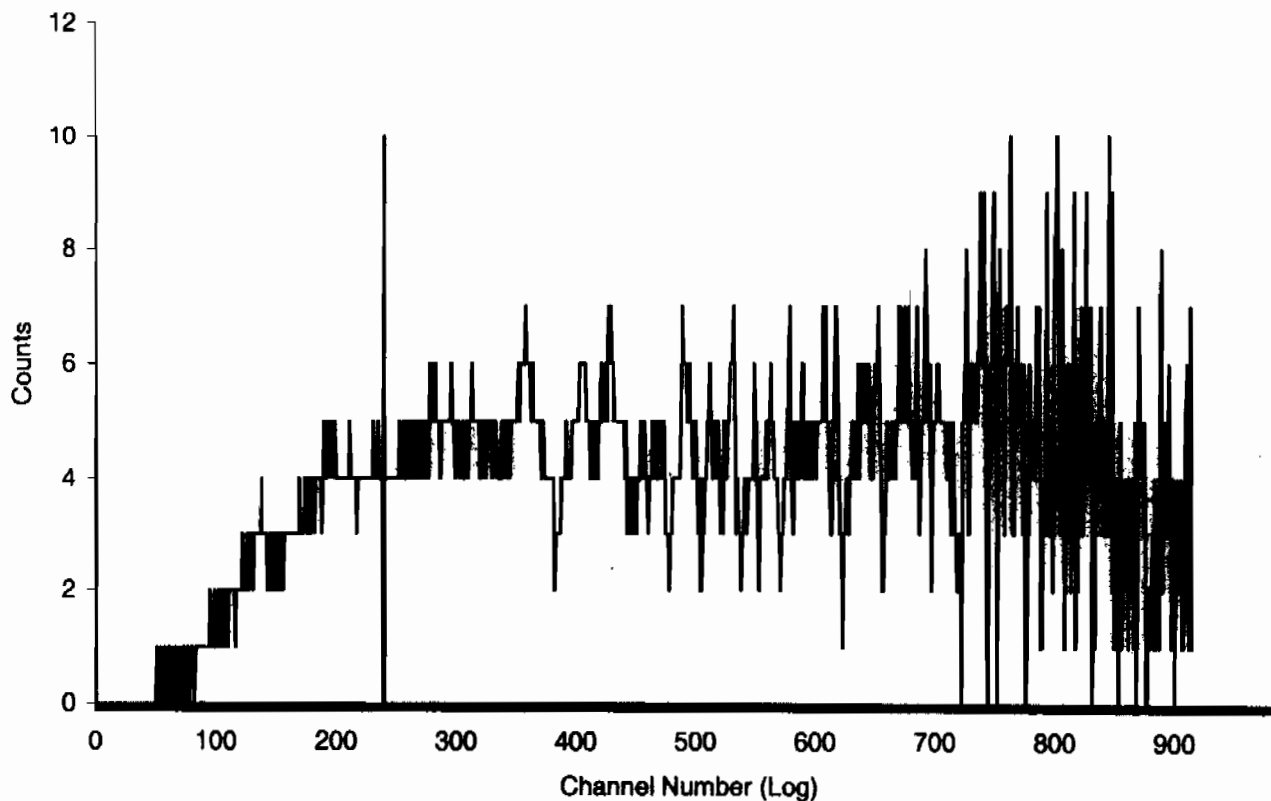
USER 13 - TRITIUM



Sample Count Start Time:	19 Feb 2010 23:38:06		
Data Capture Date	20 Feb 2010 01:13:15		
User Filename	S13022014-11A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	14-11	95.00
H#, Total Counts:	112.0	3536	
Win1: Tritium - Start, End, Counts:	0	240	486
Win2: - Start, End, Counts:	0	990	3536

SPECTRUM PLOT

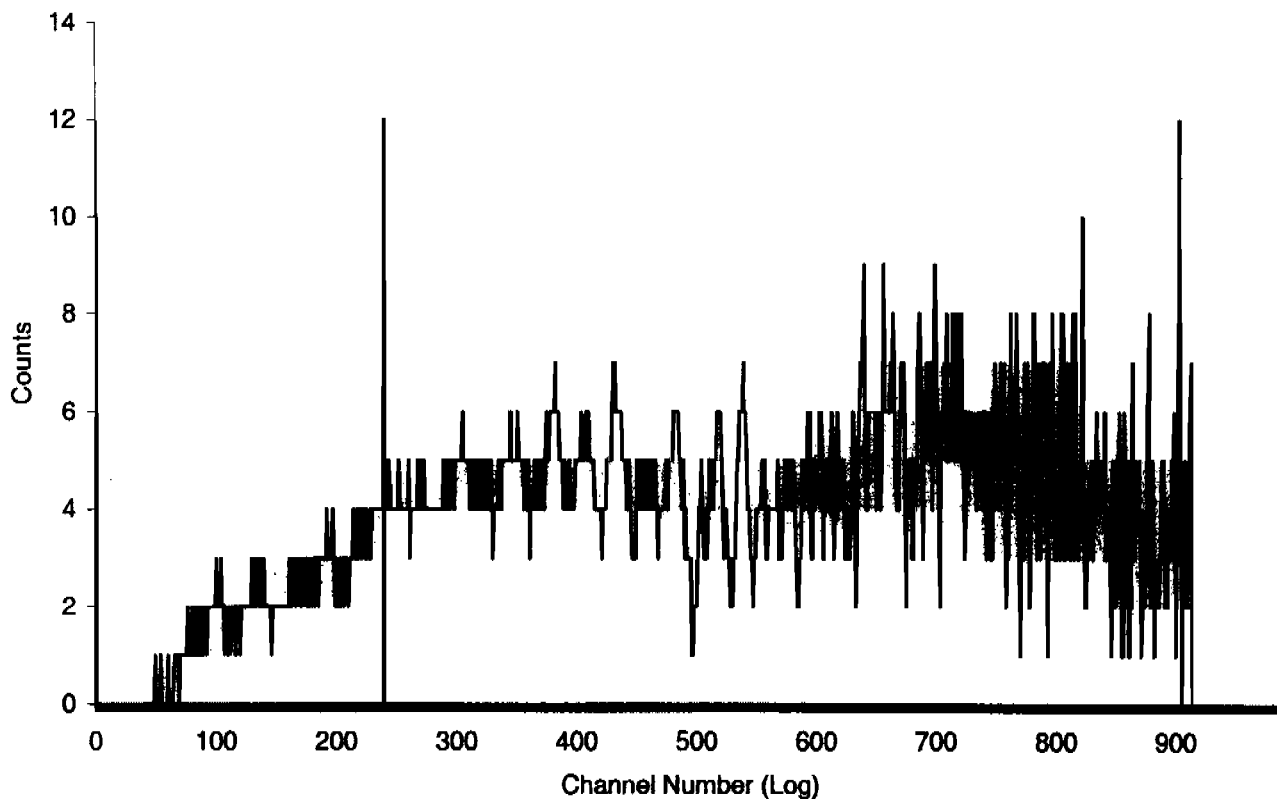
USER 13 - TRITIUM



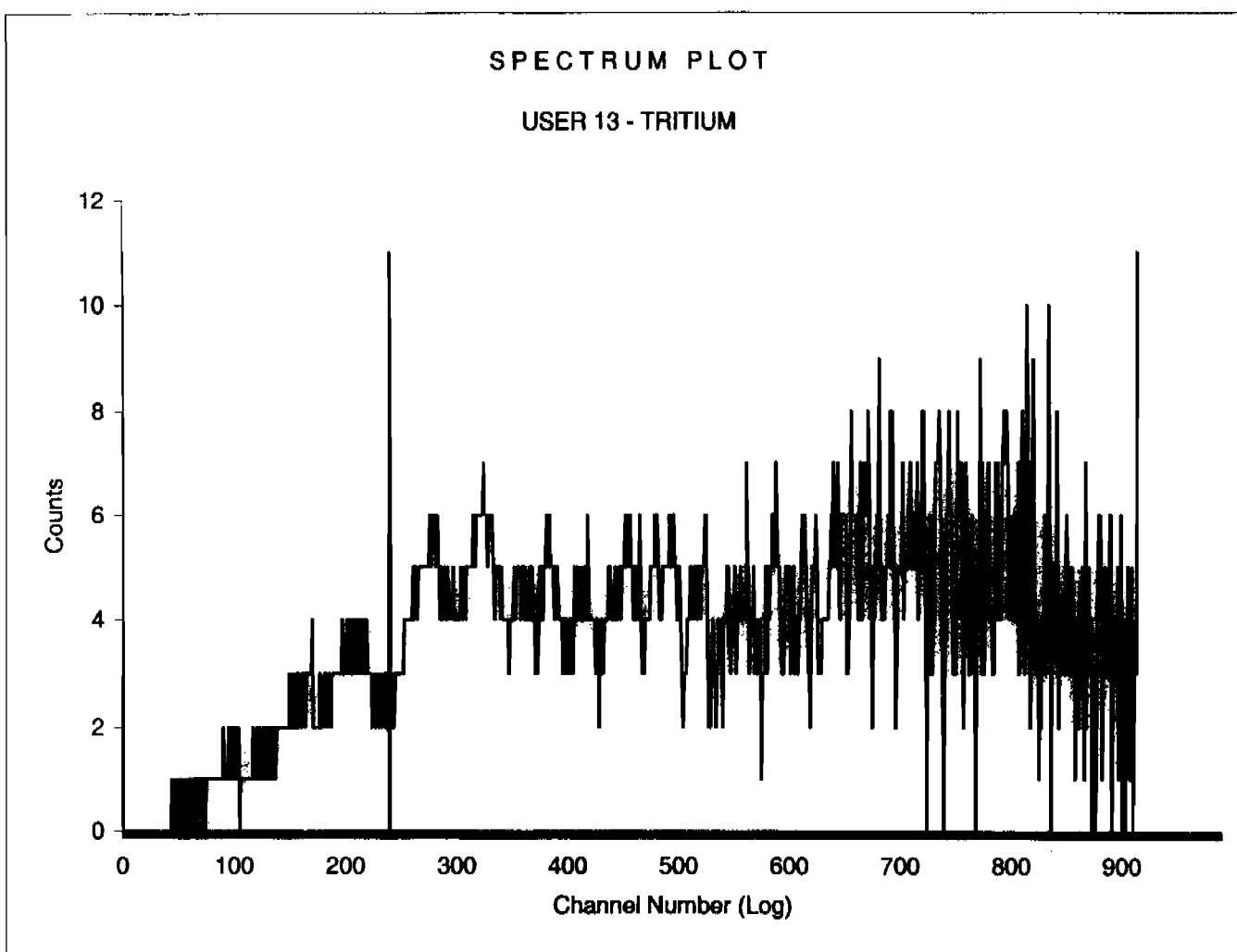
Sample Count Start Time:	20 Feb 2010 01:16:08		
Data Capture Date	20 Feb 2010 02:51:17		
User Filename	S13022014-12A.XLS		
	U13021914-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	14-12	95.00
H#, Total Counts:	110.6	3543	
Win1: Tritium - Start, End, Counts:	0	240	419
Win2: - Start, End, Counts:	0	990	3543

SPECTRUM PLOT

USER 13 - TRITIUM



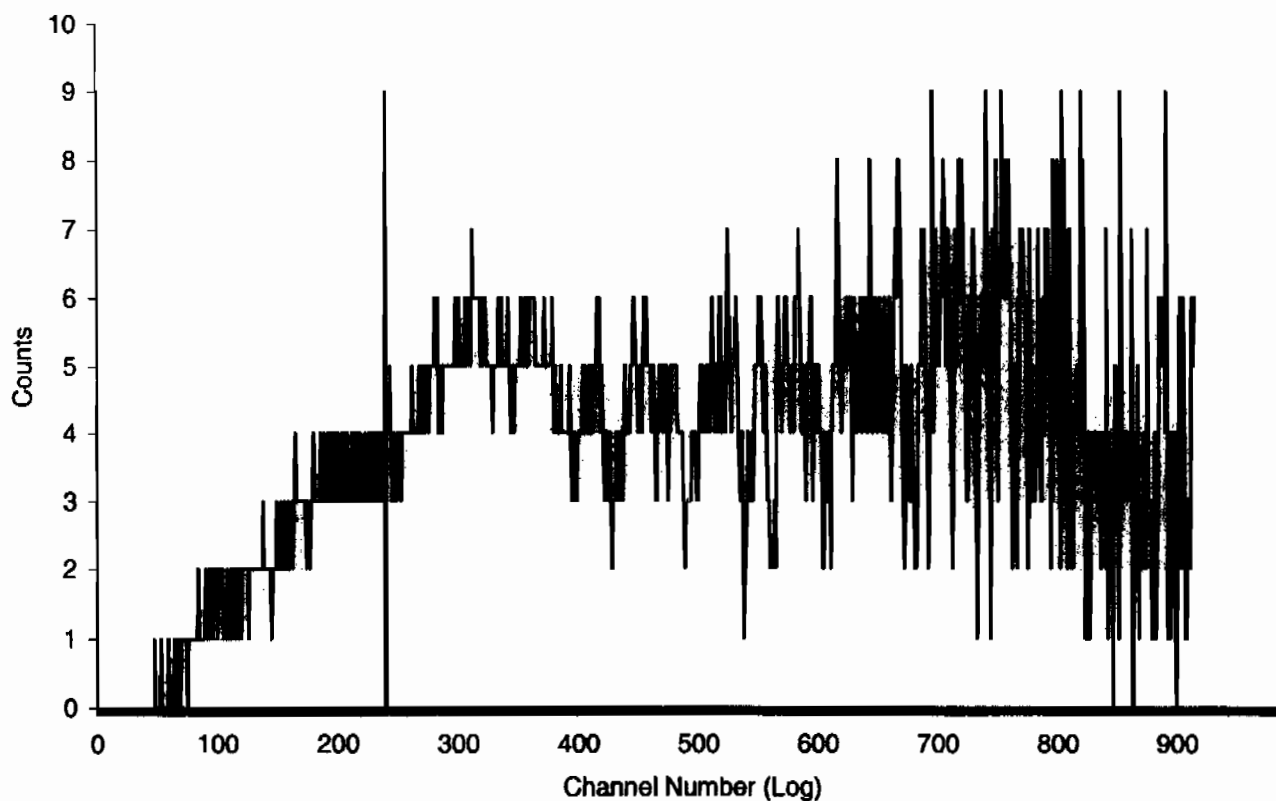
Sample Count Start Time:	20 Feb 2010 04:08:10		
Data Capture Date	20 Feb 2010 05:43:02		
User Filename	S13022049-1A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	49-1	95.00
H#, Total Counts:	109.4	3414	
Win1: Tritium - Start, End, Counts:	0	240	377
Win2: - Start, End, Counts:	0	990	3414



Sample Count Start Time:	20 Feb 2010 05:46:11		
Data Capture Date	20 Feb 2010 07:21:03		
User Filename	S13022049-2A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	49-2	95.00
H#, Total Counts:	108.9	3493	
Win1: Tritium - Start, End, Counts:	0	240	422
Win2: - Start, End, Counts:	0	990	3493

SPECTRUM PLOT

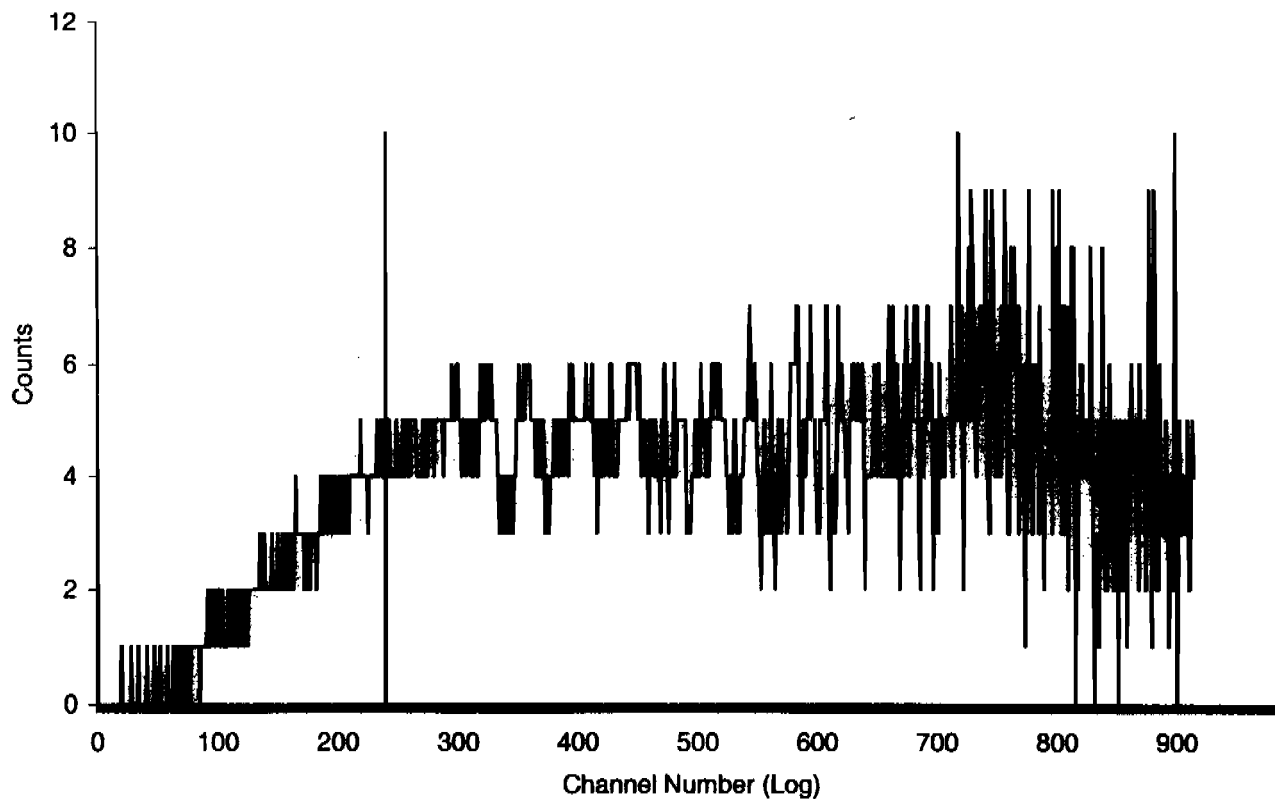
USER 13 - TRITIUM



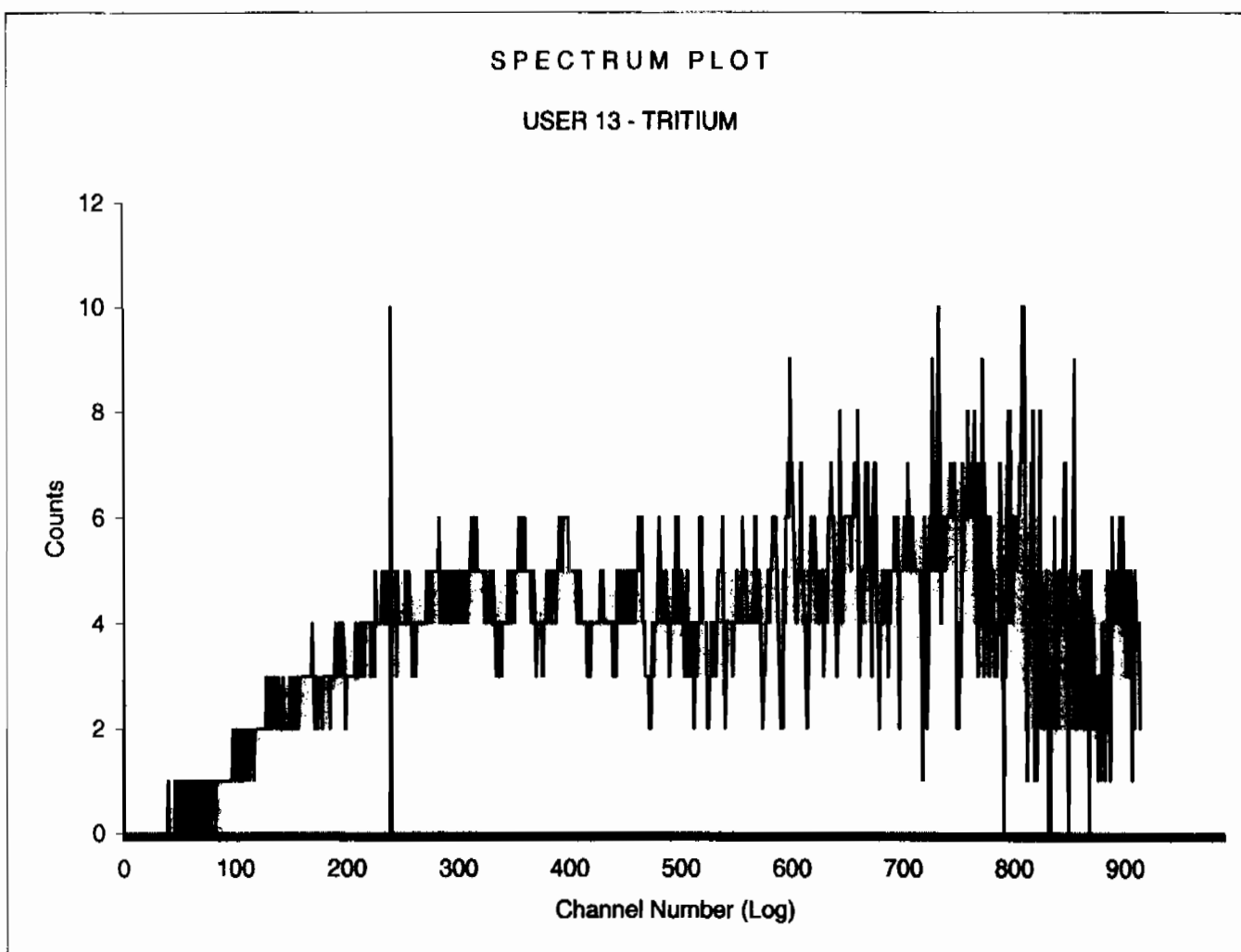
Sample Count Start Time:	20 Feb 2010 07:24:11		
Data Capture Date	20 Feb 2010 08:59:04		
User Filename	S13022049-3A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	49-3	95.00
H#, Total Counts:	108.7	3607	
Win1: Tritium - Start, End, Counts:	0	240	439
Win2: - Start, End, Counts:	0	990	3607

SPECTRUM PLOT

USER 13 - TRITIUM



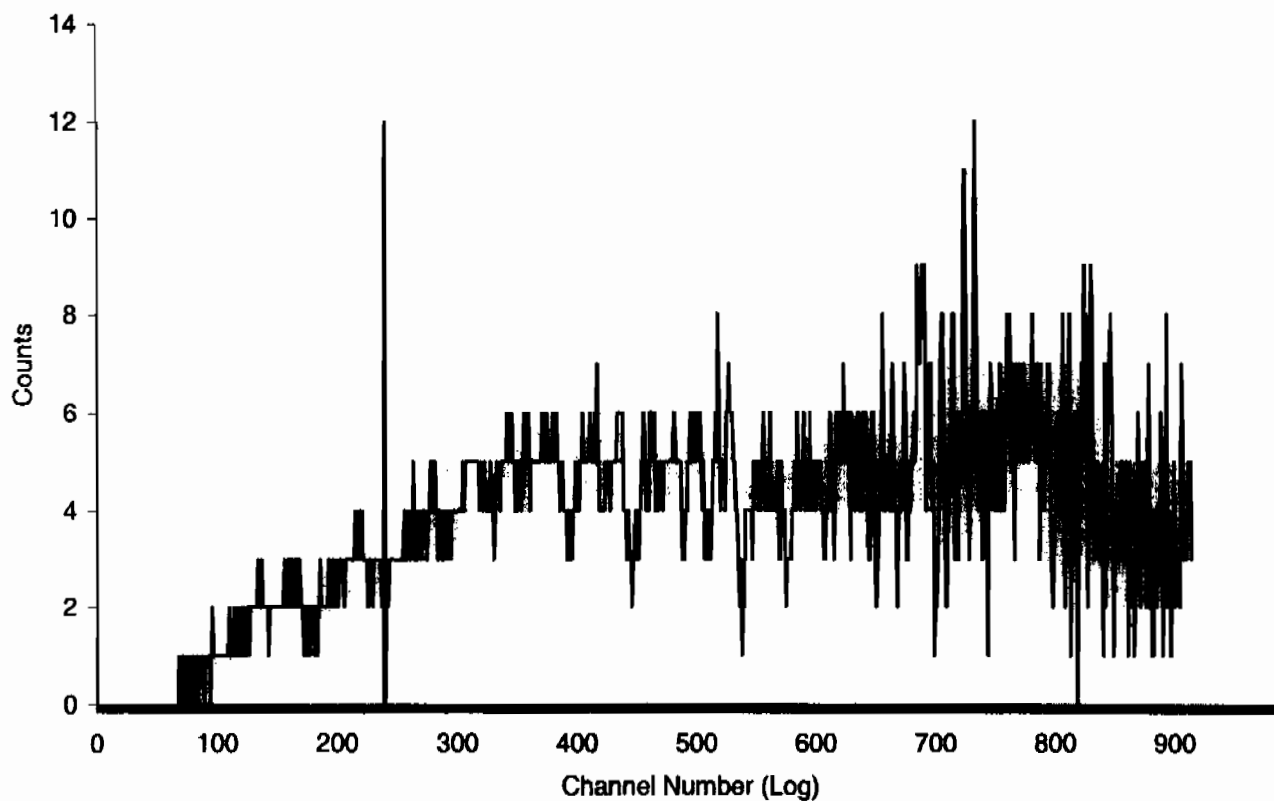
Sample Count Start Time:	20 Feb 2010 09:02:13		
Data Capture Date	20 Feb 2010 10:37:06		
User Filename	S13022049-4A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	49-4	95.00
H#, Total Counts:	109.5	3486	
Win1: Tritium - Start, End, Counts:	0	240	437
Win2: - Start, End, Counts:	0	990	3486



Sample Count Start Time:	20 Feb 2010 10:40:14		
Data Capture Date	20 Feb 2010 12:15:06		
User Filename	S13022049-5A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	49-5	95.00
H#, Total Counts:	109.2	3464	
Win1: Tritium - Start, End, Counts:	0	240	330
Win2: - Start, End, Counts:	0	990	3464

SPECTRUM PLOT

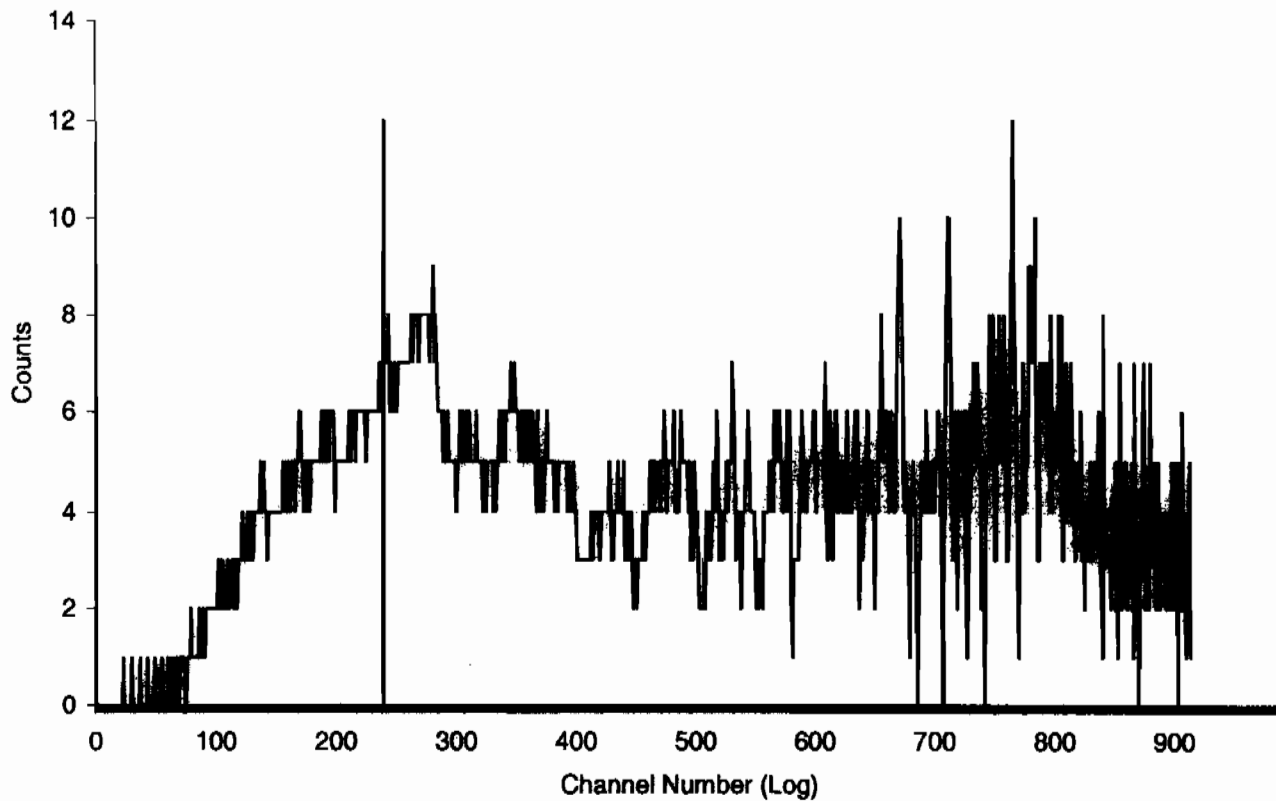
USER 13 - TRITIUM



Sample Count Start Time:	20 Feb 2010 12:18:14		
Data Capture Date	20 Feb 2010 13:53:07		
User Filename	S13022049-6A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	49-6	95.00
H#, Total Counts:	109.9	3892	
Win1: Tritium - Start, End, Counts:	0	240	697
Win2: - Start, End, Counts:	0	990	3892

SPECTRUM PLOT

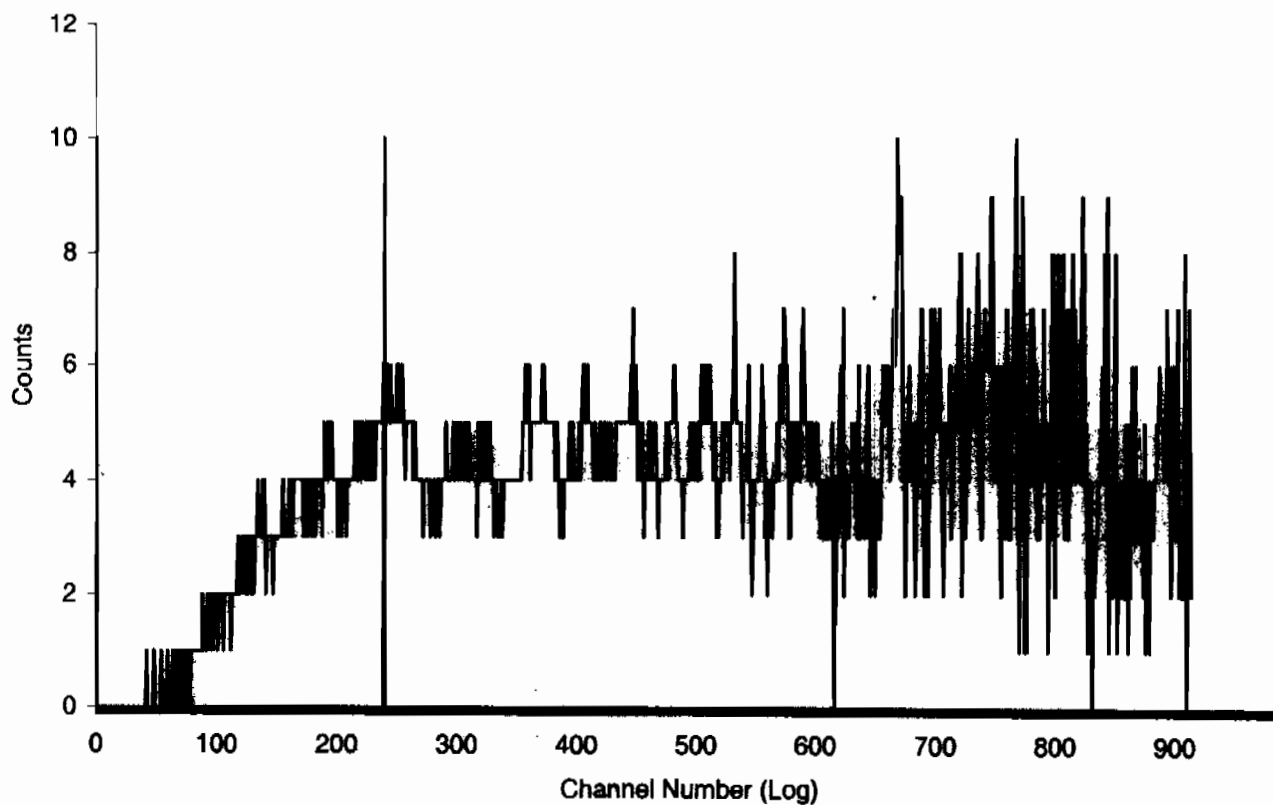
USER 13 - TRITIUM



Sample Count Start Time:	20 Feb 2010 13:56:15
Data Capture Date	20 Feb 2010 15:31:08
User Filename	S13022049-7A.XLS
	U13022049-1A.XLS
Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Isotope Name	14C
Scintillator	LIQUID
Sample, Rack-Pos, Time:	7 49-7 95.00
H#, Total Counts:	109.0 3593
Win1: Tritium - Start, End, Counts:	0 240 528
Win2: - Start, End, Counts:	0 990 3593

SPECTRUM PLOT

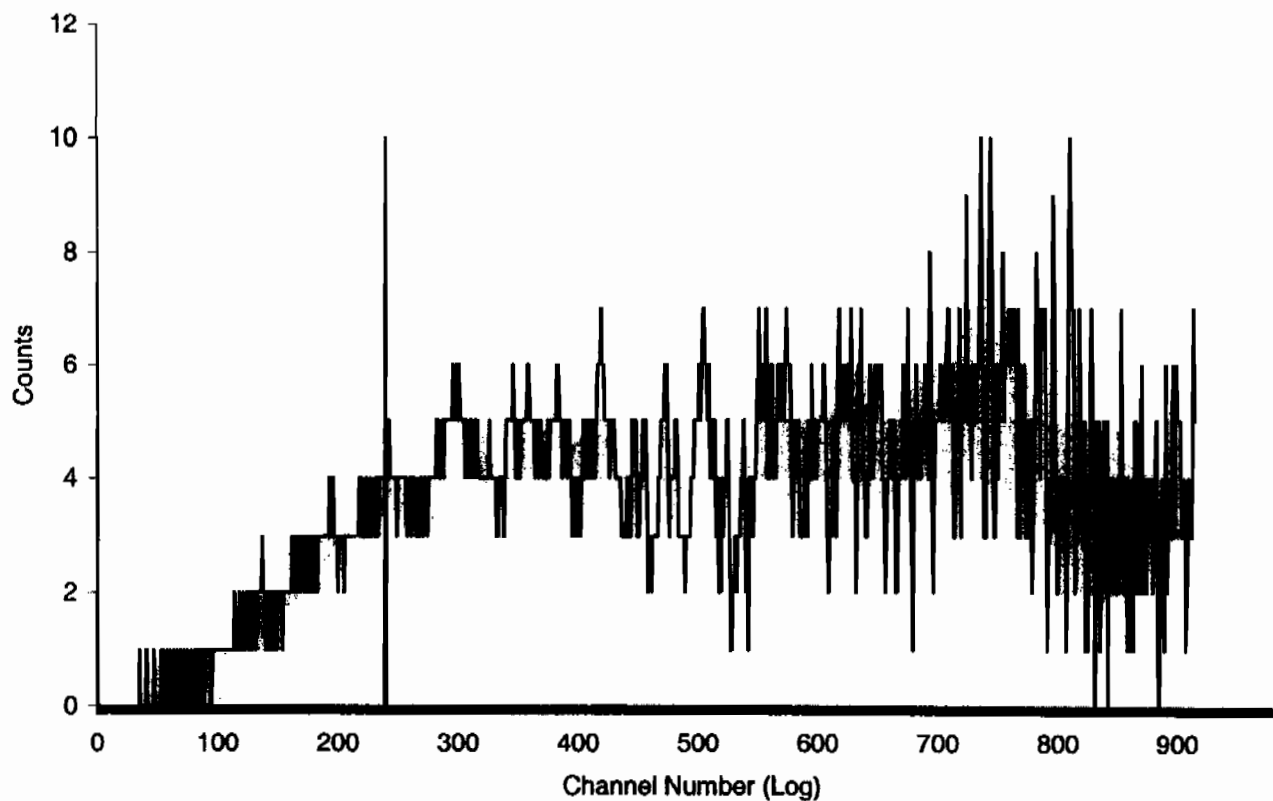
USER 13 - TRITIUM



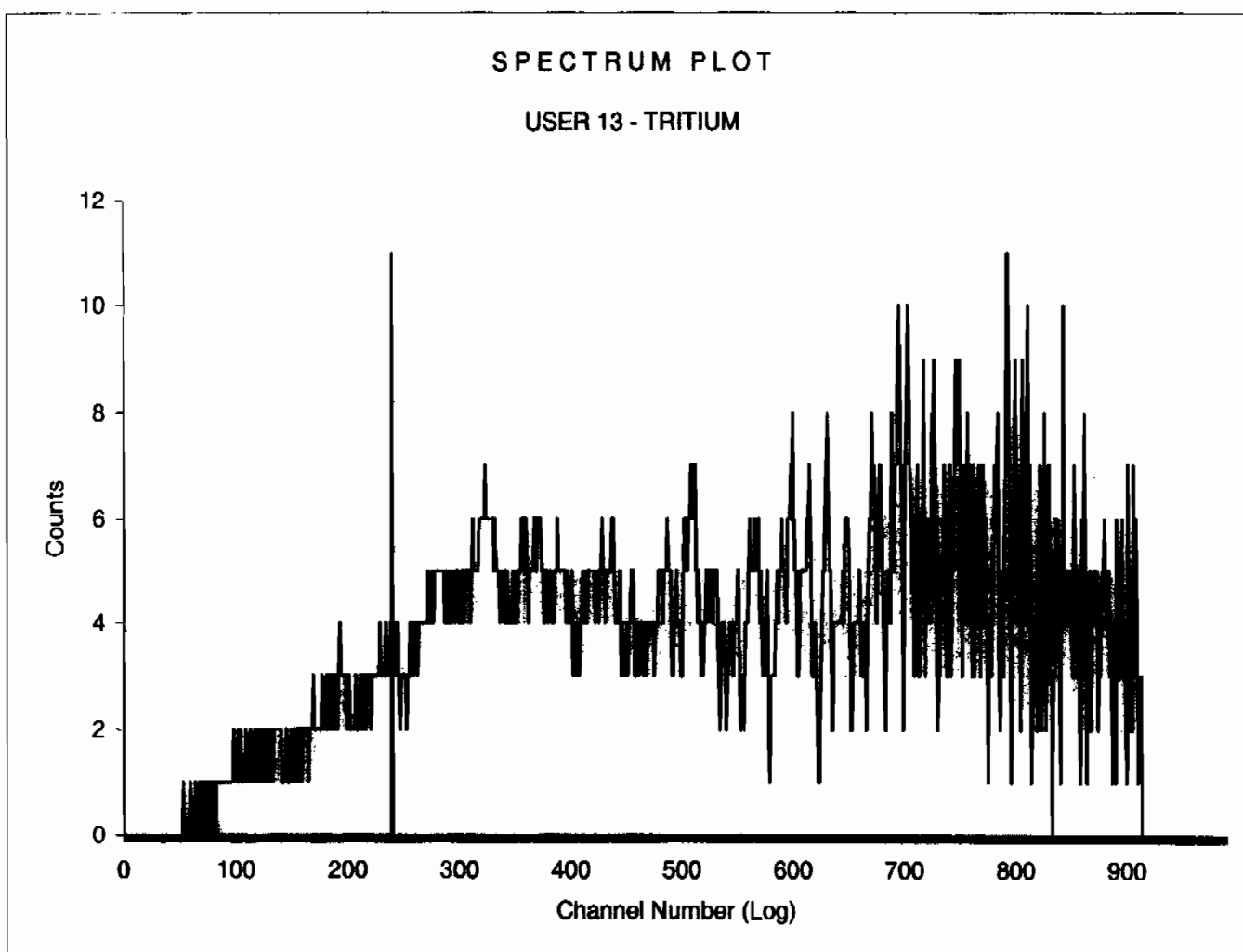
Sample Count Start Time:	20 Feb 2010 15:34:16		
Data Capture Date	20 Feb 2010 17:09:09		
User Filename	S13022049-8A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	49-8	95.00
H#, Total Counts:	109.4	3339	
Win1: Tritium - Start, End, Counts:	0	240	366
Win2: - Start, End, Counts:	0	990	3339

SPECTRUM PLOT

USER 13 - TRITIUM



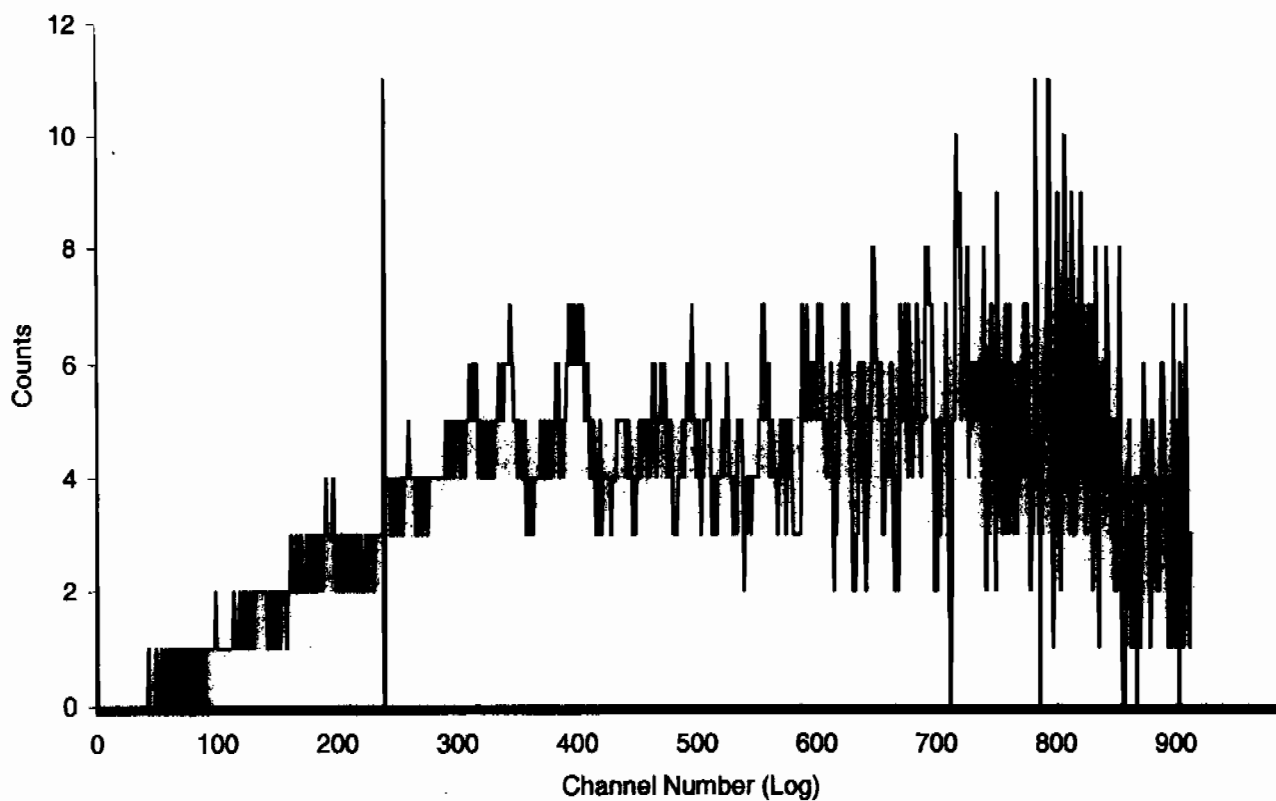
Sample Count Start Time:	20 Feb 2010 17:12:16		
Data Capture Date	20 Feb 2010 18:47:10		
User Filename	S13022049-9A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	49-9	95.00
H#, Total Counts:	109.0	3451	
Win1: Tritium - Start, End, Counts:	0	240	328
Win2: - Start, End, Counts:	0	990	3451



Sample Count Start Time:	20 Feb 2010 18:50:18		
Data Capture Date	20 Feb 2010 20:25:11		
User Filename	S13022049-10A.XLS		
	U13022049-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	49-10	95.00
H#, Total Counts:	108.1	3455	
Win1: Tritium - Start, End, Counts:	0	240	328
Win2: - Start, End, Counts:	0	990	3455

SPECTRUM PLOT

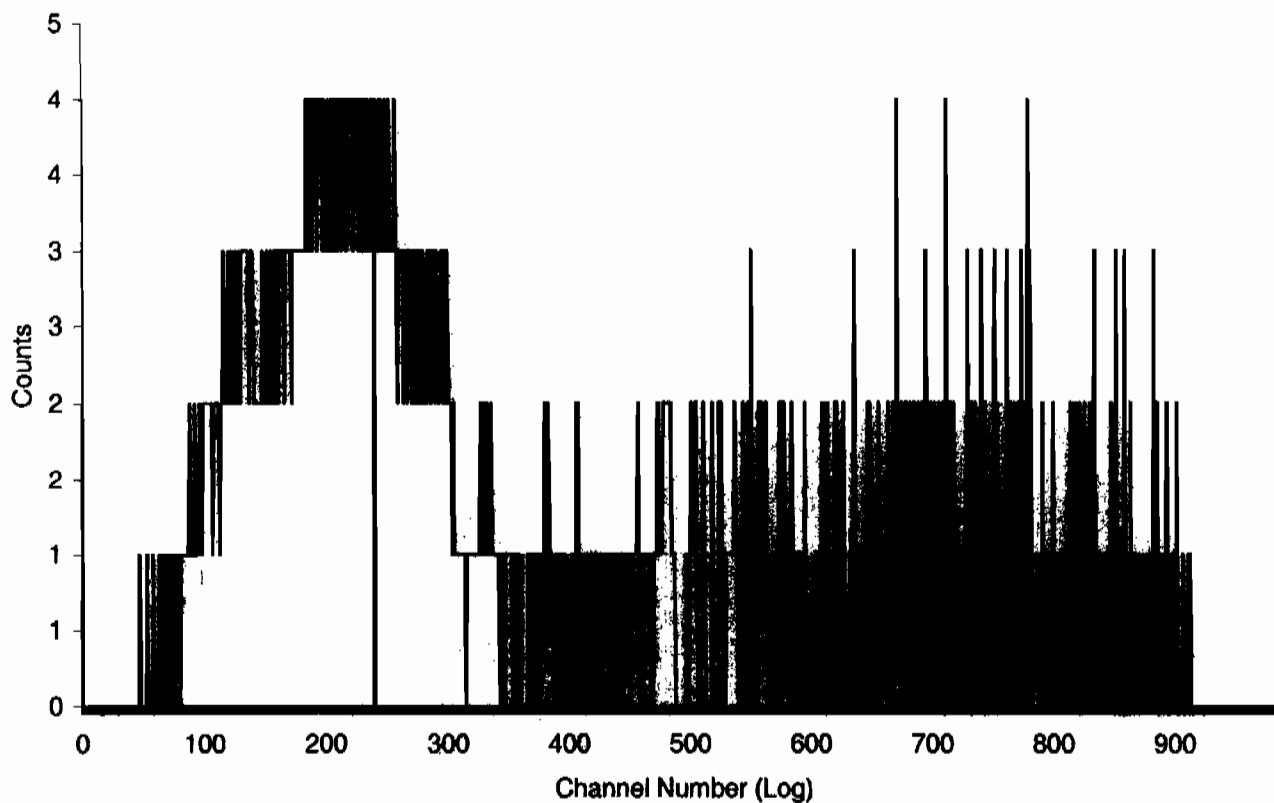
USER 13 - TRITIUM



Sample Count Start Time:	20 Feb 2010 20:27:02		
Data Capture Date	20 Feb 2010 20:41:37		
User Filename	S06022020-1A.XLS		
	U06022020-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	20-1	15.00
H#, Total Counts:	109.4	1089	
Win1: Tritium - Start, End, Counts:	0	240	452
Win2: - Start, End, Counts:	0	990	1089

