



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA:300.0		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
EPA:353.2		1	RE36-10-7528	W	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
SW-846:6010B		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:60108	1	RE36-10-7515	R	2/20/2010	
	SW-846:6020	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846:6850	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6850						
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
SW-846:7470A						
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
SW-846:7471A						
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	



Wednesday, February 24, 2010

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:7471A						
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

Wednesday, February 24, 2010

Page 6 of 6

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9045C						
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2075

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

**LOS ALAMOS**

REQUEST NUMBER: 10-2075

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

## LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7414	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7413	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7413	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7462	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7462	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7465	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7465	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7473	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7473	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7471	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7471	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7472	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7472	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7468	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7468	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7464	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7464	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7463	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7463	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7475	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7475	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7466	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7476	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7476	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7461	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7461	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7467	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7467	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7469	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7469	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7470	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7515	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7515	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7528	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7528	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7528	1	POLY	SW-846:6850	Ice	W
RE36-10-7528	1	POLY	TCN	Sodium Hydroxide	W
RE36-10-7527	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7527	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7527	1	POLY	SW-846:6850	Ice	W
RE36-10-7527	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7413

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		OBT3	
TIME COLLECTED(HH:MM)		1215		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610579		↓		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: B		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	8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Moist dark brown sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
 Beta/Gamma  $\leq$  163 dpm

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

73m 2/20/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>TL McFarland</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7414

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		13:19		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610579		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist gray weathered tuff

SAMPLE COMMENTS:

FR: RE36-10-7527

LOCATION DESC:

8-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm  
Beta/Gamma ≤ 386 dpm

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

7m 2/20/10

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

TLMcFarland

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) TLMcFarland	2/20/10	(Printed Name) Sheri Sherwood	2/20/10
(Signature) Tracy Zwick	1604	(Signature) Sheri Sherwood	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7461

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		OBT3	
TIME COLLECTED(HH:MM)		0955		SUB-MEDIA:		TUFF 1	
PRS ID:		36-008		SAMPLE TECH CODE:		HA	
LOCATION ID:		36-610603		FIELD QC TYPE:		NA	
LOCATION TYPE:		GENERIC		FIELD PREP:		NA	
TOP DEPTH:		0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:		0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:		R		EXCAVATED: YES/NO/NA		S	
COMPOSITE TYPE:		NA		COMPOSITE TIME INTERVAL:		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:		BOREHOLE DIRECTION:		NA	

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

SAMPLE DESC: Brown fill, rocks

FTB: RE36-10-7539

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
 Beta/Gamma  $\leq$  11 dpm

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

72m 2/20/10

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) T. McFarland	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) [Signature]	1604	(Signature) [Signature]	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7462

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1001		SUB-MEDIA:		TUFF1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610603		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		5		EXCAVATED: YES / <input checked="" type="checkbox"/> NO / NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES / <input checked="" type="checkbox"/> NO / NA			
BOREHOLE: YES / <input checked="" type="checkbox"/> NO / NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown sandy silt, cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm  
Beta/Gamma = 81 dpm

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

72m 2/20/10

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy Zet	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7463

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		411h
TIME COLLECTED(HH:MM)		1034		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610604	↓		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:			
				WATER FLOWING: YES/NO/NA			

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

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

SAMPLE DESC:

Brown sandy silt, rocks and roots

SAMPLE COMMENTS:

LOCATION DESC: 8-16

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  26 dpm  
 Beta/Gamma  $\leq$  626 dpm

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

72m 2/20/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jo. Roberson	2/20/10	(Printed Name) Sheri Sherwood	2/20/10
(Signature) <i>Jo. Roberson</i>	1604	(Signature) <i>Sheri Sherwood</i>	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7464

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED(HH:MM)		1045		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610604		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

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

SAMPLE DESC:

Brown silty sand and gray tuff fragments

SAMPLE COMMENTS:

LOCATION DESC:

8-16

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm  
Beta/Gamma = 183 dpmPID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$ 

72m 2/20/10

COLLECTED BY (PRINT)

T. McFarlang

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/09 1604	RECEIVED BY (Printed Name) Sheri Sheewood (Signature) <i>Sheri Sheewood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7465

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: QBT3		Fill	
TIME COLLECTED(HH:MM)		11:10		SUB-MEDIA: TUFF 1		NA	
PRS ID:	36-008	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	36-610605	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: Blackish brown moist rocky sand, roots

FD: RE36-10-7515

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\pm$  0 dpm  
Beta/Gamma  $\pm$  183 dpm

RS 02-20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7466

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/29/2010		MEDIA: OBT3		PS 0220-10 ALLH F.11	
TIME COLLECTED (HH:MM)		11:30		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610605		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		✓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC: NA			
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: moist dark brown sand and rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 8 - 2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 0 dpm  
Beta/Gamma = 307 dpm

RS 02.20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jovi Roberson	2/20/10	(Printed Name) Sherri Shewood	2/20/10
(Signature) <i>Jovi Roberson</i>	1604	(Signature) <i>Sherri Shewood</i>	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7467

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		12:10		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610606		↓		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		SED		EXCAVATED: YES/NO/NA		NO/NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: brown moist loamy, glass pieces, some roots, few pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 15 dpm  
Beta/Gamma = 196 dpm

RS 02-20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherrin Sherwood (Signature) <i>Sherrin Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7468

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:		QBT3
TIME COLLECTED(HH:MM)		12:23	SUB-MEDIA:		TUFF 1
PRS ID:	36-008	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	36-610606	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	2.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	2.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	SED	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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist brown loamy sand, some rocks, and a piece of glass

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 10 dpm

BX = 405 dpm

COLLECTED BY (PRINT)

L. McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Rolenda Saunders (Signature) Rolenda Saunders	Date/Time 2-20-2010 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7469

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		SED
TIME COLLECTED(HH:MM)		14:00		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610607	↓		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	SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

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

SAMPLE DESC: dark brown loamy silt with rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-15

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 20 dpm  
Beta/Gamma = 510 dpm

RS 02-20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7470

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		ALLH
TIME COLLECTED(HH:MM)		14:05		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610607	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

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

SAMPLE DESC: dry sandy silt with tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-15

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 0 dpm  
Beta/Gamma = 716 dpm

RS 022010  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TL McFarling

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Newwood (Signature) <i>Sheri Newwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7471

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1348		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610608		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		72m 2/20/10 <del>0.8</del> 0.8		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		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown moist sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  20 dpm  
Beta/Gamma  $\leq$  72 dpm

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

72m 2/20/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) <i>Sherrill Newwood</i> (Signature) <i>Sherrill Newwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7472

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		
TIME COLLECTED(HH:MM)		1418		SUB-MEDIA:	TUFF 1	7m 2/20/10	ATH-FILL
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610608			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

moist brown sand and cobbles, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm  
Beta/Gamma = 484 dpm

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

7m 2/20/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) <i>Sheila Sheenwood</i> (Signature) <i>Sheila Sheenwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7473

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED(HH:MM)		14:24		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610609		↓		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		SED		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silt, rocks, roots, pine cone, saw blade, glass

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-18

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  15 dpm  
 Beta/Gamma  $\leq$  543 dpm

RS 02-20-10  
 PID  $\frac{\text{Ambient Reading}}{1000}$  ppm

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Jon Rabarson (Signature) <i>Jon Rabarson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) <i>Shenig Hewwood</i> (Signature) <i>Shenig Hewwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7475

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: QBT3		SED	
TIME COLLECTED(HH:MM)		1451		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610610		↓		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: B		SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

merst dark brown sand and clay, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\pm$  5 dpm  
Beta/Gamma  $\pm$  510 dpm

PID  $\frac{\text{Ambient Reading}}{12m\ 2/20/10} = \text{ppm}$

COLLECTED BY (PRINT)