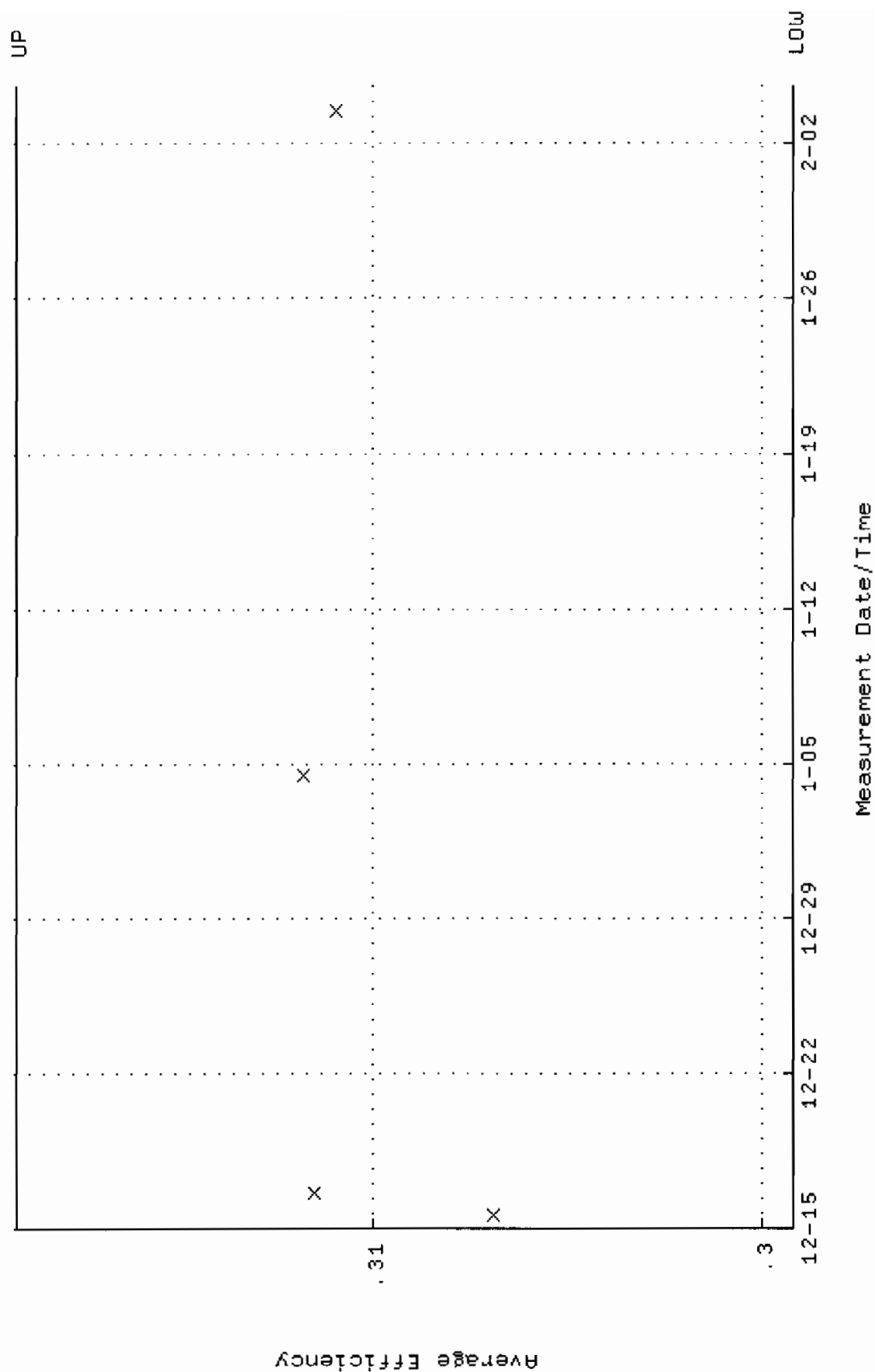
SPECTRUM PLOT

USER 06 - TRITIUM

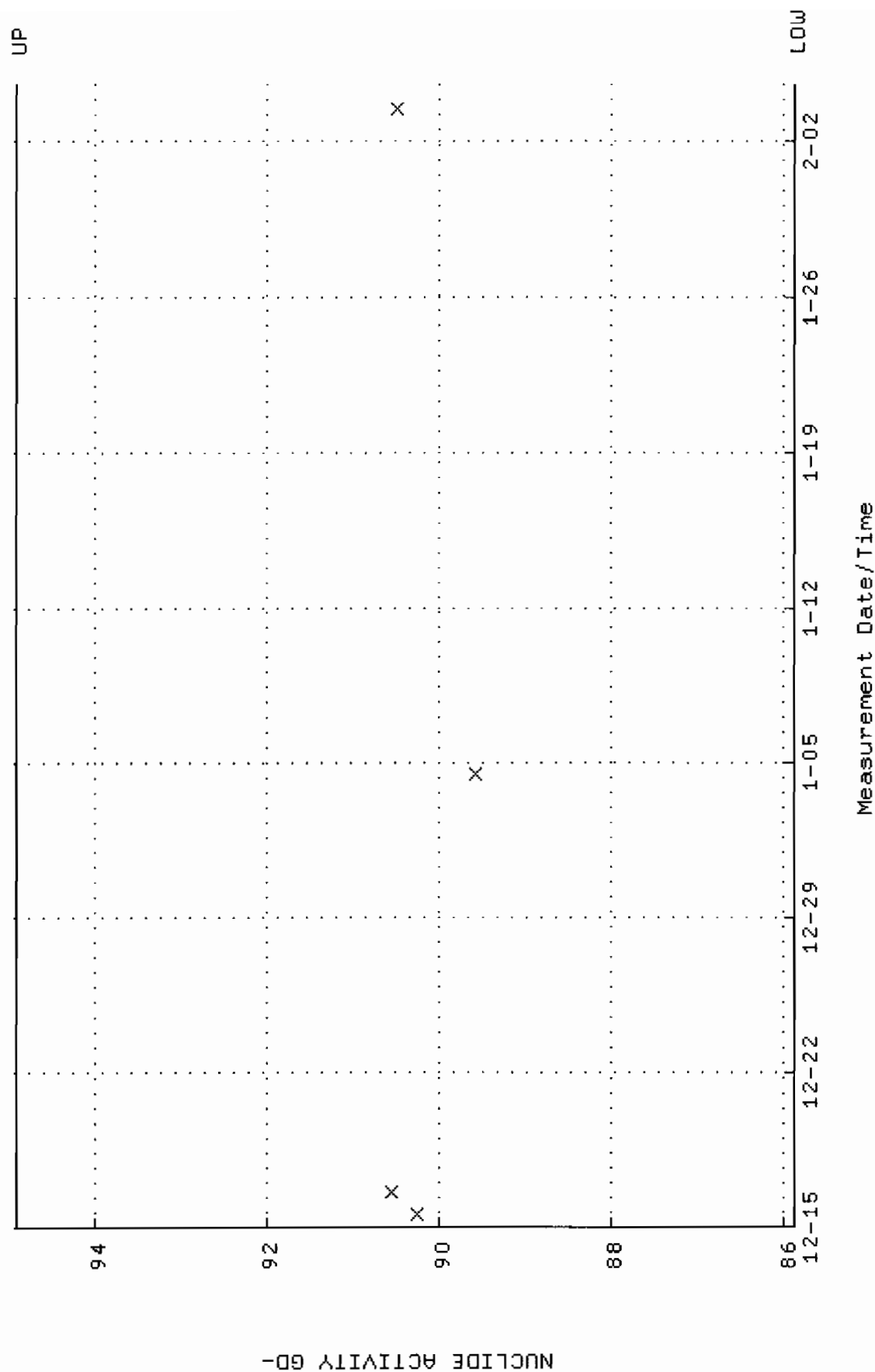


BACKGROUND AND EFFICIENCY DATA

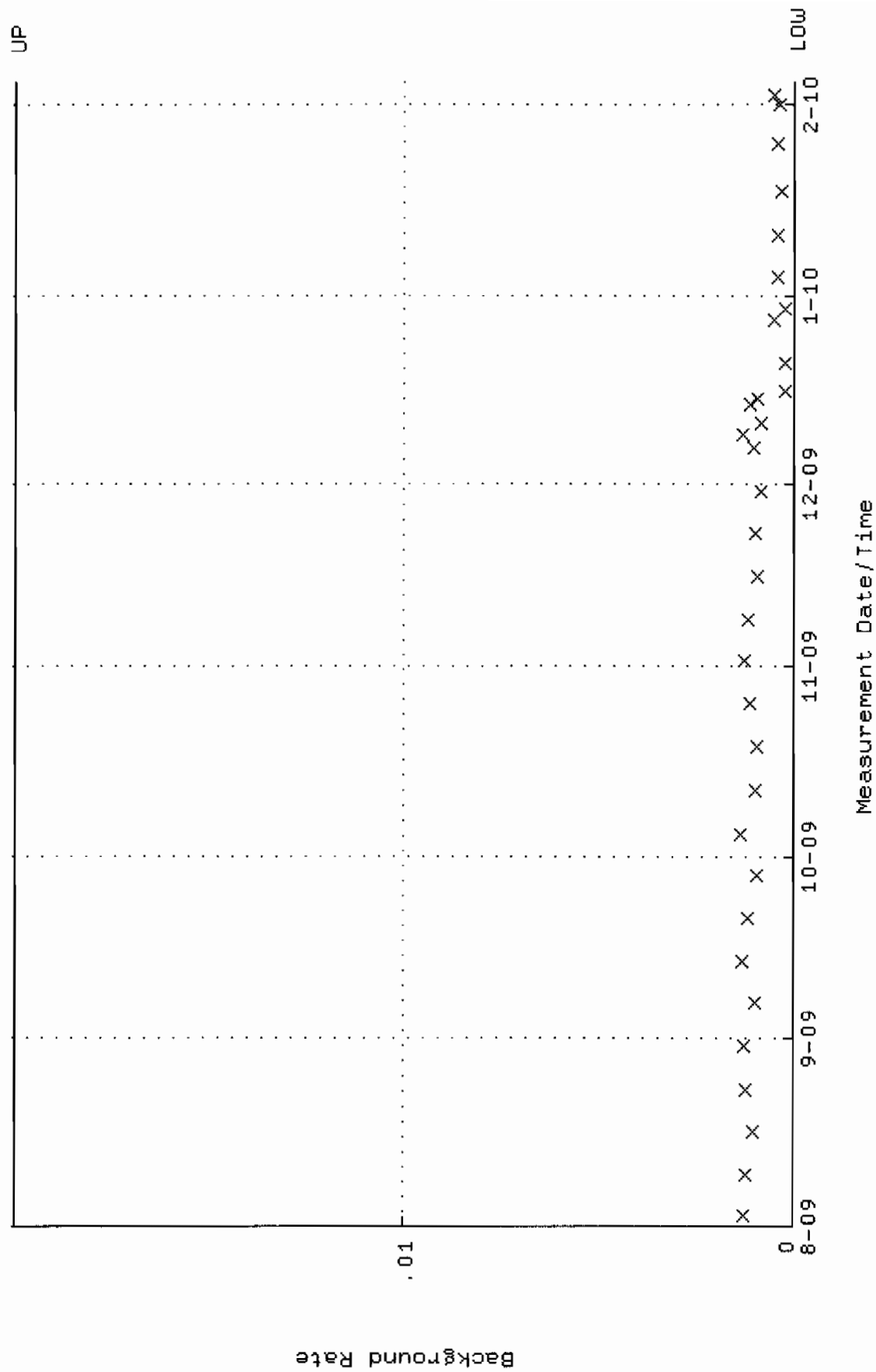
QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.299193 through 0.319193



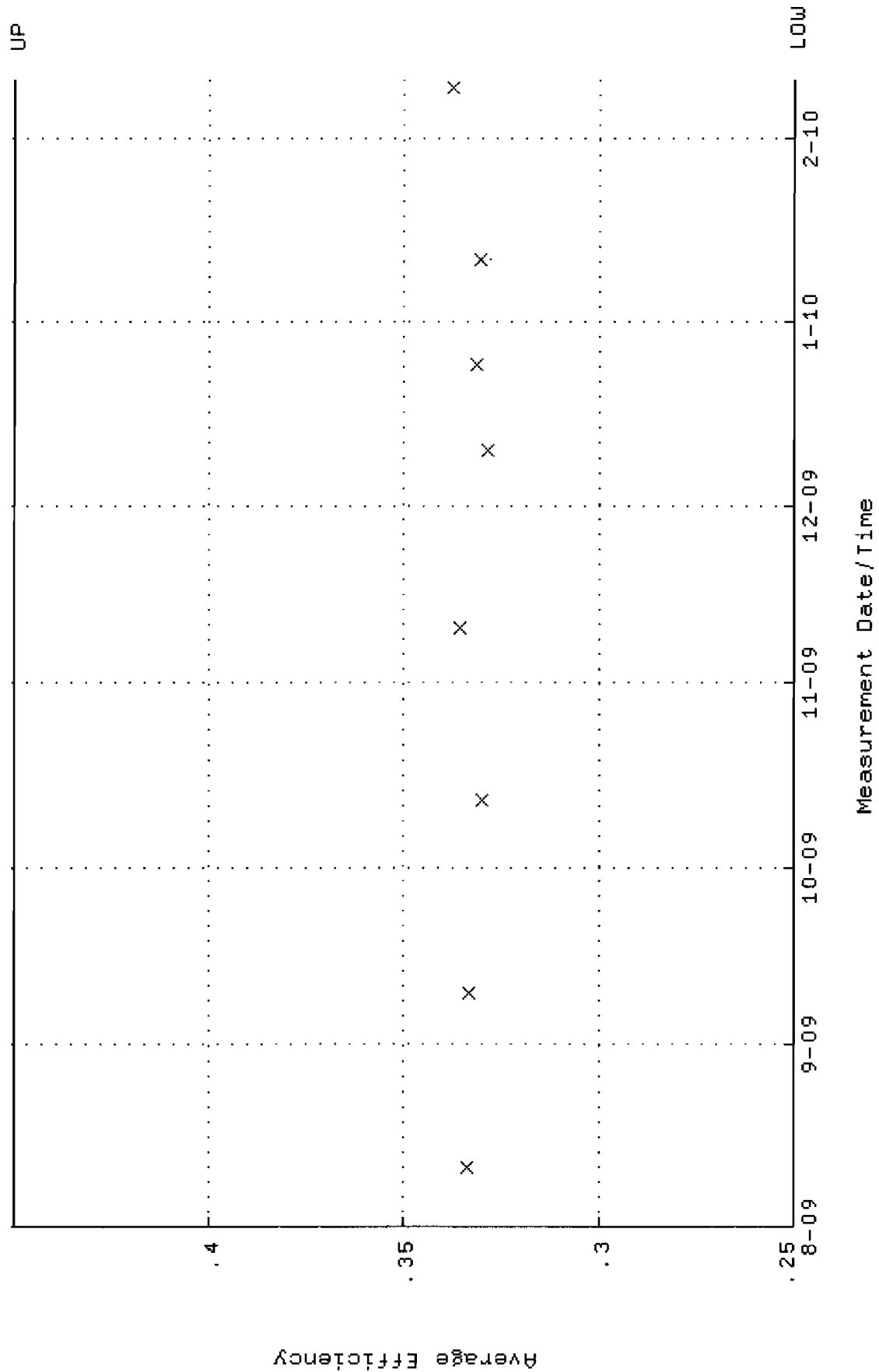
QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
 Lower/Upper Lmts: 85.8745 through 94.9139



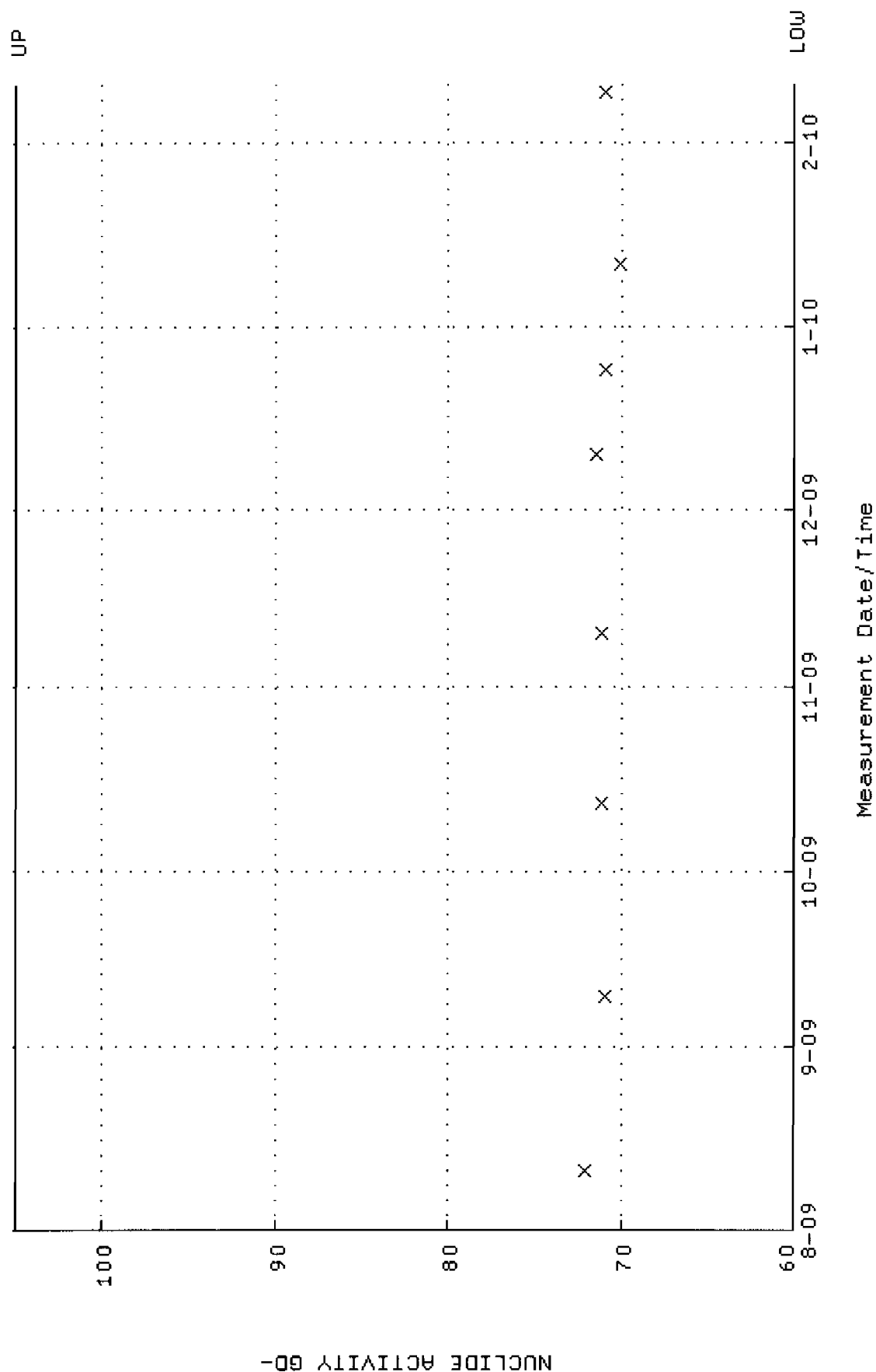
QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



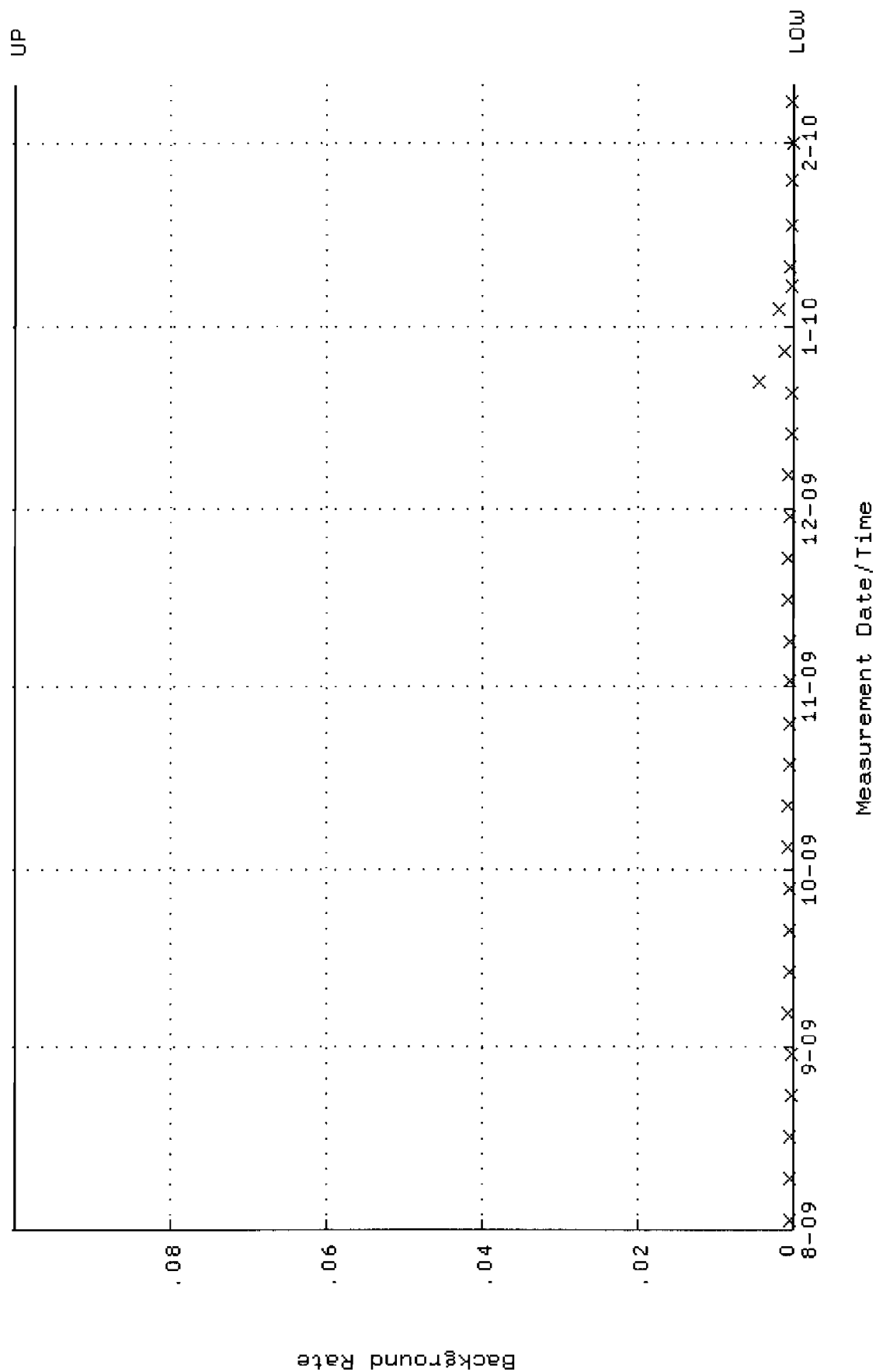
QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.250000 through 0.450000



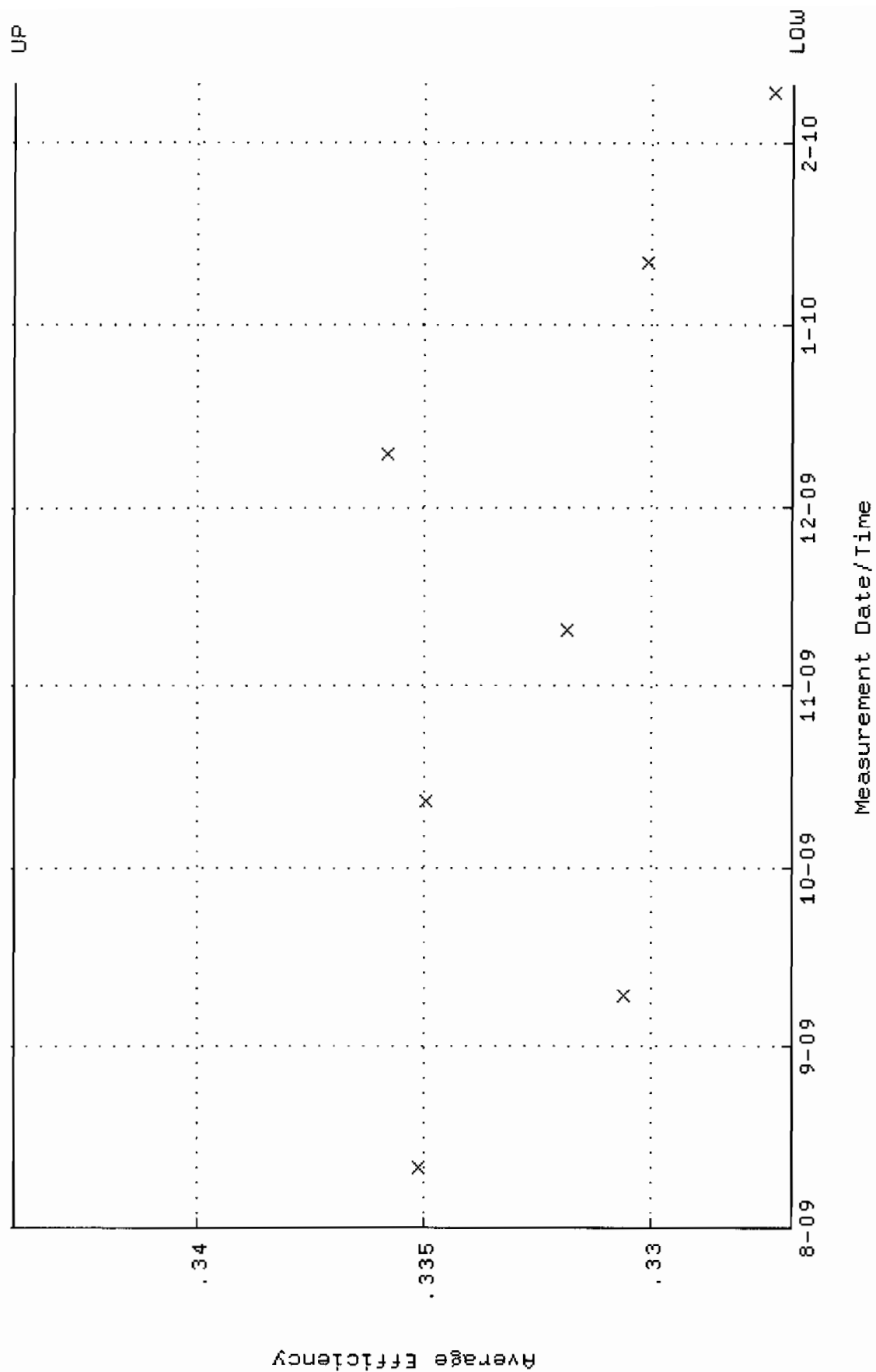
QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 60.0000 through 105.000



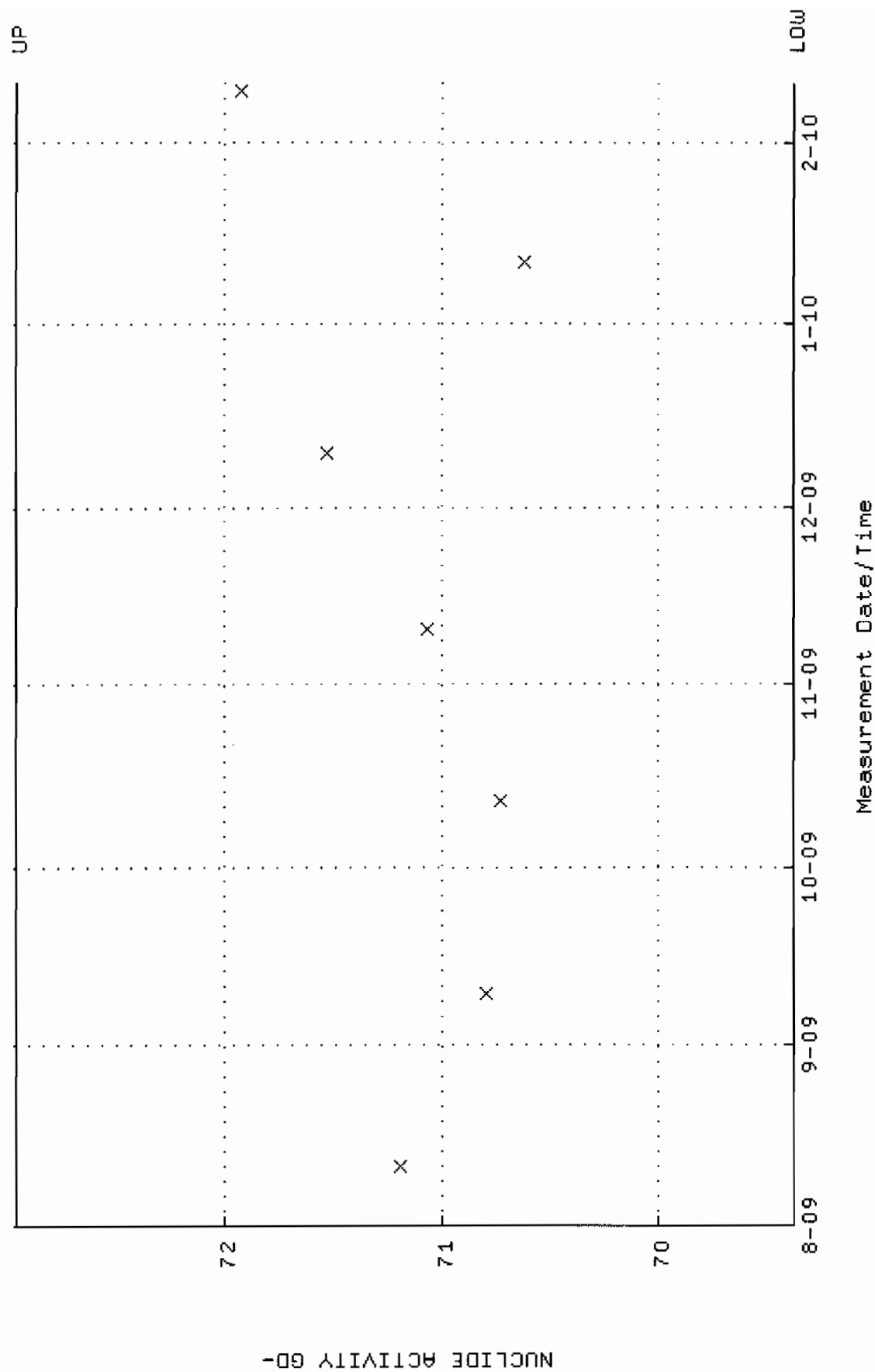
QA filename : DKA100:[ENV_ALPHA.QA.B]B101.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



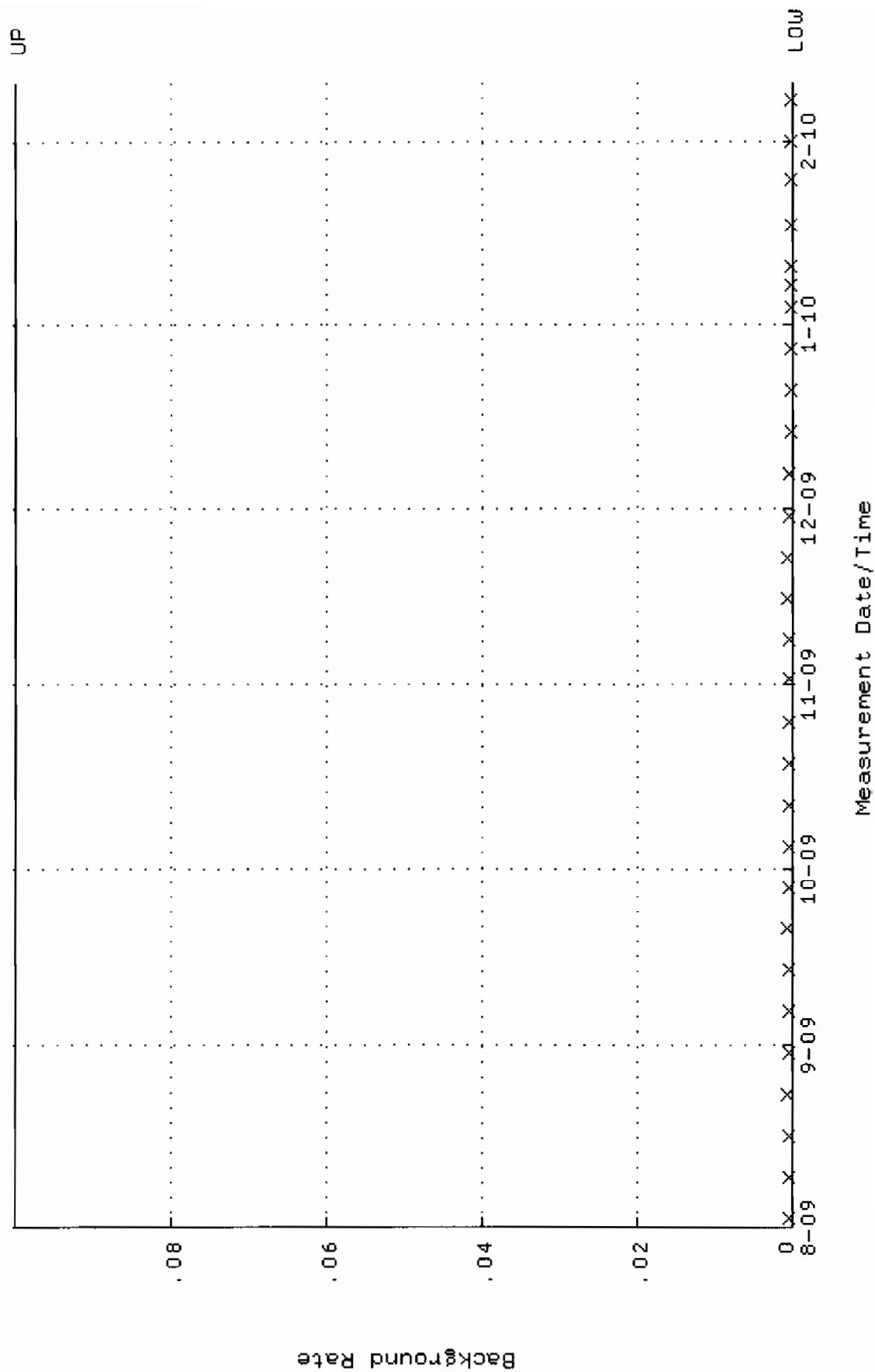
QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.326915 through 0.344021



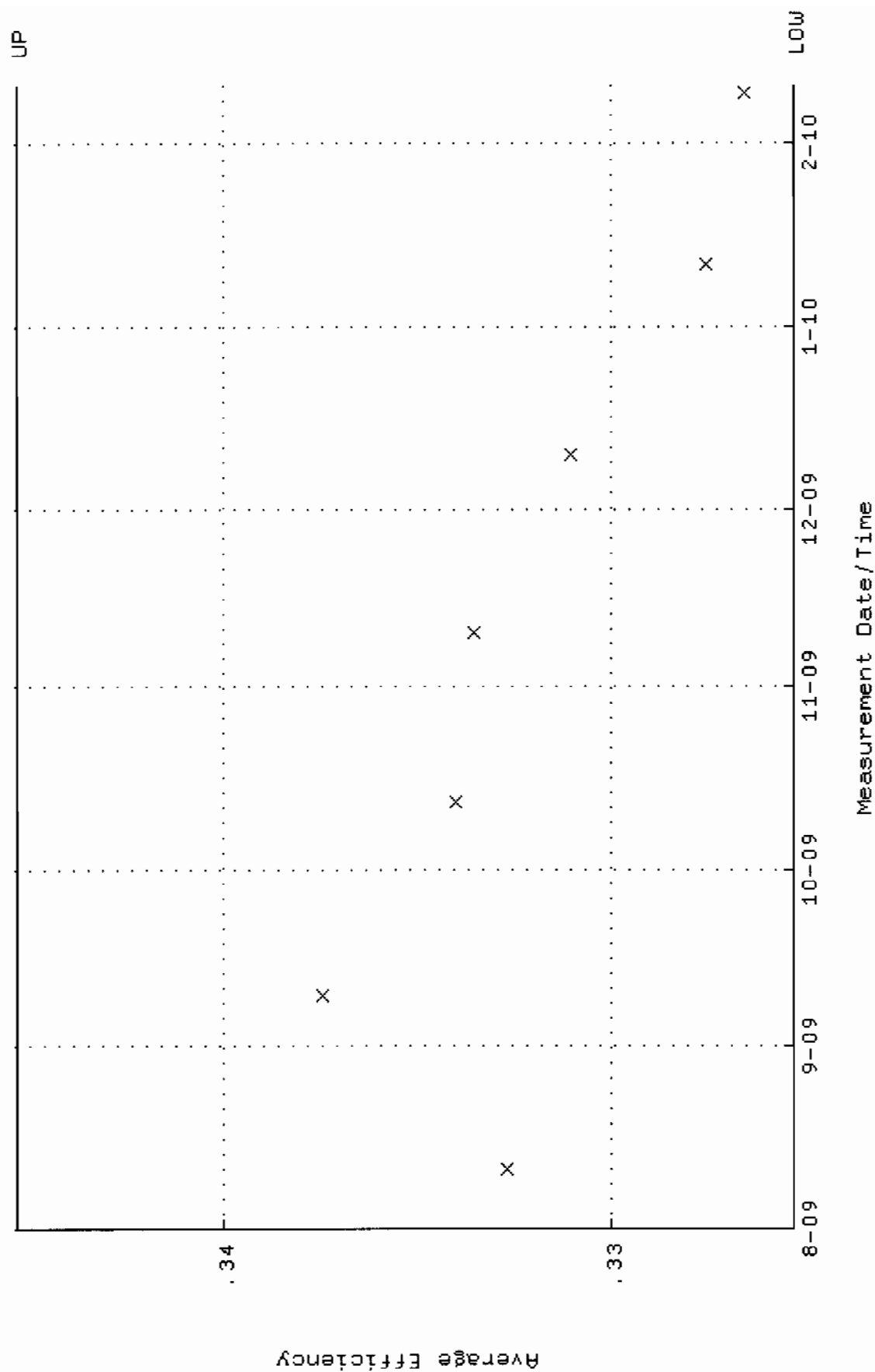
QA filename : DKA100:[ENV_ALPHA.QA.w]w102.QAF;3
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 69.3731 through 72.9663



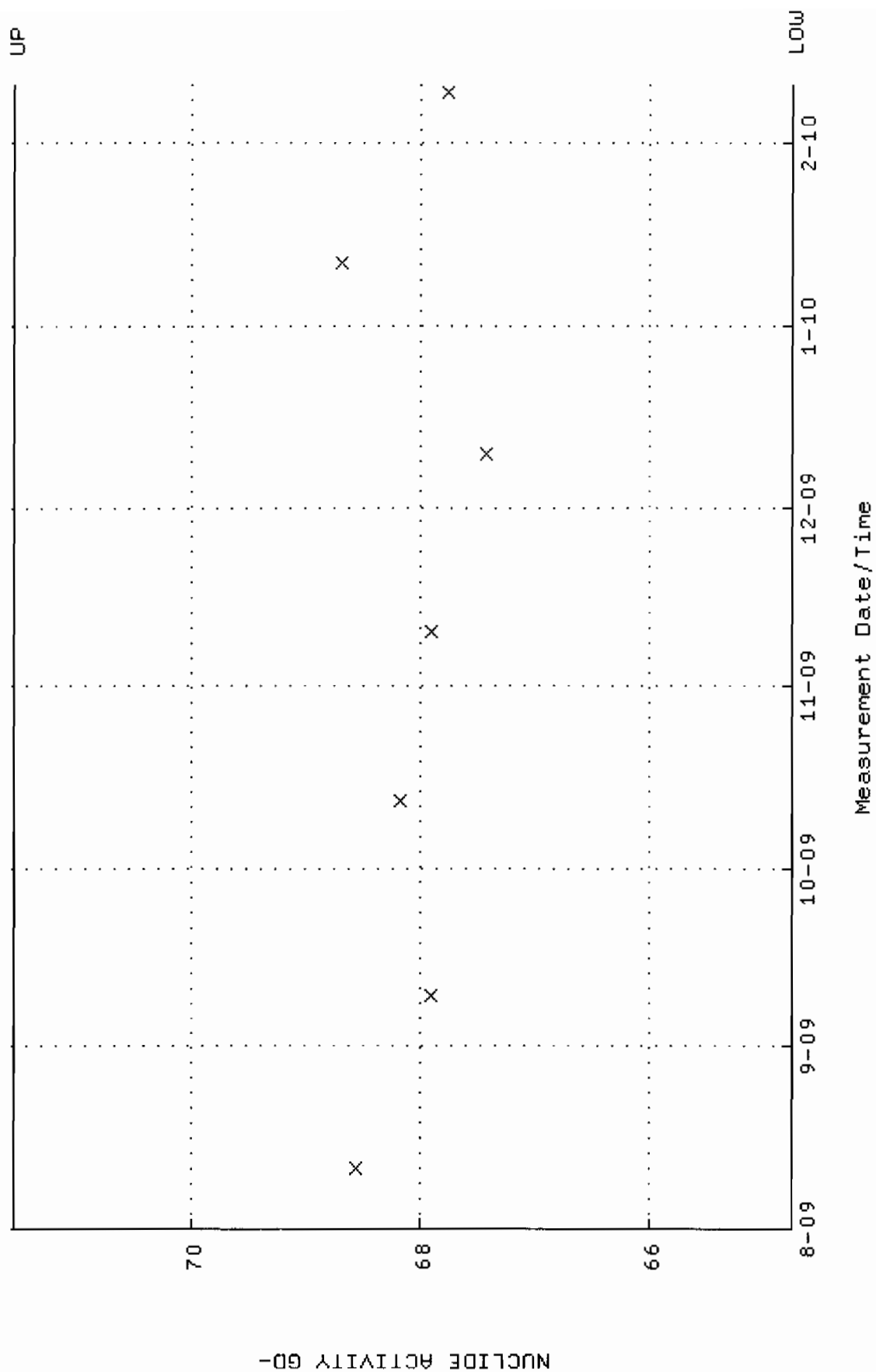
QA filename : DKA100:[ENV_ALPHA.QA.B]B102.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



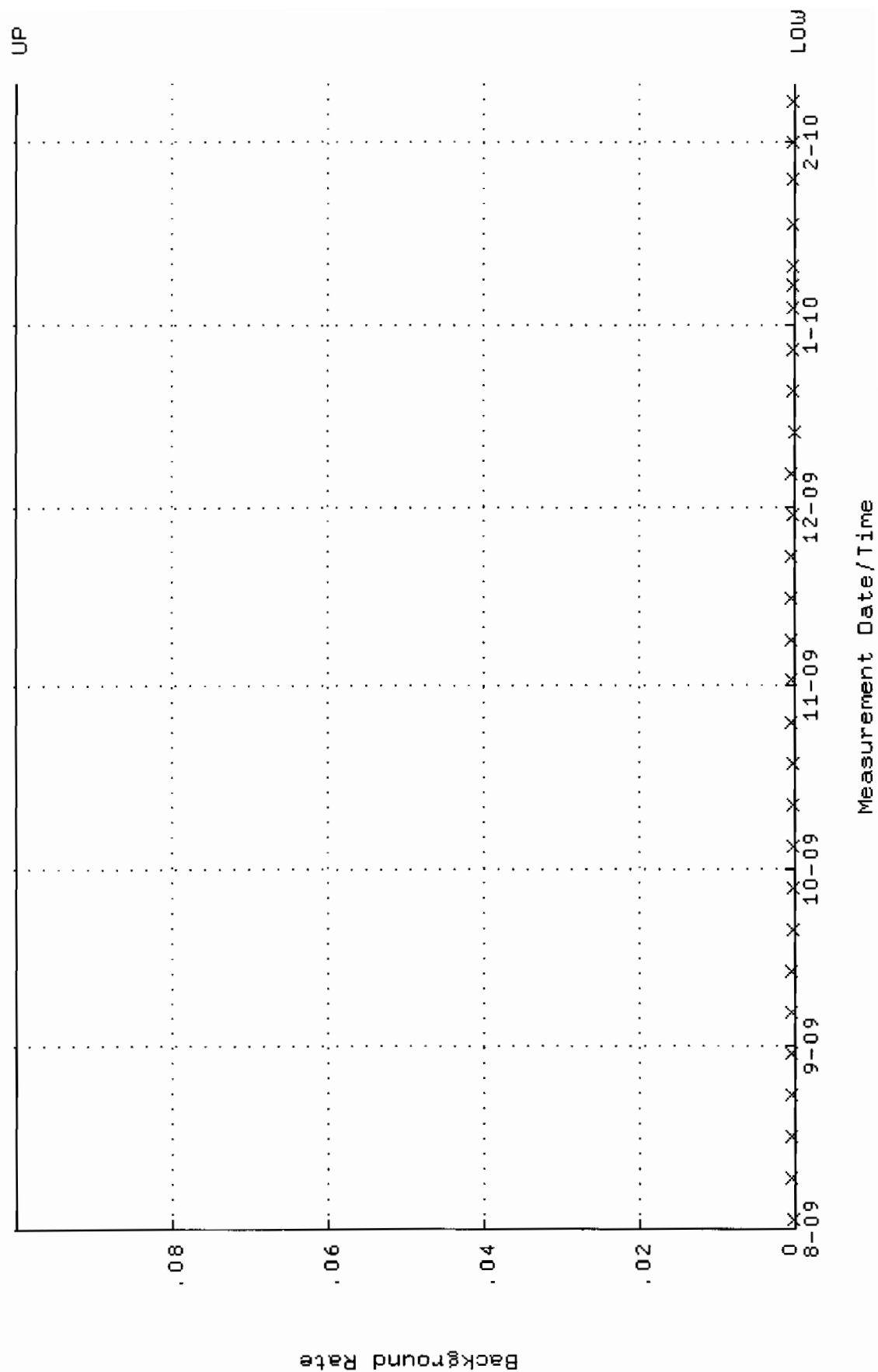
QA filename : DKA100:[ENV_ALPHA.QA.W]W103.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.325314 through 0.345314



QA filename : DKA100:[ENV_ALPHA.QA.W]U103.QAF;2
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 64.7479 through 71.5635



QA filename : DKA100:[ENV_ALPHA.QA.B]B103.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000

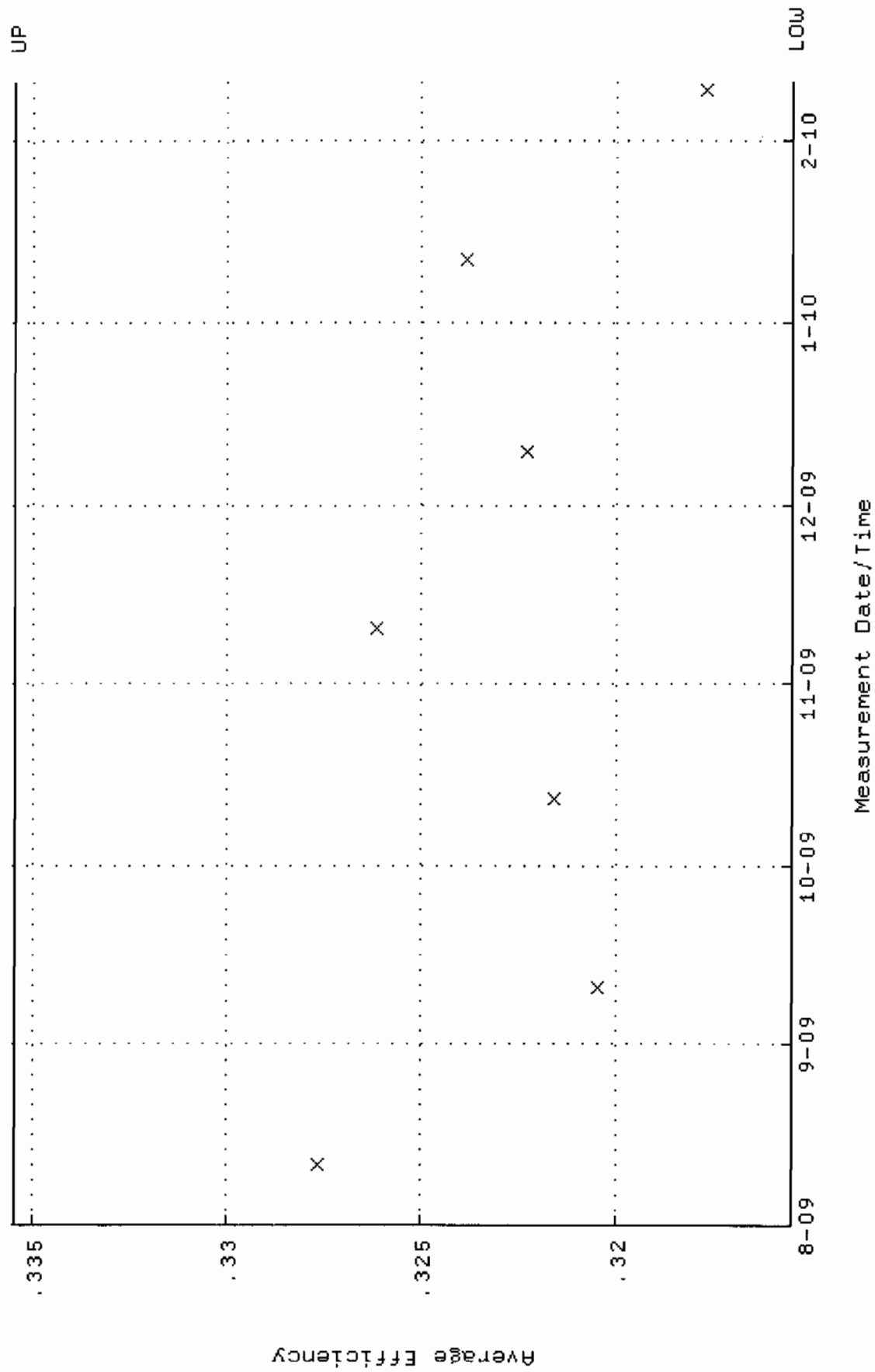


QA filename : DKA100:[ENV_ALPHA.QA.W]w105.QAF;2

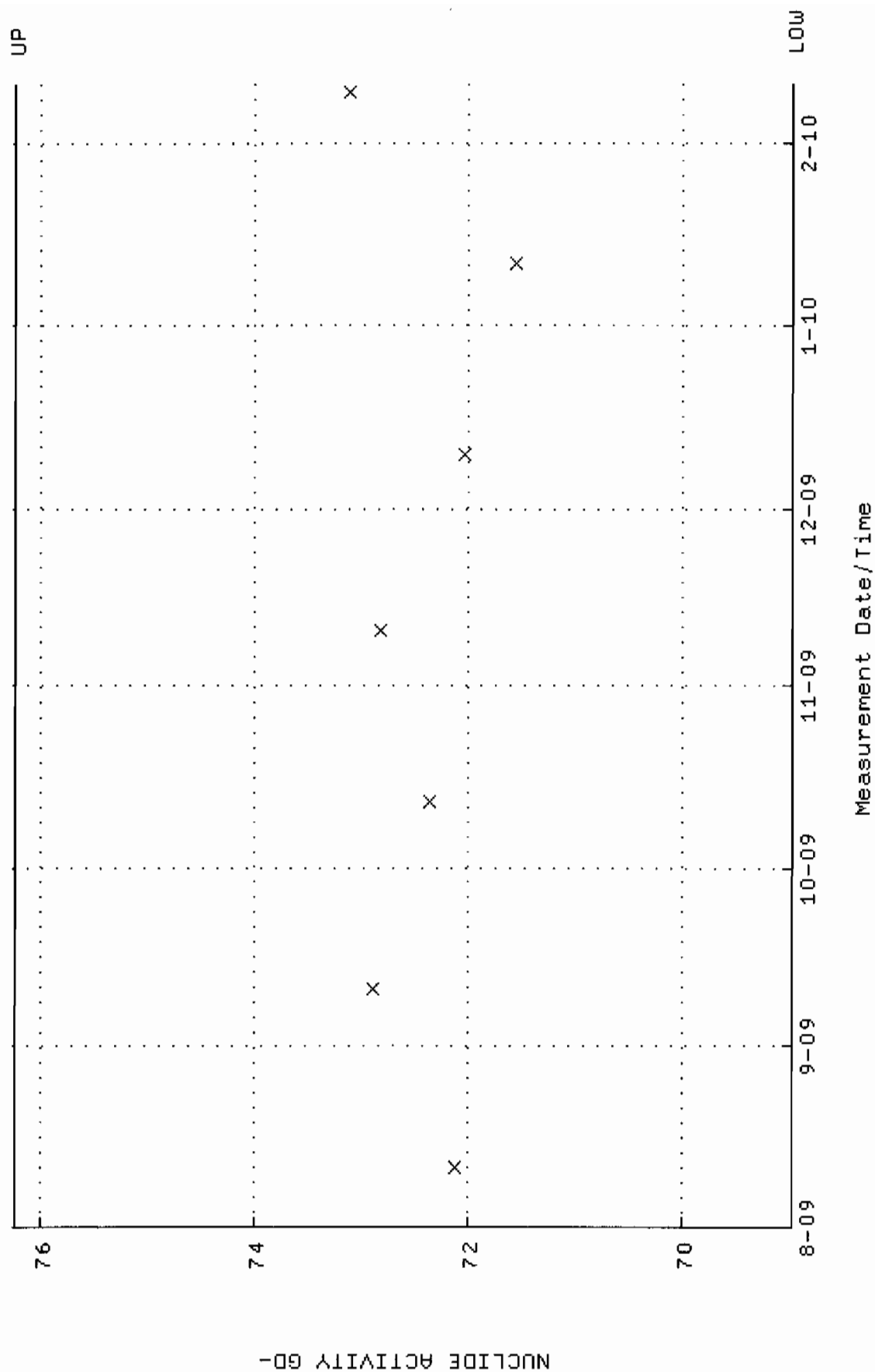
Parameter Name : AVRGEFF (Average Efficiency)

Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00

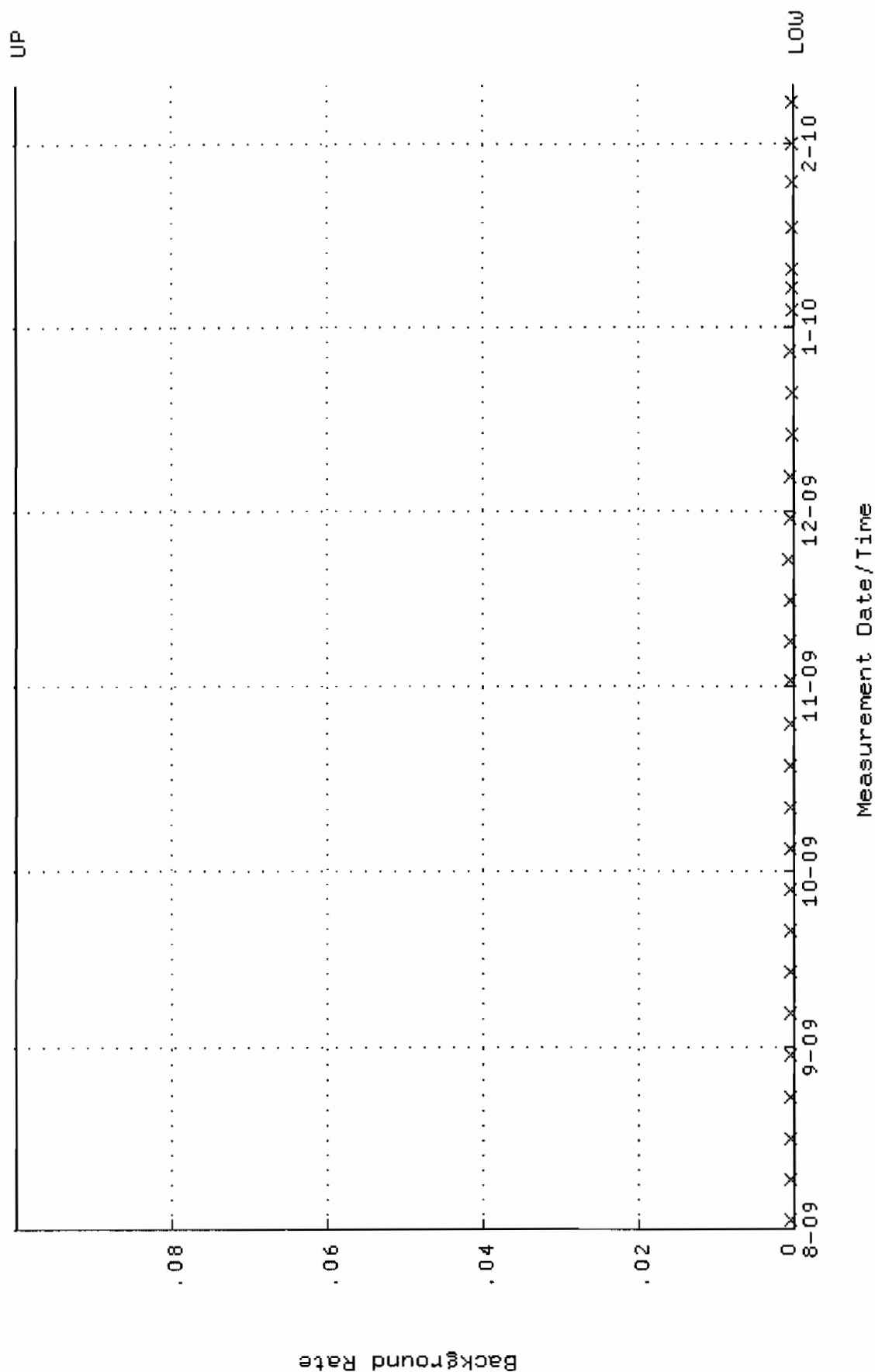
Lower/Upper Lmts: 0.315468 through 0.335468



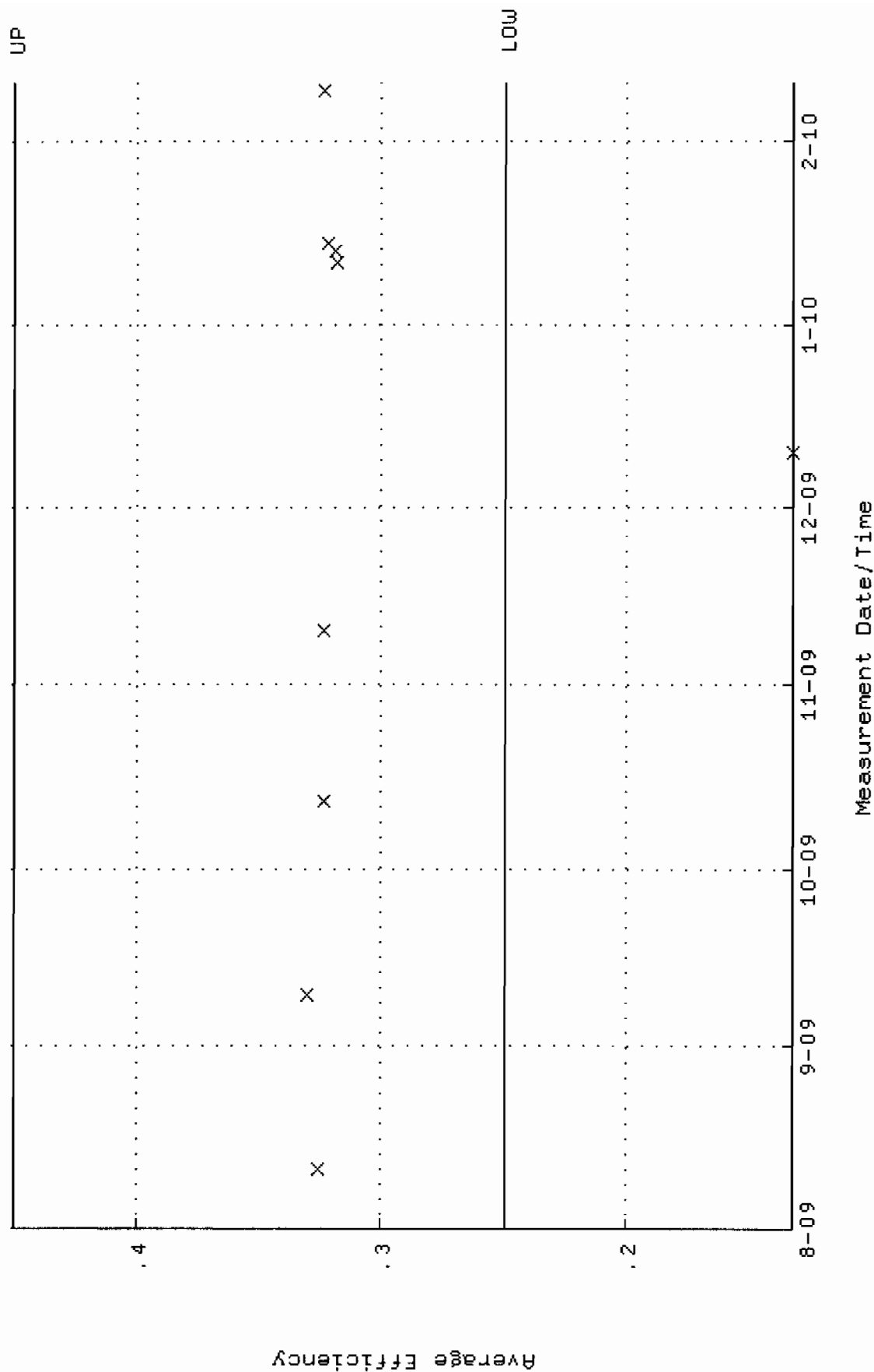
QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 68.9774 through 76.2382



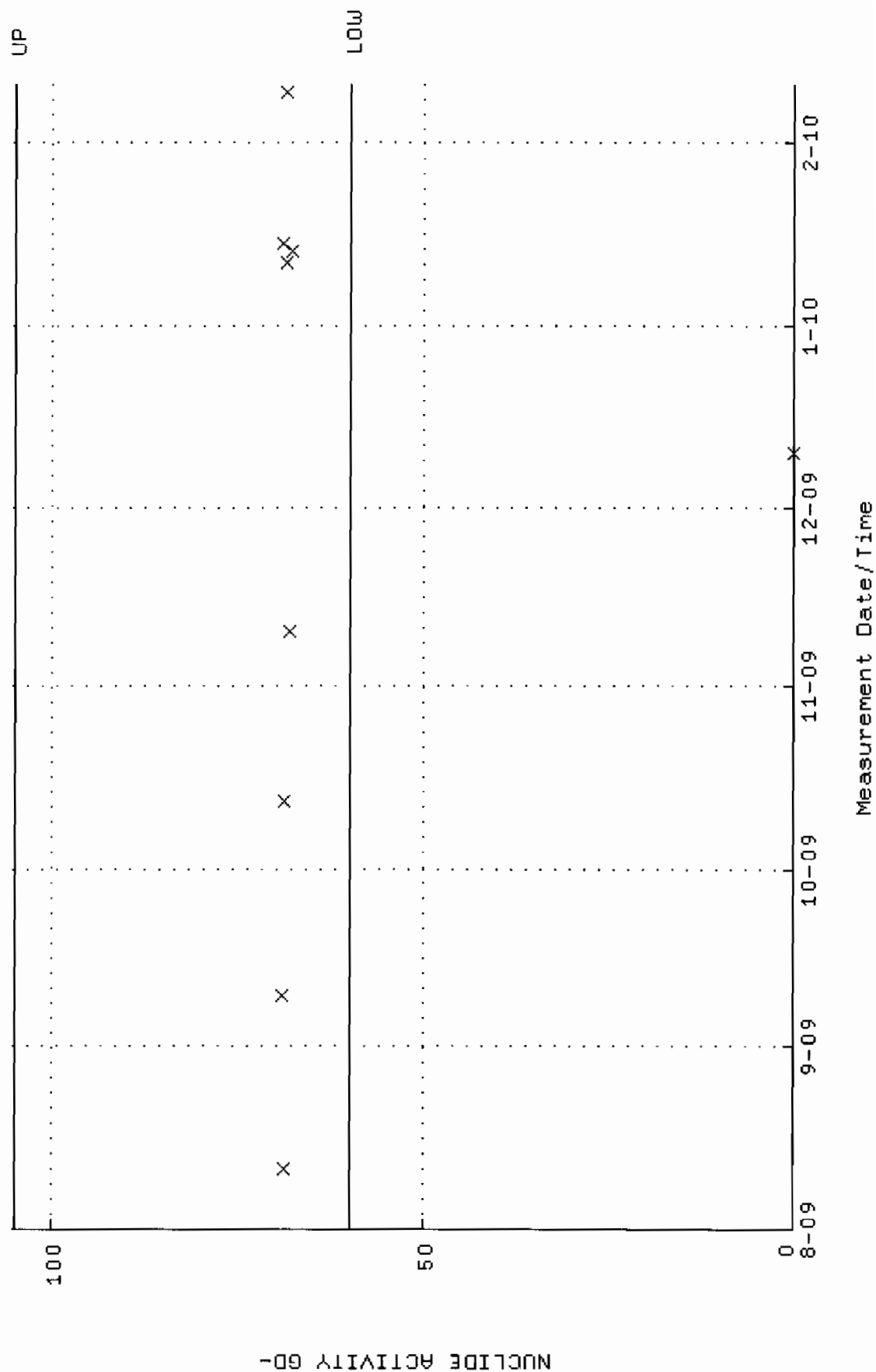
QA filename : OKA100:[ENV_ALPHA.QA.B]B105.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



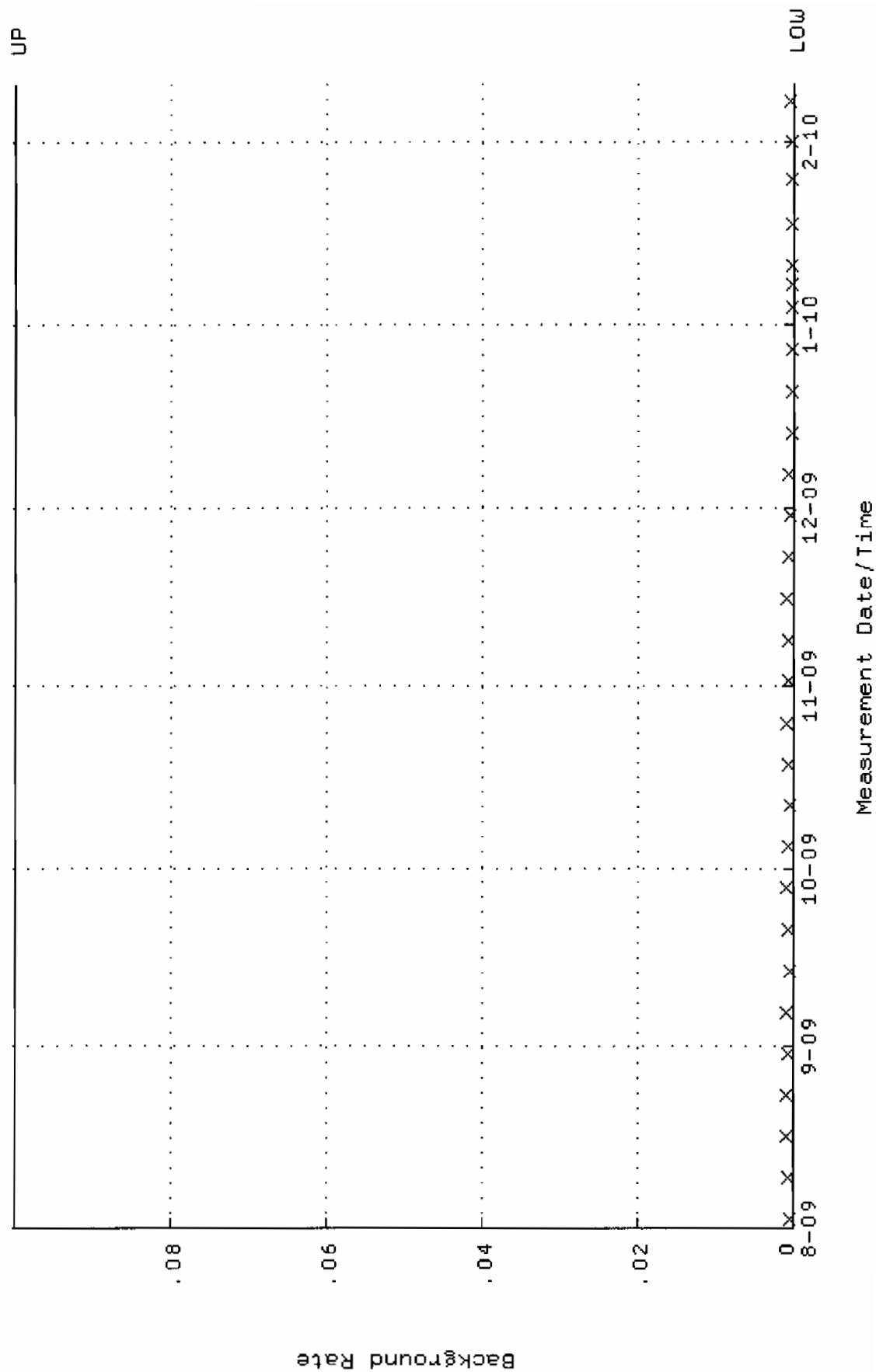
QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.250000 through 0.450000



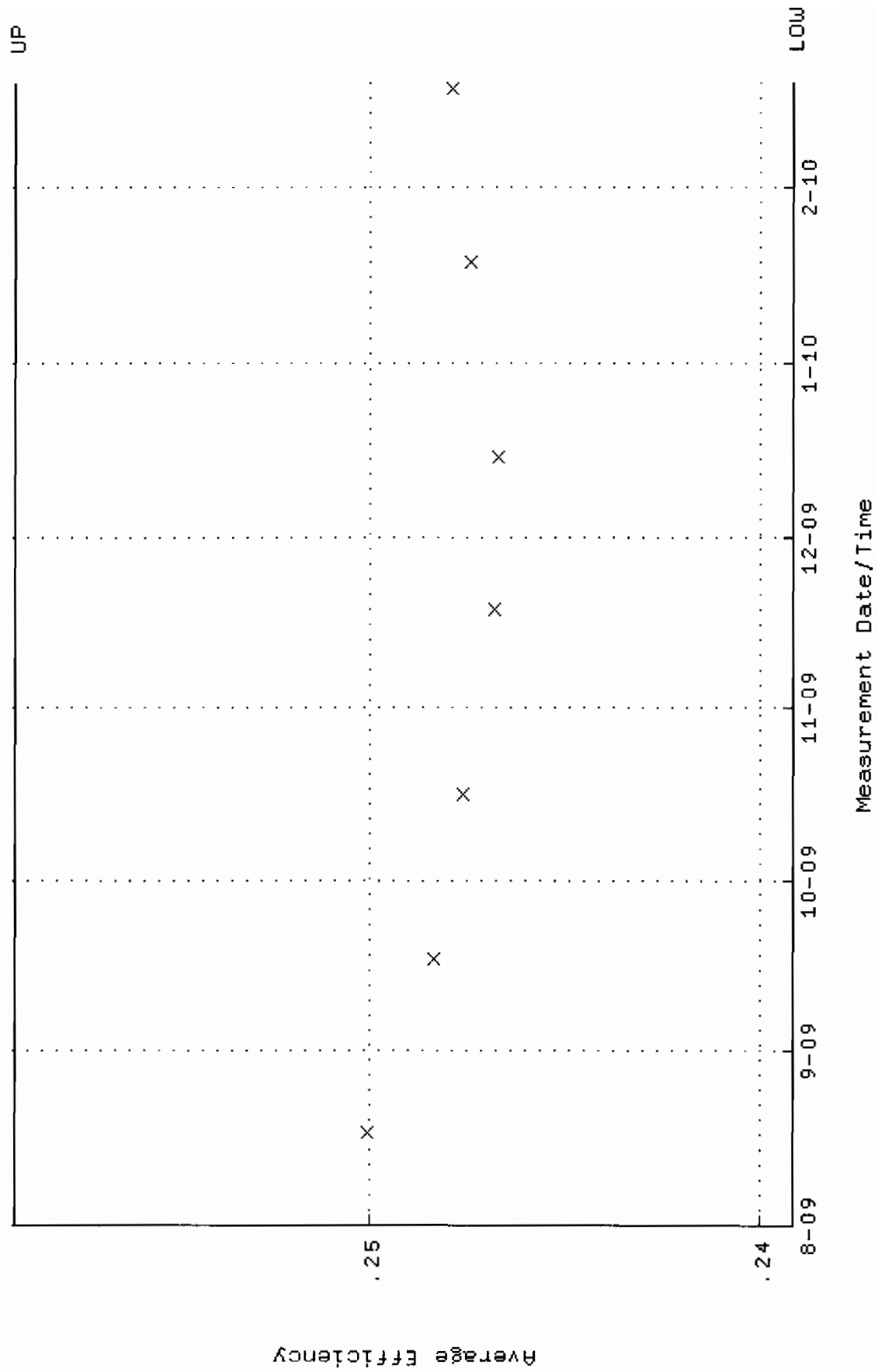
QA filename : DKA100:[ENV_ALPHA.QA.w]W106.QAF;2
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 11-AUG-2009 07:20:17 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 60.0000 through 105.000



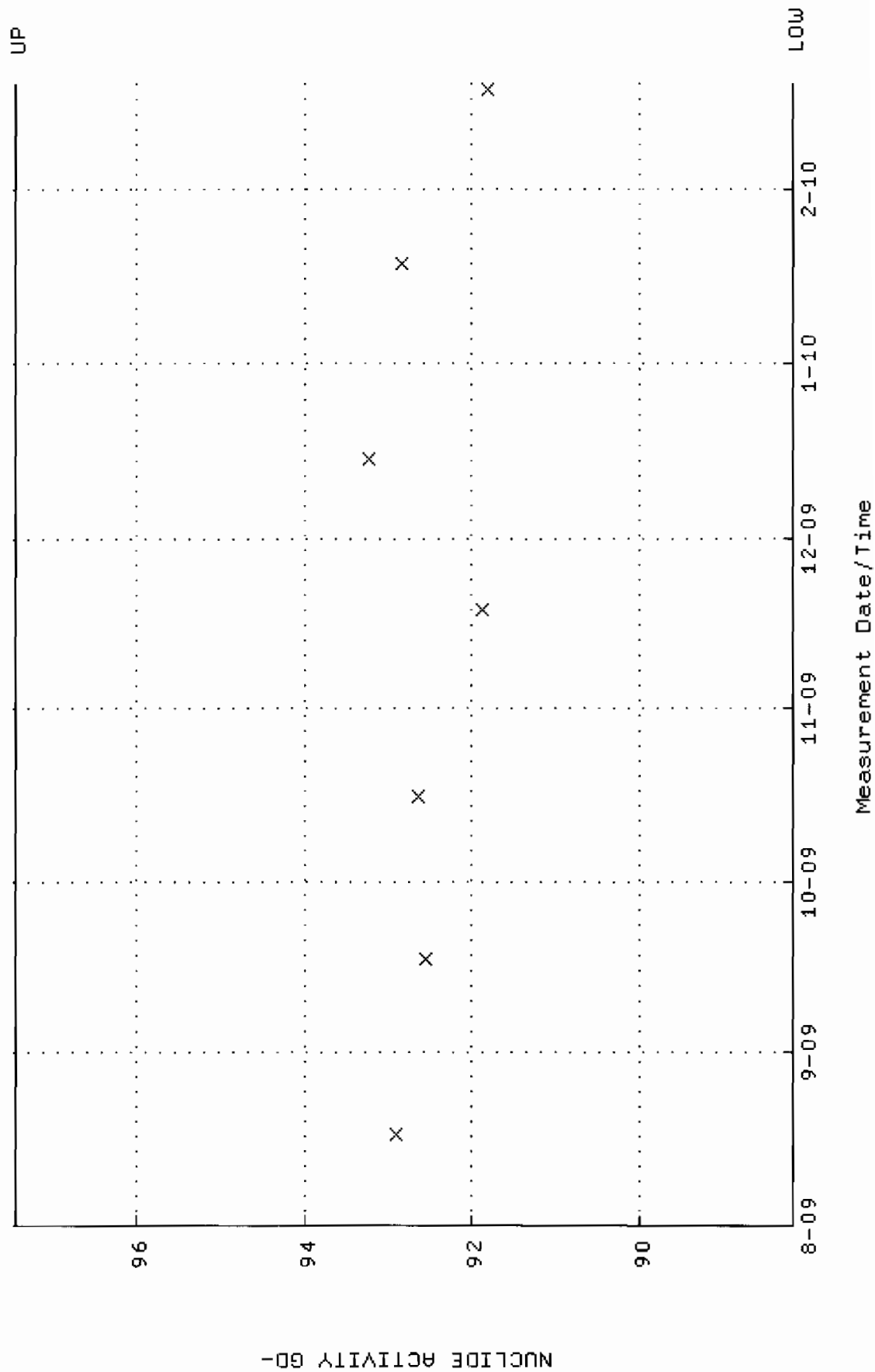
QA filename : DKA100:[ENV_ALPHA.QA.B]B106.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



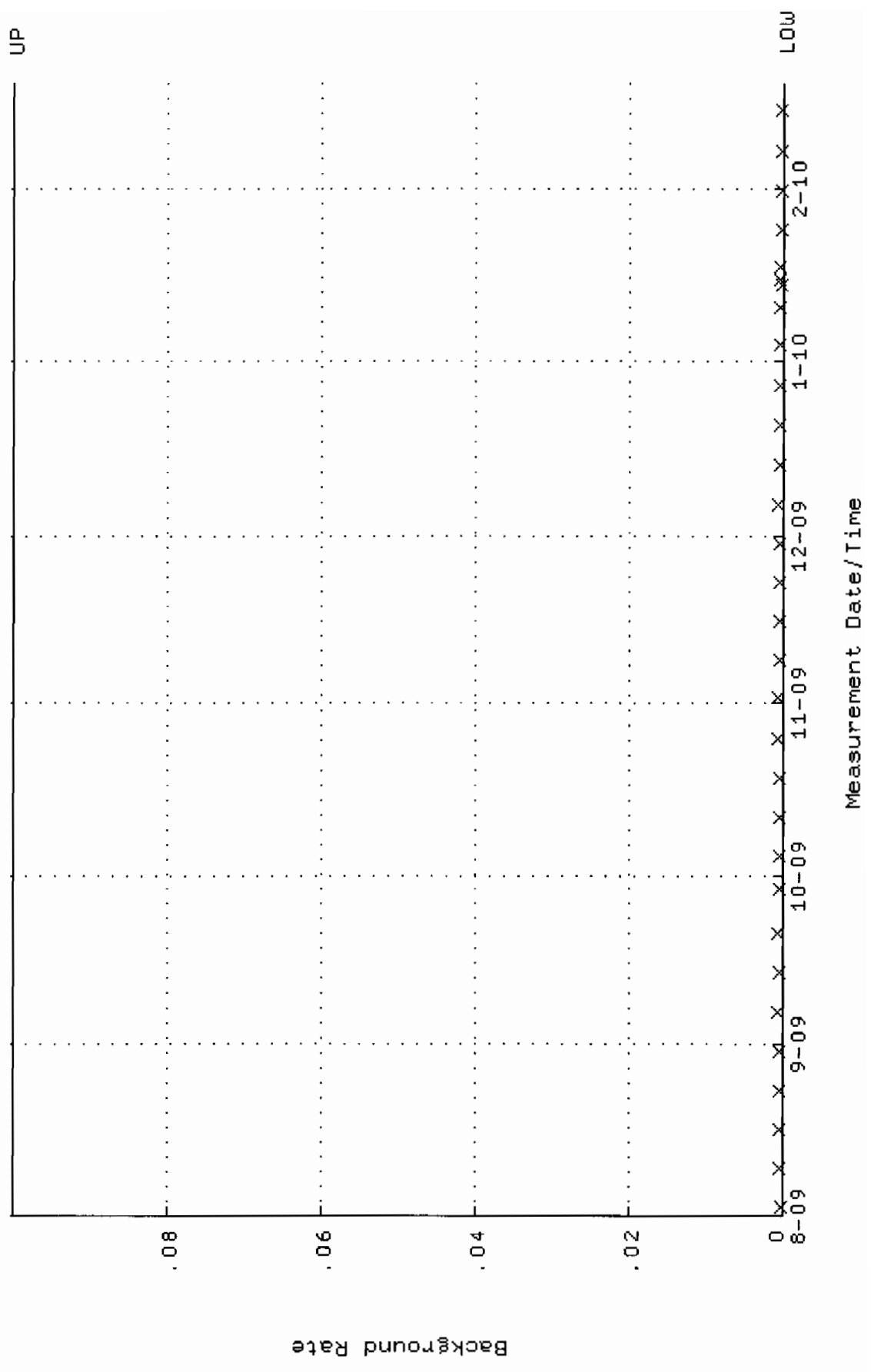
QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131



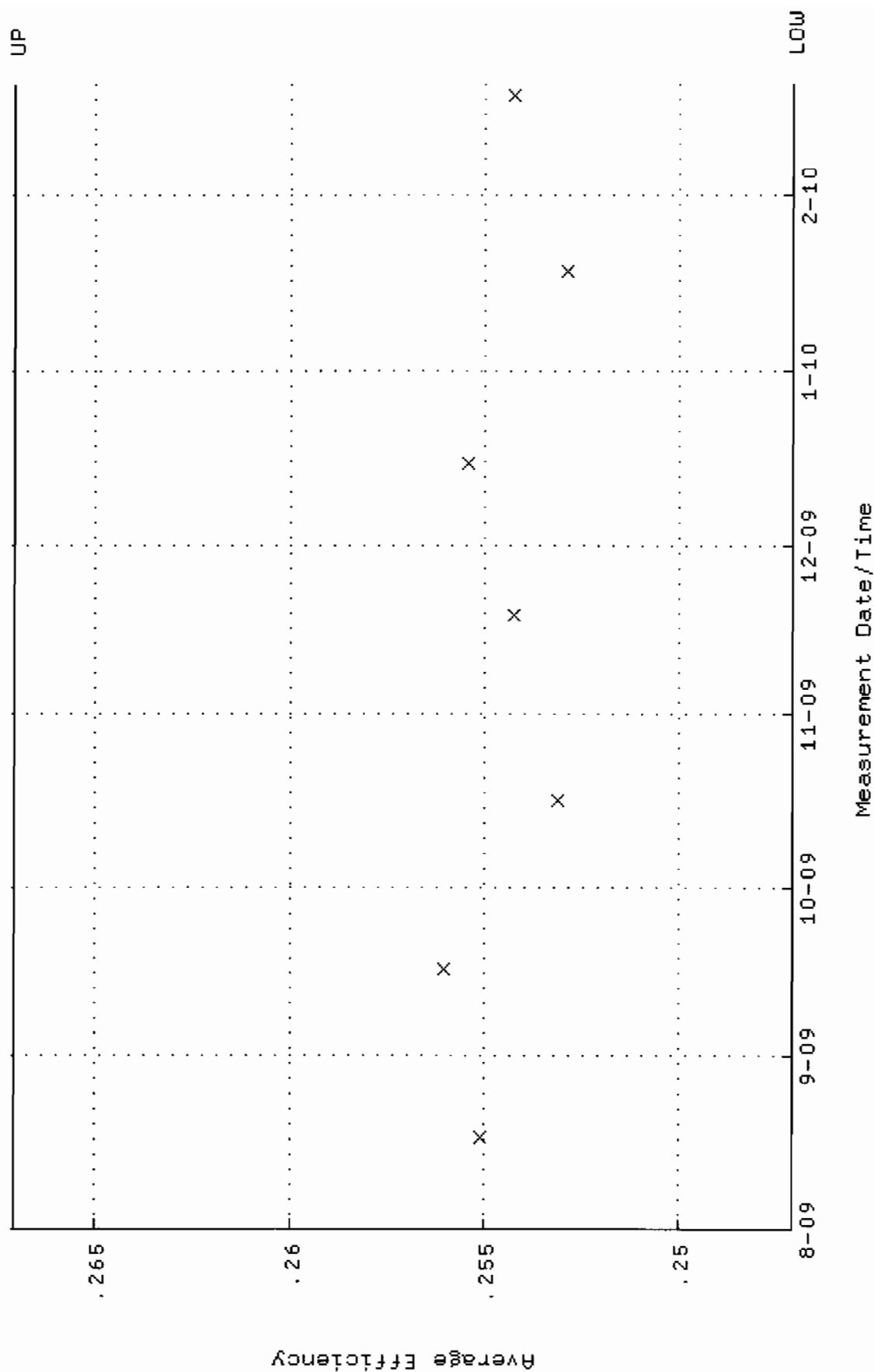
QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
 Lower/Upper Lmts: 88.1614 through 97.4416



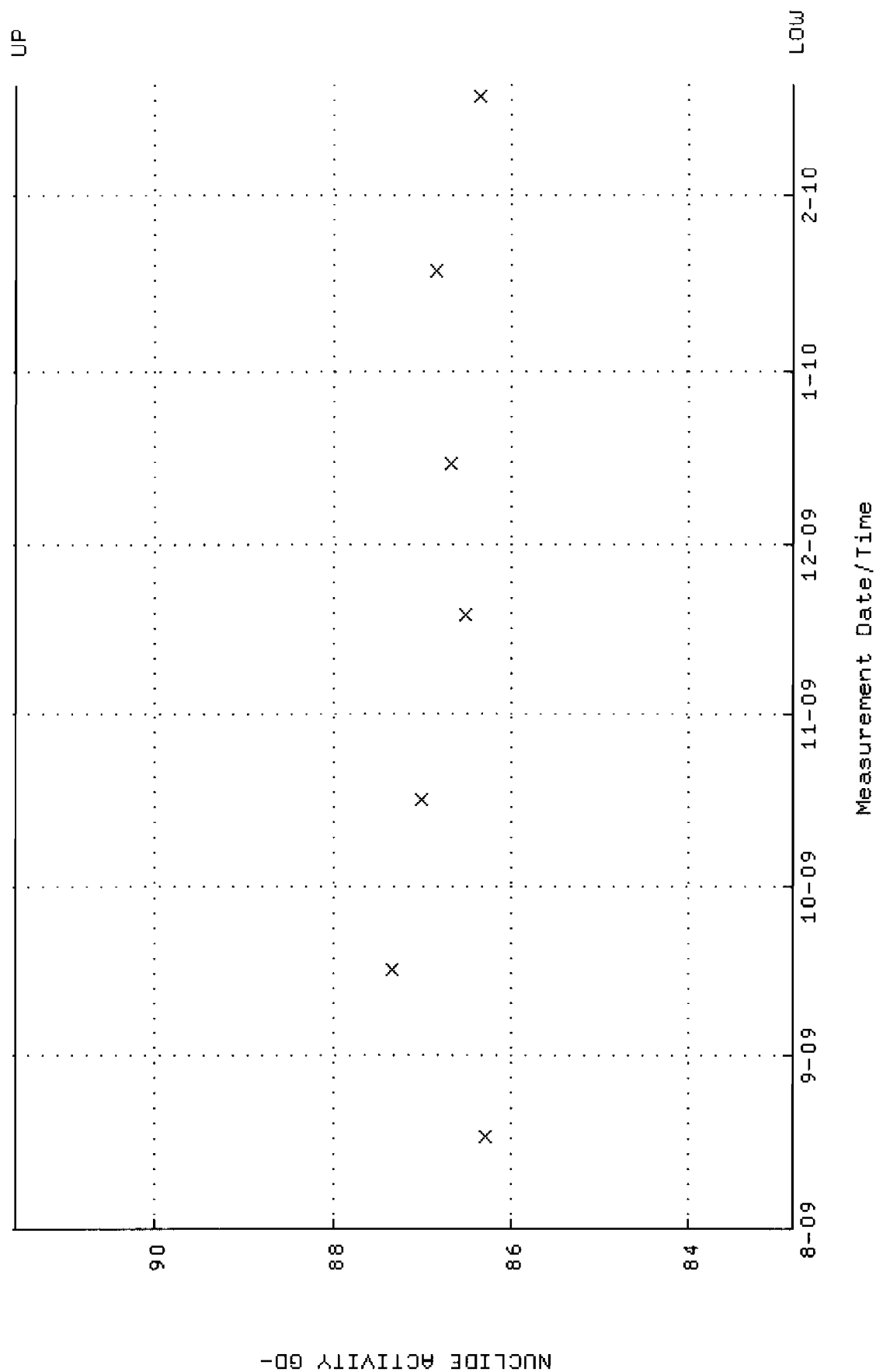
QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:13:13 through 19-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



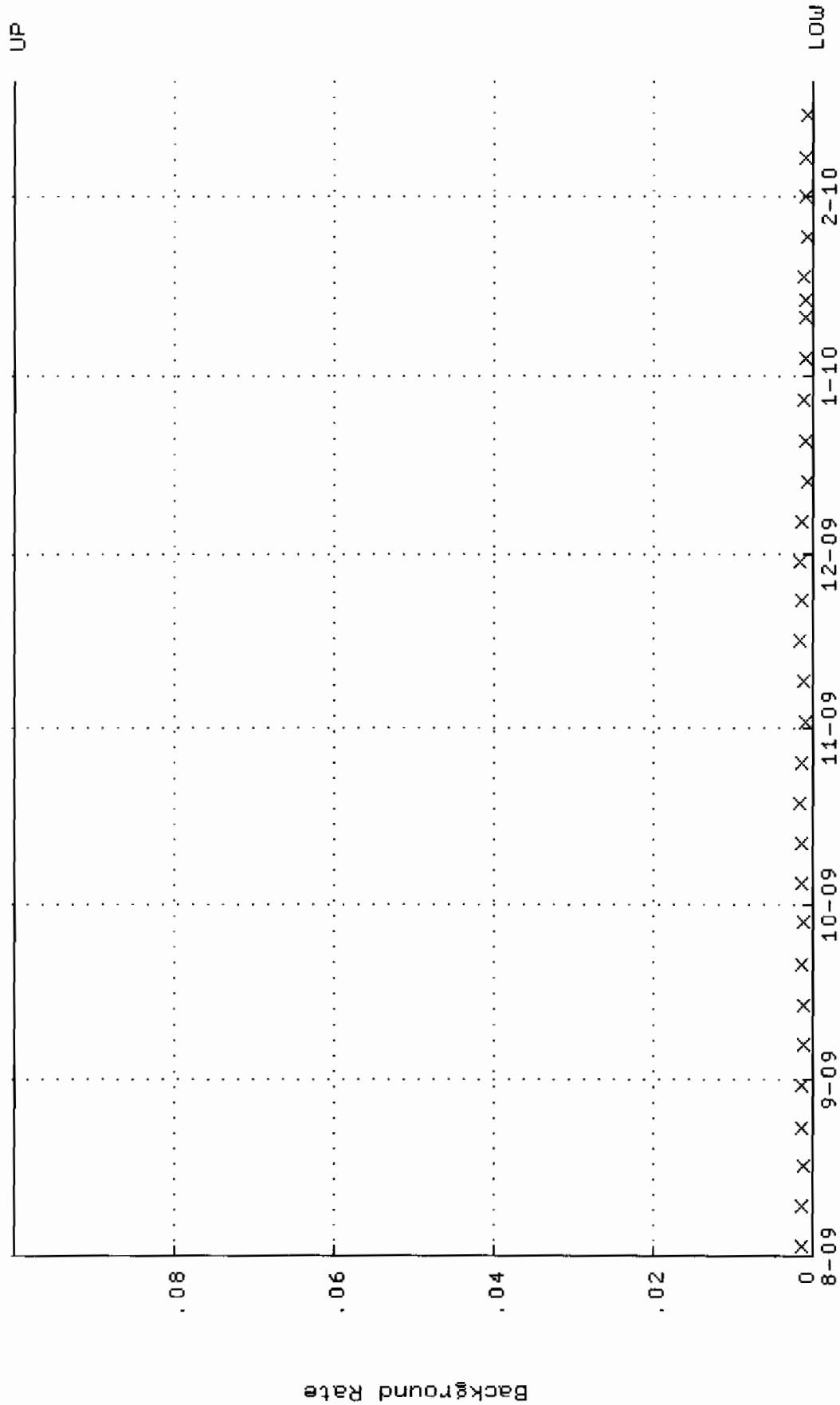
QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.247085 through 0.267085



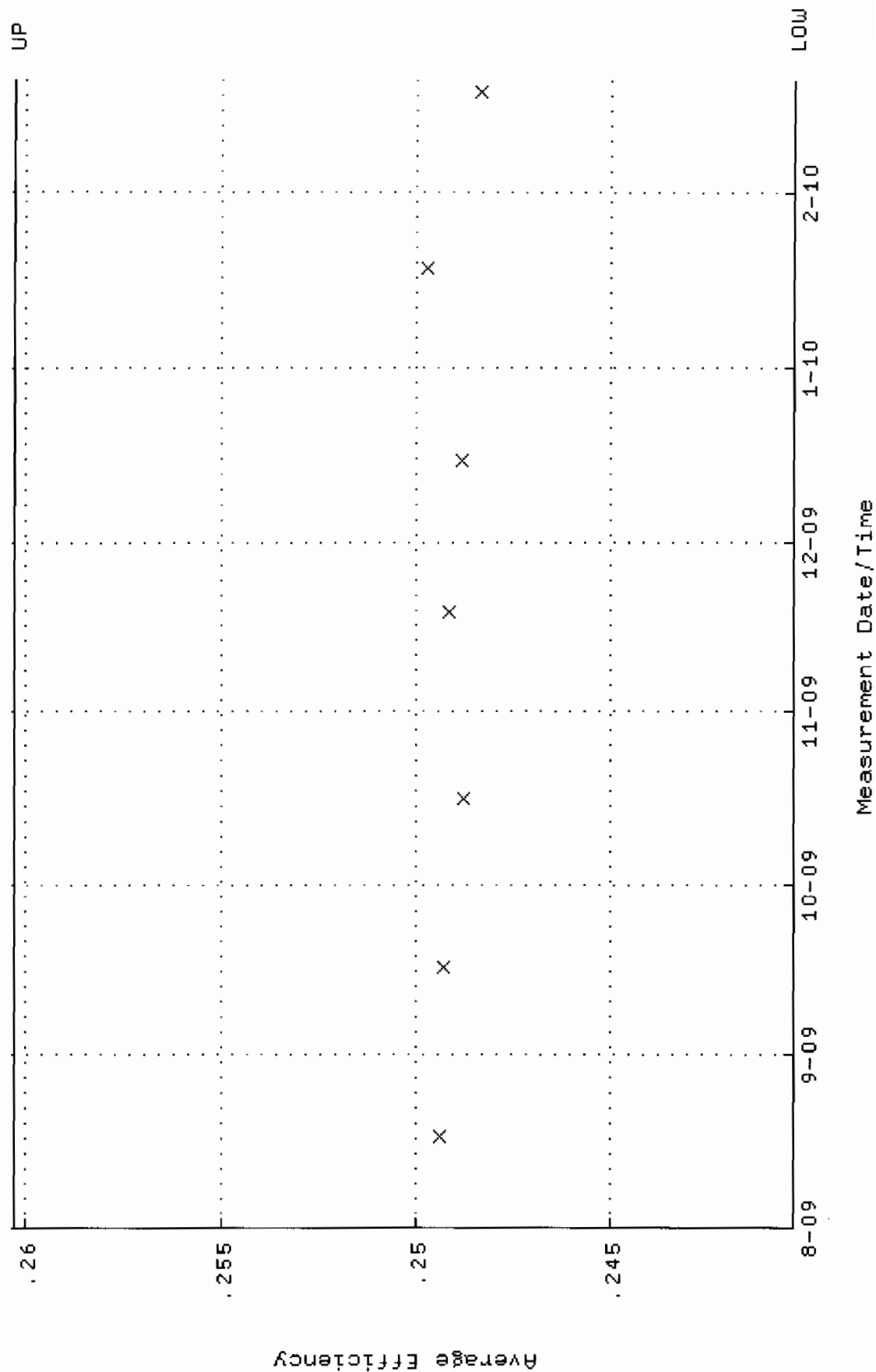
QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 82.8399 through 91.5599



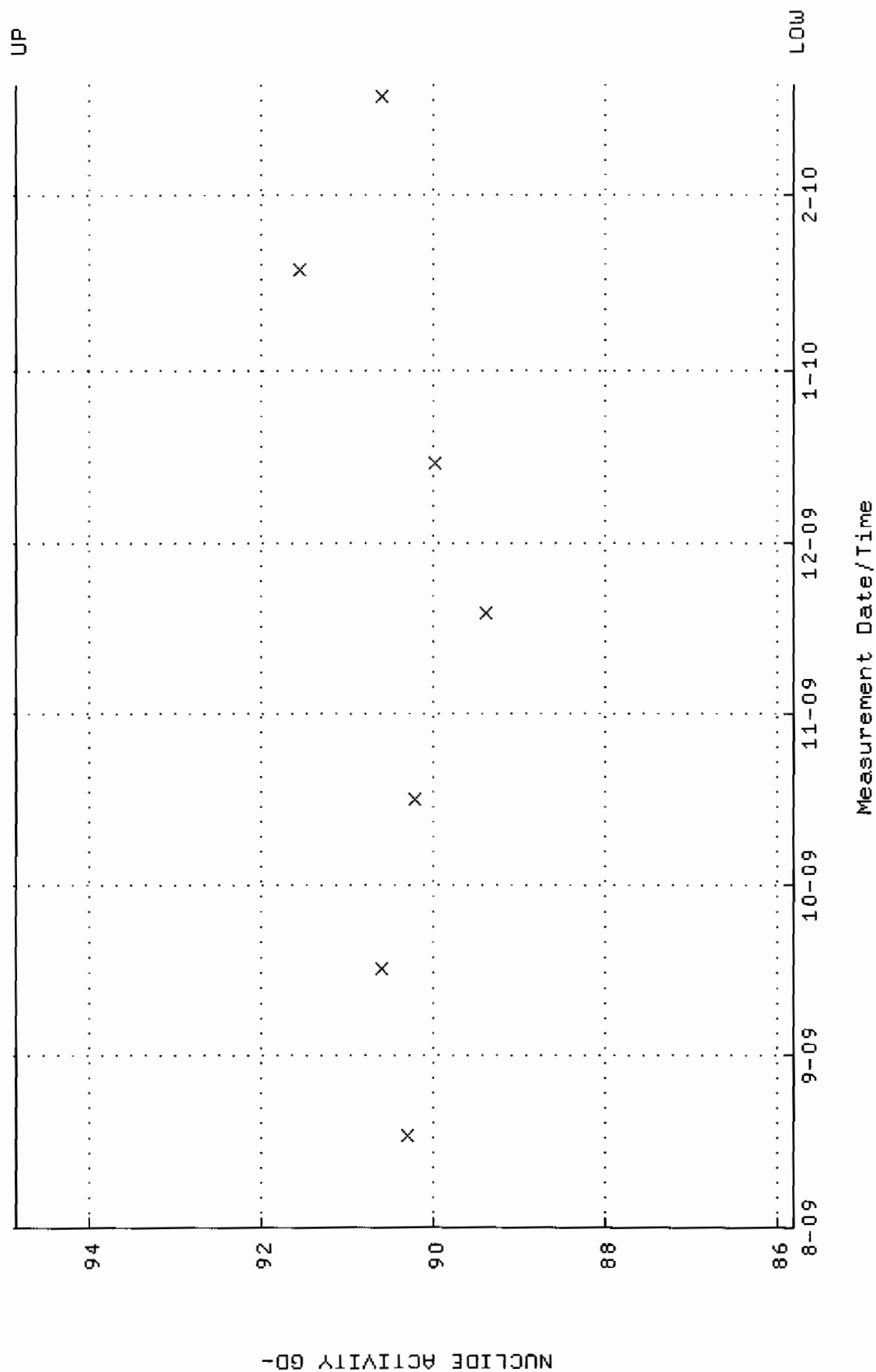
QA filename : DKA100:[ENV_ALPHA.QA.B]B138.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:13:48 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



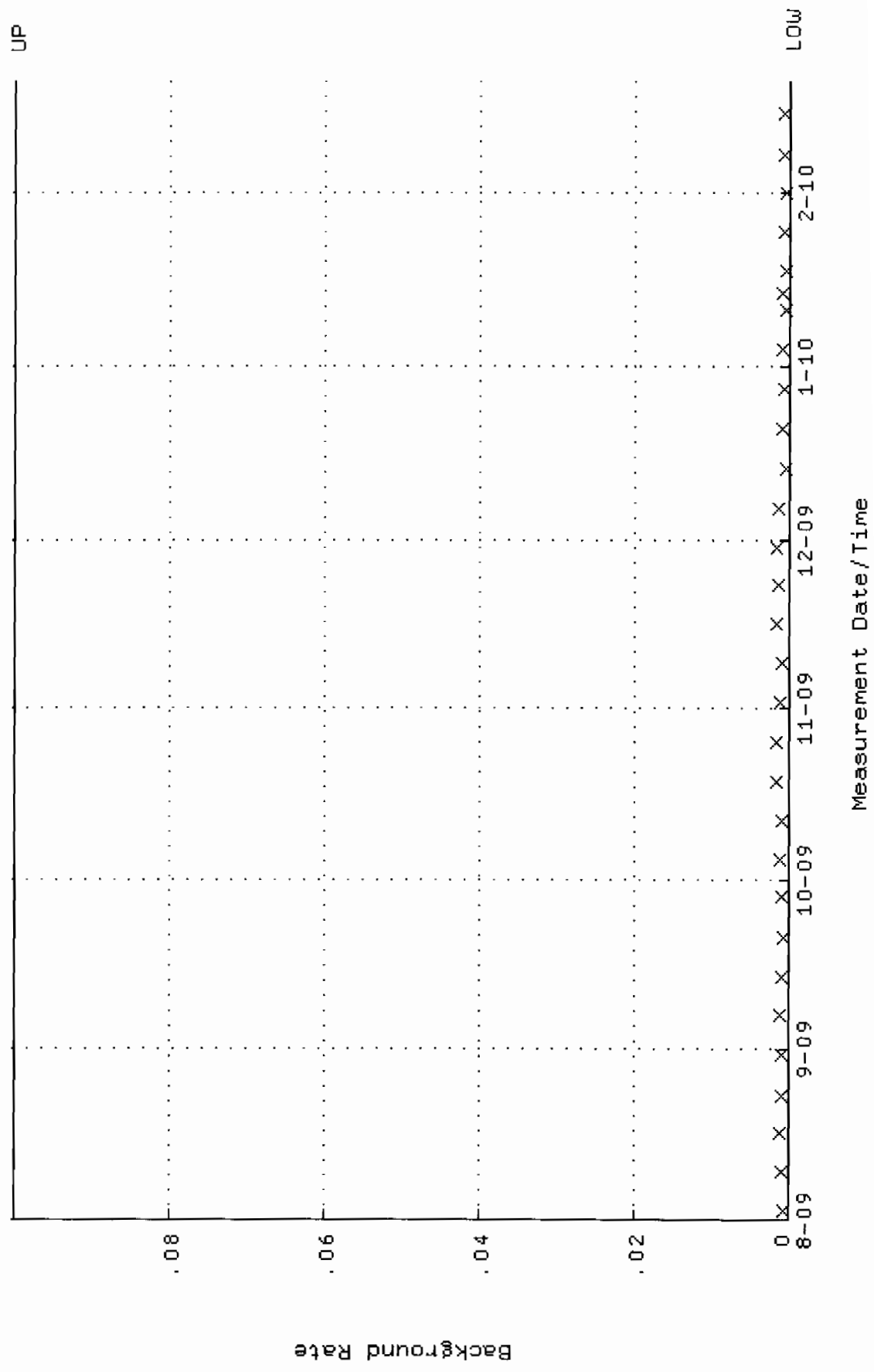
QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-AUG-2009 10:05:40 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.240299 through 0.260299



QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 10:05:40 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 85.8145 through 94.8477



QA filename : DKA100:[ENV_ALPHA.QA.B]B139.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:13:52 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000