TLMCFarlang

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Robinson	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) <i>Jon Robinson</i>	1604	(Signature) <i>Sherri Sherwood</i>	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7476

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: QBT3		Allh	
TIME COLLECTED (HH:MM)		1505		SUB-MEDIA: TUFF1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610610		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: B		S		EXCAVATED: YES (NO) NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES (NO) NA			
BOREHOLE: YES (NO) NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

moist brown sand and weathered tuff

FR: RE36-10-7528

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  20 dpm  
Beta/Gamma  $\leq$  736 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  73m 2/20/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherriff Sherwood (Signature) <i>Sherriff Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7515

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (M/DD/YYYY):		02/20/2010	MEDIA:	QBT3	ELL
TIME COLLECTED (HH:MM)		11:10	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	36-610605	FIELD QC TYPE:	ED	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	✓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R		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	73m2/20/10 8082-8270+NME D-EXP	500 ML AMBER GLASS	Ice	y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		METALS+U- GEL	125 ML POLY	Ice	y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: QC Sample of RE 36-10-7465

Blackish brown moist rocky sand, roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
Beta/Gamma  $\leq$  183 dpm

125 02.20.10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) T. McFarlane

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) Jon Roberson	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7527

WORK ORDER:

<u>AS PLANNED</u>		<u>AS COLLECTED</u>	<u>AS PLANNED</u>		<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:		NA
TIME COLLECTED(HH:MM)		1334	SUB-MEDIA:		OTHER
PRS ID: 36-008		OK	SAMPLE TECH CODE:		DC
LOCATION ID: UNK		36-610579	FIELD QC TYPE:		ER
LOCATION TYPE: GENERIC		OK	FIELD PREP:		UF
TOP DEPTH: 0			SAMPLE USAGE:		QC
BOTTOM DEPTH: 0			SCREEN/PORT DESC:		NA
FIELD MATRIX: W			EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA			COMPOSITE TIME INTERVAL: NA		
BOREHOLE: YES/NO/NA			WATER FLOWING: YES/NO/NA		
BOREHOLE DECLINATION: NA			BOREHOLE DIRECTION:		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	Normal	SW-846:6850	250 ML POLY	Ice	Y	
1	✓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE 36-10-7414

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7528

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	NA		OK
TIME COLLECTED (HH:MM)		1518		SUB-MEDIA:	OTHER		
PRS ID:	36-008	OK		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	36-610610		FIELD QC TYPE:	FR		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	UF		
TOP DEPTH:	0			SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0			SCREEN/PORT DESC:	NA		
FIELD MATRIX:	W			EXCAVATED: YES (NO) NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES (NO) NA			
BOREHOLE: YES (NO) NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	normal	SW-846:6850	250 ML POLY	Ice	Y	
1	normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE36-10-7476

SAMPLE COMMENTS:

Rinsate

LOCATION DESC: 8-5

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

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

SAMPLE ID: RE36-10-7539

WORK ORDER:

<u>AS PLANNED</u>		<u>AS COLLECTED</u>	<u>AS PLANNED</u>		<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:		NA
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:		OTHER
PRS ID:	36-008	ok	SAMPLE TECH CODE:		DC
LOCATION ID:	UNK	36-610603	FIELD QC TYPE:		FTB
LOCATION TYPE:	GENERIC	ok	FIELD PREP:		NA
TOP DEPTH:	0		SAMPLE USAGE:		QC
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	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
12m 2/20/10						
1-2	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE36-10-7461

SAMPLE COMMENTS:

NA

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

JL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Roberson	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) [Signature]	1604	(Signature) [Signature]	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

## Rad Screening Data Release Form

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

RE 3G-10-7413

7414

7461

7462

7463

7464

7465

7466

7467

RE 3G-10-7469

7470

7471

7472

7473

7475

7476

7515

7468

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 3G-10-7527  
7528 ] Rinsate

7539 FTB

Reason:

Print Last Name McFarland

Signature

*Tracy McFarland*

Date 2/20/10



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7413

ARS Sample ID: ARS2-10-00065-001

Sample Collection Date: 02/20/10 12:15

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	NDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.60	24.11	37.46	24.23		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	36.71	14.92	18.42	15.58		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	34.31	0.11	34.31		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.96	5.91	3.05	5.91		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.04	48.03	0.11	48.03		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
SU-152	0.07	0.14	0.30	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.63	0.39	0.13	0.39		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	2.54	0.92	0.29	0.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	1.16	0.90	0.41	0.90		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	4.44	3.36	1.24	3.51		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.20	0.22	0.09	0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 3.09										

*Matthew J. Edm*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7414

ARS Sample ID: ARS2-10-00065-002

Sample Collection Date: 02/20/10 13:19

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	37.46	28.81	34.06	29.17		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	31.95	14.56	17.92	18.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.10	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	34.76	10.14	1.22	10.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-182	0.63	0.60	0.37	0.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.52	0.50	0.13	0.50		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	1.39	0.69	0.30	0.69		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.16	-0.83	0.42	-0.83		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.74	3.30	1.41	3.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.03	42.97	0.10	42.97		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.25										

*Matthew J. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7461

ARS Sample ID: ARS2-10-00065-003

Sample Collection Date: 02/20/10 09:55

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	22.09	23.39	32.75	23.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	30.65	14.60	18.31	15.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	35.60	0.11	33.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	2.35	5.16	2.50	5.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.14	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.04	47.15	0.11	47.15		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.31	-1.08	0.29	-1.09		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.71	0.34	0.11	0.35		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	0.12	0.28	0.28	0.28		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.44	-4.21	0.42	-4.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.22	3.18	1.25	3.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.36	0.32	0.12	0.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 1.86

  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7462

ARS Sample ID: ARS2-10-00065-004

Sample Collection Date: 02/20/10 10:01

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.12	25.70	95.91	25.93		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	22.11	13.16	17.73	13.43		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.04	41.08	0.13	41.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	24.95	9.27	1.42	9.29		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.11	0.14	0.14	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.38	0.27	0.09	0.27		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.55	170.71	0.38	170.71		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.01	0.47	0.15	0.47		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.80	0.56	0.34	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.51	0.70	0.48	0.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.35	2.71	1.13	2.88		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.03	31.93	0.07	31.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 0.87										

*Matthew J. Eden*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # EB7558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7463

ARS Sample ID: ARS2-10-00065-005

Sample Collection Date: 02/20/10 10:34

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.61	24.11	37.46	24.23		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	34.14	14.63	18.42	18.22		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	33.60	0.11	33.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	-0.35	-4.68	4.09	-4.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.19	0.16	0.09	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	28.81	0.06	28.81		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.05	-0.11	0.31	-0.11		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.86	0.37	0.11	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	1.54	0.76	0.28	0.76		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.16	0.64	0.42	0.64		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.57	1.63	0.65	1.73		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.05	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 0.85

*Matthew J. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-8534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7464

ARS Sample ID: ARS2-10-00065-006

Sample Collection Date: 02/20/10 10:43

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	37.33	28.72	33.94	29.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	39.35	15.29	17.78	16.03		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	33.68	0.11	33.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.47	2.45	2.12	2.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.05	0.08	0.10	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.45	130.38	0.29	130.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.42	0.45	0.08	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.72	0.74	0.36	0.74		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.05	0.14	0.41	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.13	2.23	0.81	2.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.46	0.34	0.11	0.34		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 0.77										

*Matthew L. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558





133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7465

ARS Sample ID: ARS2-10-00065-007

Sample Collection Date: 02/20/10 11:00

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	12.43	19.18	32.75	19.24		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	31.59	14.49	18.31	15.00		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	35.04	0.11	35.04		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.98	3.53	1.97	3.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.13	0.21	0.13	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.03	0.09	0.08	0.09		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.44	0.47	0.30	0.46		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.91	0.40	0.13	0.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.68	0.56	0.29	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.29	-2.00	0.45	-2.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.23	2.77	1.10	2.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.54	0.30	0.08	0.30		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 2.51

*Matthew J. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7466  
Sample Collection Date: 02/20/10 11:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-008  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MOC	TPU	Quel	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	32.71	27.23	33.91	27.52		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	33.76	14.64	17.73	15.21		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	26.24	0.08	26.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	22.53	7.04	0.90	7.07		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.01	0.02	0.05	0.02		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.35	101.56	0.23	101.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.11	0.37	0.10	0.37		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.40	0.46	0.22	0.46		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.68	0.56	0.37	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.65	2.80	1.15	2.92		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.42	0.33	0.12	0.33		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 2.50

*Matthew L. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E67558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7467

ARS Sample ID: ARS2-10-00065-009

Sample Collection Date: 02/20/10 12:10

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.58	21.96	27.28	22.03		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	34.01	14.64	18.61	13.22		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.75	3.59	2.83	3.59		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.08	0.12	0.25	0.12		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.75	0.43	0.10	0.44		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.23	0.53	0.47	0.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.01	0.55	0.19	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.38	0.38	0.45	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.27	-2.95	0.83	-2.95		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	7.06	4.39	1.62	4.67		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.00	0.13	0.09	0.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.14										

*Matthew L. Edin*  
Quality Assurance Review

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

LELAP Certificate # 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7466

Sample Collection Date: 02/20/10 12:30

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-010

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	18.93	22.35	33.94	22.47		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	42.55	15.31	17.78	16.17		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.05	48.76	0.15	48.76		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.00	4390.70	8.89	4390.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.20	0.28	0.16	0.28		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.17	0.23	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.66	188.74	0.42	188.74		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.94	0.45	0.11	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	0.00	0.41	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.32	-1.82	0.62	-1.82		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.87	3.54	1.53	3.65		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.25	0.26	0.10	0.26		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.77										

*Matthew A. Eden*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # EB7558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7469

ARS Sample ID: ARS2-10-00065-011

Sample Collection Date: 02/20/10 14:00

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	17.26	21.39	32.75	21.50		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	44.14	16.07	18.31	16.95		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-8.05	53.53	0.17	53.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	39.25	13.27	1.84	13.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.07	52.05	0.12	52.05		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	1.25	0.56	0.10	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.04	-0.04	0.49	-0.04		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.38	0.68	0.26	0.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	1.63	1.12	0.45	1.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	2.48	1.24	0.73	1.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	6.72	6.10	2.24	6.29		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.04	41.62	0.09	41.62		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 1.49										

*Matthew A. Eder*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # EB7558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7470  
Sample Collection Date: 02/20/10 14:05  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-012  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	18.93	22.32	33.91	22.44		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	27.19	13.89	17.73	13.99		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	37.08	12.91	1.85	12.95		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.32	0.38	0.18	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.15	0.22	0.12	0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.50	0.35	0.10	0.35		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.80	0.81	0.47	0.81		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.27	0.62	0.21	0.62		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.94	0.48	0.71	0.49		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.08	0.11	0.70	0.11		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	5.63	4.37	1.89	4.88		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.41	0.45	0.18	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 1.53

*Matthew J. Edger*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: R538-10-7471  
Sample Collection Date: 02/20/10 13:48  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-013  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Traceor/Chem Recovery
GROSS ALPHA	29.48	27.76	37.46	27.89		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	47.94	16.26	18.42	17.29		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	30.45	0.10	30.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	1.49	2.96	1.35	2.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.16	0.15	0.10	0.15		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.19	0.14	0.07	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.01	0.03	0.06	0.03		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.39	0.39	0.26	0.39		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.72	0.33	0.10	0.33		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	0.00	0.25	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.43	0.55	0.40	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.97	3.44	1.31	3.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.02	33.20	0.07	33.20		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.68										