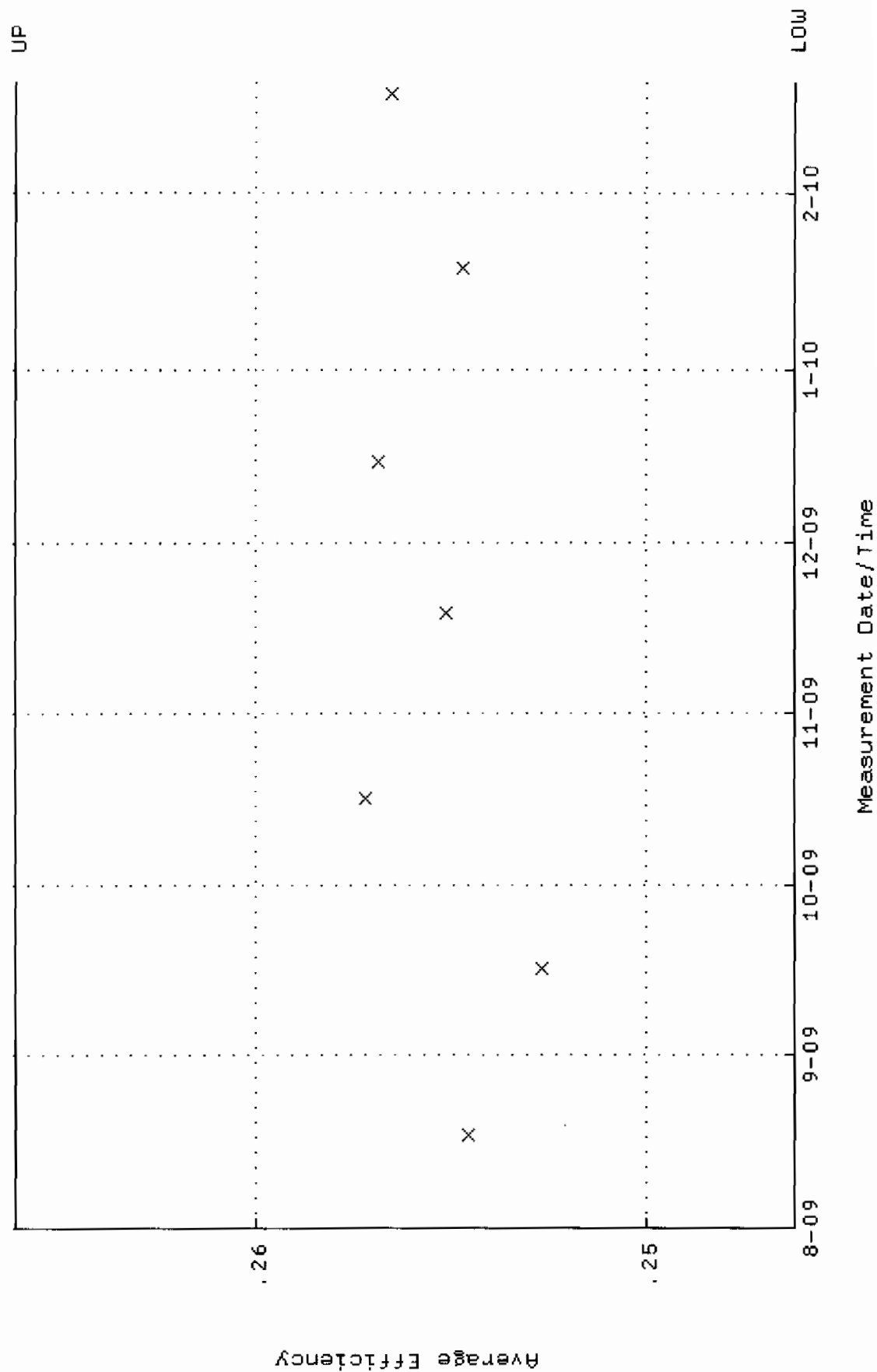


QA filename : DKA100:[ENV_ALPHA.QA.W]w140.QAF;1

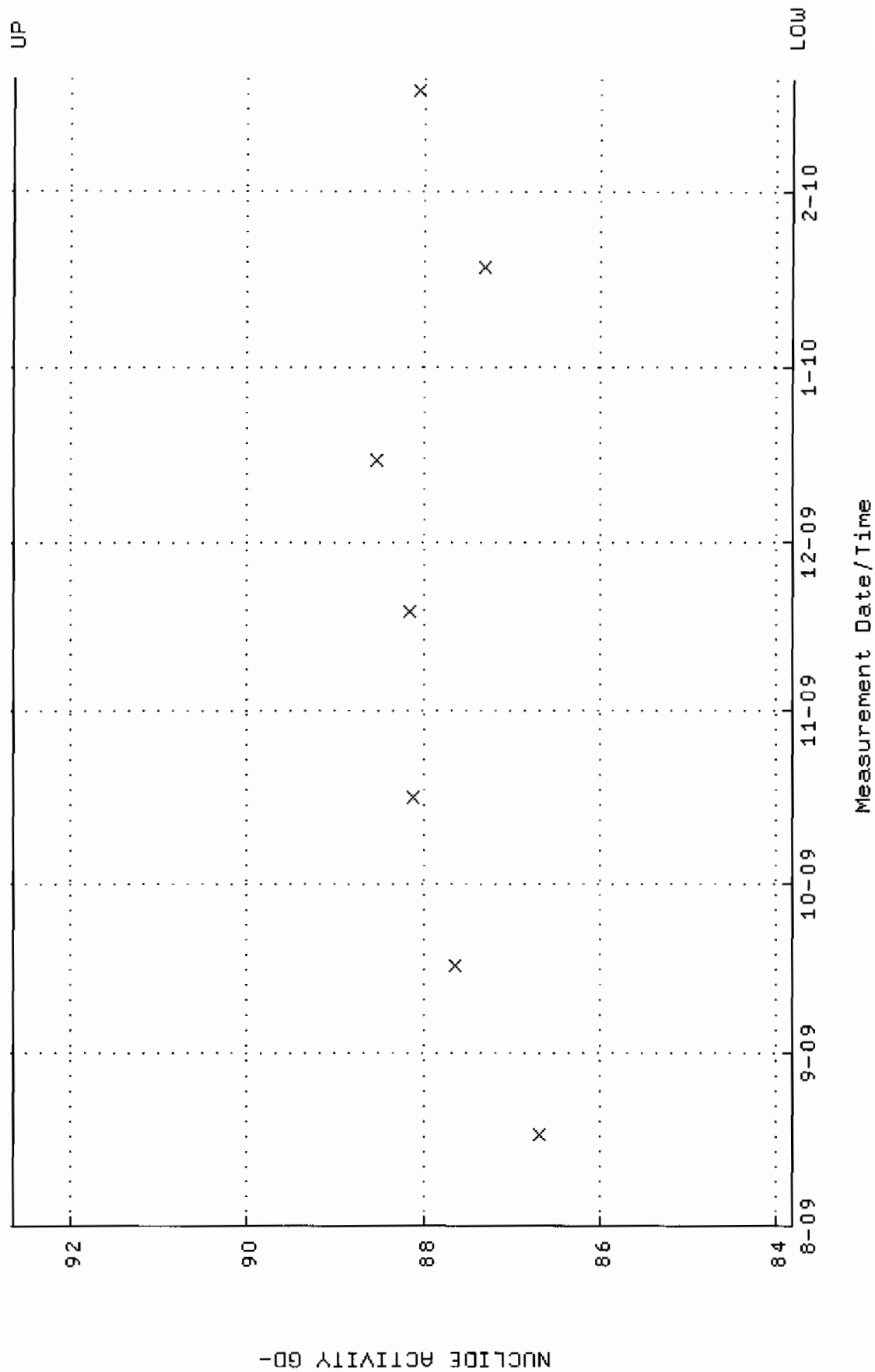
Parameter Name : AVRGEFF (Average Efficiency)

Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00

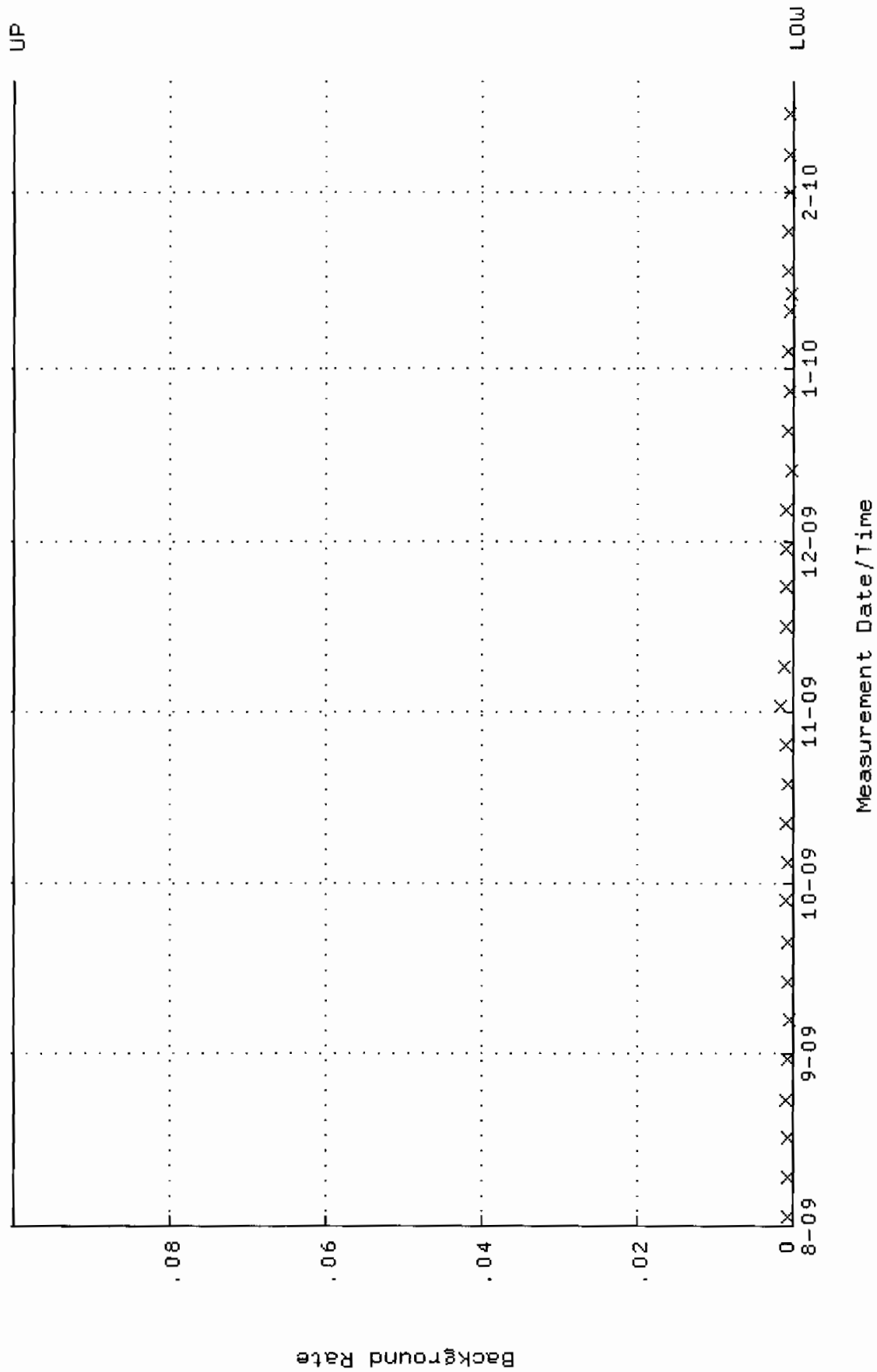
Lower/Upper Lmts: 0.246178 through 0.266178



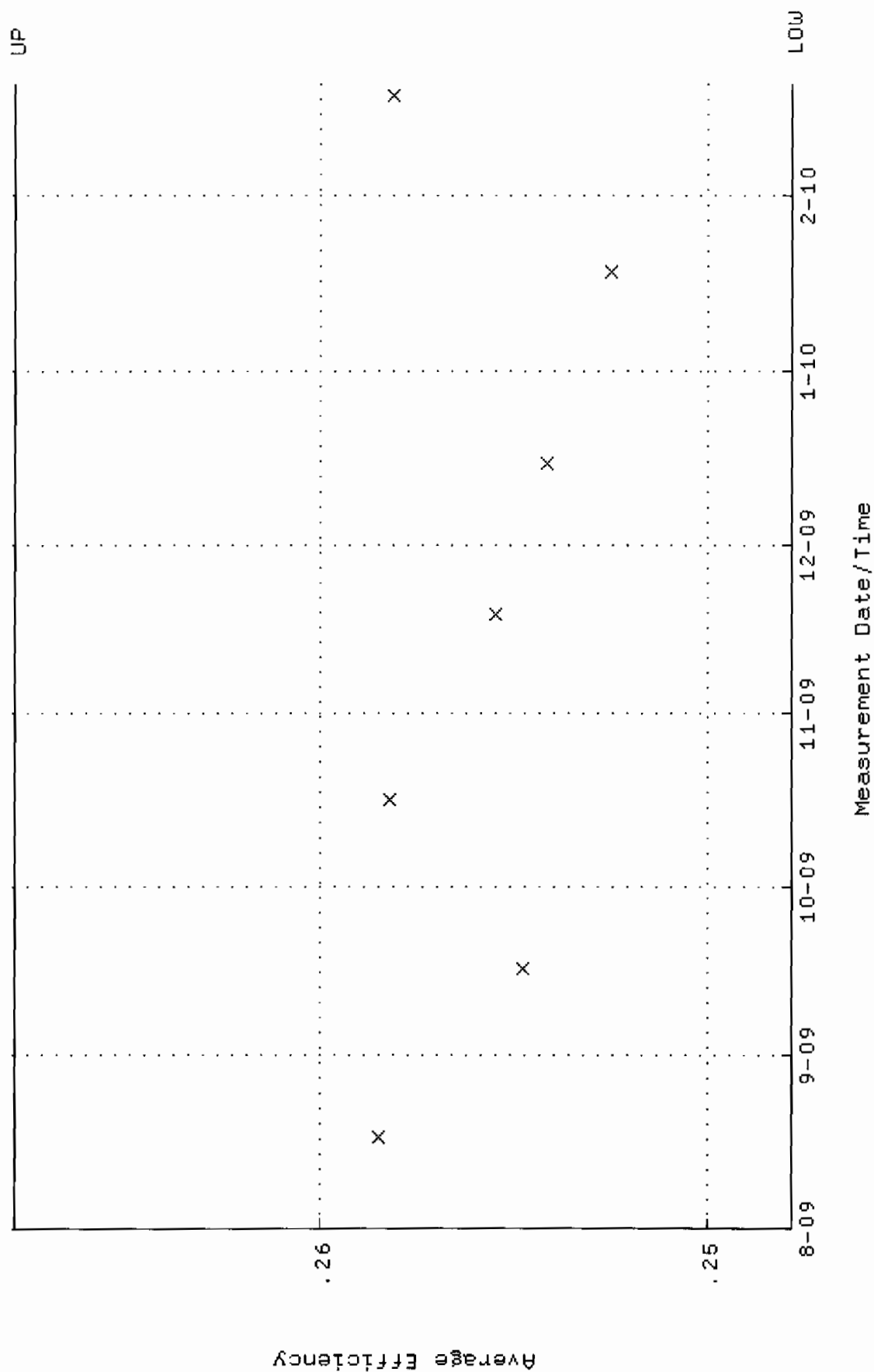
QA filename : OKA100:[ENV_ALPHA.QA.W]W140.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 83.8171 through 92.6399



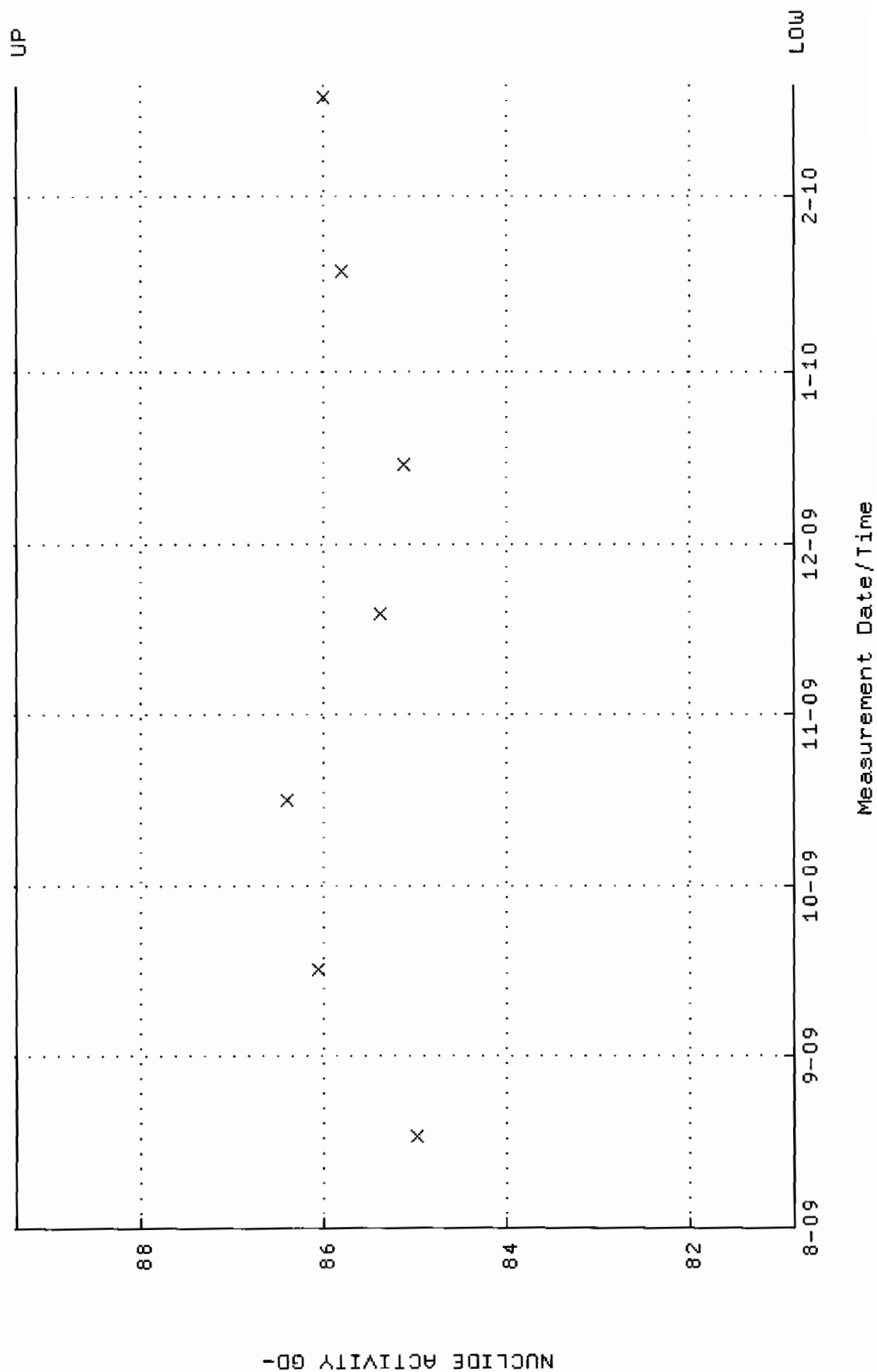
QA filename : DKA100:[ENV_ALPHA.QA.B]B140.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:13:56 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



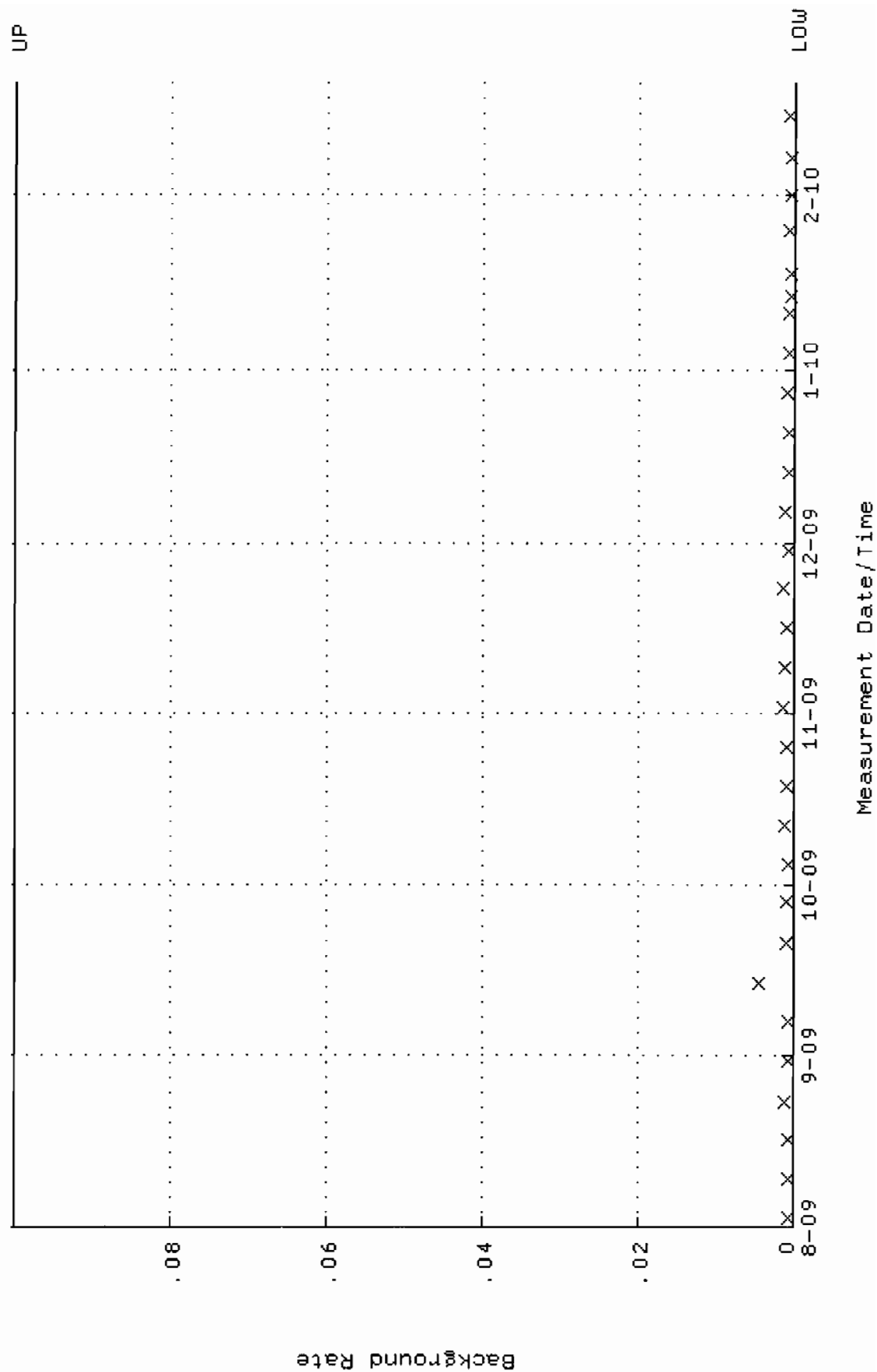
QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.247845 through 0.267845



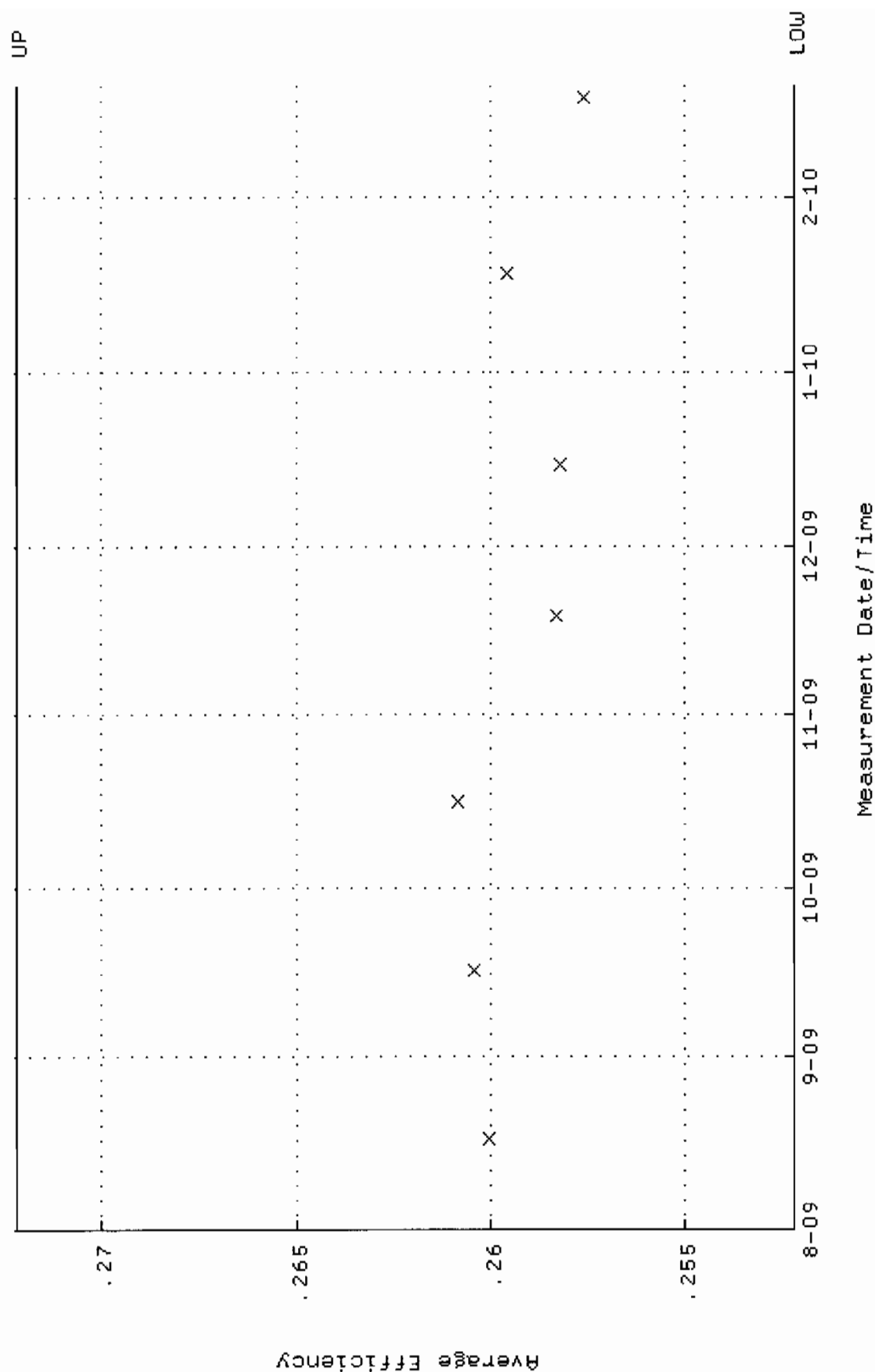
QA filename : DKA100:[ENV-ALPHA.QA.W]W141.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 80.8595 through 89.3711



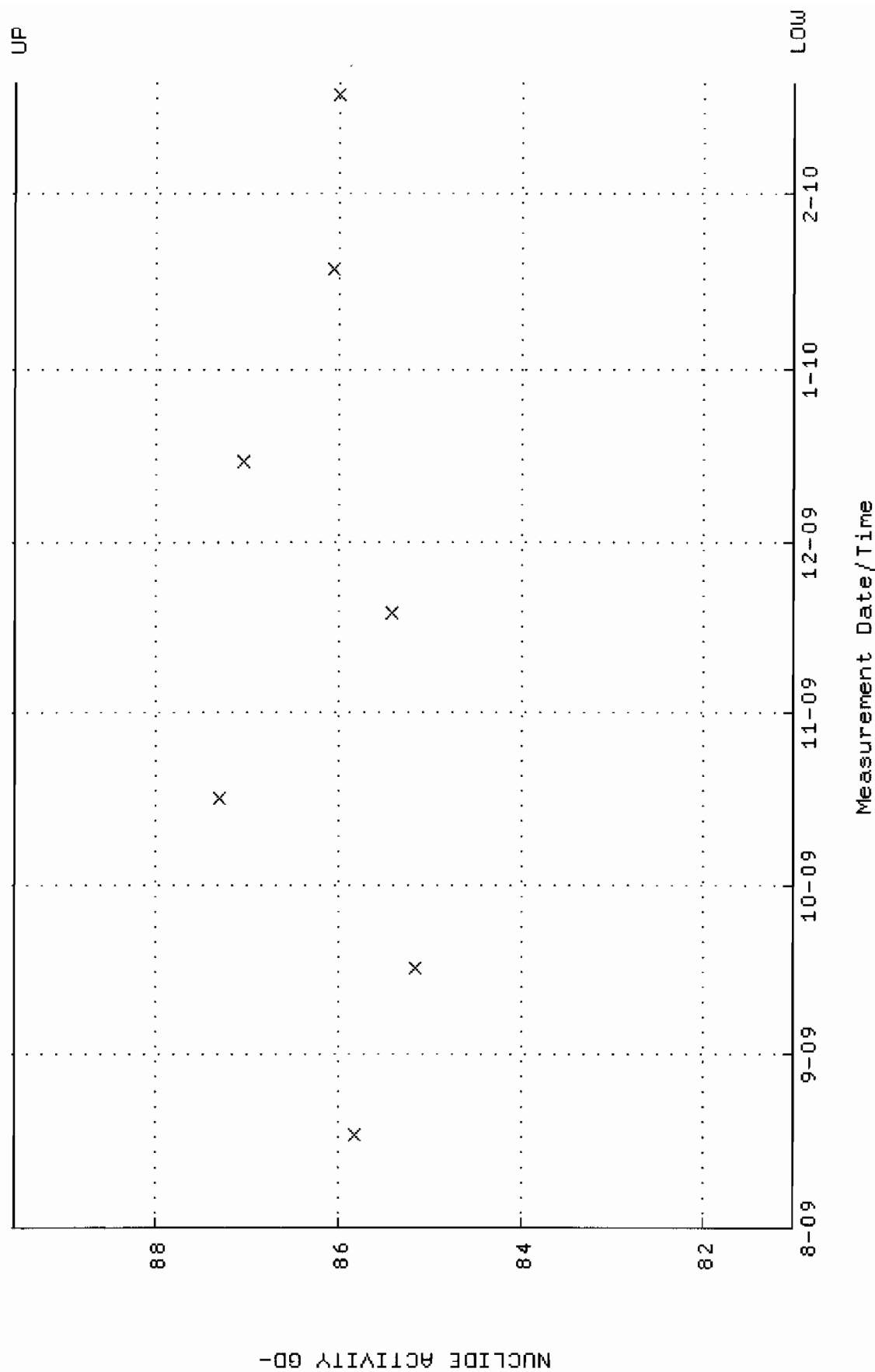
QA filename : DKA100:[ENV_ALPHA.QA.B]B141.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:14:00 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



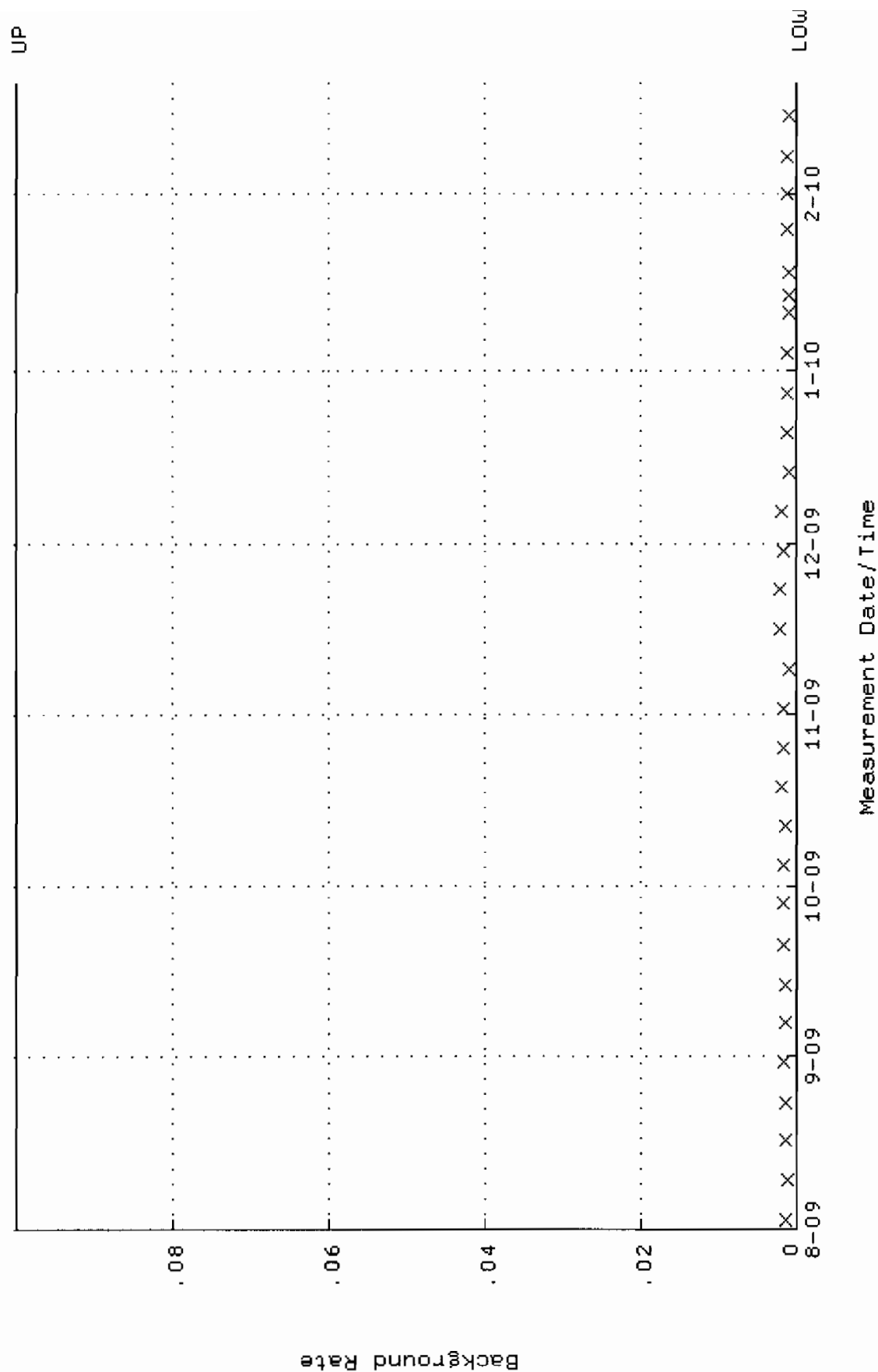
QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.252182 through 0.272182



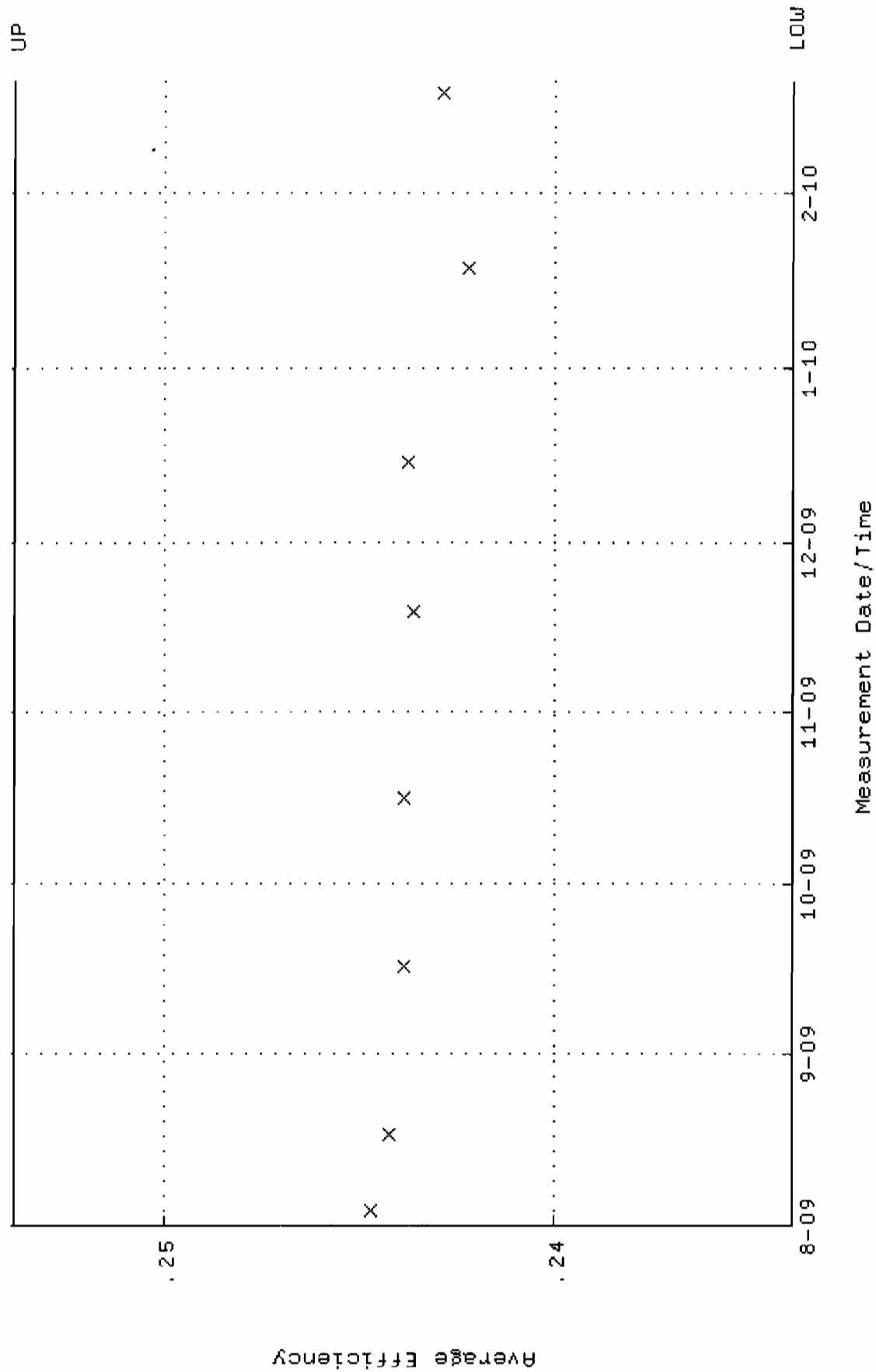
QA filename : DKA100:[ENV-ALPHA.QA.W]W142.QAF;2
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 81.0245 through 89.5533



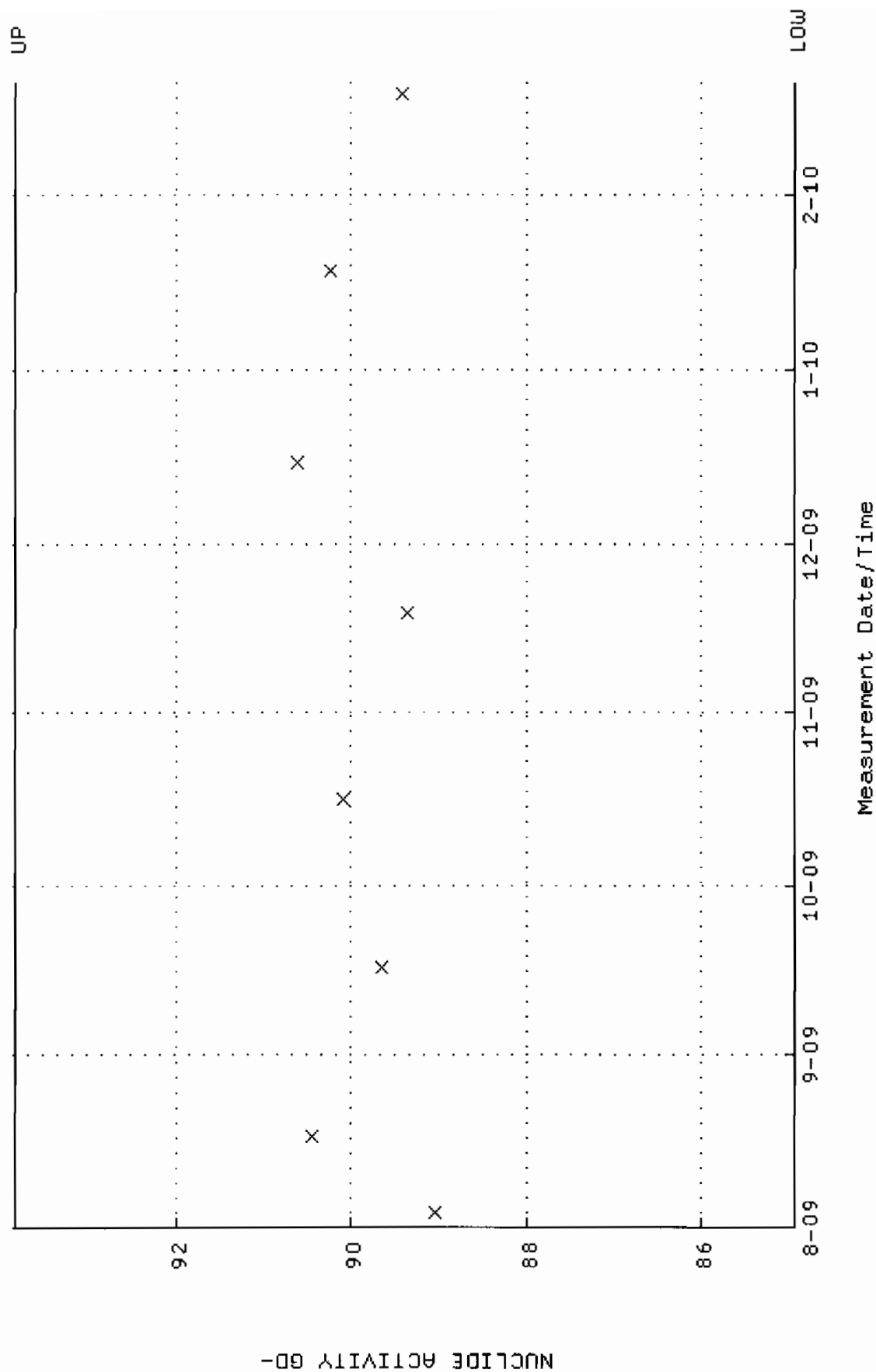
QA filename : OKA100:[ENV_ALPHA.QA.B]B142.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:14:04 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



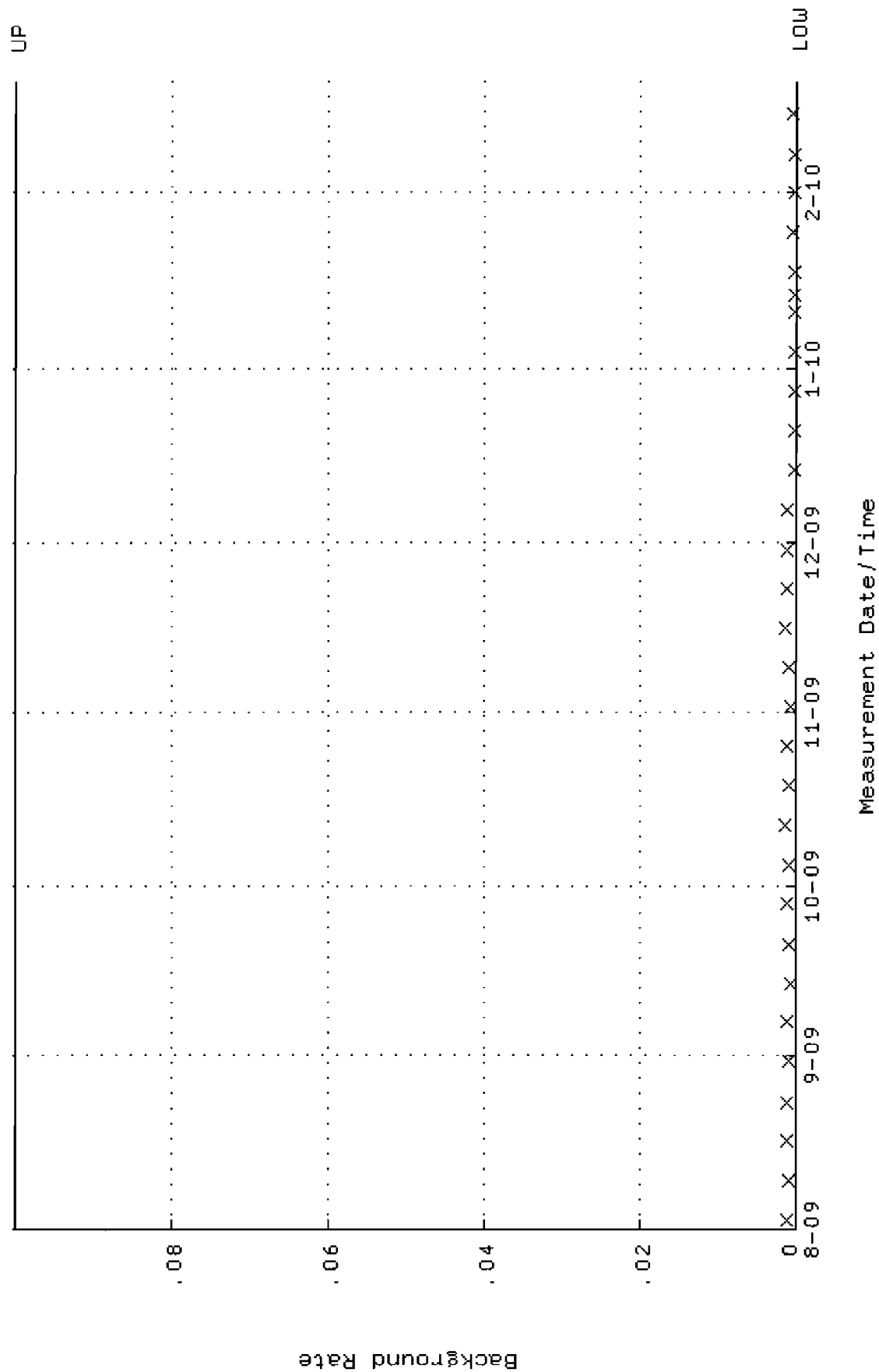
QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.233879 through 0.253879



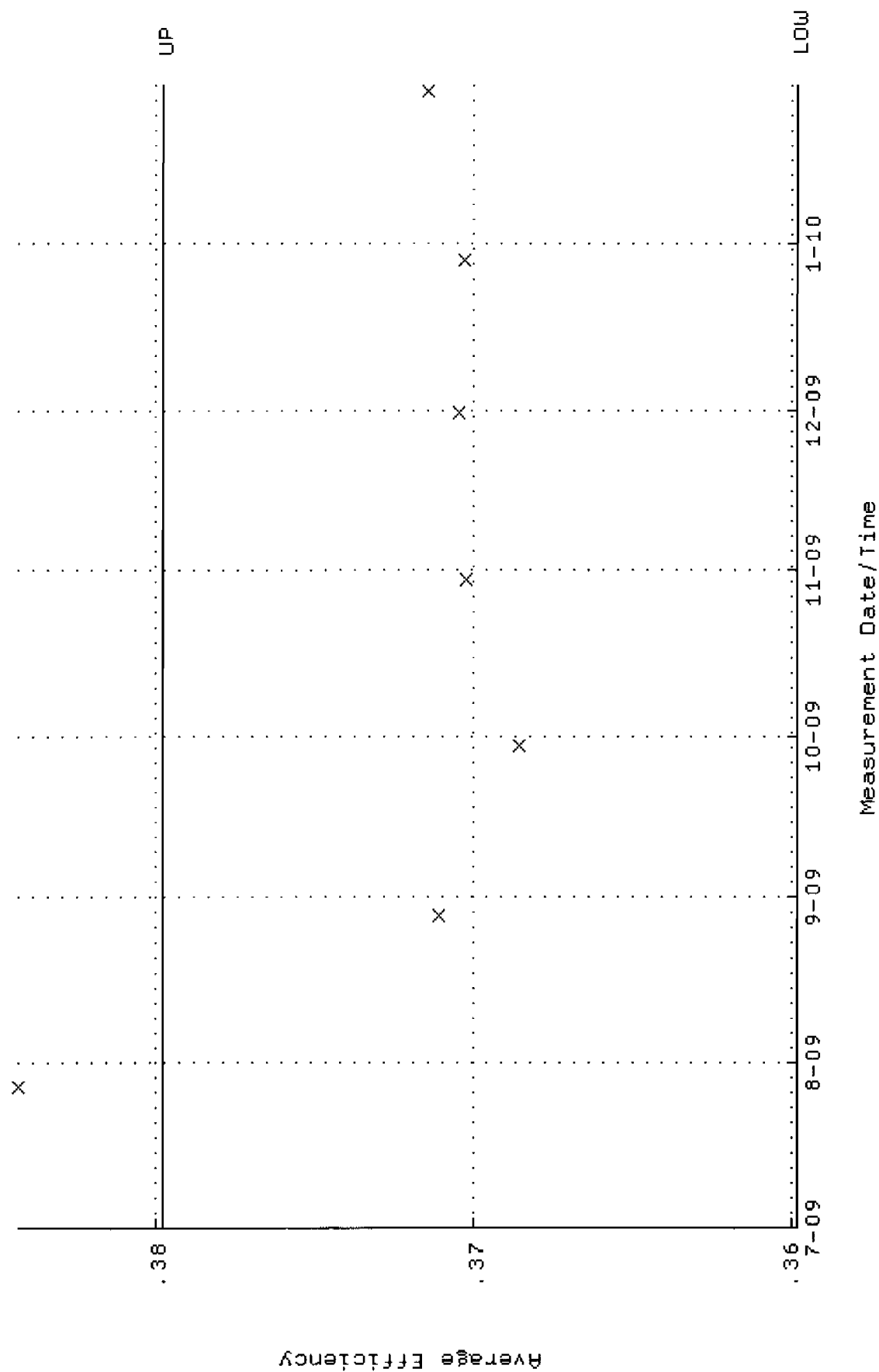
QA filename : DKA100:[ENV_ALPHA.QA.W]w143.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 84.9200 through 93.8590



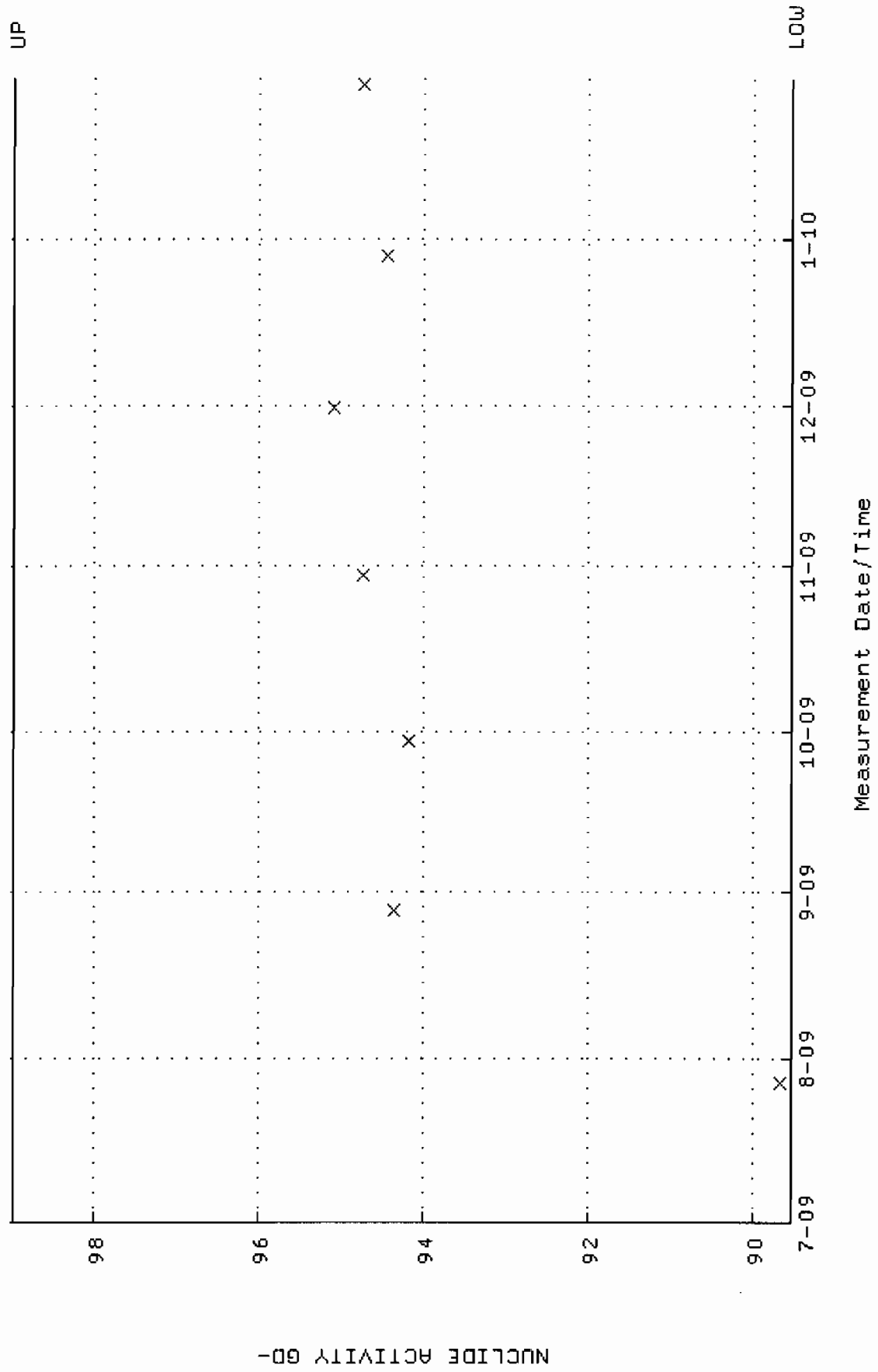
QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:14:08 through 20-FEB-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



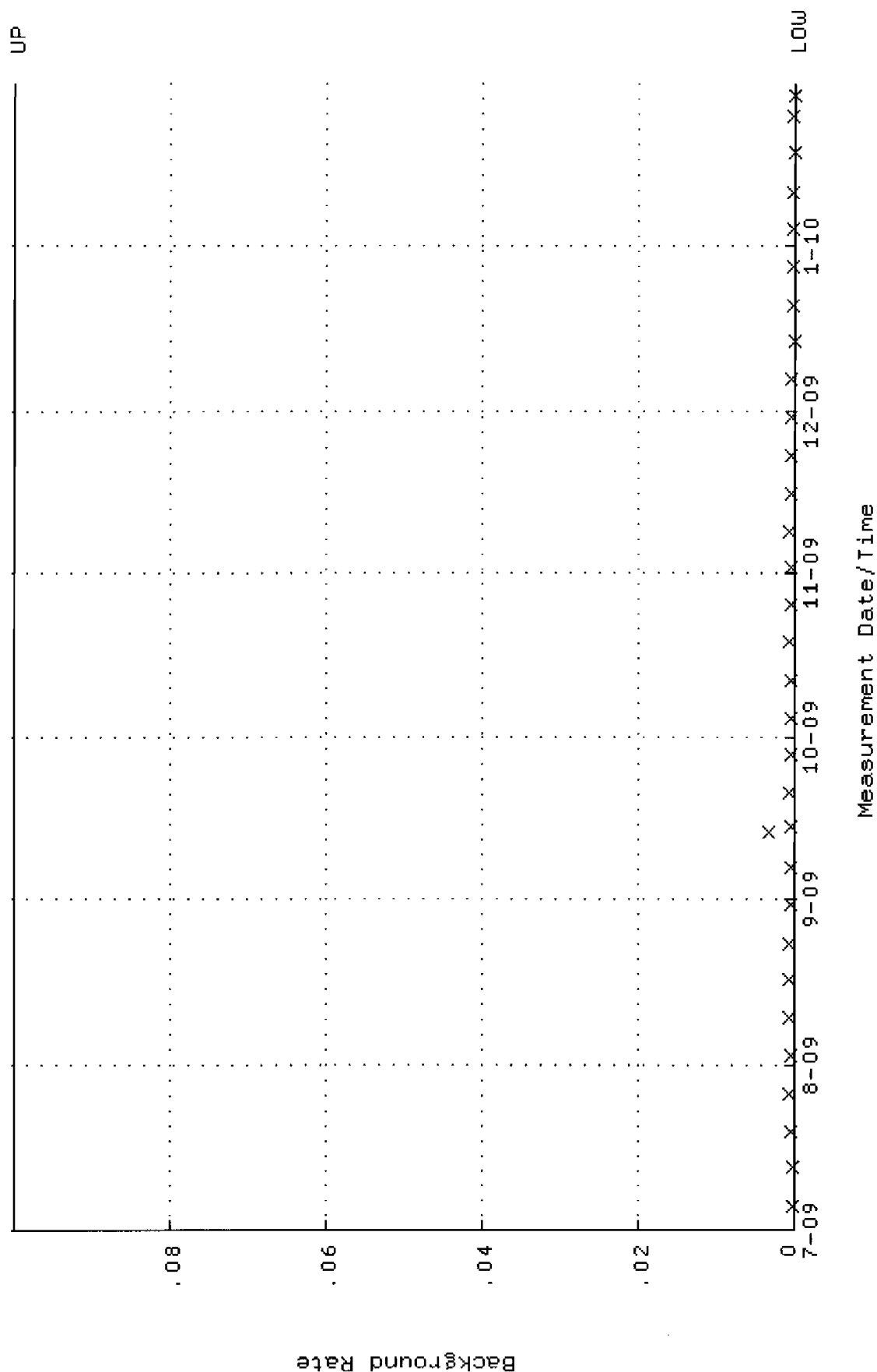
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
 Parameter Name : AVREFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.359804 through 0.379804



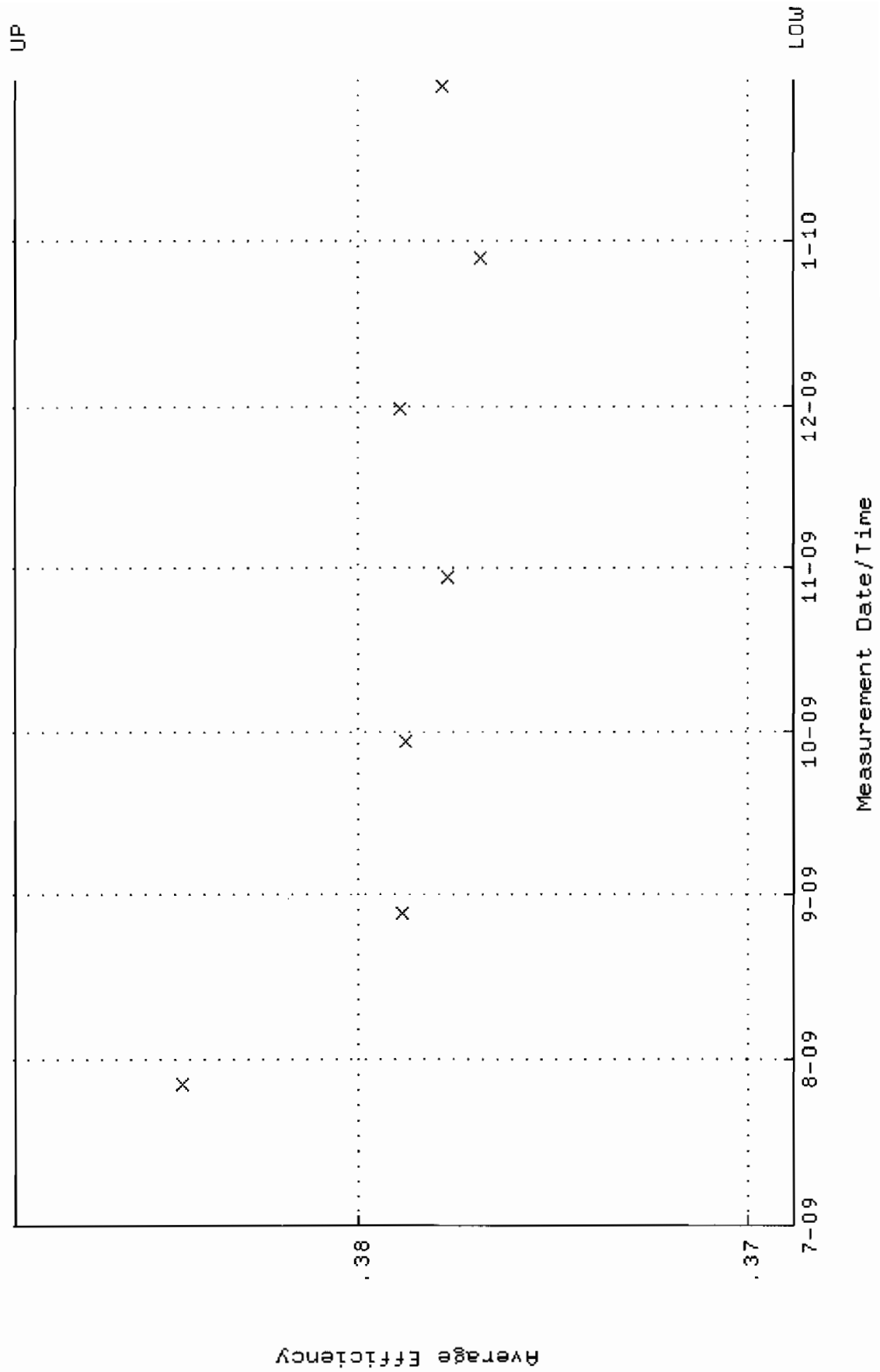
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.5441 through 98.9697



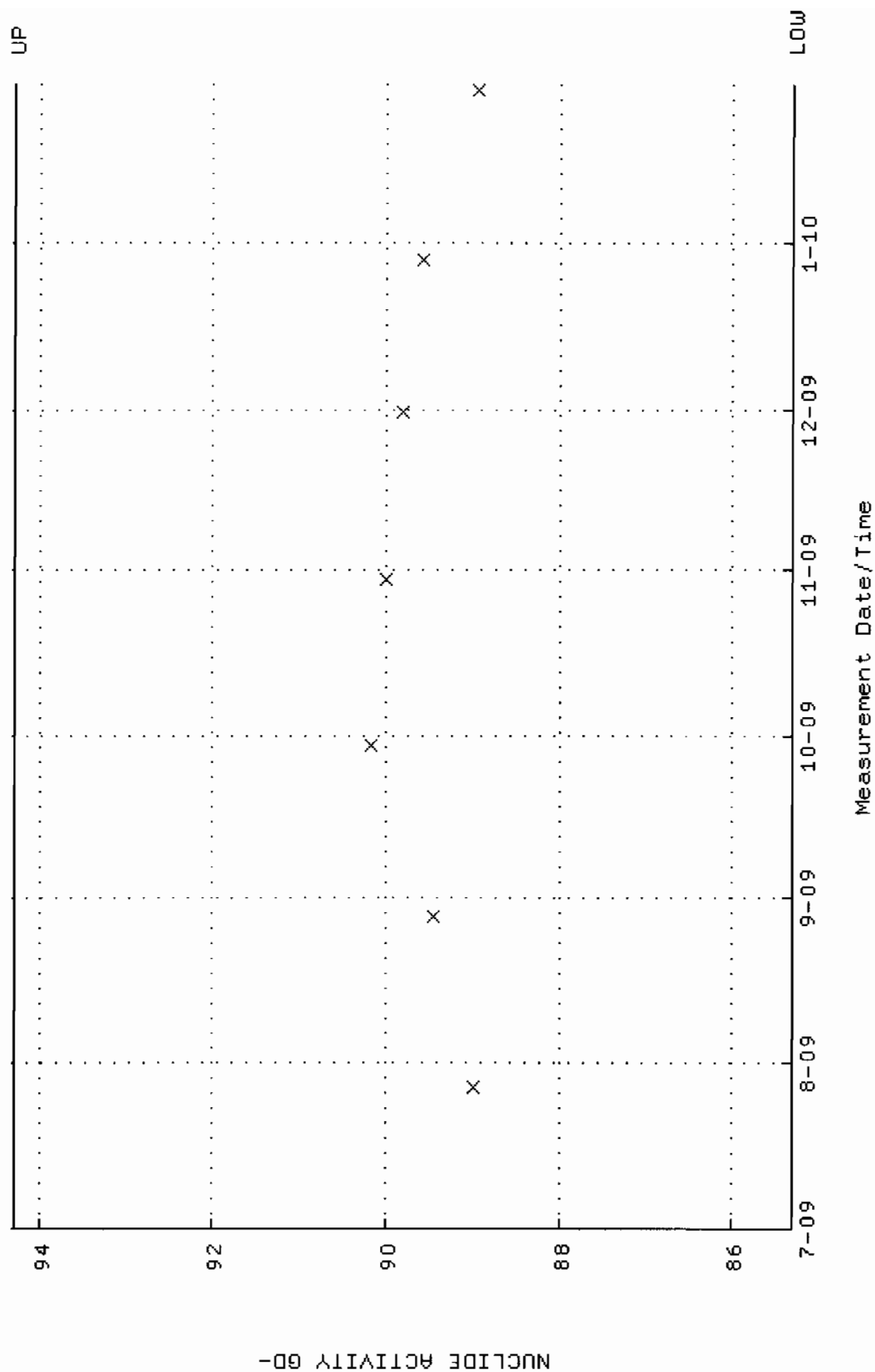
QA filename : DKA100:[ENV_ALPHA.QA.B]B223.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:24 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



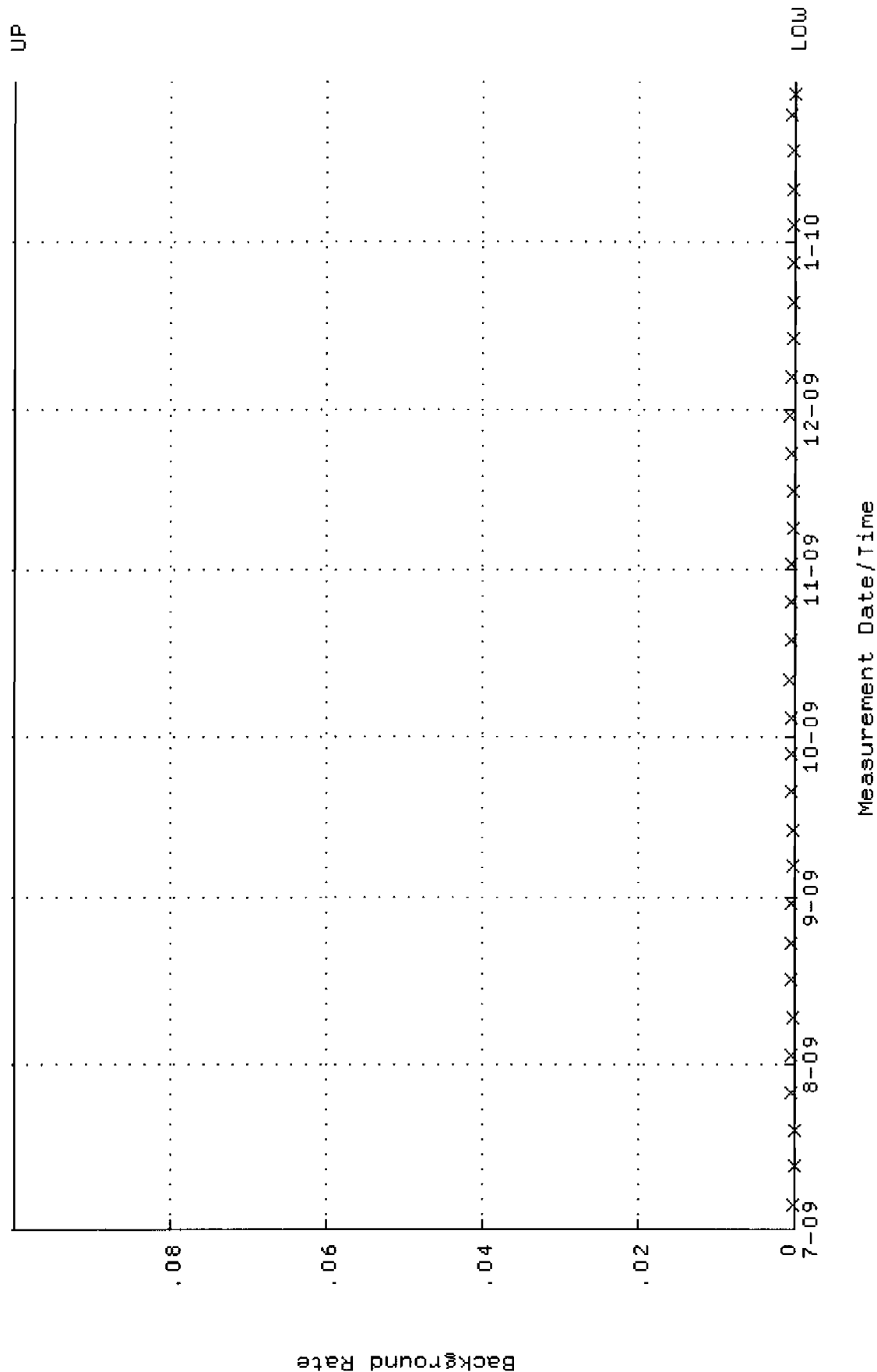
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.368812 through 0.388812



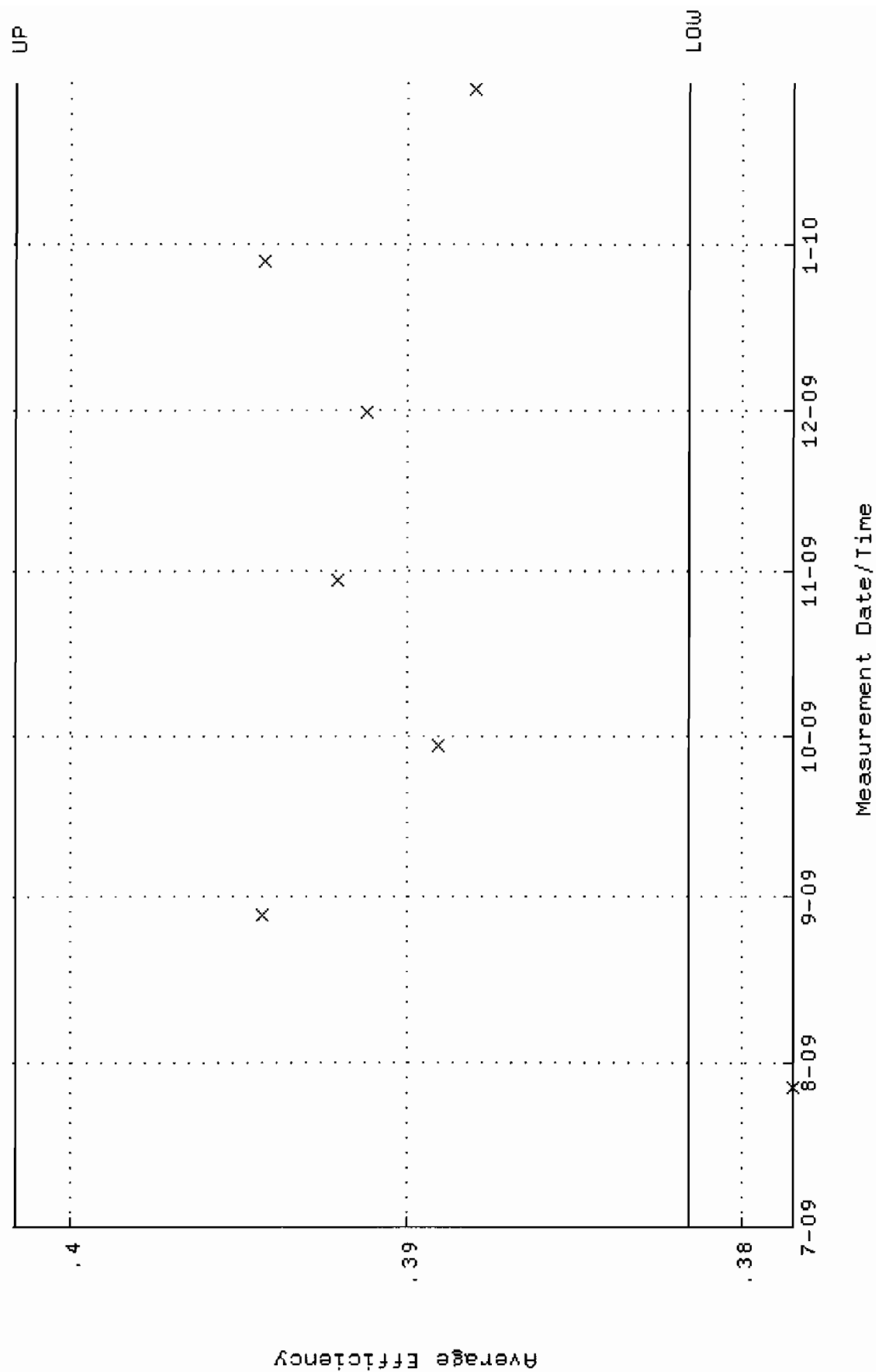
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 85.3066 through 94.2862



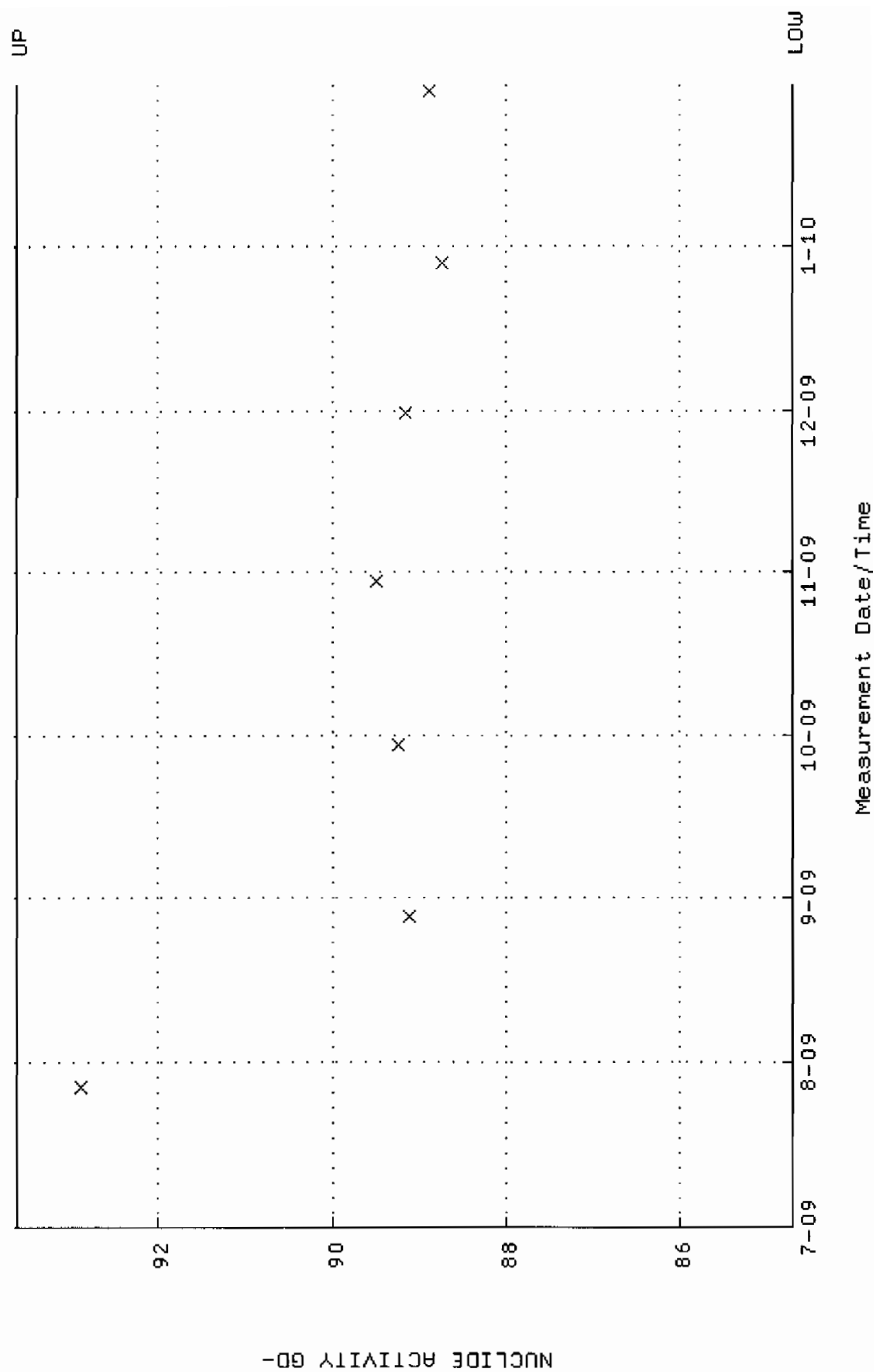
QA filename : DKA100:[ENV_ALPHA.QA.B]B224.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:29 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



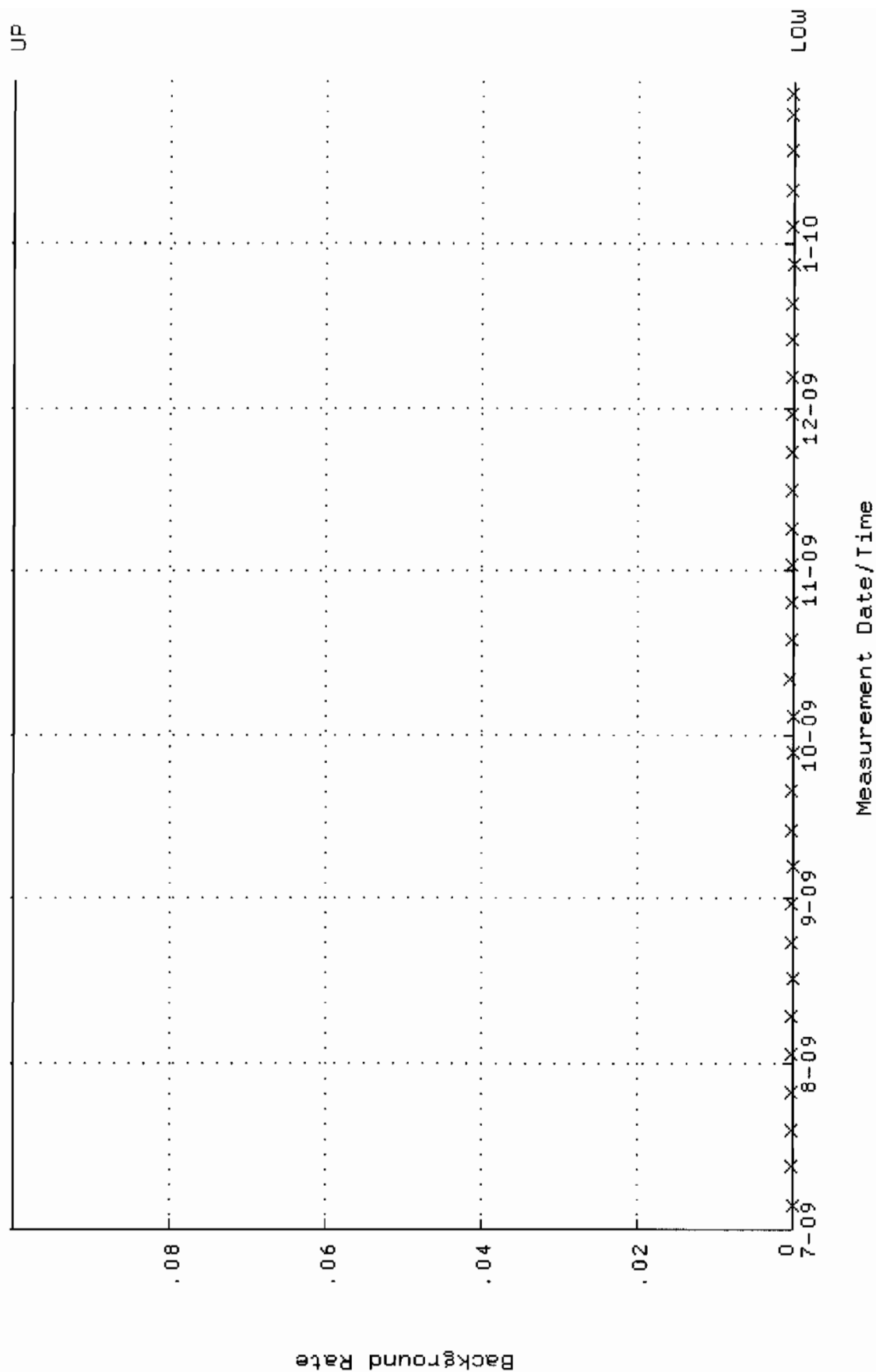
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.381631 through 0.401631



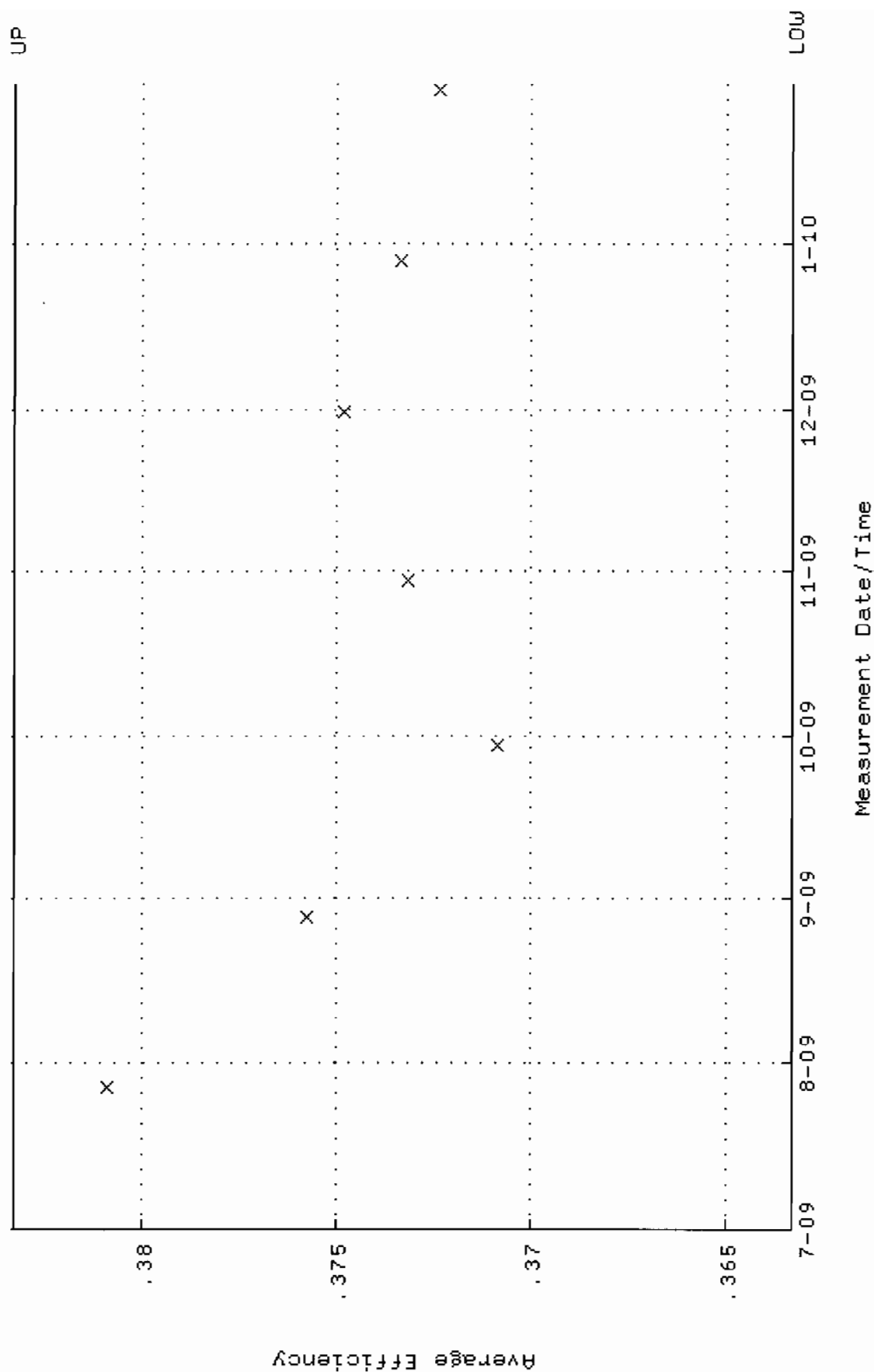
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7082 through 93.6248



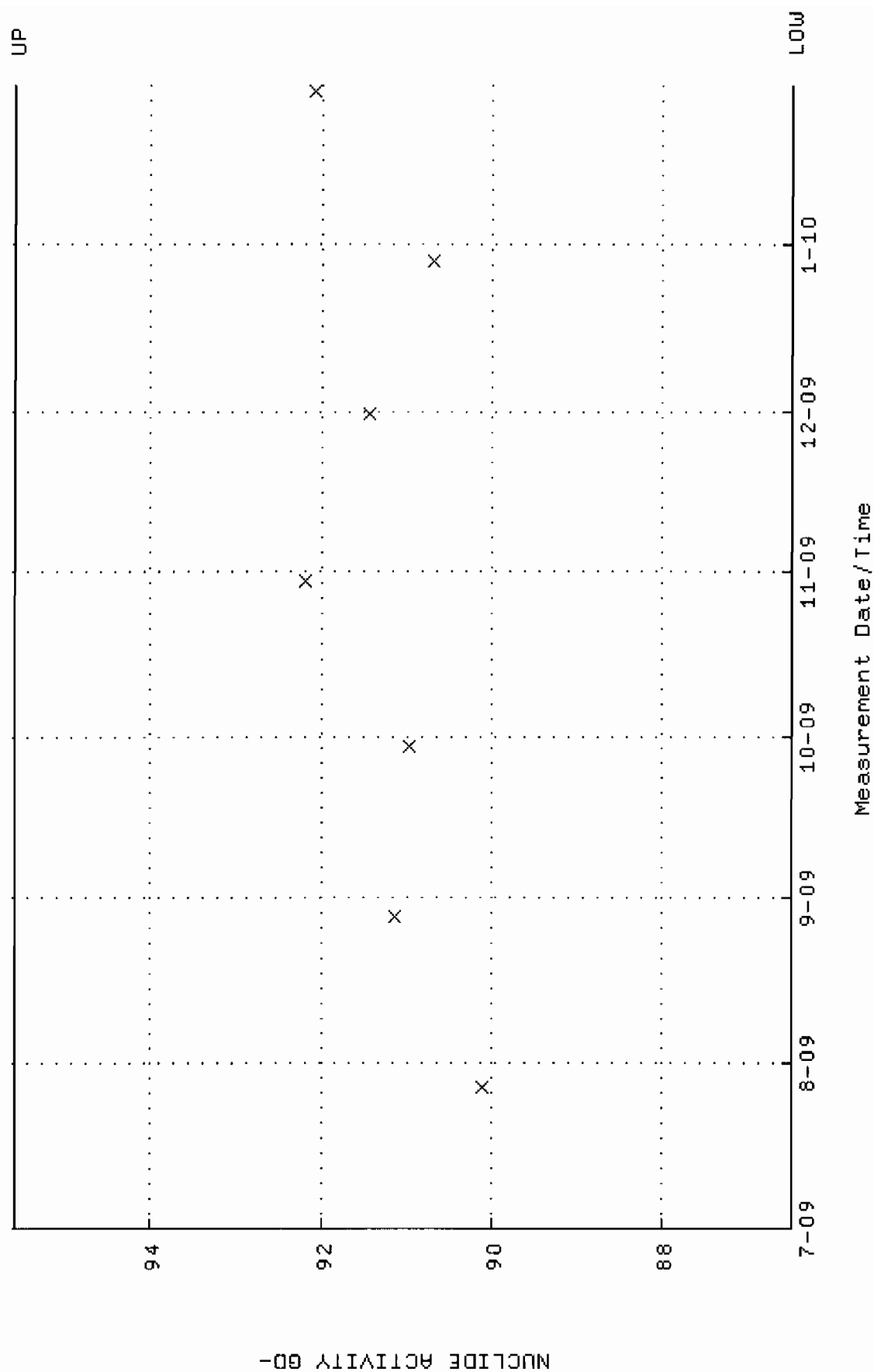
QA filename : DKA100:[ENV_ALPHA.QA.B]B225.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:34 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



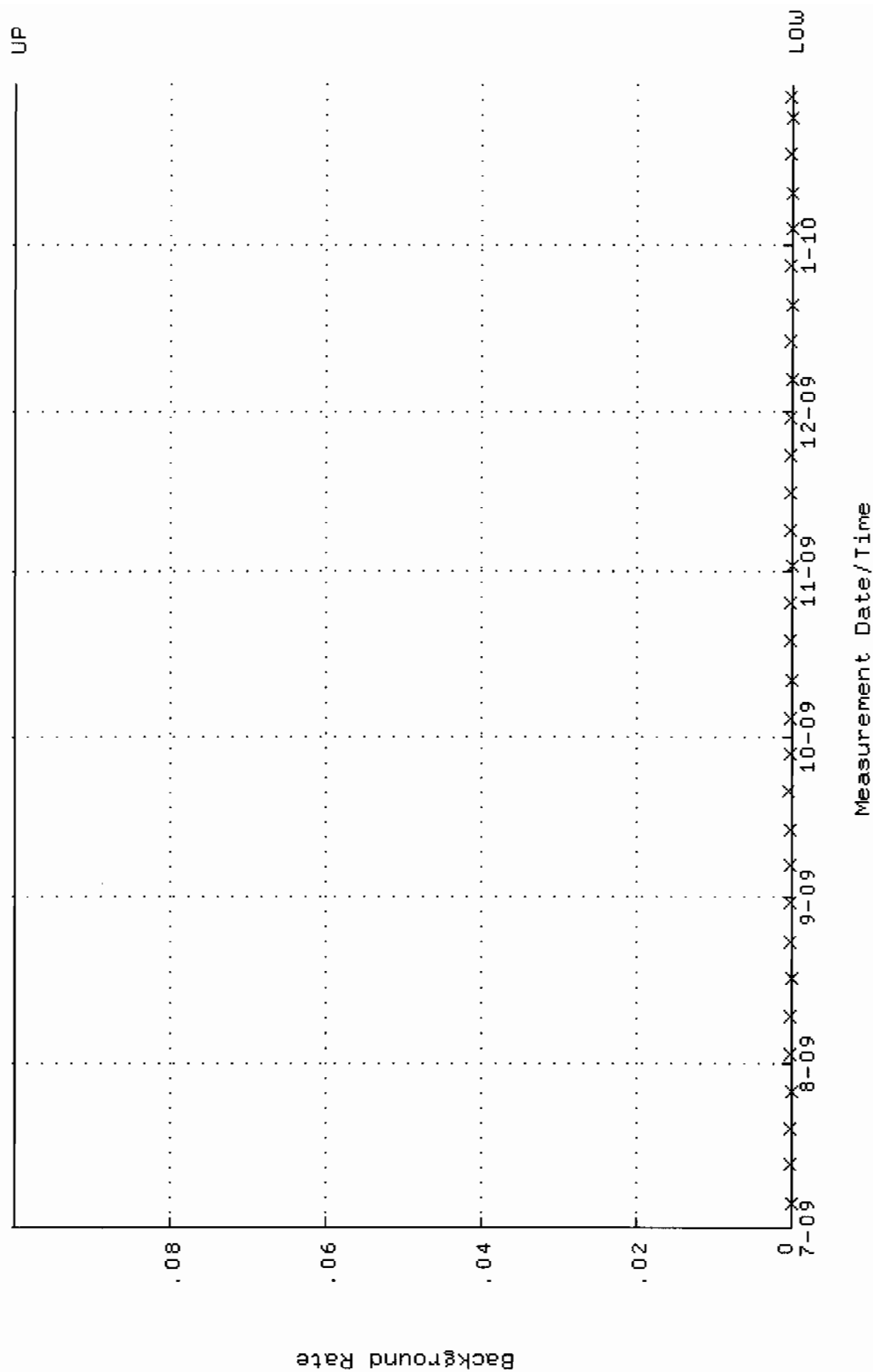
QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.363285 through 0.383285



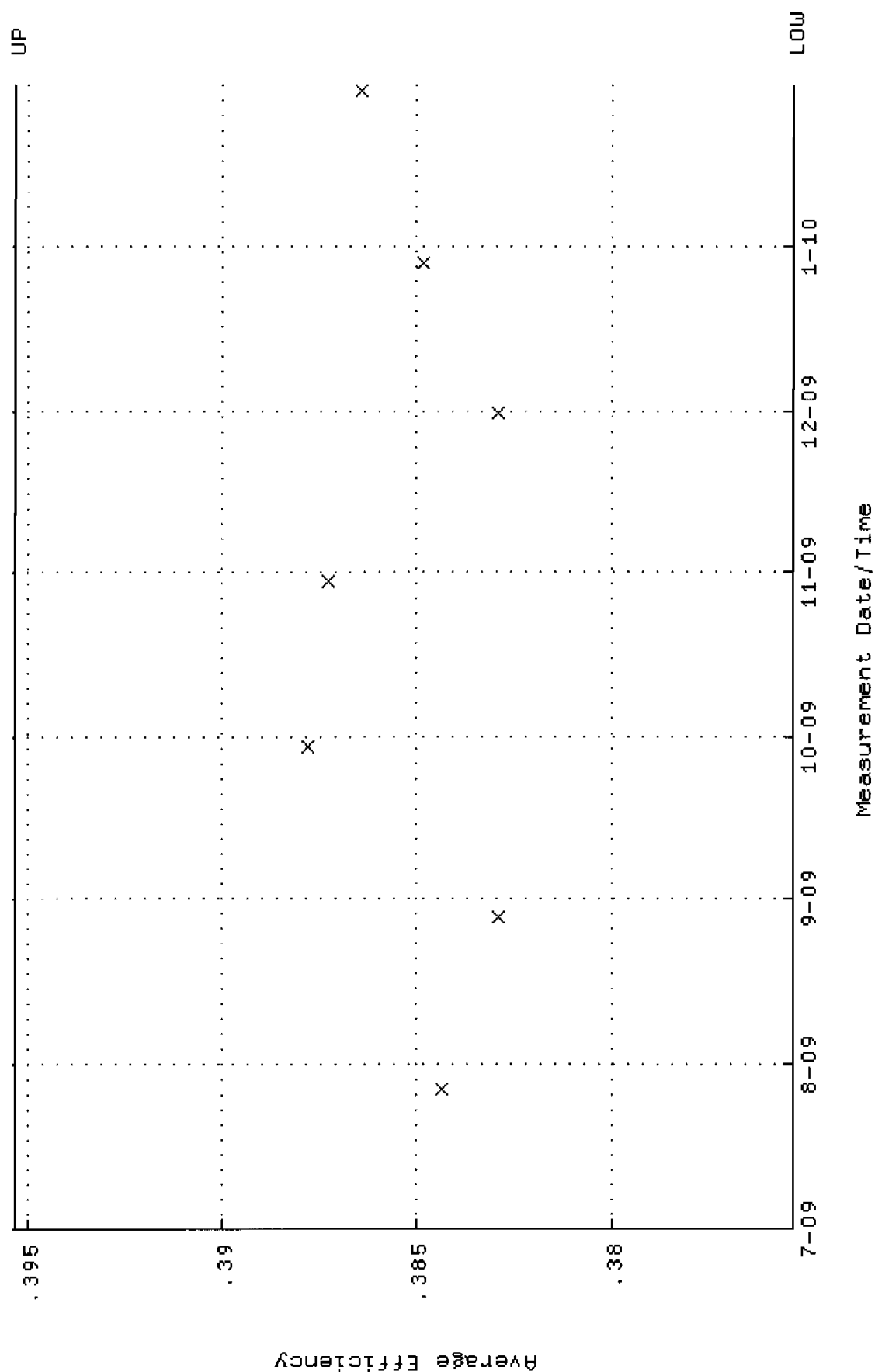
QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 86.4888 through 95.5928



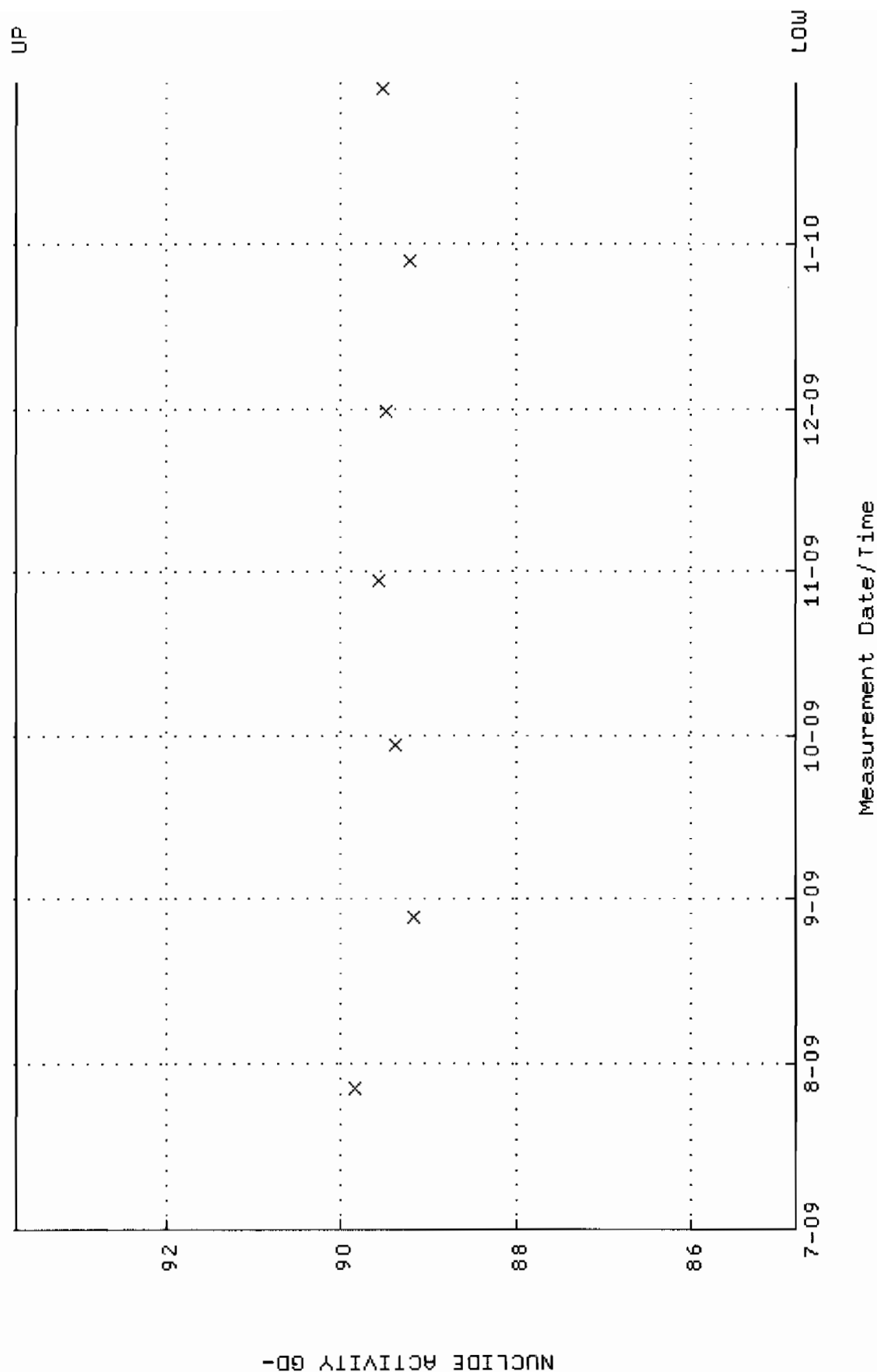
QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:39 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



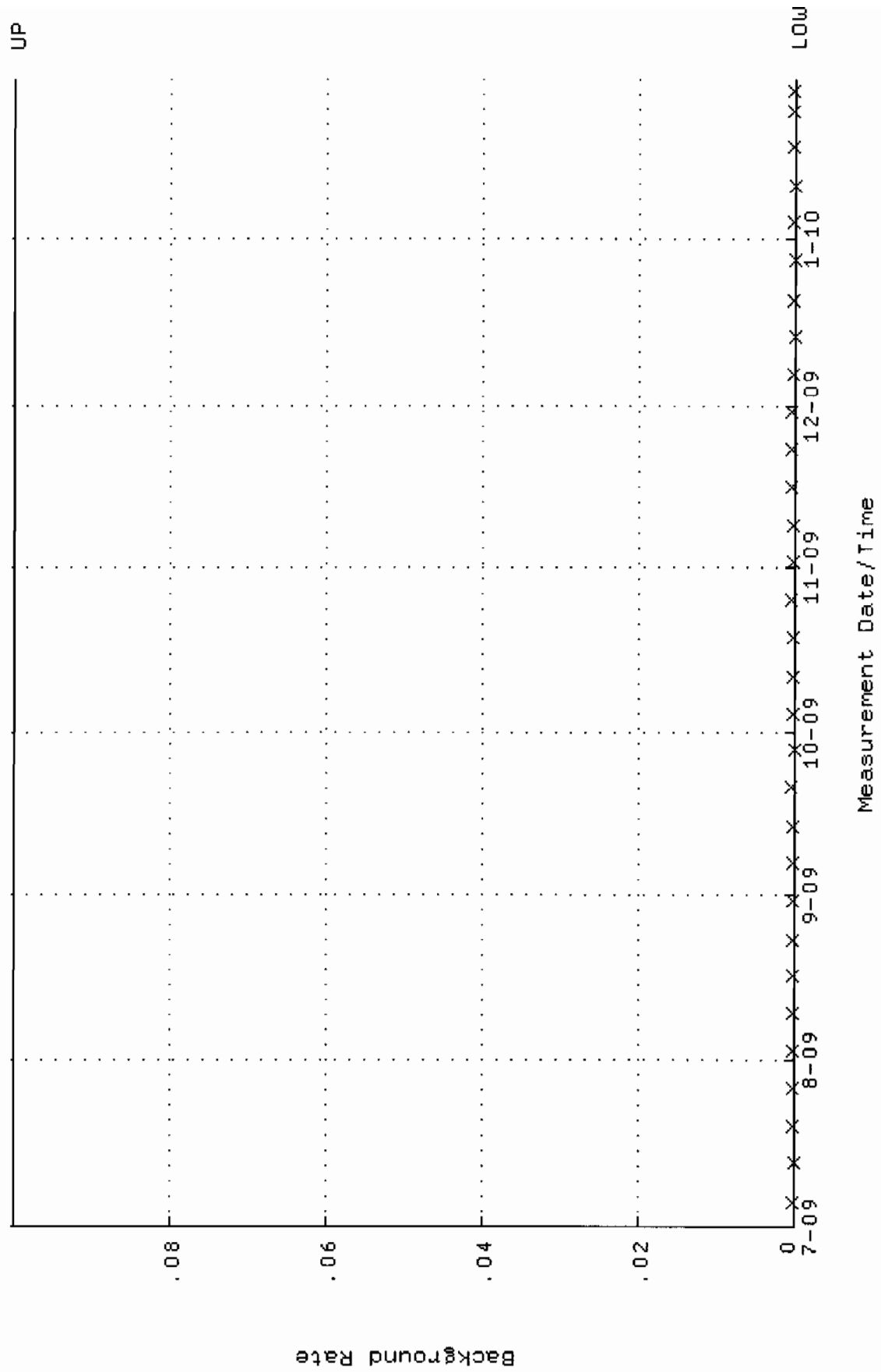
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.375328 through 0.395328