*Matthew J. Edin*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7472

Sample Collection Date: 02/20/10 14:18

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-014

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.00	22.43	34.06	22.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	37.75	14.68	17.92	15.58		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.20	0.27	0.13	0.27		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	3.28	16.78	6.62	16.78		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.07	0.10	0.17	0.10		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.38	158.06	0.35	158.06		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PS-212	1.55	0.55	0.15	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	3.51	1.23	0.34	1.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.35	1.00	0.51	1.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.12	3.88	1.77	3.94		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.02	-0.22	0.09	-0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.70										

Quality Assurance Review

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

LELAP Certificate # 30658

NELAP Certificate # E87558





133 State Road 4, White Rock, NM 87844

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7473

ARS Sample ID: ARS2-10-00065-015

Sample Collection Date: 02/20/10 14:24

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MOC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	17.26	21.39	32.78	21.50		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	33.91	14.88	18.31	15.45		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	2.23	7.52	3.68	7.52		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.18	0.16	0.12	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.36	0.42	0.46	0.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.12	0.55	0.18	0.86		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	2.30	1.11	0.45	1.12		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.03	-1.00	0.64	-1.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.77	3.91	1.88	3.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.08	0.21	0.11	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 3.12

*Matthew J. Eden*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7475

Sample Collection Date: 02/20/10 14:51

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-016

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Tracer/Chem Recovery
GROSS ALPHA	85.67	33.87	33.91	34.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	41.27	18.87	17.73	16.66		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	32.89	0.10	32.89		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.34	1.55	1.79	1.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.07	0.08	0.15	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.44	127.31	0.29	127.31		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.08	0.41	0.12	0.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.64	0.41	0.28	0.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.09	0.84	0.42	0.84		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.26	2.85	1.16	2.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.11	0.16	0.07	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 3.82

*Matthew J. Eden*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7476

Sample Collection Date: 02/20/10 15:03

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-017

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.50	24.00	27.28	24.11		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	39.69	15.35	18.61	16.11		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.04	0.17	0.14	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	26.30	9.94	1.55	9.97		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.62	0.40	0.21	0.40		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.16	-0.34	0.41	-0.34		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.53	0.60	0.19	0.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	167.43	0.38	167.43		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.10	0.43	0.54	0.43		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.75	3.81	1.63	3.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.01	-0.25	0.11	-0.25		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 1.87										

*[Signature]*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7515

ARS Sample ID: ARS2-10-00065-018

Sample Collection Date: 02/20/10 11:10

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:04

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	5.16	16.05	34.06	16.06		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	32.87	14.06	17.92	14.62		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	28.61	0.09	28.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	1.50	4.44	2.09	4.44		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.04	0.08	0.09	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.20	0.16	0.05	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.09	-0.19	0.26	-0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.72	0.37	0.15	0.37		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.32	0.24	0.31	0.23		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.10	1.07	0.44	1.07		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.76	2.47	0.99	2.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.11	0.17	0.08	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.36										

*Matthew A. Eder*  
Quality Assurance Review

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

LELAP Certificate # 30658

NELAP Certificate # E87558

## DATA VALIDATION COVER SHEET

5121-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2075 VALIDATION DATE: 4/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix 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 | <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 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 aqueous MS/MSD analyses were performed on a LANL sample from another RN, and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski Level I Date: 04/27/10


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

Allison Felix


DATE: 4/26/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5121-2</b> <b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b>	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 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 checked="" type="checkbox"/>	<input 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	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"/>	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	
<b>5121-2</b> <b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b>	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"/>	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: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7414

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045001

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:05	per0318054a
14797-73-0	Perchlorate-101	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate-O(18)			8.15	ug/kg		1	18-MAR-10 22:05	per0318054a

<sup>^</sup> 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

AMF 4/26/10

Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7413  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045002  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 72

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:27	per0318057a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate-O(18)			7.35	ug/kg		1	18-MAR-10 22:27	per0318057a

<sup>^</sup> 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

AMF 4/26/10

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: 958939

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7462

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045003

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 92.1

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:35	per0318058a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate-O(18)			7.36	ug/kg		1	18-MAR-10 22:35	per0318058a