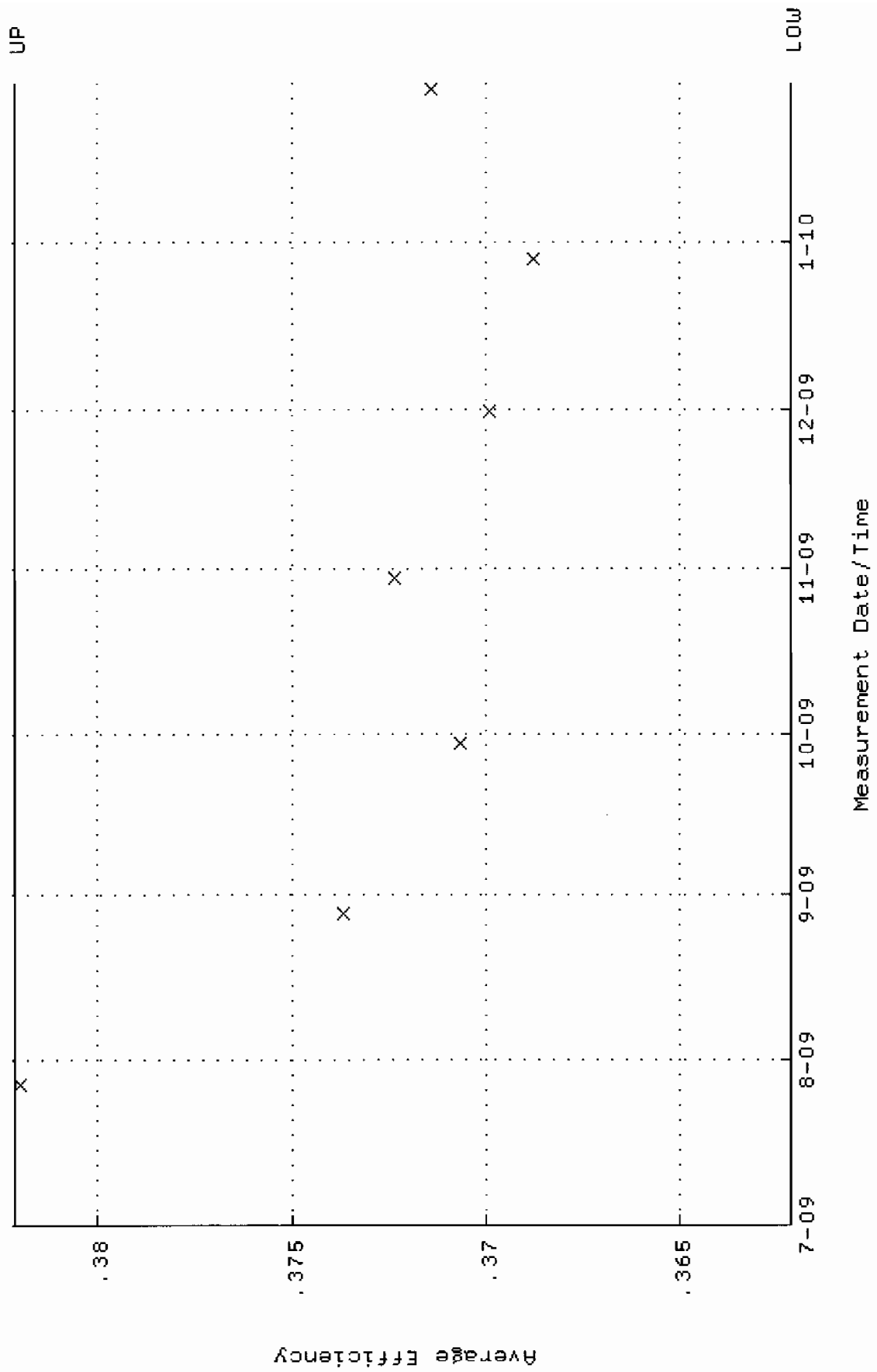
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 84.8011 through 93.7275



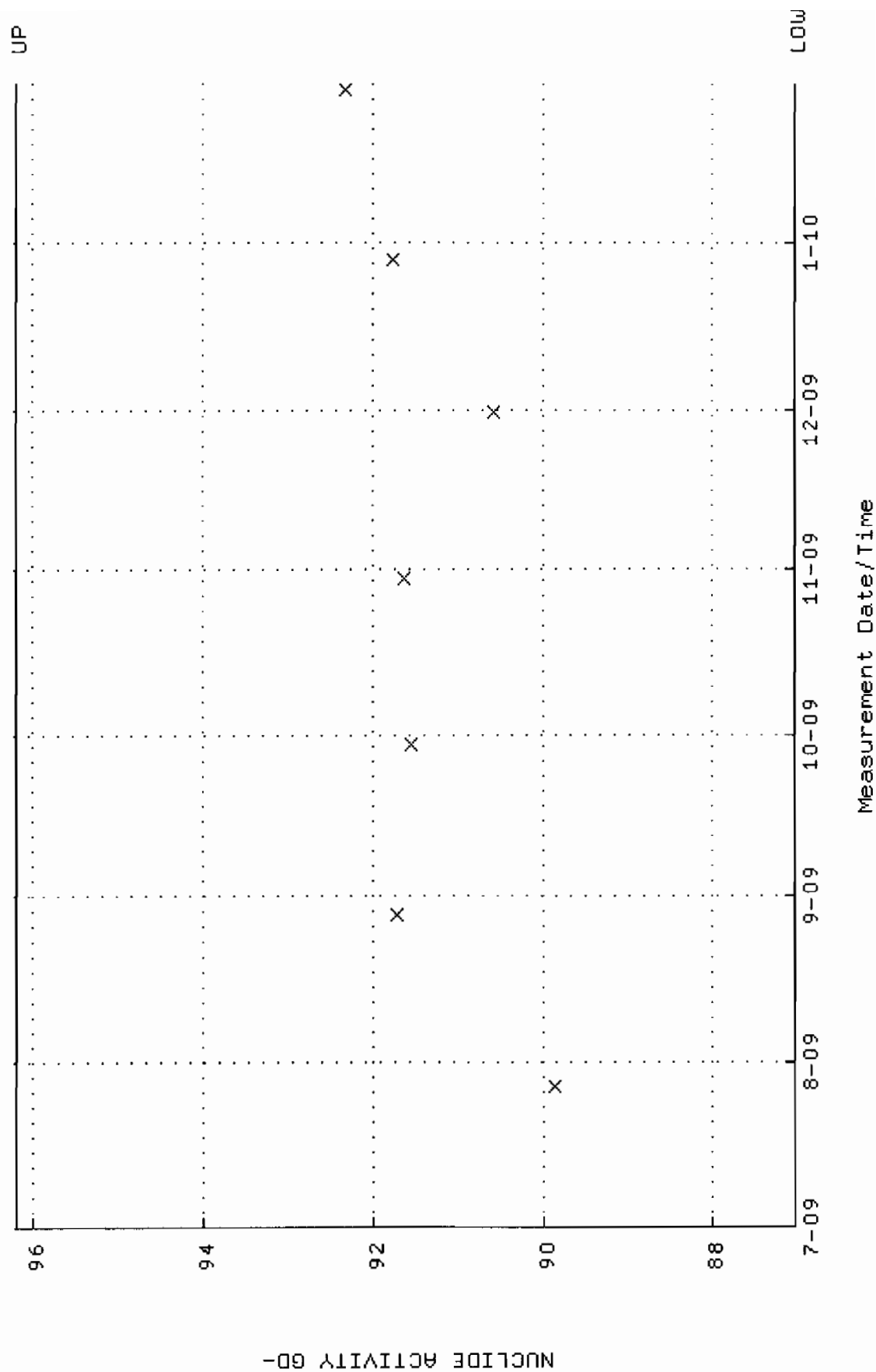
QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:43 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



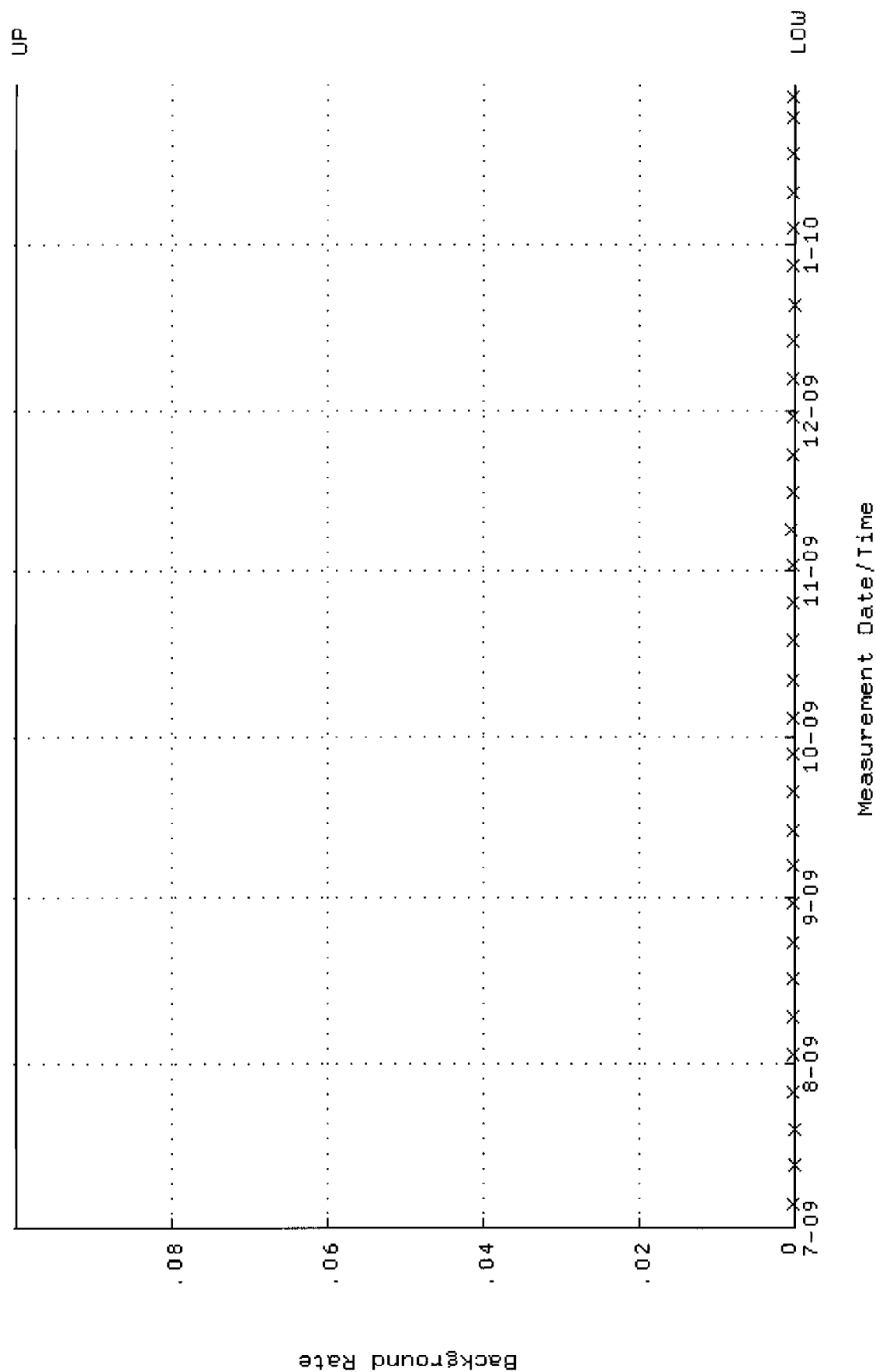
QA filename : OKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362134 through 0.382134



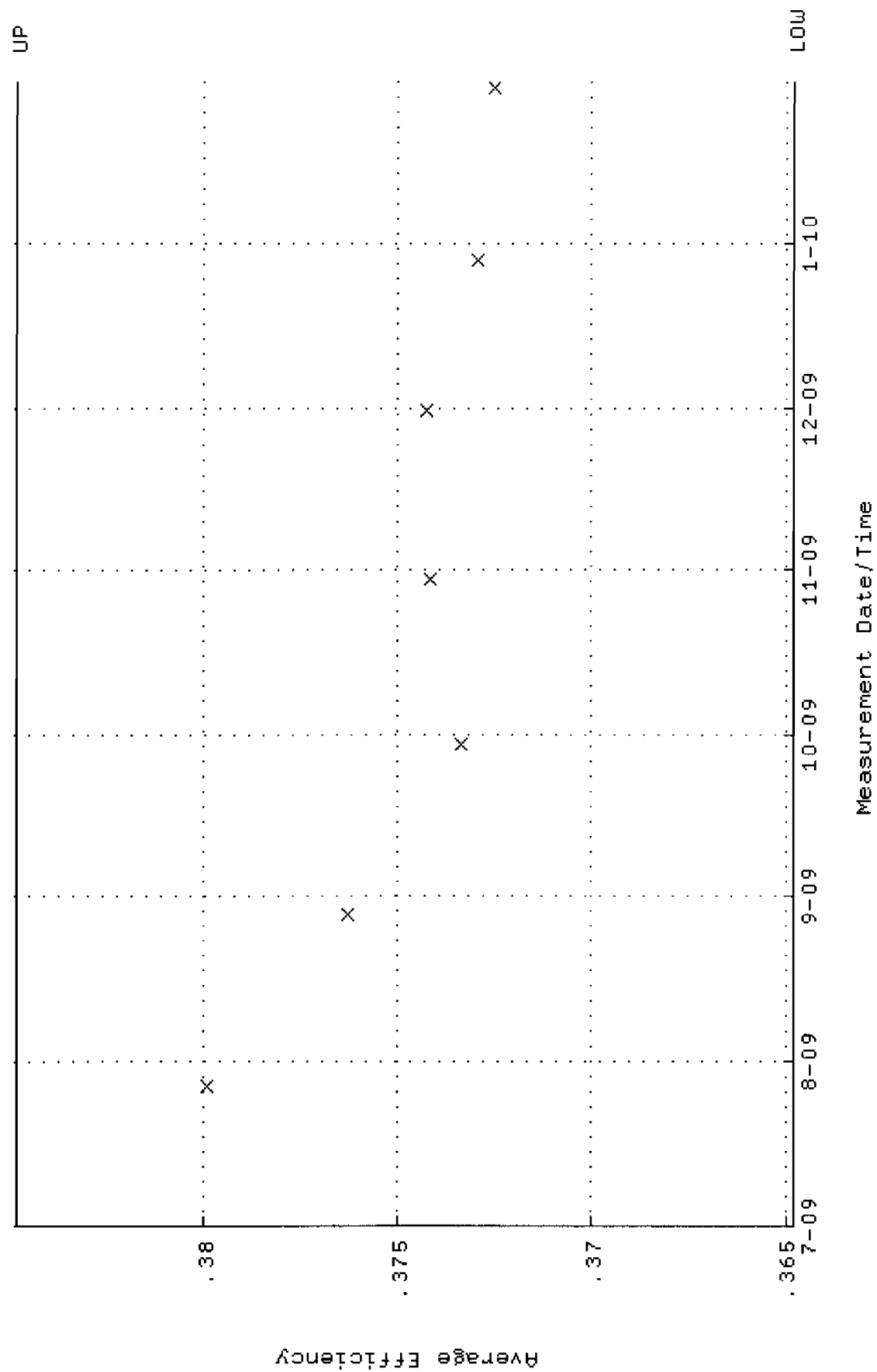
QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 87.0370 through 96.1988



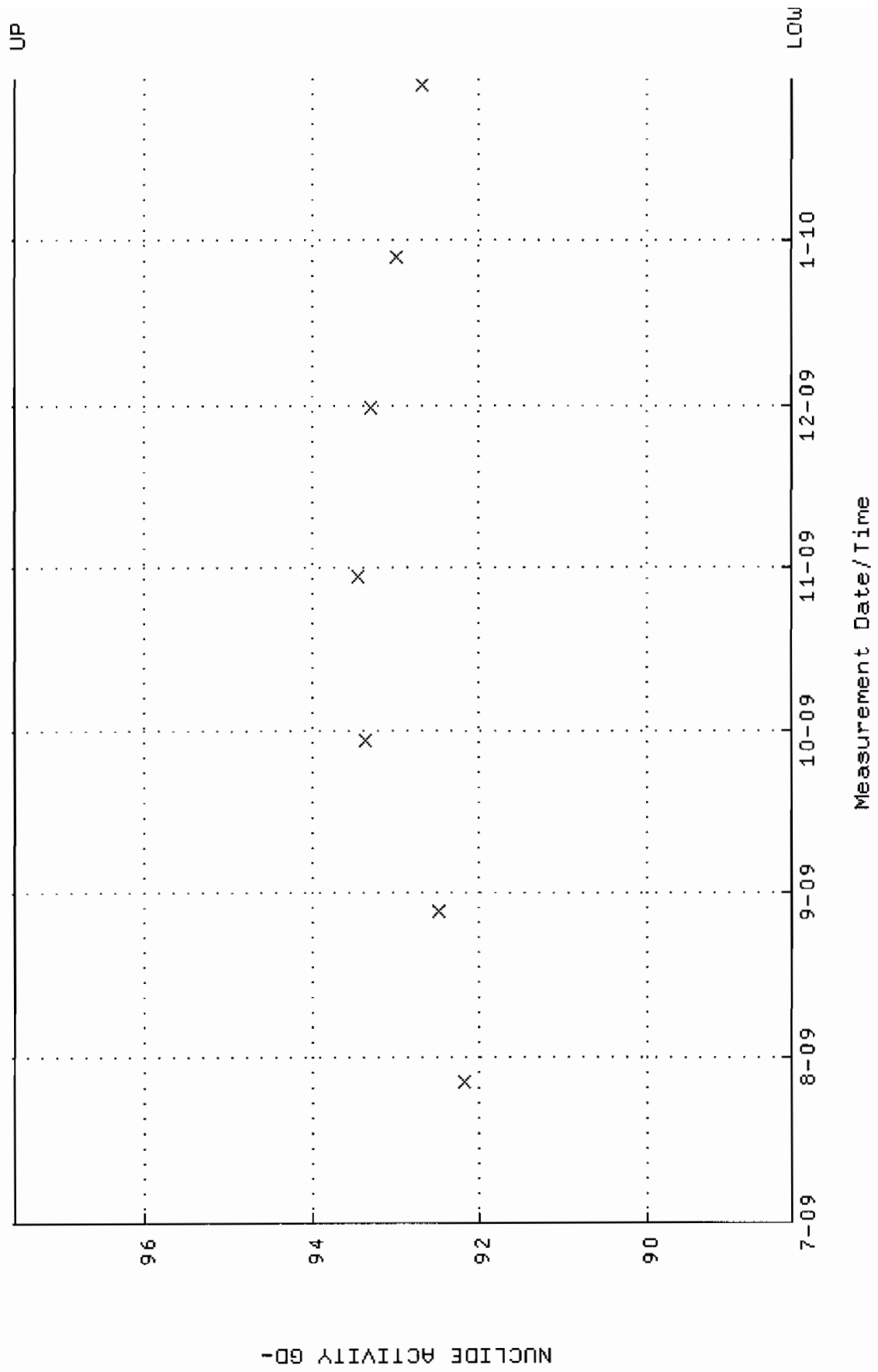
QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:48 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



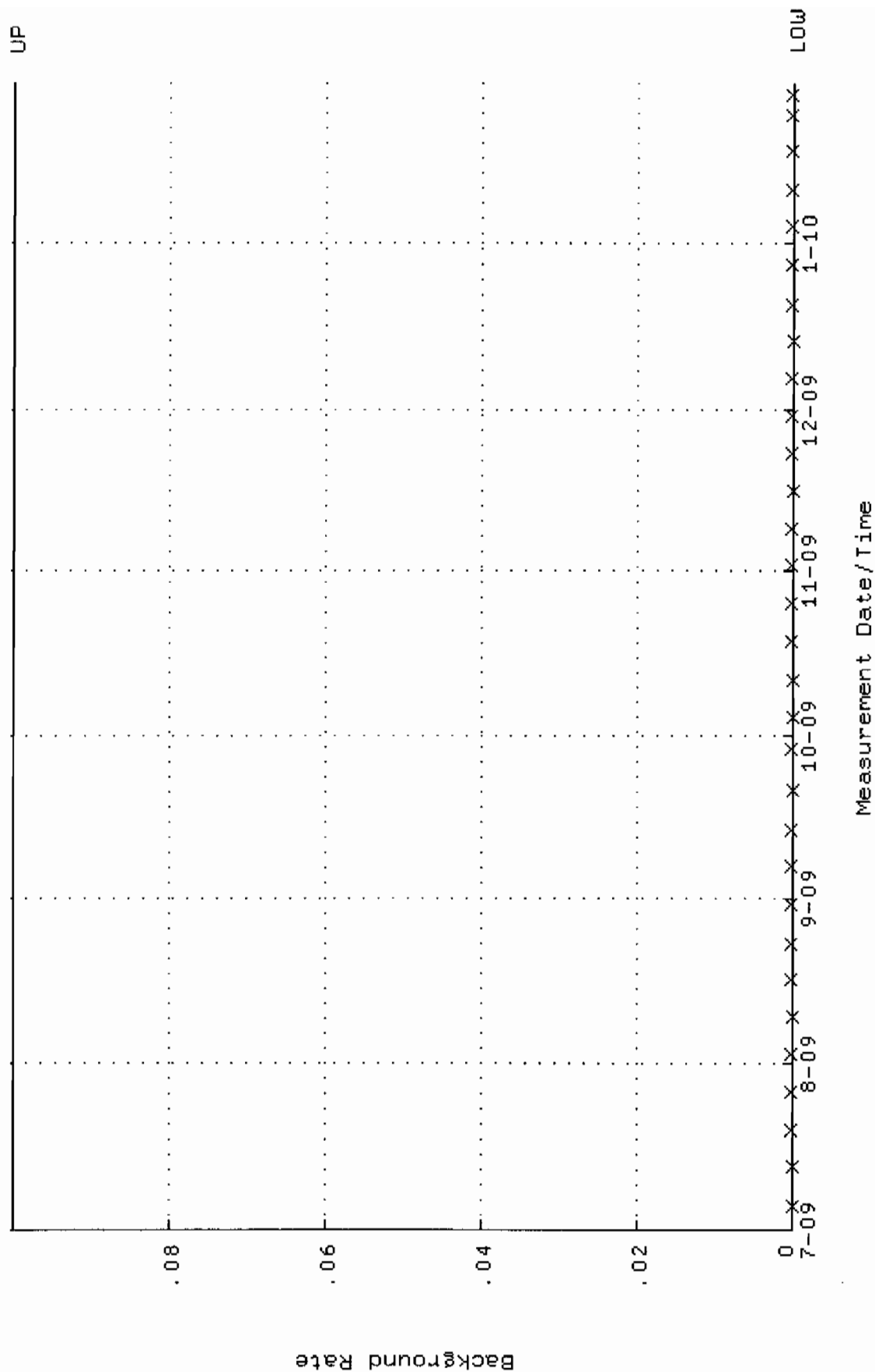
QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.364789 through 0.384789



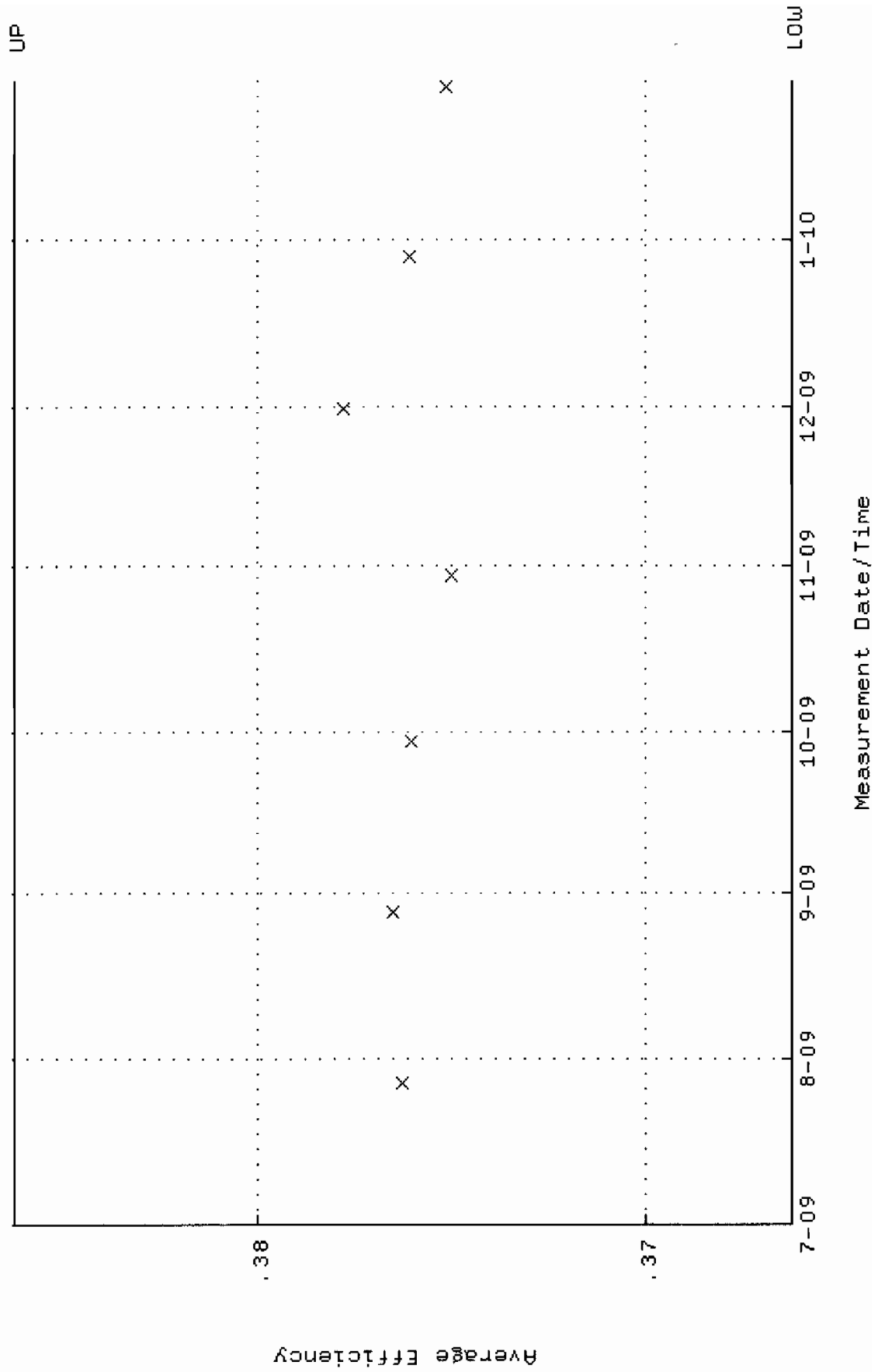
QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.2691 through 97.5605



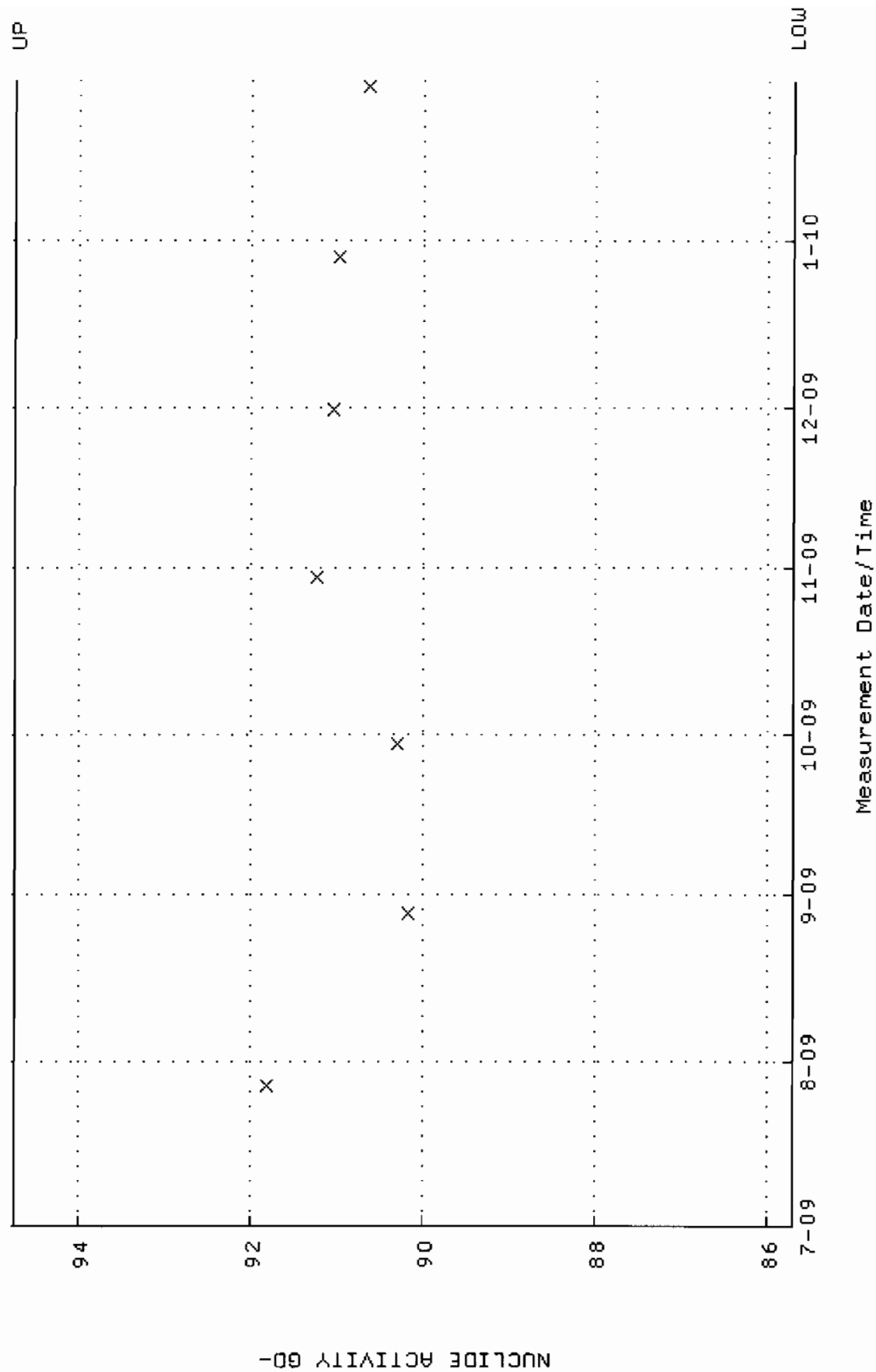
QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:53 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



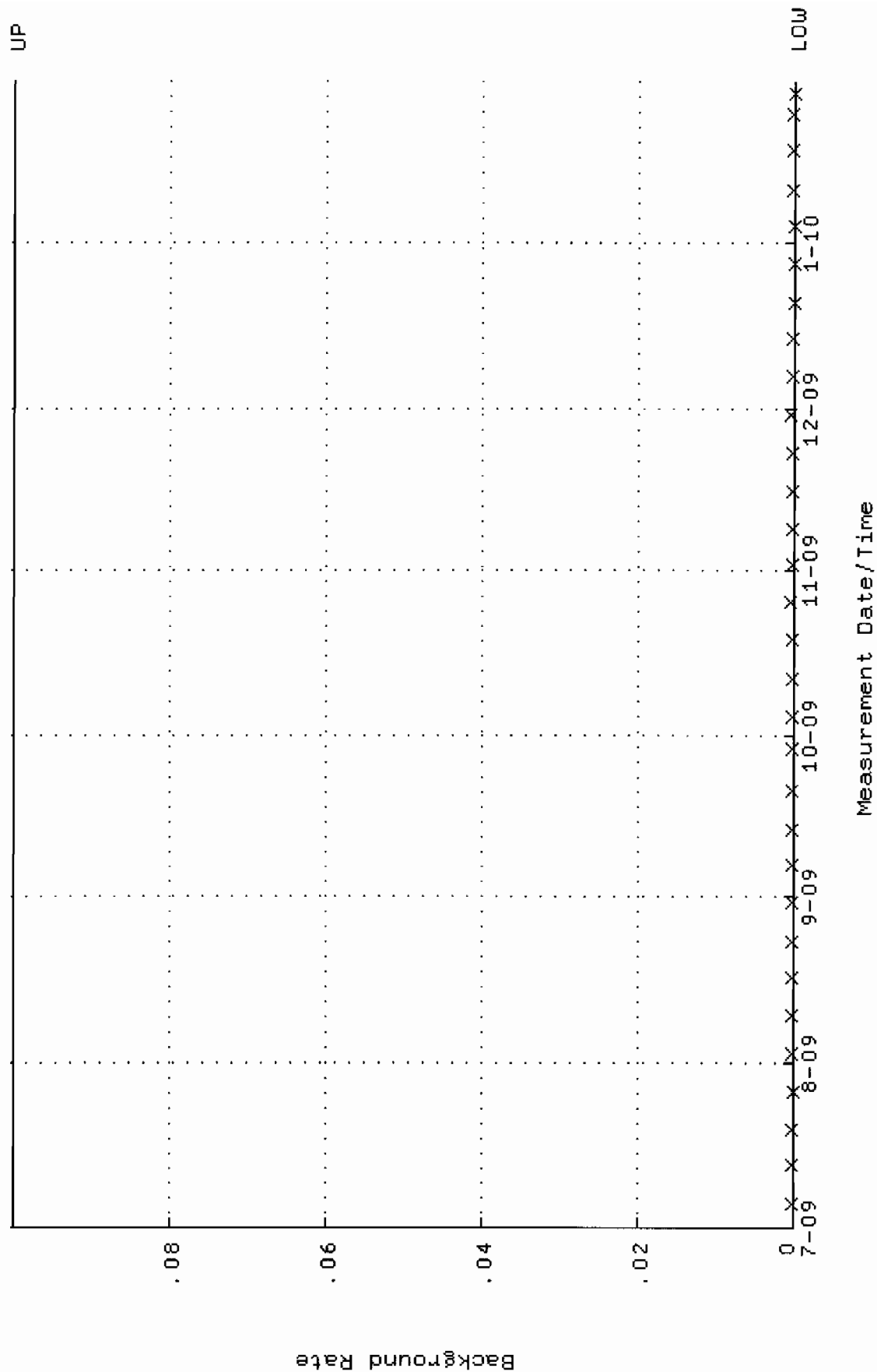
QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366240 through 0.386240



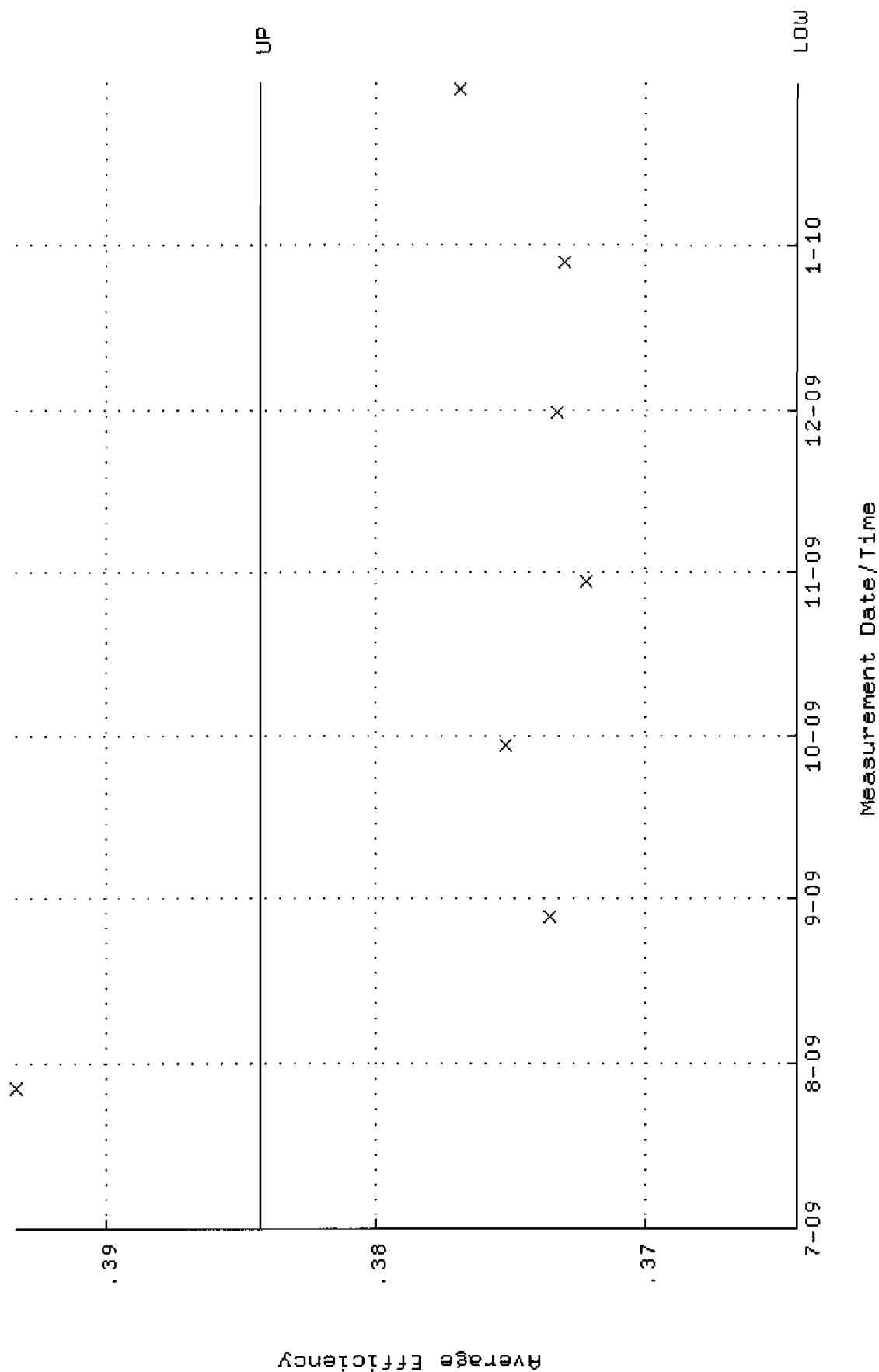
QA filename : DKA100:[ENV_ALPHA.QA.W]w230.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 85.7127 through 94.7351



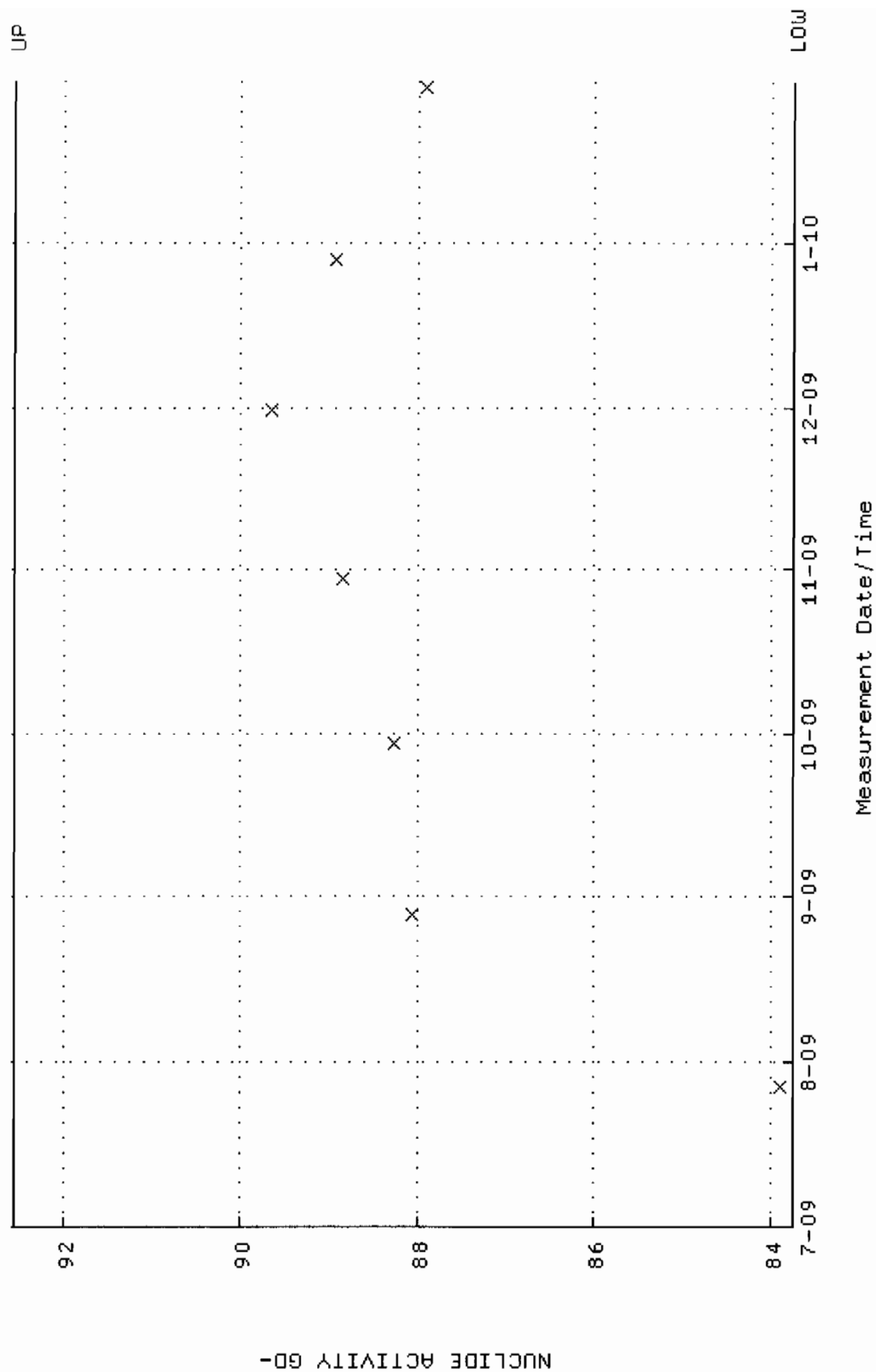
QA filename : OKA100:[ENV_ALPHA.QA.B]B230.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:04:57 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



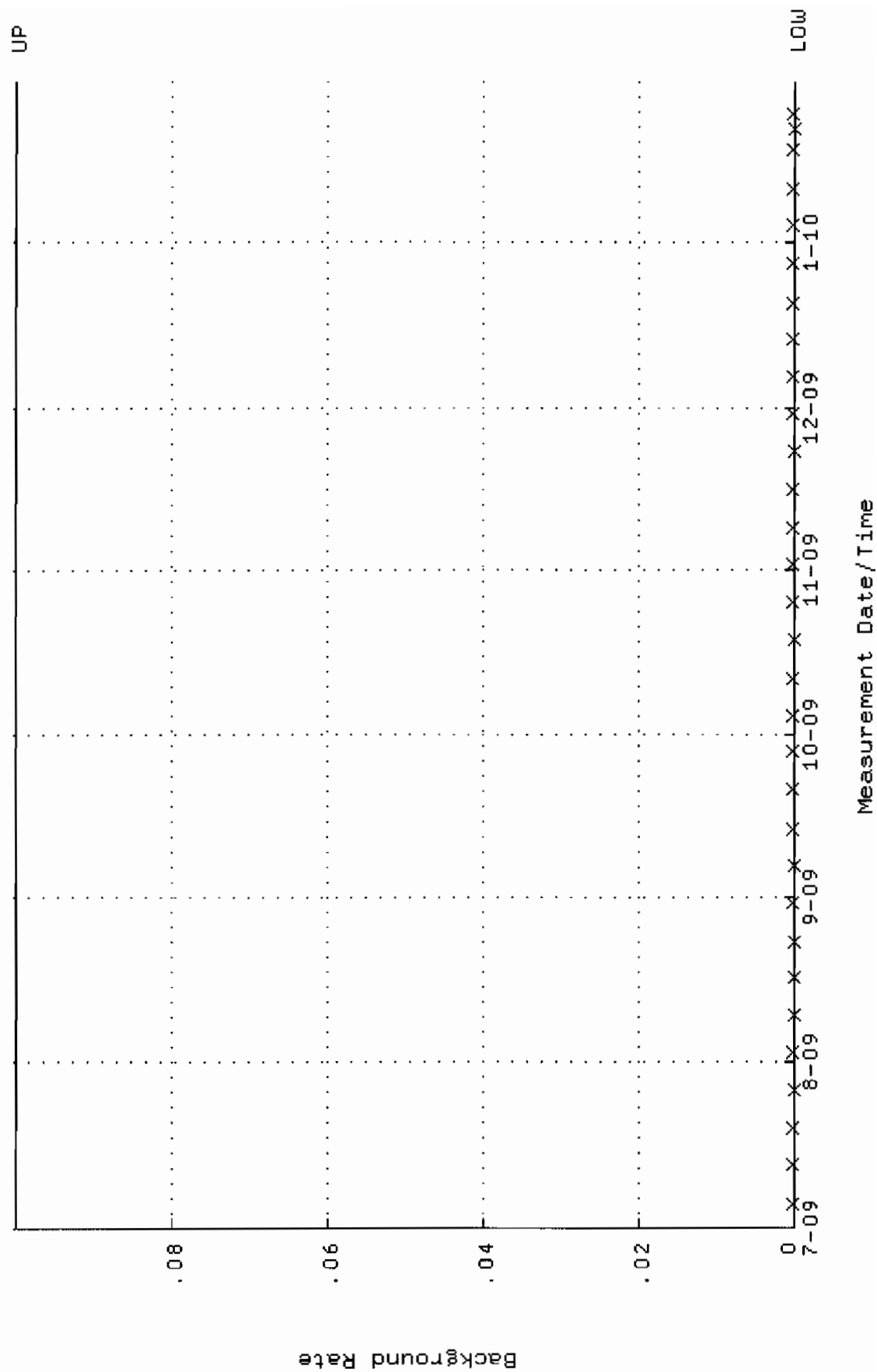
QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.364314 through 0.384314



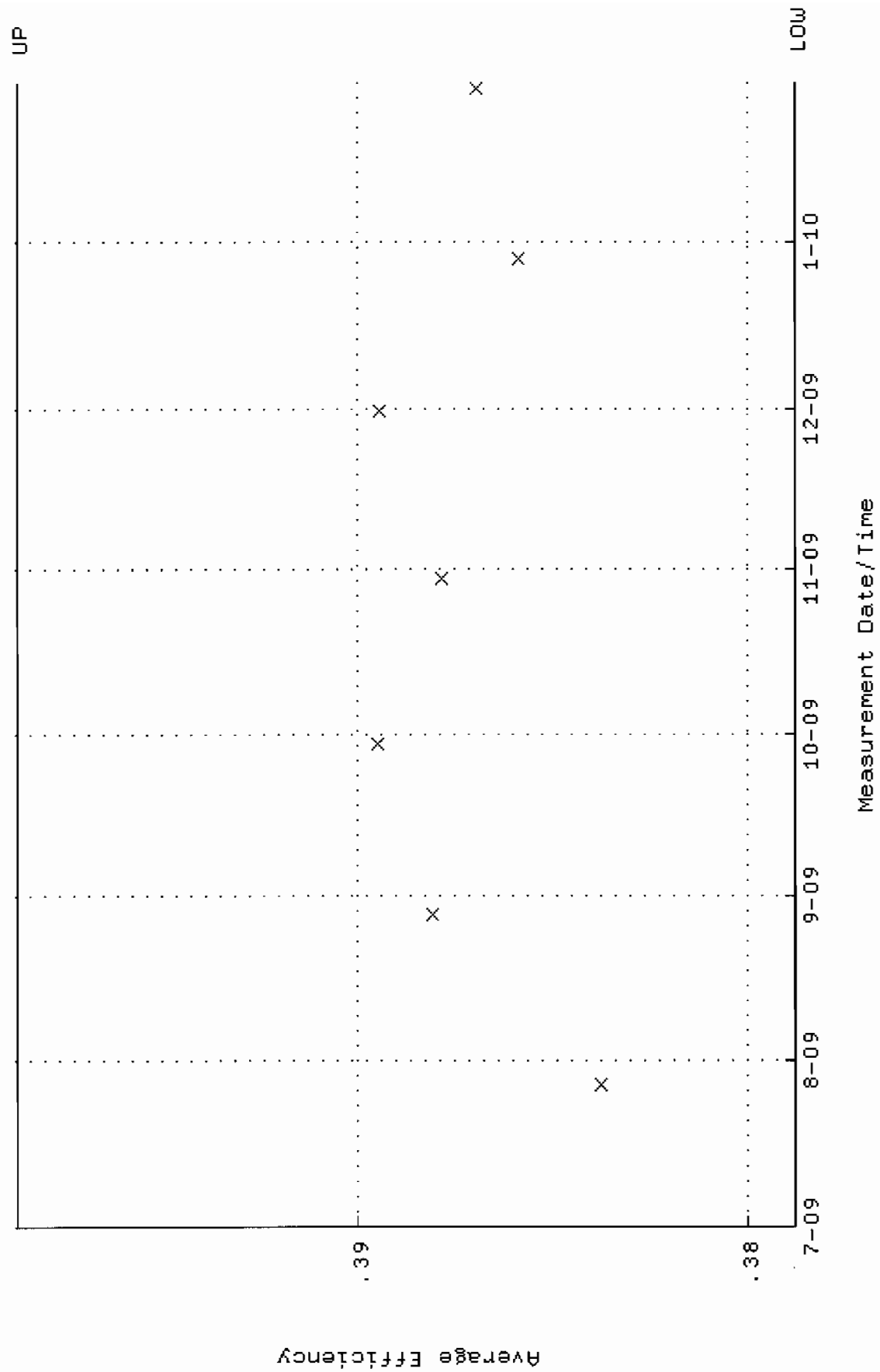
QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 83.7416 through 92.5566



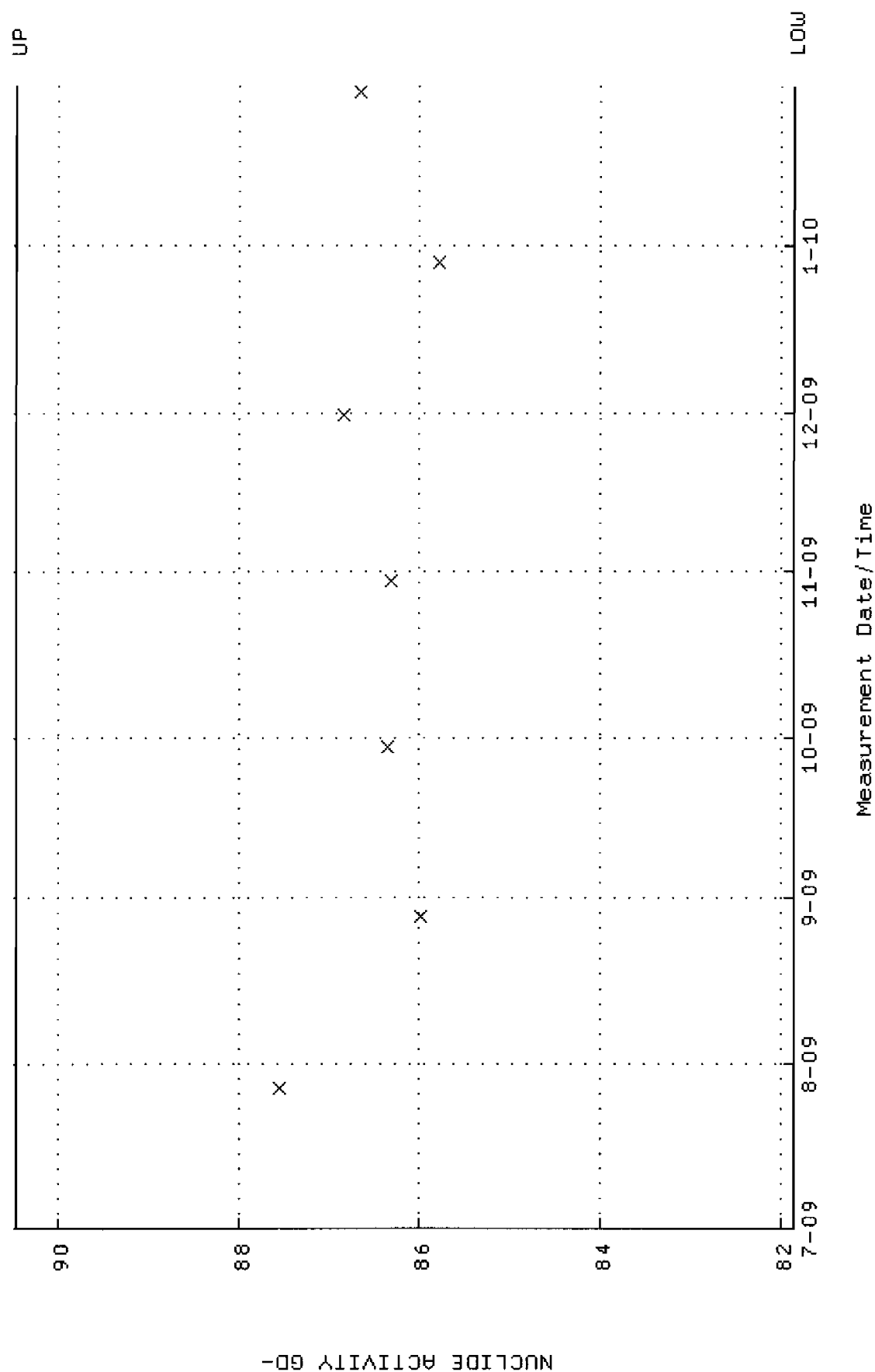
QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:05:20 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



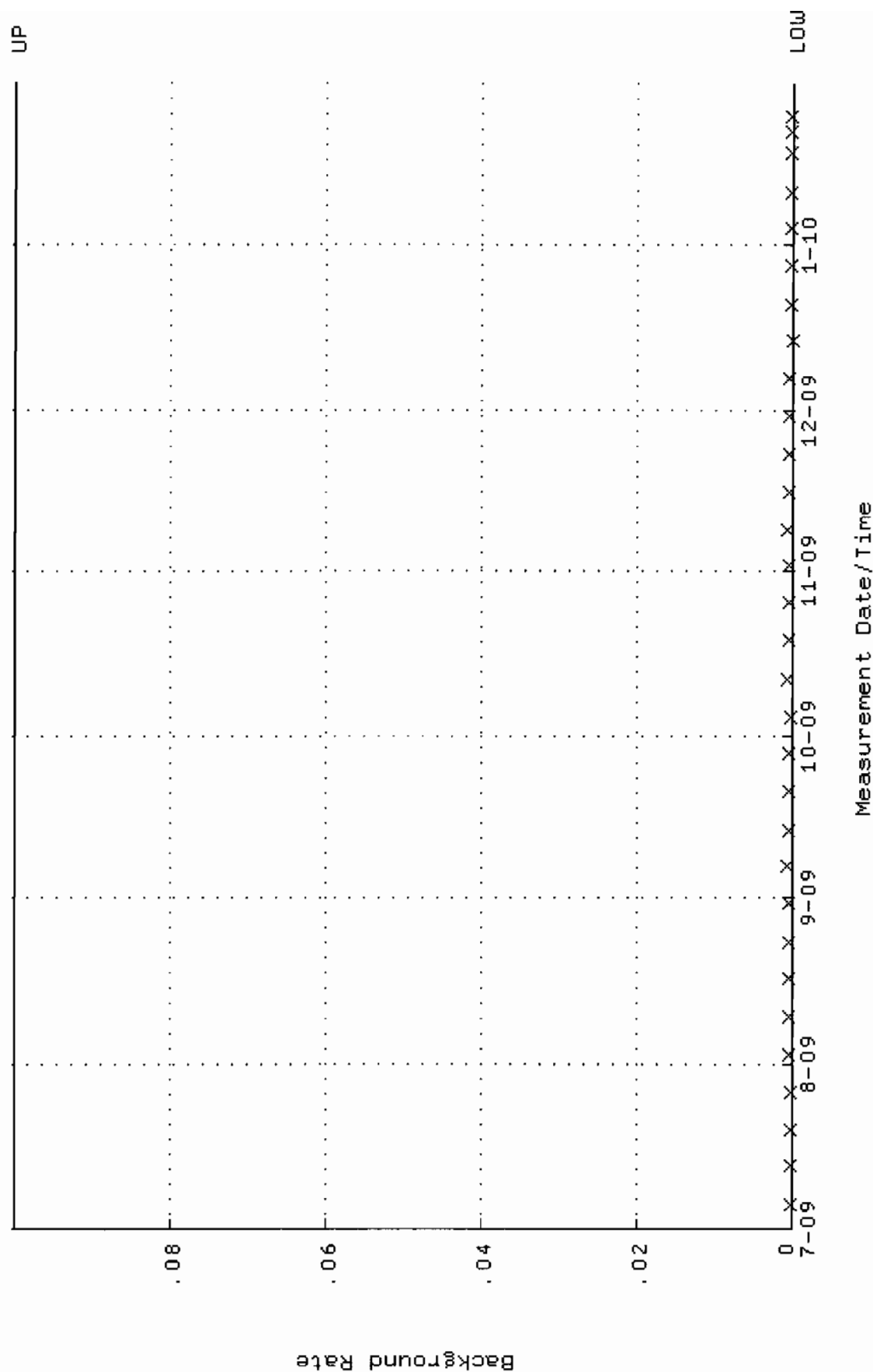
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.378766 through 0.398766



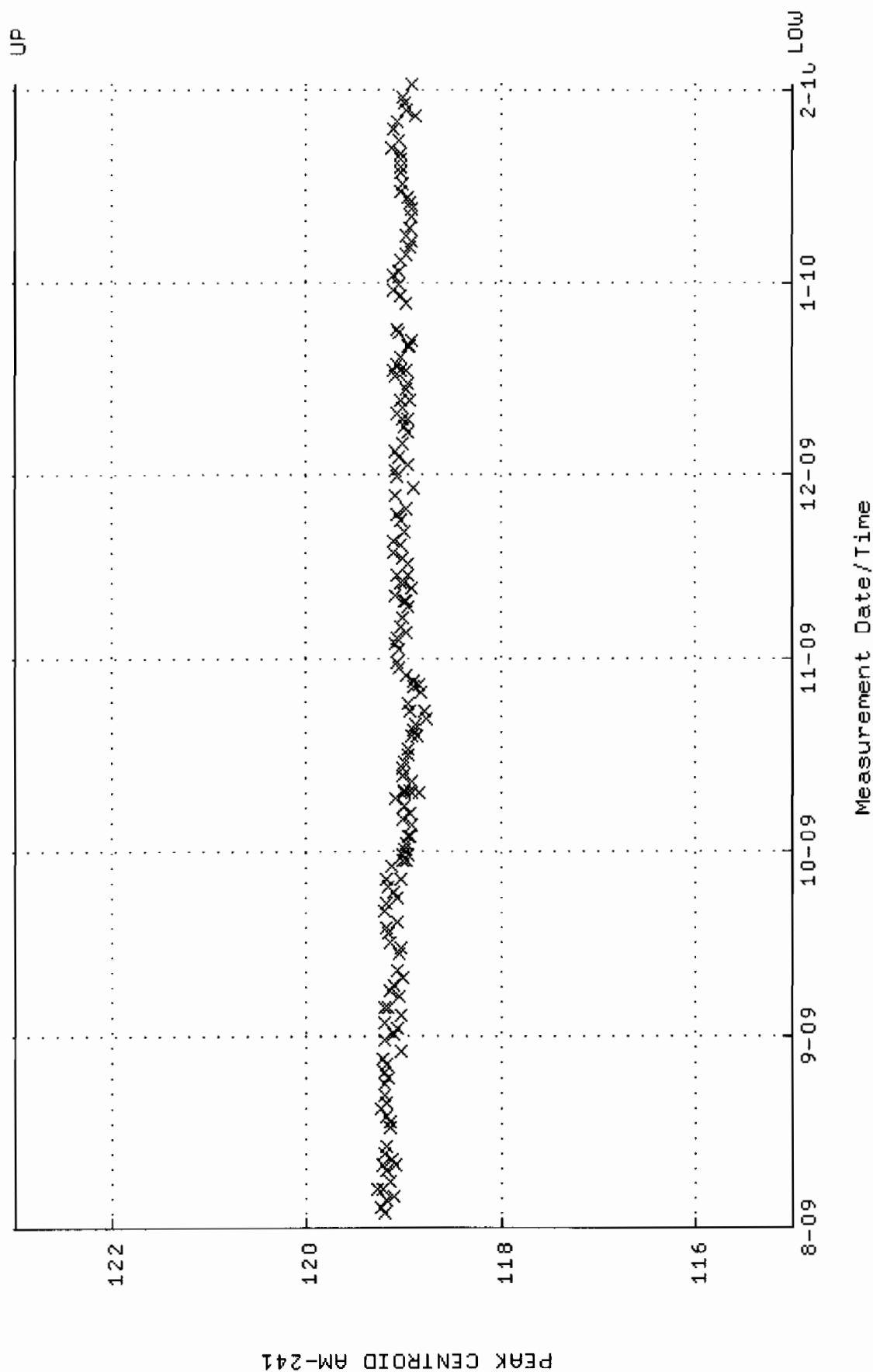
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 81.8490 through 90.4646



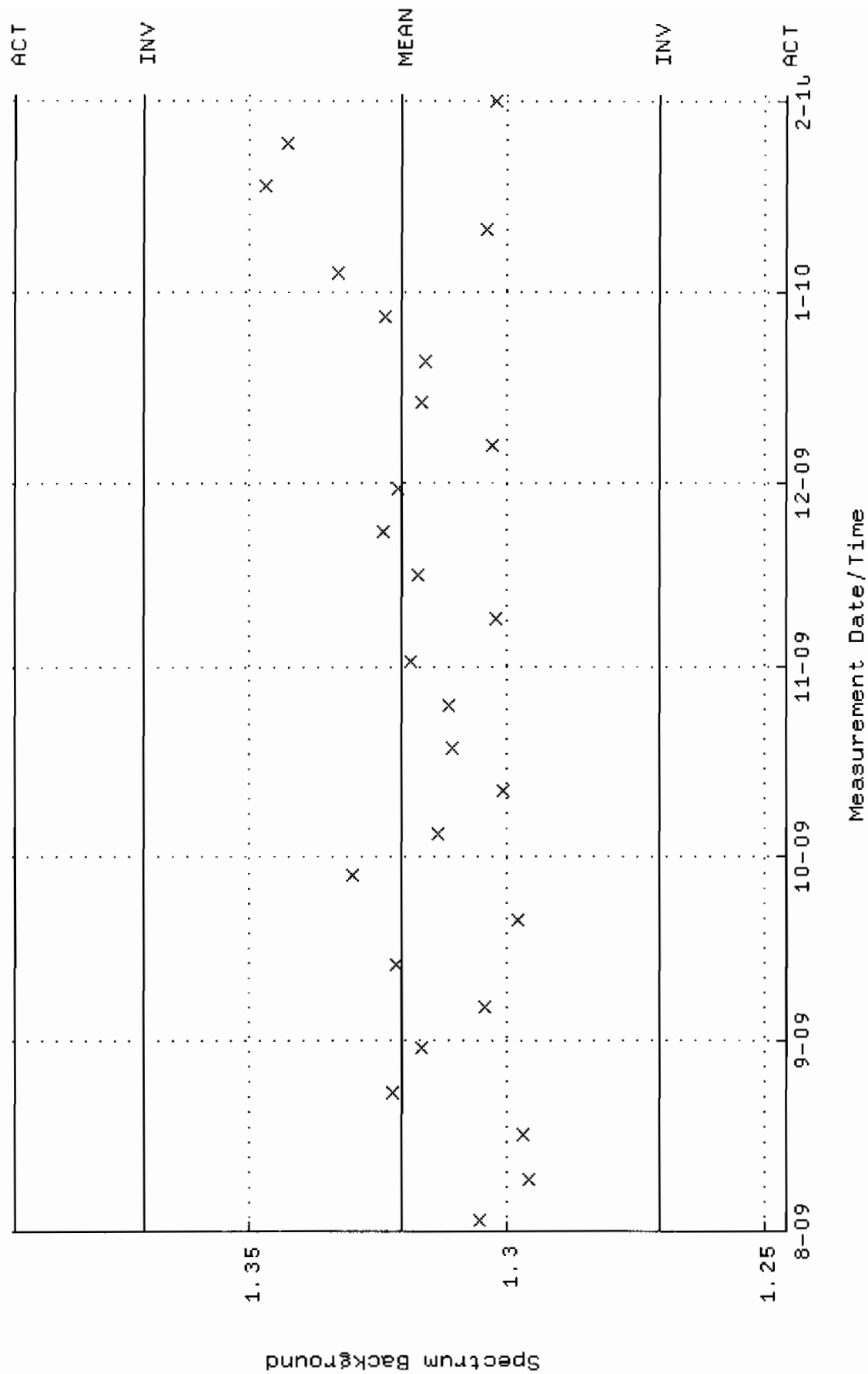
QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



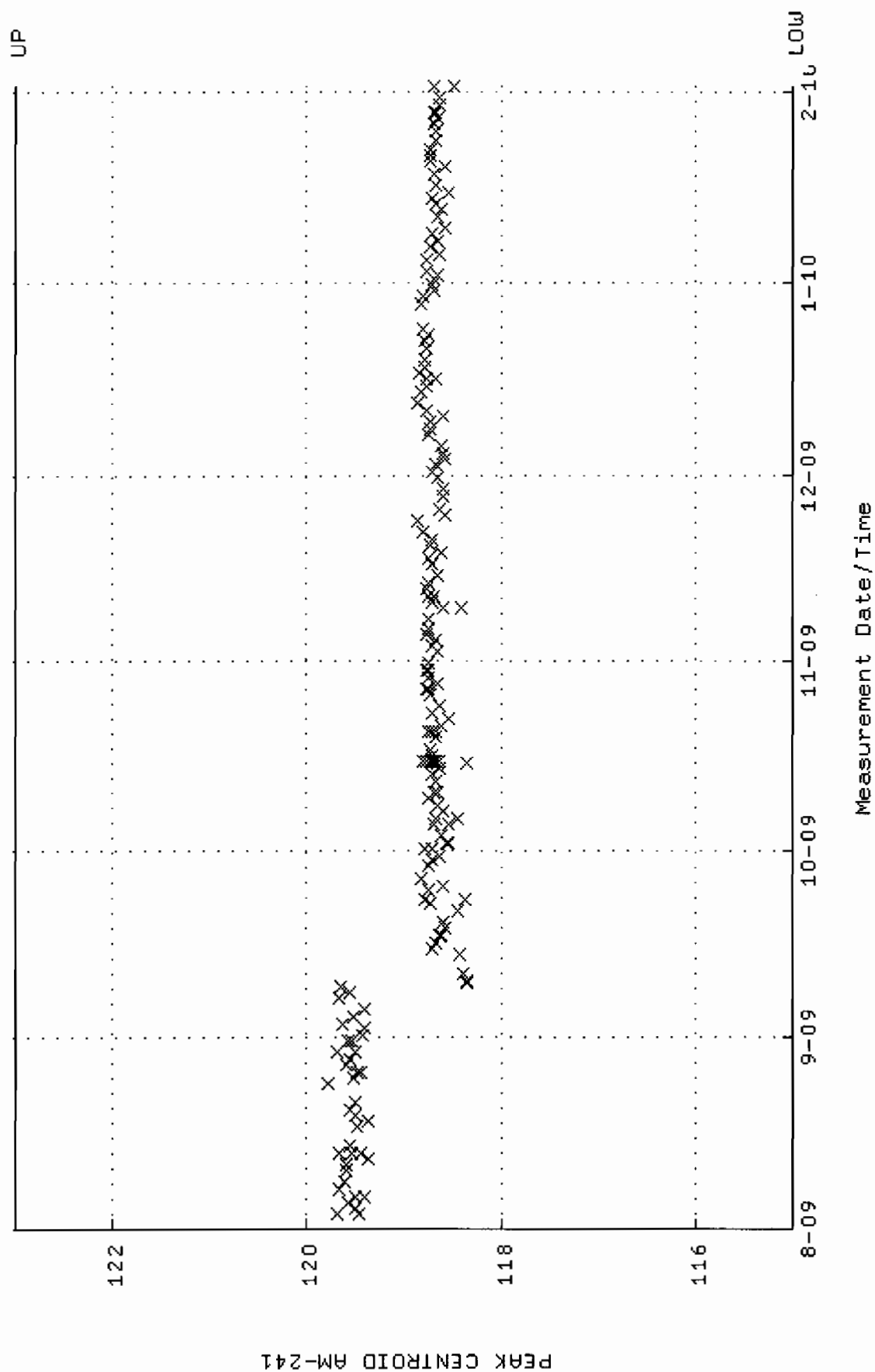
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM04-CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



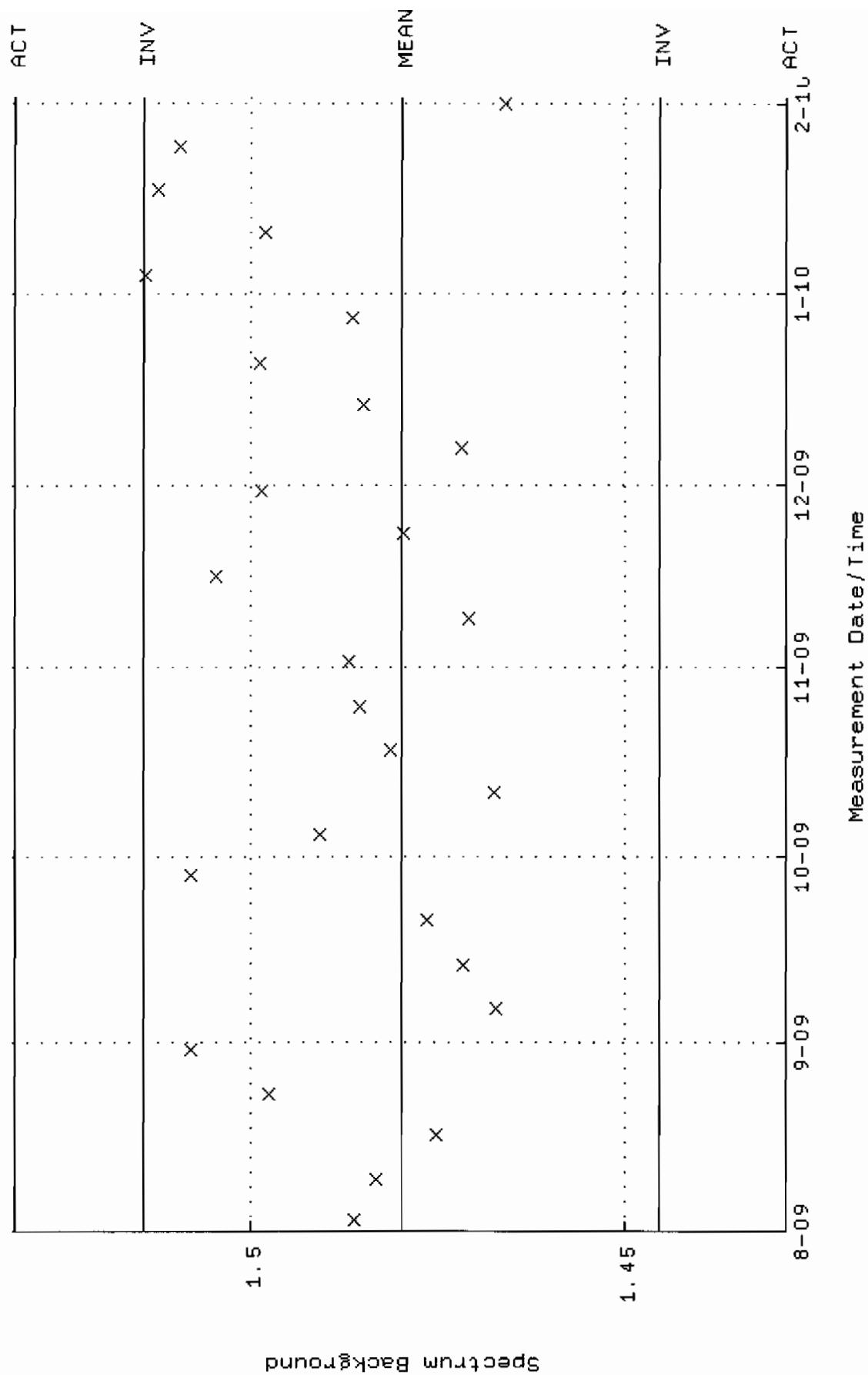
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC-GAM04.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)



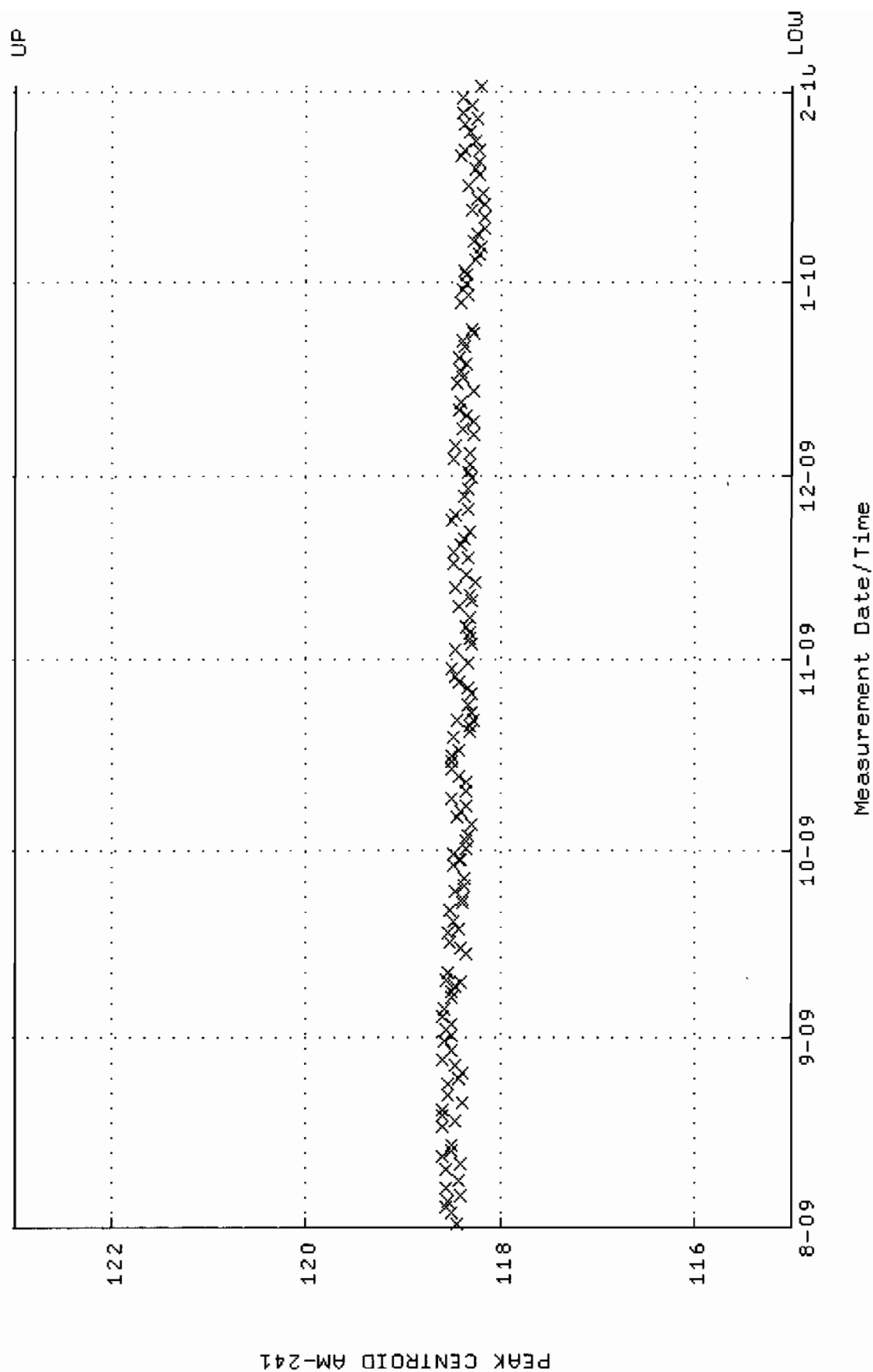
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



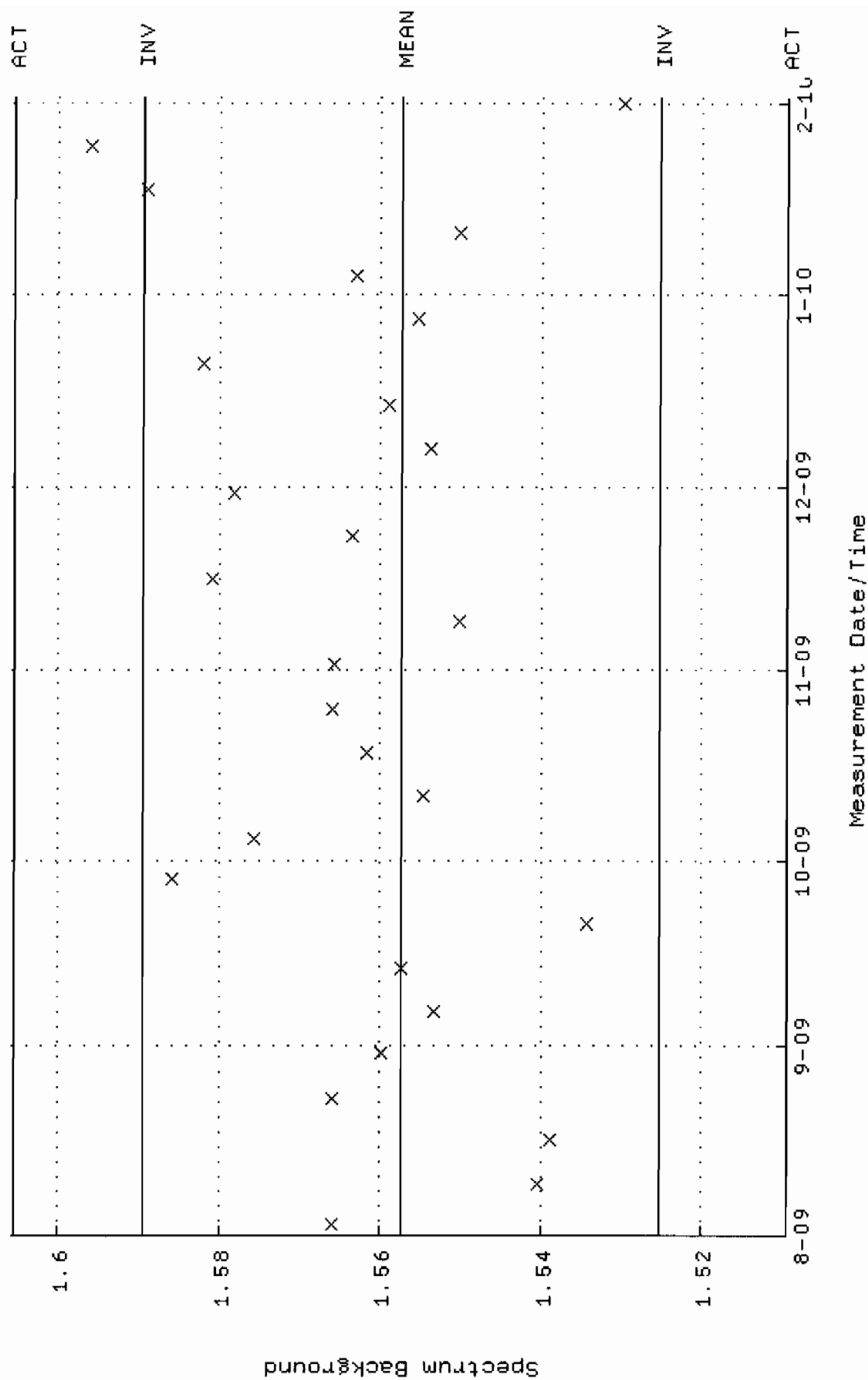
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)



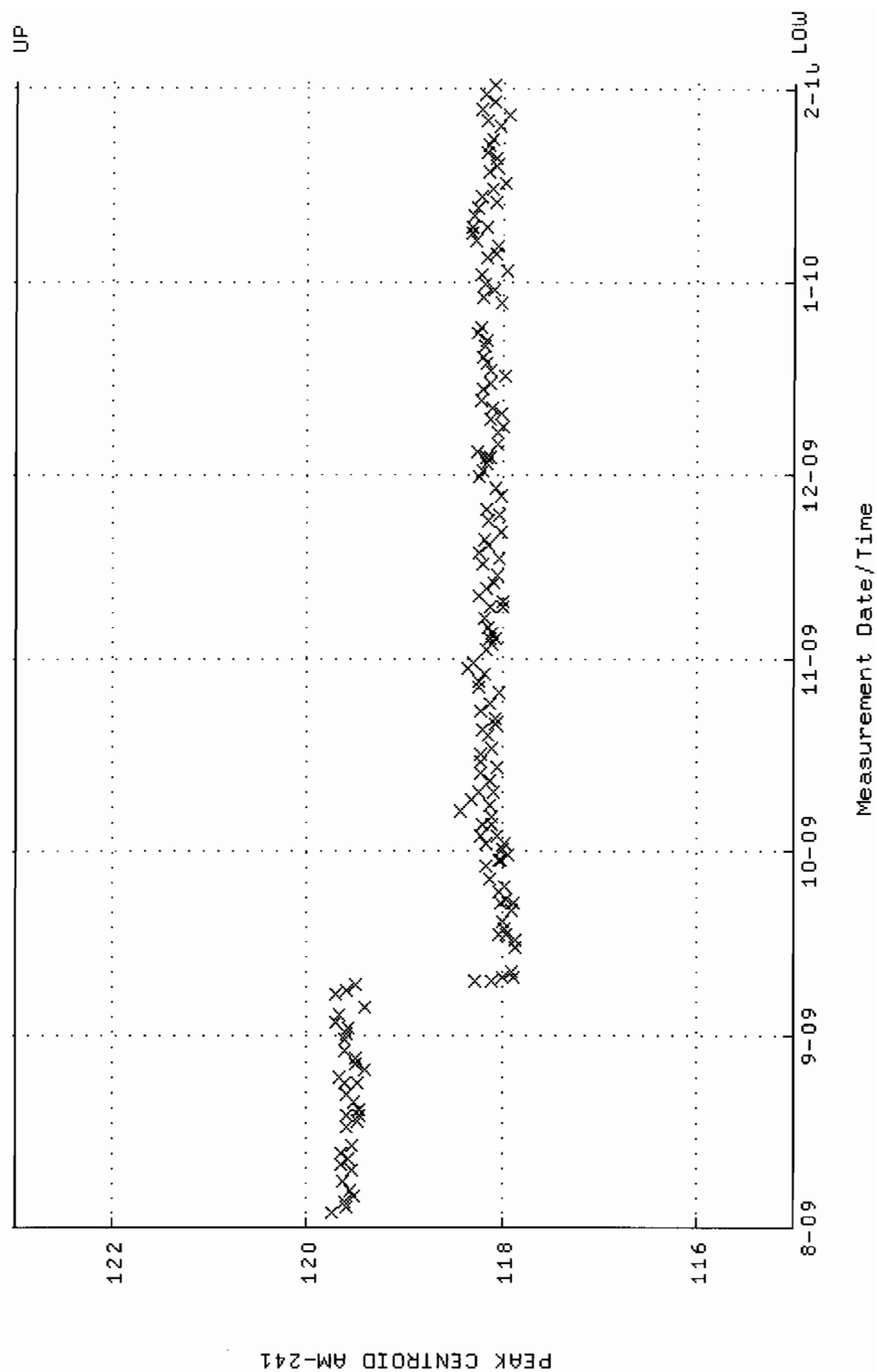
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM12-CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



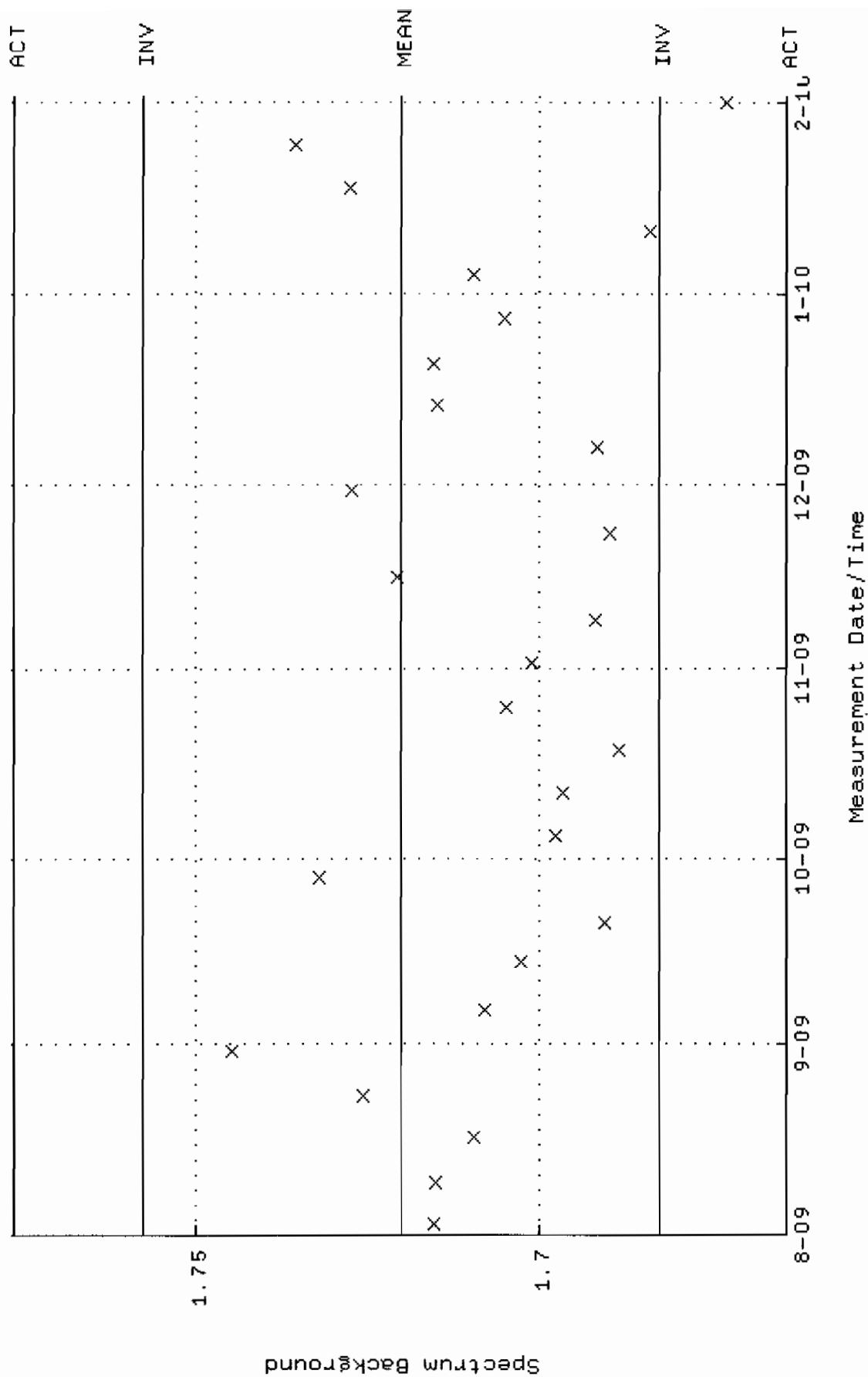
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)



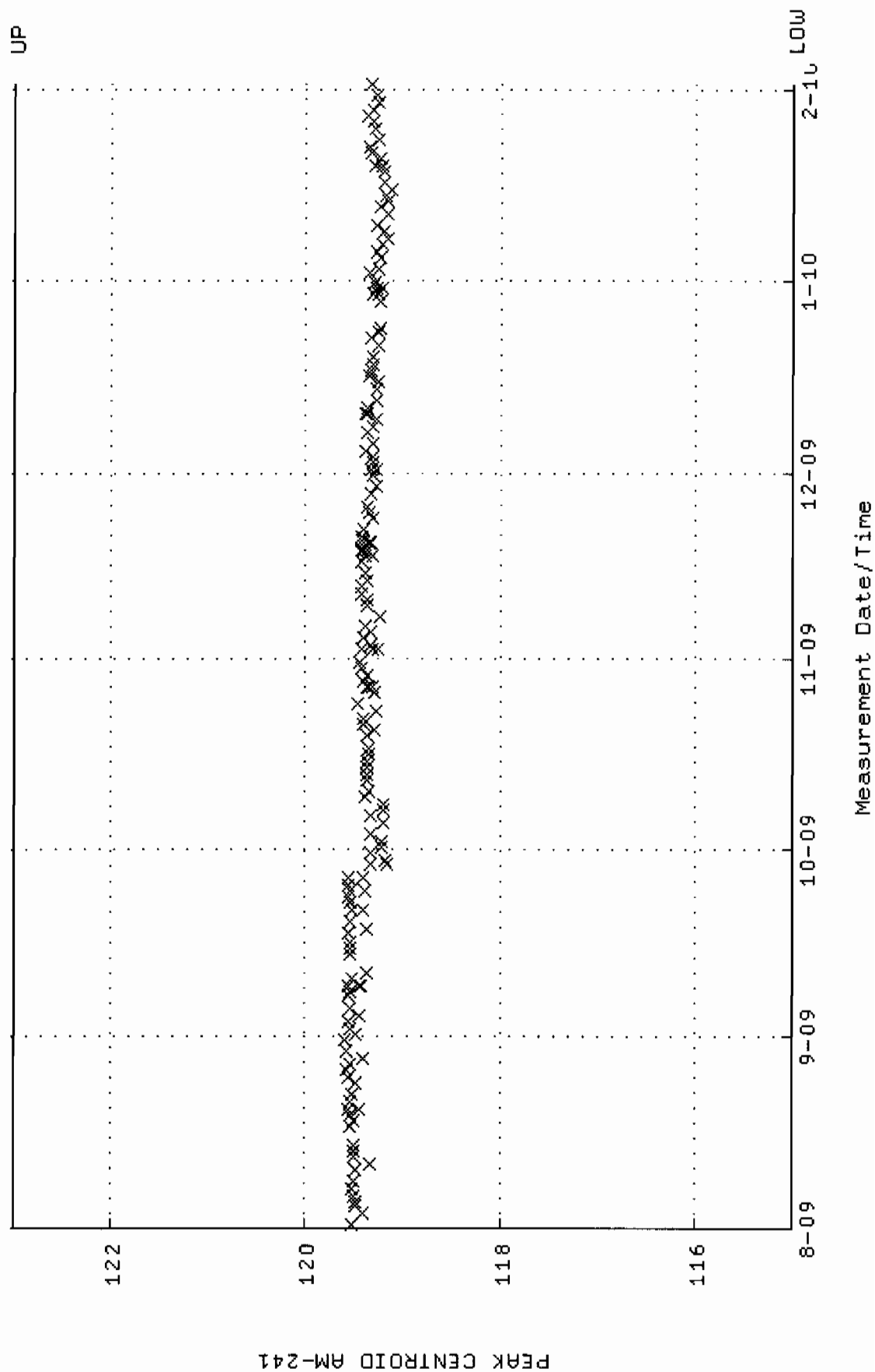
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM15-CAN.QAF;1
 Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



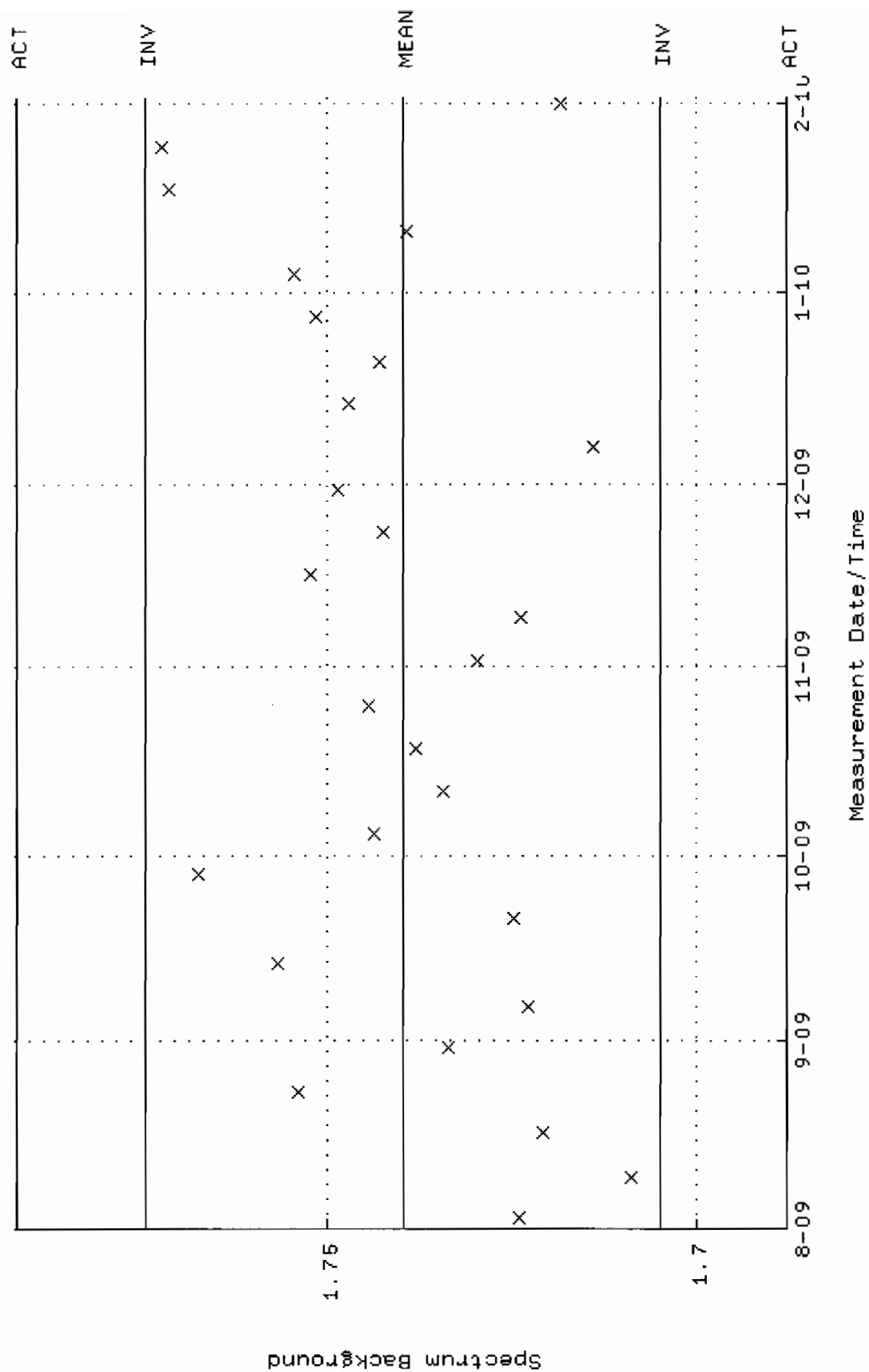
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)



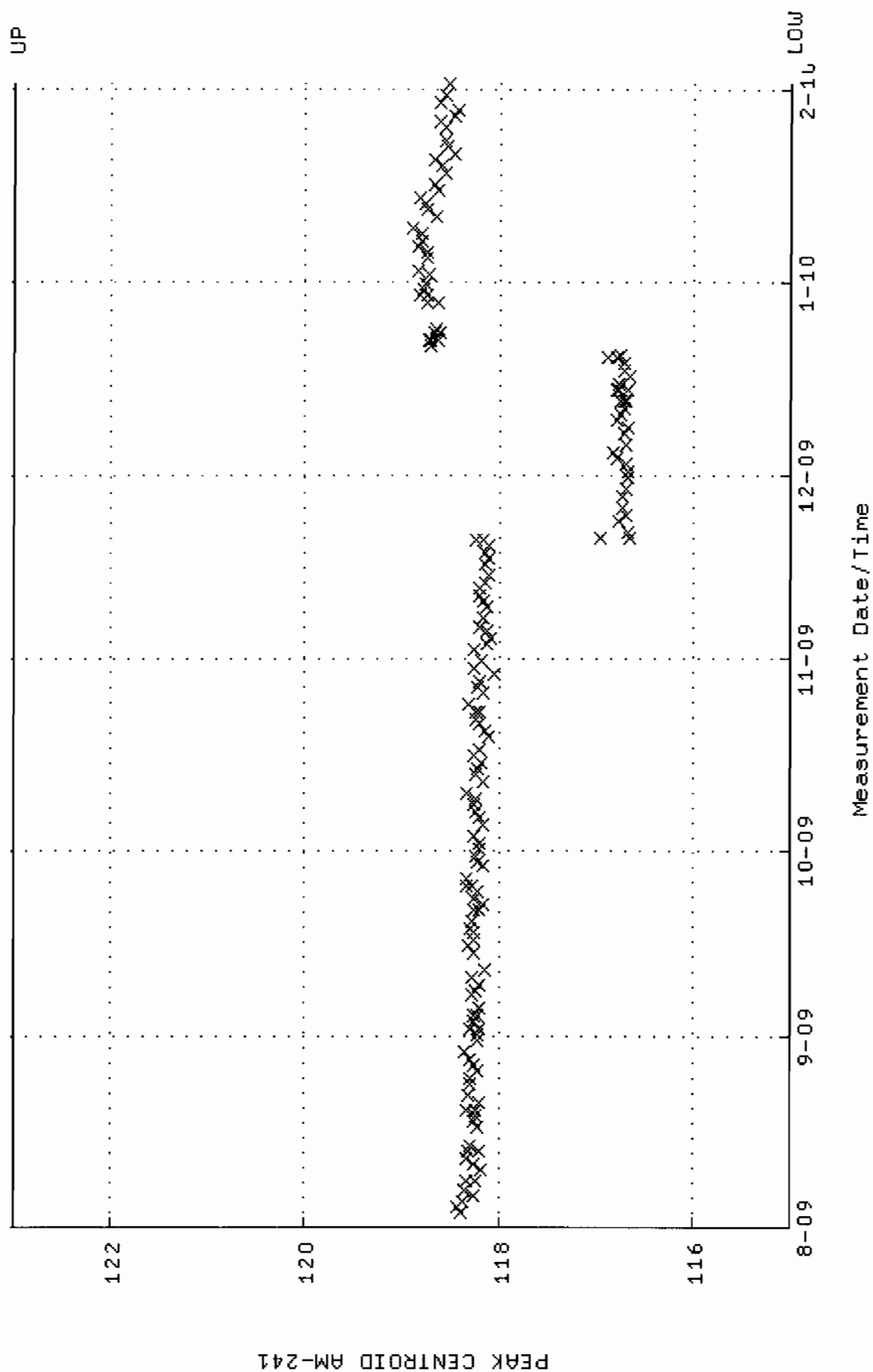
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM16-CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



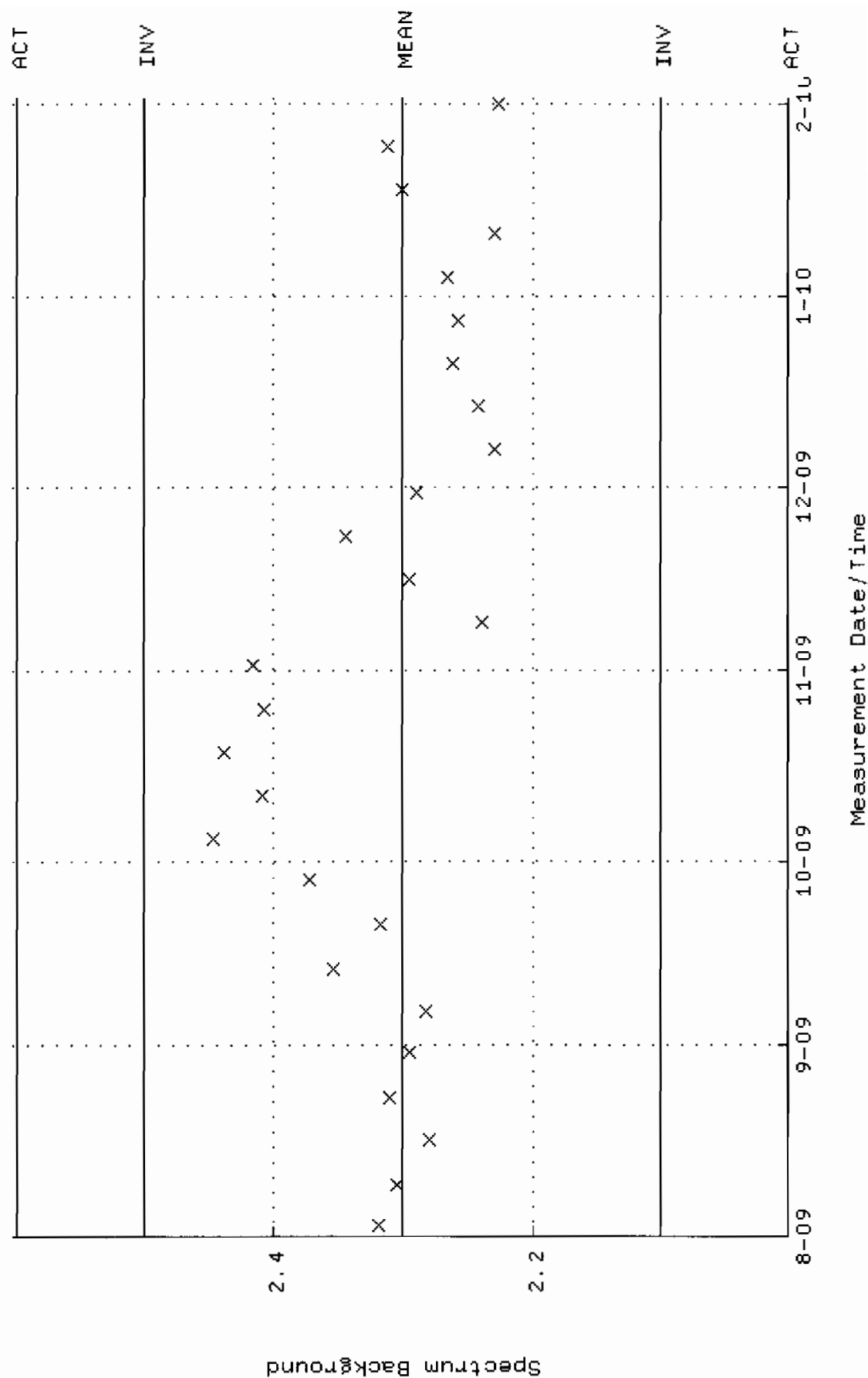
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)



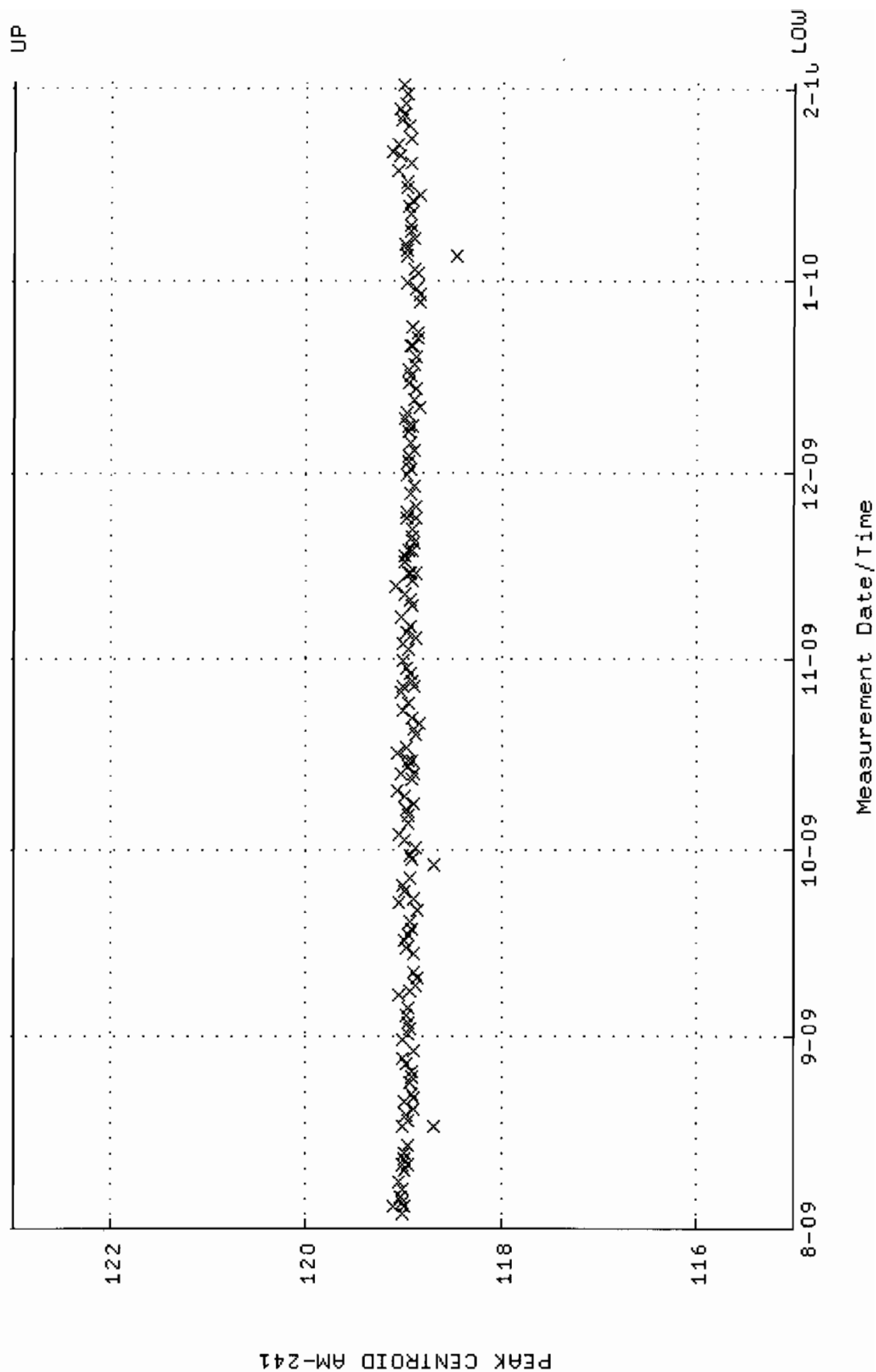
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM18-CAN.QAF;1
 Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



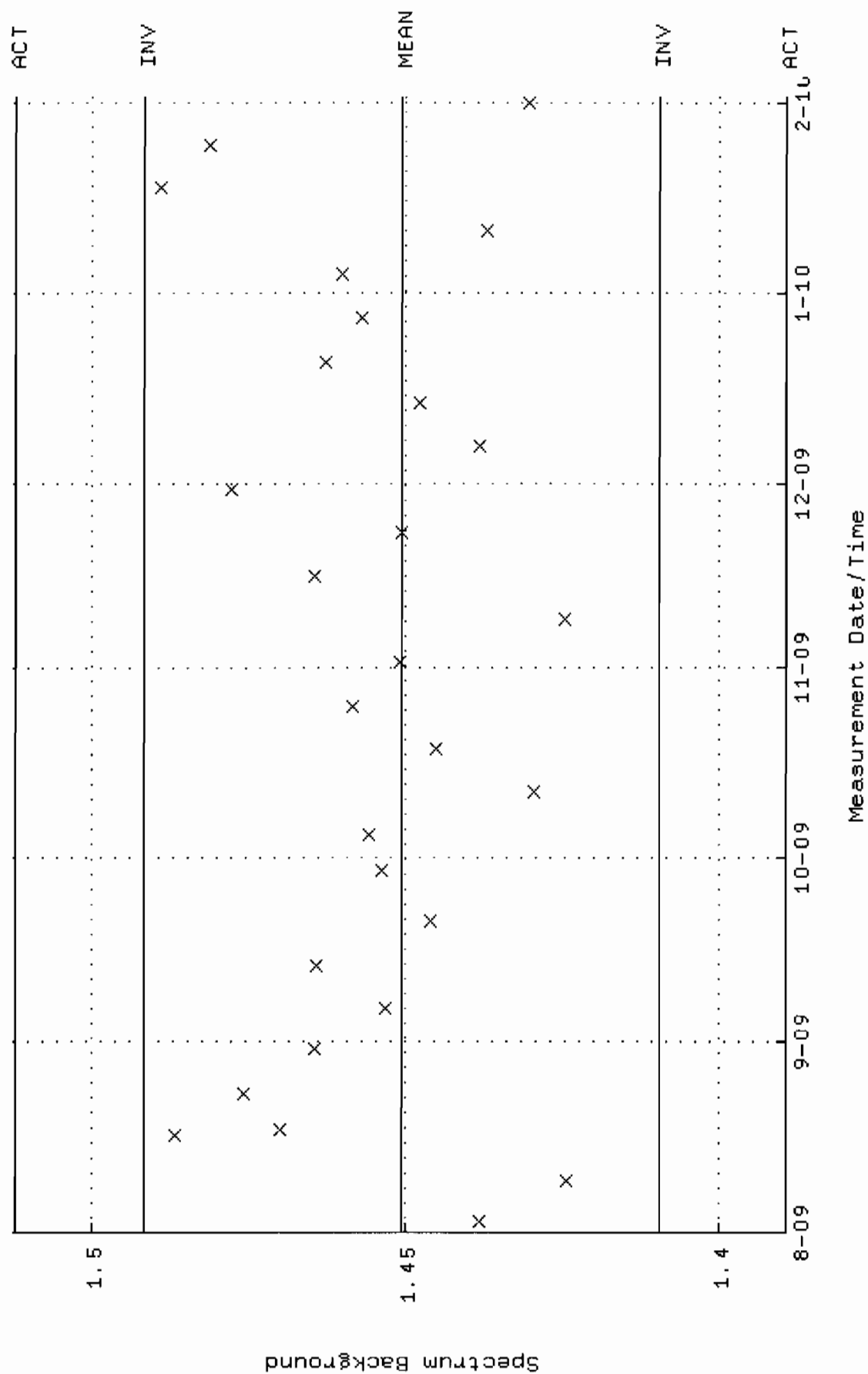
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)



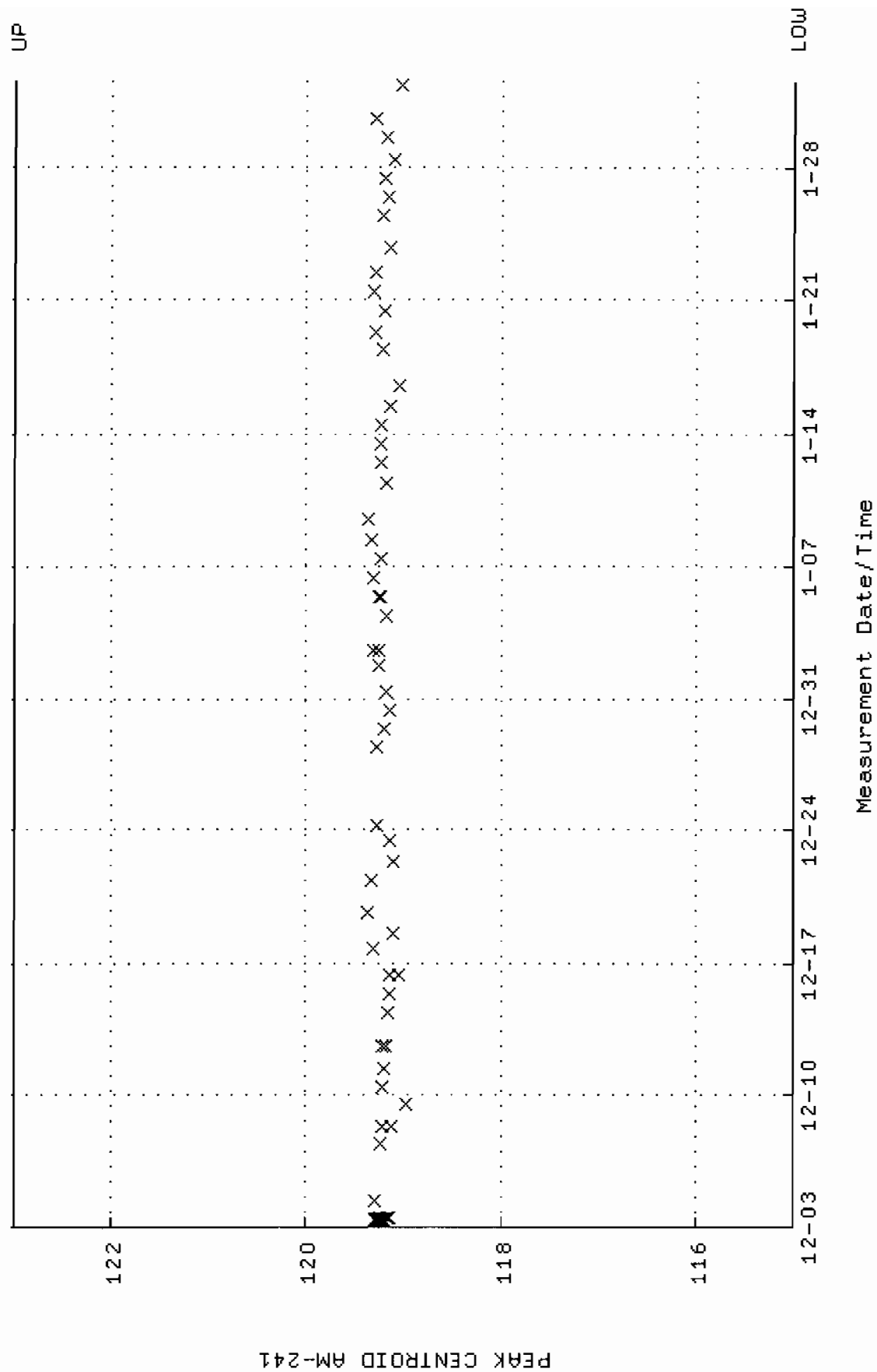
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



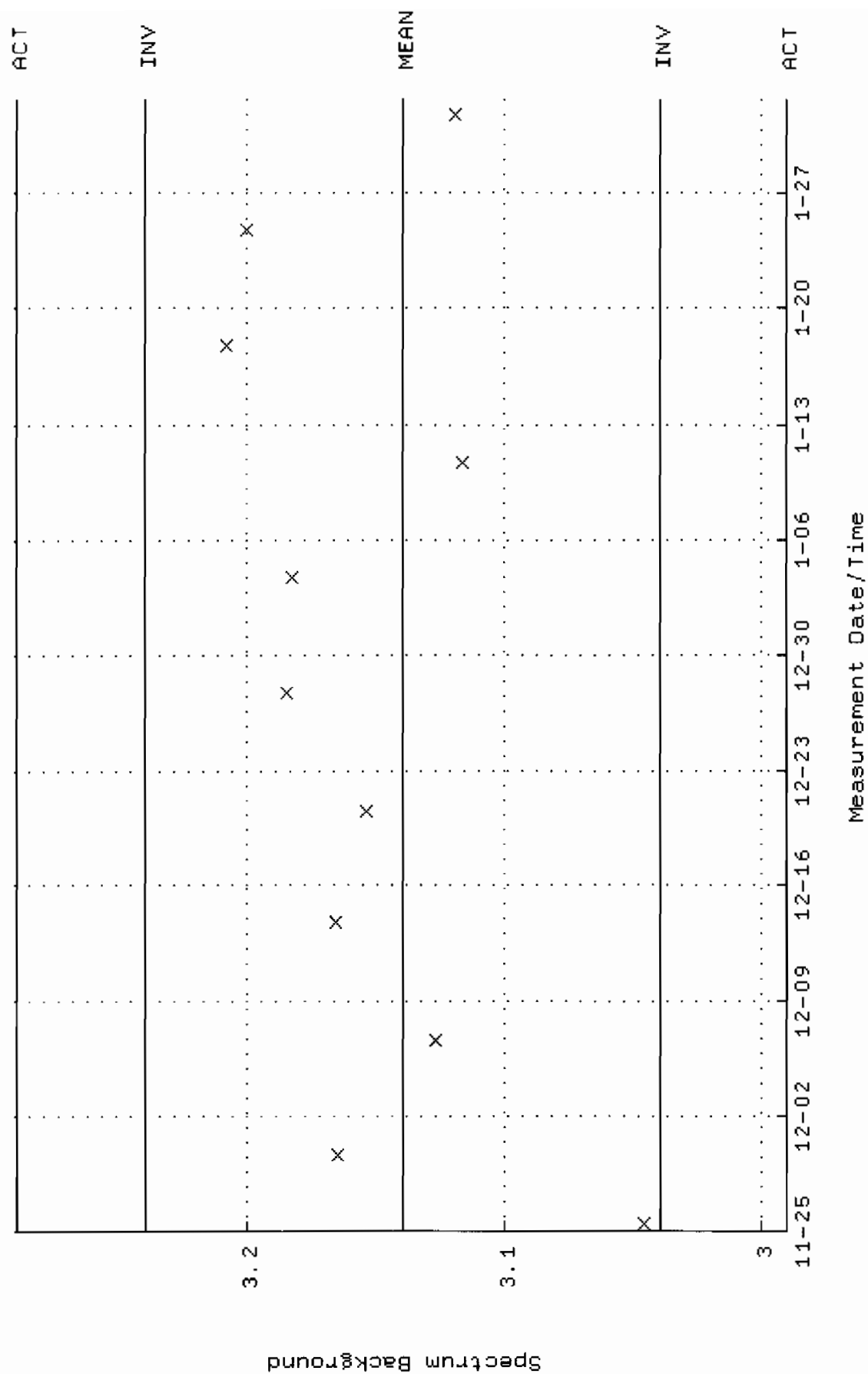
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)



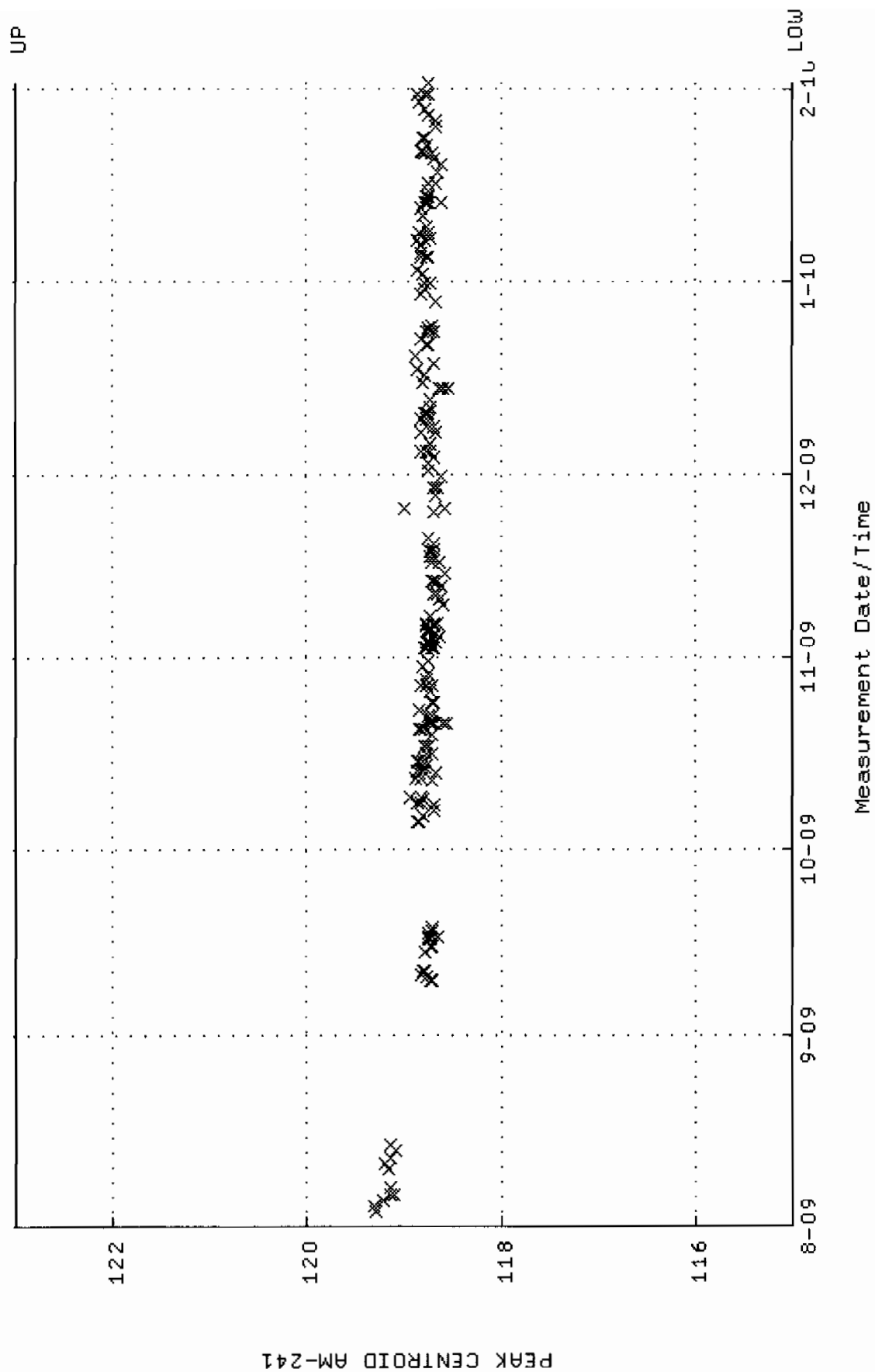
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
 Parameter Name : PSCENTROD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



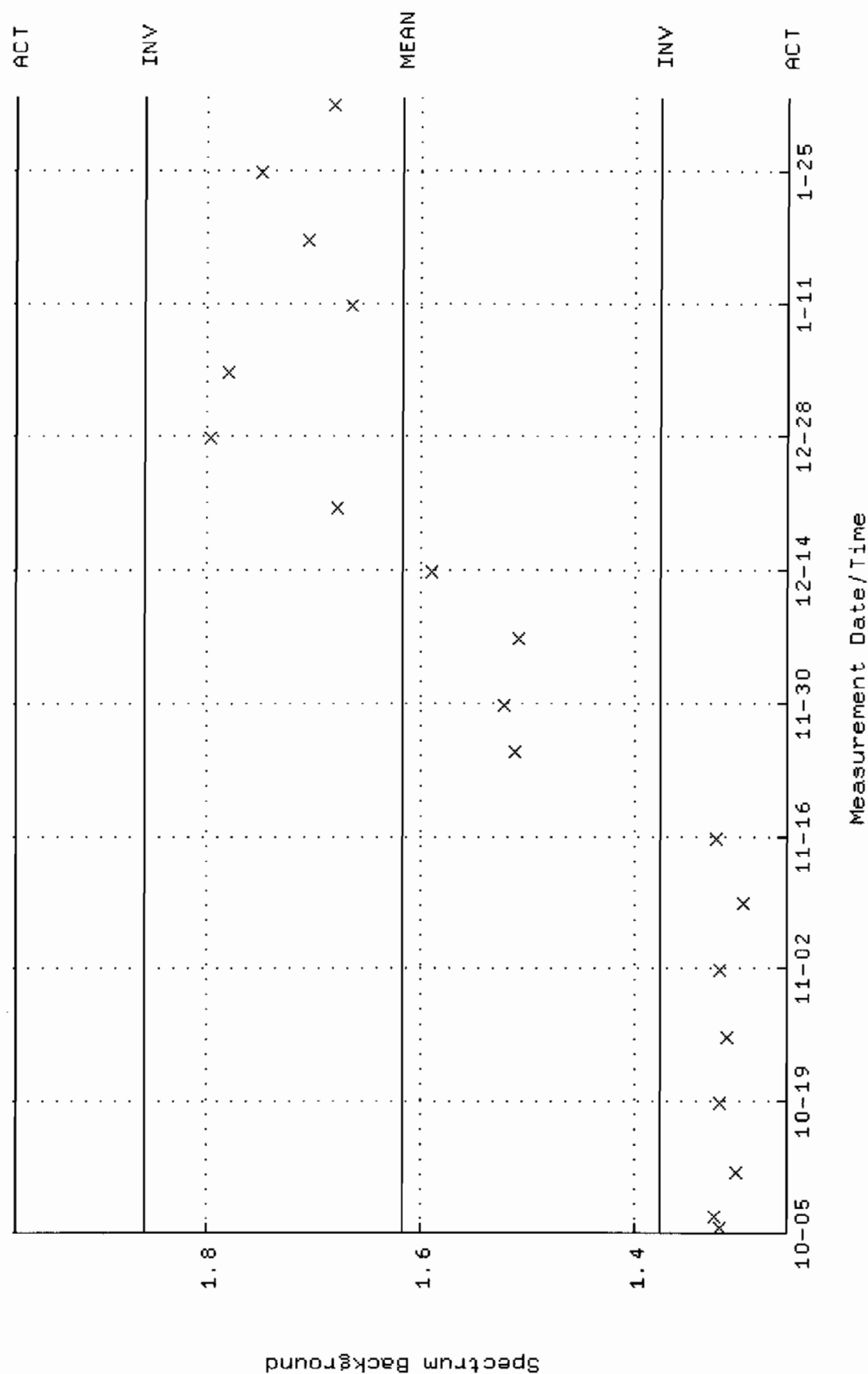
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

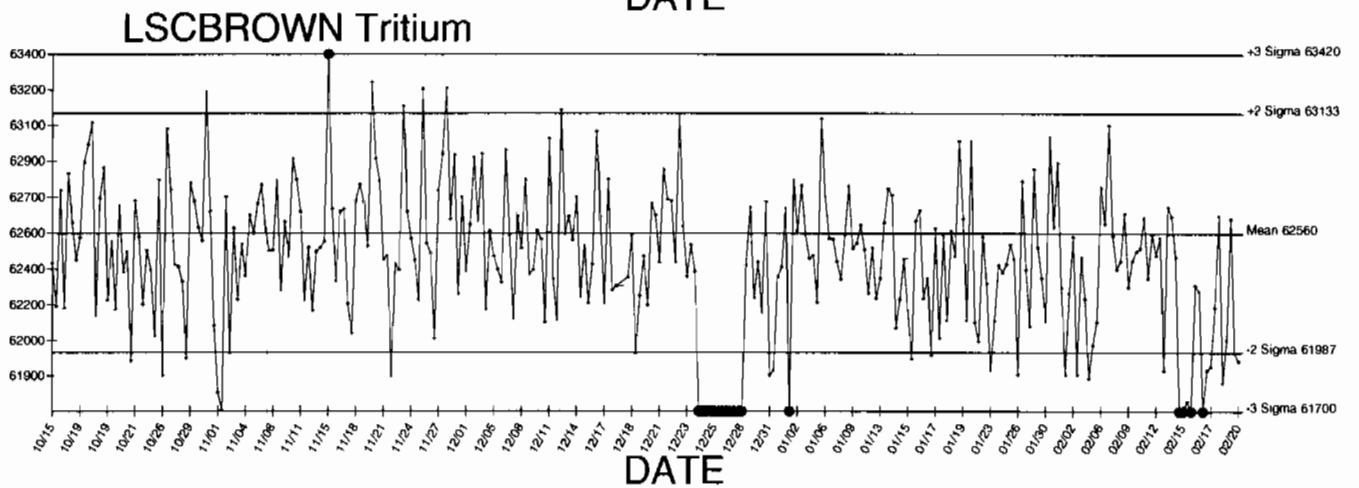
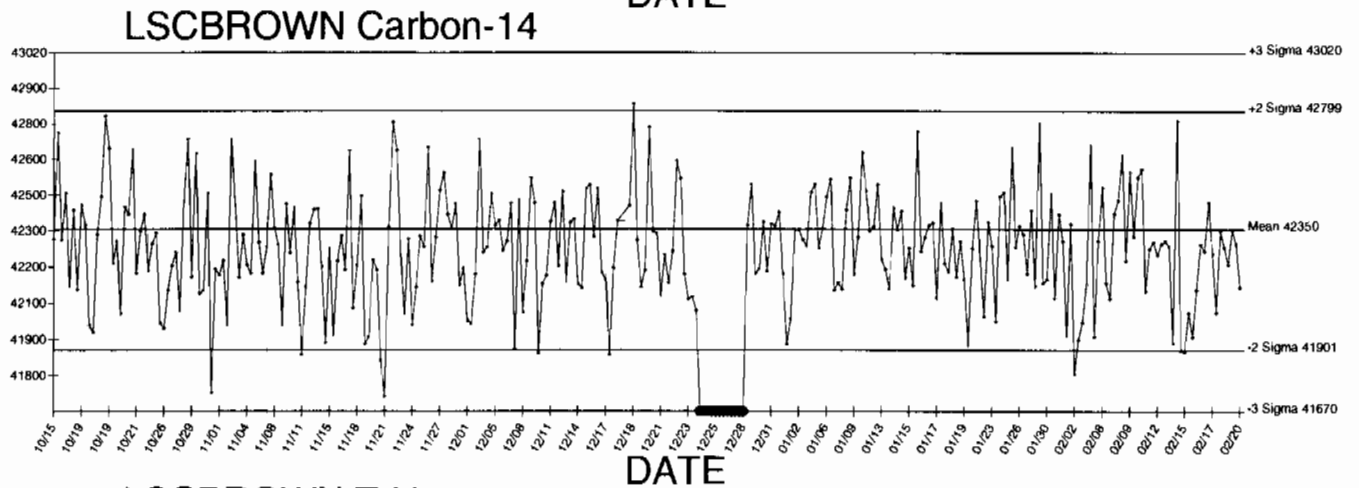
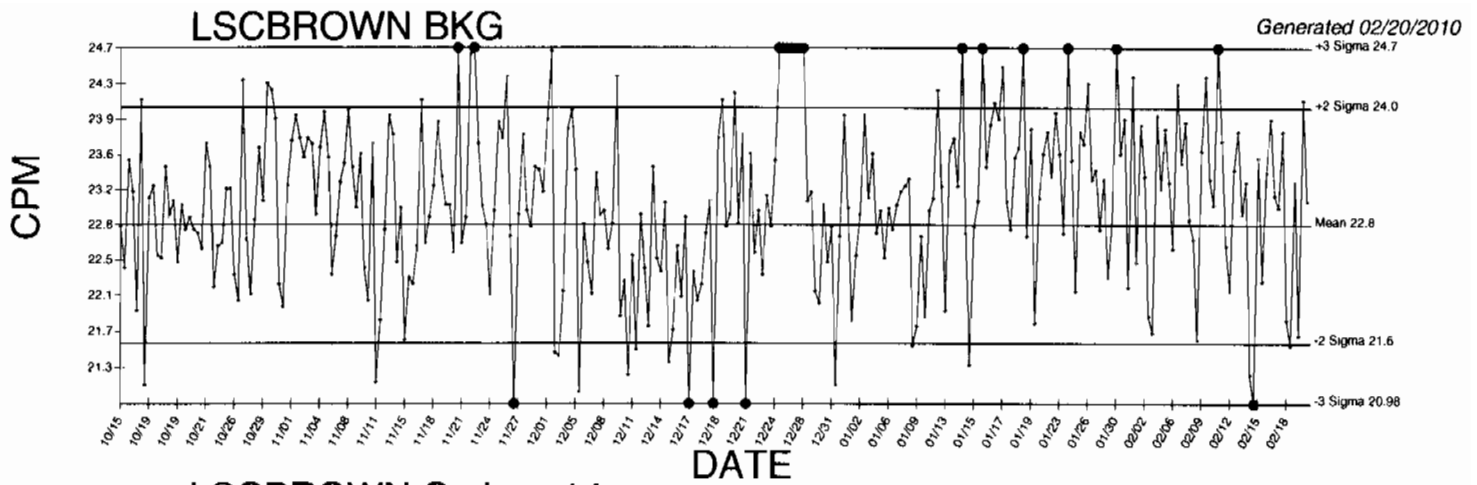


QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM23-CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
 Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)





● Denotes Outlier

STANDARDS DATA

0134



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 $\pm 2.5\%$

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) = 3.7×10^{10} becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = 3.7×10^4 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

2C-5-023-061a

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	0134	Isotope:	Tritium
Prepared By:	Angela Johnson	Prepared By:	Angela Johnson
Carrier Conc:	DI WATER	Prep Date:	02/21/2001
Reference Date:	03/01/1996	Verification Date:	09/10/2008
Ampoule Mass (g):	5 g	Expiration Date:	03/27/2010
Uncertainty:	+/- 2.5 %	Primary Code:	0134-A
LogBook No:	RC S 023 061	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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (100 \text{ mL}) = 985535.5200 \text{ dpm/mL}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (1.0004 \text{ g/mL}) / (100 \text{ mL}) = 985180.3116 \text{ dpm/g}$

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	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	1.0000	2709.776428
					Average =	2709.776428

Mean Value (Counting) = 2709.776428
 Stdev = 31.53347278

Certificate Value = 2581.86 dpm/mL
 Lower Limit = 2846.709482 dpm/mL
 Upper Limit = 2772.843373 dpm/mL
 Rule 1 Pass/Fail Fail
 Two sigma = 63.06694556 dpm/mL
 10 % of Mean = 270.9776428 dpm/mL
 Rule 2 (Pass/Fail) Pass

*exception taken due to full recovery of standard

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 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecosint 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 Ecosint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

$$\text{Source dpm/g} = (A - B)/(C)(D)$$

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

Handwritten signature: Amanda J. Dehn 4/9/09

1032

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analytixinc.com

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. Analytix 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:

J.M. [Signature] 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/28/06
RC-S-045-073-0

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404-352-8677

Fax 404-352-2837

www.analytiscinc.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 Uncertainty (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

¹Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)

HPGe (High Purity Germanium Gamma Ray Spectrometer)

IC (Gamma Ray Ionization Chamber)

²As 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.

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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (dpm)}) * (\text{conversion dpm to dpm}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (dpm)}) * (\text{conversion dpm to dpm}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$
$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2163.7461 \text{ dpm/mL}$
$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (1.0611 \text{ g/mL}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2039.2400 \text{ dpm/g}$

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	pCi/L - Var. Int. - 1
Mixed Gamma N1	2534	pCi/L
Mixed Gamma N2	2510	pCi/L
Mixed Gamma N3	2413	pCi/L

Mean Value (Counting) = 2485.67
Stdev = 64.065
Rule 3 (Pass/Fail) Pass

Certificate Value = 2485.68018
Lower Limit = 2357.536524
Upper Limit = 2613.796809
Rule 1 (Pass/Fail) Pass
Two sigma = 128.1301422
10 % of Mean = 248.5666667
Rule 2 (Pass/Fail) Pass

pCi/L
pCi/L
pCi/L

M. Stamps
12/2/09
independent
12/2/09

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	pCi/L - Ver. Tar. 1
Mixed Gamma N1	854.2	pCi/L
Mixed Gamma N2	907.6	pCi/L
Mixed Gamma N3	898.9	pCi/L

Mean Value (Counting) = 886.90
Stdev = 28.651
Rule 3 (Pass/Fail) Pass

Certificate Value = 933.44144
Lower Limit = 829.597644
Upper Limit = 944.202356
Rule 1 (Pass/Fail) Pass
Two sigma = 57.30235597
10 % of Mean = 88.69000000
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 5% of the certificate value.

Handwritten:
12/2/09
12/2/09
12/2/09

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)

Isotope	Result	pCi/L - Ver-1ae-5
Mixed Gamma N1	1572	pCi/L - Ver-1ae-2
Mixed Gamma N2	1495	pCi/L - Ver-1ae-3
Mixed Gamma N3	1501	

Mean Value (Counting) = 1522.67
Stdev = 42.829
Rule 3 (Pass/Fail) Pass

Certificate Value = 1545.8378
Lower Limit = 1437.008431
Upper Limit = 1608.324902
Rule 1 (Pass/Fail) Pass
Two sigma = 85.65823564
10 % of Mean = 152.26666667
Rule 2 (Pass/Fail) Pass

pCi/L
pCi/L
pCi/L

M. Stamps issued, 12/2/09

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 4/11/2000 *lett c held 12/1/04*

angela l. johnson 12/13/04

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
Tn-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	22.1 ± 1.2	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

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. Lehn 4/30/04
lett & shahel 5/1/04

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.

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 $50 \pm 10^\circ \text{C}$ 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 $50 \pm 10^\circ \text{C}$ 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:	05/11/2009
Expiration Date:	05/11/2010
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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (100 \text{ mL}) = 2234238.9912 \text{ dpm/mL}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (1.0785 \text{ g/mL}) / (100 \text{ mL}) = 2071617.0528 \text{ dpm/g}$

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	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
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
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
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-SS

M. Aders 5/15/2009	Isotope	Value	Uncertainty
	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989		Rule 3 (Pass/Fail)
Target =	1.314		
Lower Limit =	1.252822021		
Upper Limit =	1.427177979		
Rule 1 Pass/Fail	Pass		
Two sigma =	0.087177979		
10 % of Mean =	0.134		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard **445-96-2-SS** 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-241 certified 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.

Henry G. Aders 5/15/09
Taheri
 007509



National Institute of Standards & Technology Certificate

Standard Reference Material 4334H Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

Recommended Procedure for Opening the SRM Ampoule

- 1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.
- 2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.
- 3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.
- 4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.
- 5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.
- 6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.
- 7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.
- 8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.
- 9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	Plutonium-242
Reference time	1200 EST, 07 June 1994 [b]*
Massic activity of the solution [c]	26.31 Bq·g ⁻¹
Relative expanded uncertainty (k=2)	0.72% [d] [e]
Solution density	(1.105 ± 0.002) g·mL ⁻¹ at 20 °C [f]

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter	(16.5 ± 0.5) mm	
	Wall thickness	(0.60 ± 0.04) mm	
	Barium content	Less than 2.5%	
	Lead-oxide content	Less than 0.02%	
	Other heavy elements	Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration (mol·L ⁻¹)	Mass Fraction (g·g ⁻¹)
	H ₂ O	50	0.81
	HNO ₃	3.2	0.19
	²⁴² Pu ⁺⁶	8 × 10 ⁻⁷	2 × 10 ⁻⁷
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) Bq·g ⁻¹ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4π α liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i , the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $|\partial y/\partial x_i| \cdot$ (x_i/y) [m]	Relative Uncertainty Of Output Quantity, $u(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid- scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha- particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha- particle-count-rate- versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				<u>x 2</u>
Relative Expanded Uncertainty of the Output Quantity, U/y , (%)				0.72

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	--	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	²³⁹ Pu + ²⁴⁰ Pu <0.000 001 [u]	²³⁹ Pu + ²⁴⁰ Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	²³⁸ Pu + ²⁴¹ Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

- [a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.
Distance from Ampoule (cm): 1 30 100
Approximate Dose Rate ($\mu\text{Sv/h}$): <0.1 - -
- [b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.
- [c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].
- [d] The reported value, y , of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \dots, x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i , used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y , $u_i(y) = |\partial y / \partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y . The **combined standard uncertainty** of y , $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k=2$ to obtain U , the **expanded uncertainty** of y .

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.


For further information on the expression of uncertainties, see references [2] and [3].

- [e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).
- [f] The stated uncertainty is two times the standard uncertainty.
- [g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
 $0.003 \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies less than 3.1 MeV,
 $0.03 \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 3.1 and 4.4 MeV, and
 $0.003 \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies greater than 5.0 MeV.
- [h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.
- [i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
 $5 \times 10^{-5} \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 19 and 39 keV,
 $7 \times 10^{-5} \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 49 and 92 keV,
 $2 \times 10^{-5} \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 106 and 507 keV,
 $1 \times 10^{-5} \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 515 and 1456 keV, and
 $5 \times 10^{-6} \text{ s}^{-1}\cdot\text{g}^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.
- [j] The stated uncertainty is the standard uncertainty.
- [k] Relative standard uncertainty of the input quantity x_i .
- [m] The relative change in the output quantity y divided by the relative change in the input quantity x_i . If $|\partial y / \partial x_i| \cdot (x_i / y) = 1.0$, then a 1% change in x_i results in a 1% change in y . If $|\partial y / \partial x_i| \cdot (x_i / y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y .
- [n] Relative component of combined standard uncertainty of output quantity y , rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u(y)/y \equiv |\partial y / \partial x_i| \cdot u(x_i)/y = |\partial y / \partial x_i| \cdot (x_i / y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y / \partial x_i| \cdot (x_i / y)$, and $u(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

- [p] The relative standard uncertainty of λt is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.
- [q] $|\partial y / \partial x_i| \cdot (x_i / y) = |\lambda t|$
- [r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.
- [s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i) / x_i \approx 100\%$. $|\partial y / \partial x_i| \cdot (x_i / y) = \{(\text{response per Bq of impurity}) / (\text{response per Bq of Pu-242})\} \cdot \{(\text{Bq of impurity}) / (\text{Bq of Pu-242})\}$. Thus $u(y) / y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.
- [t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.
- [u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.
- [v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

- [1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.
- [2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.
- [3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.
- [4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.
- [5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.



Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	1375	Isotope:	Plutonium-242
Prepared By:	Mary Aders	Prepared By:	Ashley Drochter
Carrier Conc:	0.5M HNO3	Prep Date:	01/08/2010
Reference Date:	06/07/1994	Verification Date:	01/08/2010
Ampoule Mass (g):	5.5 g	Expiration Date:	01/08/2011
Uncertainty:	+/- .72 %	Primary Code:	1375-A
LogBook No:	RC-S-051-094	Dilution(mL):	250 mL
		Mass of Parent(g):	5.3542 g
		Density(g/mL):	1.0148
		Balance ID:	38080204

Calculations Converting parent activity to dpm/mL/dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(5.3542 \text{ g}) * (26.31 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (250 \text{ mL}) = 33.8086 \text{ dpm/mL}$
$(5.3542 \text{ g}) * (26.31 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (1.0148 \text{ g/mL}) / (250 \text{ mL}) = 33.3155 \text{ dpm/g}$

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 Pu-242 Standard 1375-A

A.Drochter 1/9/2010	Isotope	Value	Uncertainty
	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480
Mean Value (Counting) =	1.580	103.75	Pass
Stdev =	0.05	Rule 3 (Pass/Fail)	
Target =	1.52		
Lower Limit =	1.48		
Upper Limit =	1.68		
Rule 1 Pass/Fail	Pass		
Two sigma =	0.1		
10 % of Mean =	0.158		
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 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A 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. 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-242 were calculated by comparison to Pu-239 certified values.

Jul 1/12/10
for 1/12/10



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

78747-278

1283

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 HNO₃ solution.

Source Prepared By:

W. Mao
W. Mao, Radiochemist

QA Approved:

D. M. Montgomery
D. M. Montgomery, QA Manager

Date: 12-11-08

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	1283	Isotope:	Uranium-232
Prepared By:	Daniel Roy	Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3	Prep Date:	12/16/2008
Reference Date:	12/09/2008	Verification Date:	12/30/2008
Ampoule Mass (g):	5.20453 g	Expiration Date:	12/30/2009
Uncertainty:	+/- 5 %	Primary Code:	1283-A
LogBook No:	RC-S-051-002	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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2174.4872 \text{ dpm/mL}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (1.0285 \text{ g/mL}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2114.1700 \text{ dpm/g}$

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

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
12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 950610

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246344004	SAMPLE	KXM4	1101	20-FEB-10 14:31	DONE		
246344005	SAMPLE	KXM4	1102	20-FEB-10 14:31	DONE		
1202037198	DUP	KXM4	1103	20-FEB-10 14:31	DONE		
1202037199	LCS	KXM4	1105	20-FEB-10 14:31	DONE		
1202037197	MB	KXM4	1106	20-FEB-10 14:31	DONE		
246262001	SAMPLE	KXM4	1209	22-FEB-10 09:23	DONE		
246325003	SAMPLE	KXM4	1210	22-FEB-10 09:23	DONE		
246262002	SAMPLE	KXM4	1211	22-FEB-10 09:23	DONE		
246325004	SAMPLE	KXM4	1212	22-FEB-10 09:23	DONE		
246315001	SAMPLE	KXM4	1213	22-FEB-10 09:23	DONE		
246325005	SAMPLE	KXM4	1214	22-FEB-10 09:23	DONE		
246315002	SAMPLE	KXM4	1215	22-FEB-10 09:23	DONE		
246325006	SAMPLE	KXM4	1216	22-FEB-10 09:23	DONE		
246315003	SAMPLE	KXM4	1217	22-FEB-10 09:23	DONE		
246331001	SAMPLE	KXM4	1218	22-FEB-10 09:23	DONE		
246325002	SAMPLE	KXM4	1219	22-FEB-10 09:24	DONE		
246331002	SAMPLE	KXM4	1220	22-FEB-10 09:24	DONE		
246338001	SAMPLE	KXM4	1221	22-FEB-10 09:24	DONE		
246338002	SAMPLE	KXM4	1222	22-FEB-10 09:24	DONE		
246344001	SAMPLE	KXM4	1223	22-FEB-10 09:24	DONE		
246344002	SAMPLE	KXM4	1224	22-FEB-10 09:24	DONE		
246344003	SAMPLE	KXM4	1225	22-FEB-10 09:24	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID:950611

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202037200	MB	KXM4	1003	19-FEB-10 12:54	DONE		
246262001	SAMPLE	KXM4	1113	19-FEB-10 16:49	DONE		
246262002	SAMPLE	KXM4	1114	19-FEB-10 16:49	DONE		
246315001	SAMPLE	KXM4	1115	19-FEB-10 16:49	DONE		
246315002	SAMPLE	KXM4	1119	19-FEB-10 16:49	DONE		
246315003	SAMPLE	KXM4	1120	19-FEB-10 16:49	DONE		
246325002	SAMPLE	KXM4	1121	19-FEB-10 16:49	DONE		
246325003	SAMPLE	KXM4	1122	19-FEB-10 16:49	DONE		
246325004	SAMPLE	KXM4	1123	19-FEB-10 16:49	DONE		
246325005	SAMPLE	KXM4	1124	19-FEB-10 16:49	DONE		
246325006	SAMPLE	KXM4	1125	19-FEB-10 16:49	DONE		
246331001	SAMPLE	KXM4	1126	19-FEB-10 16:49	DUSE		
246331002	SAMPLE	KXM4	1127	19-FEB-10 16:49	DONE		
246338001	SAMPLE	KXM4	1128	19-FEB-10 16:49	DONE		
246338002	SAMPLE	KXM4	1129	19-FEB-10 16:49	DONE		
246344001	SAMPLE	KXM4	1130	19-FEB-10 16:49	DONE		
246344002	SAMPLE	KXM4	1138	19-FEB-10 16:49	DONE		
246344003	SAMPLE	KXM4	1139	19-FEB-10 16:49	DONE		
246344004	SAMPLE	KXM4	1140	19-FEB-10 16:49	DONE		
246344005	SAMPLE	KXM4	1141	19-FEB-10 16:49	DONE		
1202037201	DUP	KXM4	1142	19-FEB-10 16:49	DONE		
1202037202	LCS	KXM4	1143	19-FEB-10 16:49	DONE		
246331001	SAMPLE	KXM4	1012	20-FEB-10 11:43	DUSE		
246331001	SAMPLE	KXM4	1123	22-FEB-10 12:41	DONE		

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER

Batch ID:950787

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246262001	SAMPLE	MXR1	GAM18	18-FEB-10 14:49	DONE	CAN	23-APR-09 00:00
246262002	SAMPLE	MXR1	GAM19	18-FEB-10 14:49	DONE	CAN	12-MAR-09 00:00
246315001	SAMPLE	MXR1	GAM23	18-FEB-10 14:50	DONE	CAN	02-JUN-09 00:00
246315002	SAMPLE	MXR1	GAM15	18-FEB-10 14:59	DONE	CAN	03-FEB-10 00:00
246315003	SAMPLE	MXR1	GAM22	18-FEB-10 15:00	DONE	CAN	02-DEC-09 00:00
246325001	SAMPLE	MXR1	GAM10	18-FEB-10 15:14	DONE	CAN	16-MAR-09 00:00
246325002	SAMPLE	MXR1	GAM11	18-FEB-10 15:16	DONE	CAN	18-NOV-09 00:00
246325003	SAMPLE	MXR1	GAM16	18-FEB-10 15:16	DONE	CAN	16-NOV-09 00:00
246325004	SAMPLE	MXR1	GAM12	18-FEB-10 15:24	DONE	CAN	10-FEB-09 00:00
246325005	SAMPLE	MXR1	GAM20	18-FEB-10 15:24	DONE	CAN	26-AUG-09 00:00
246325006	SAMPLE	MXR1	GAM21	18-FEB-10 15:26	DONE	CAN	28-JUL-09 00:00
246331001	SAMPLE	MXR1	GAM17	18-FEB-10 15:50	DONE	CAN	06-JAN-10 00:00
246331002	SAMPLE	MXR1	GAM14	18-FEB-10 15:51	DONE	CAN	06-MAR-09 00:00
246338001	SAMPLE	MXR1	GAM01	18-FEB-10 15:54	DONE	CAN	12-JAN-10 00:00
246338002	SAMPLE	MXR1	GAM07	18-FEB-10 15:55	DONE	CAN	20-JUL-09 00:00
246344001	SAMPLE	MXR1	GAM04	18-FEB-10 15:59	DONE	CAN	05-MAY-09 00:00
246344002	SAMPLE	MXR1	GAM18	18-FEB-10 16:57	DONE	CAN	23-APR-09 00:00
246344003	SAMPLE	MXR1	GAM19	18-FEB-10 16:58	DONE	CAN	12-MAR-09 00:00
246344004	SAMPLE	MXR1	GAM23	18-FEB-10 16:59	DONE	CAN	02-JUN-09 00:00
246344005	SAMPLE	MXR1	GAM15	18-FEB-10 17:02	DONE	CAN	03-FEB-10 00:00
1202037549	MB	MXR1	GAM22	18-FEB-10 17:03	DONE	CAN	02-DEC-09 00:00
1202037550	DUP	MXR1	GAM12	18-FEB-10 17:29	DONE	CAN	10-FEB-09 00:00
1202037551	LCS	MXR1	GAM16	18-FEB-10 17:29	DONE	CAN	16-NOV-09 00:00

Instrument Run Log

Instrument Type: LSC

Batch ID: 953095

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246341001	SAMPLE	KXK2	LSCBROWN	19-FEB-10 08:55	DONE		
246341002	SAMPLE	KXK2	LSCBROWN	19-FEB-10 10:33	DONE		
246341003	SAMPLE	KXK2	LSCBROWN	19-FEB-10 12:11	DONE		
246341004	SAMPLE	KXK2	LSCBROWN	19-FEB-10 13:49	DONE		
246341005	SAMPLE	KXK2	LSCBROWN	19-FEB-10 15:27	DONE		
246341006	SAMPLE	KXK2	LSCBROWN	19-FEB-10 17:05	DONE		
246341007	SAMPLE	KXK2	LSCBROWN	19-FEB-10 18:43	DONE		
246341008	SAMPLE	KXK2	LSCBROWN	19-FEB-10 20:21	DONE		
246341009	SAMPLE	KXK2	LSCBROWN	19-FEB-10 22:00	DONE		
246344001	SAMPLE	KXK2	LSCBROWN	19-FEB-10 23:38	DONE		
246344002	SAMPLE	KXK2	LSCBROWN	20-FEB-10 01:16	DONE		
246344003	SAMPLE	KXK2	LSCBROWN	20-FEB-10 04:08	DONE		
246344004	SAMPLE	KXK2	LSCBROWN	20-FEB-10 05:46	DONE		
246344005	SAMPLE	KXK2	LSCBROWN	20-FEB-10 07:24	DONE		
246444001	SAMPLE	KXK2	LSCBROWN	20-FEB-10 09:02	DONE		
246444002	SAMPLE	KXK2	LSCBROWN	20-FEB-10 10:40	DONE		
246444003	SAMPLE	KXK2	LSCBROWN	20-FEB-10 12:18	DONE		
246444004	SAMPLE	KXK2	LSCBROWN	20-FEB-10 13:56	DONE		
246444005	SAMPLE	KXK2	LSCBROWN	20-FEB-10 15:34	DONE		
1202042910	MB	KXK2	LSCBROWN	20-FEB-10 17:12	DONE		
1202042911	DUP	KXK2	LSCBROWN	20-FEB-10 18:50	DONE		
1202042912	LCS	KXK2	LSCBROWN	20-FEB-10 20:27	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID:956056

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246262001	SAMPLE	KXM4	1209	23-FEB-10 21:16	DONE		
246262002	SAMPLE	KXM4	1210	23-FEB-10 21:16	DONE		
246315001	SAMPLE	KXM4	1211	23-FEB-10 21:16	DONE		
246315002	SAMPLE	KXM4	1212	23-FEB-10 21:16	DONE		
246315003	SAMPLE	KXM4	1213	23-FEB-10 21:16	DONE		
246325002	SAMPLE	KXM4	1214	23-FEB-10 21:16	DONE		
246325003	SAMPLE	KXM4	1215	23-FEB-10 21:16	DONE		
246325004	SAMPLE	KXM4	1216	23-FEB-10 21:16	DONE		
246325005	SAMPLE	KXM4	1219	23-FEB-10 21:16	DONE		
246325006	SAMPLE	KXM4	1220	23-FEB-10 21:16	DONE		
246331001	SAMPLE	KXM4	1221	23-FEB-10 21:16	DONE		
246331002	SAMPLE	KXM4	1222	23-FEB-10 21:16	DONE		
246338001	SAMPLE	KXM4	1223	23-FEB-10 21:16	DONE		
246338002	SAMPLE	KXM4	1224	23-FEB-10 21:16	DONE		
246344001	SAMPLE	KXM4	1225	23-FEB-10 21:16	DONE		
246344002	SAMPLE	KXM4	1226	23-FEB-10 21:16	DONE		
246344003	SAMPLE	KXM4	1227	23-FEB-10 21:16	DONE		
246344004	SAMPLE	KXM4	1228	23-FEB-10 21:16	DONE		
246344005	SAMPLE	KXM4	1229	23-FEB-10 21:16	DONE		
1202049947	MB	KXM4	1230	23-FEB-10 21:16	DONE		
1202049948	DUP	KXM4	1235	23-FEB-10 21:16	DONE		
1202049949	LCS	KXM4	1236	23-FEB-10 21:16	DONE		