<sup>^</sup> 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

AMF 4/26/10

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: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7465

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045004

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:42	per0318059a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate-O(18)			8.30	ug/kg		1	18-MAR-10 22:42	per0318059a

<sup>^</sup> 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

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7473  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045005  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.654	2.62	10.7	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 22:50	per0318060a
14797-73-0	Perchlorate-101	.654	2.62	11.0	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate-O(18)			7.80	ug/kg		1	18-MAR-10 22:50	per0318060a

<sup>^</sup> 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

AMF 4/26/10

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: 258939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7471  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045006  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 70

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:21	per0318064a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate-O(18)			8.17	ug/kg		1	18-MAR-10 23:21	per0318064a

<sup>^</sup> 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 Aliquot  
 1  
 %Solids

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7472  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045007  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 78

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:28	per0318065a
14797-73-0	Perchlorate-101	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate-O(18)			7.87	ug/kg		1	18-MAR-10 23:28	per0318065a

<sup>^</sup> 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 <sup>1</sup>  
 Aliquot %Solids

AMF 4/26/10

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: 258939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7468  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045008  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 73

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:36	per0318066a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate-O(18)			8.00	ug/kg		1	18-MAR-10 23:36	per0318066a

<sup>^</sup> 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  $\frac{1}{\% \text{Solids}}$

AMF 4/26/10



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: 258939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7464

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045009

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.602	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate Isotope Ratio			3.29			1	18-MAR-10 23:44	per0318067a
14797-73-0	Perchlorate-101	.538	2.15	0.572	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate-O(18)			6.56	ug/kg		1	18-MAR-10 23:44	per0318067a

<sup>^</sup> 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

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7463  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045010  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 91.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.689	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate Isotope Ratio			2.91			1	18-MAR-10 23:51	per0318068a
14797-73-0	Perchlorate-101	.545	2.18	0.742	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate-O(18)			6.37	ug/kg		1	18-MAR-10 23:51	per0318068a

<sup>^</sup> 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

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7475  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045011  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.687	2.75	3.47	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate Isotope Ratio			3			1	18-MAR-10 23:59	per0318069a
14797-73-0	Perchlorate-101	.687	2.75	3.62	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate-O(18)			8.46	ug/kg		1	18-MAR-10 23:59	per0318069a

^ 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

AMF 4/26/10

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: 258932

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7466

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045012

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 80

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:06	per0318070a
14797-73-0	Perchlorate-101	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate-O(18)			8.51	ug/kg		1	19-MAR-10 00:06	per0318070a

<sup>^</sup> 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

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7476  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045013  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 83

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	2.00	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate Isotope Ratio			3.04			1	19-MAR-10 00:14	per0318071a
14797-73-0	Perchlorate-101	.602	2.41	2.05	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate-O(18)			7.74	ug/kg		1	19-MAR-10 00:14	per0318071a

<sup>^</sup> 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

AMF 4/26/10

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: 258939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7461

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045014

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:21	per0318072a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate-O(18)			6.45	ug/kg		1	19-MAR-10 00:21	per0318072a

<sup>a</sup> 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  $\frac{\% \text{Solids}}{1}$

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Client Sample No.: RE36-10-7467  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045015  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 83  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.601	2.41	0.720	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate Isotope Ratio			2.93			1	19-MAR-10 00:29	per0318073a
14797-73-0	Perchlorate-101	.601	2.41	0.769	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate-O(18)			6.80	ug/kg		1	19-MAR-10 00:29	per0318073a

<sup>^</sup> 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  $\frac{\% \text{Solids}}{1}$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7469

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045016

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 88

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	9.05	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate Isotope Ratio			3.18			1	19-MAR-10 00:59	per0318077a
14797-73-0	Perchlorate-101	.571	2.29	8.90	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate-O(18)			7.63	ug/kg		1	19-MAR-10 00:59	per0318077a

<sup>^</sup> 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 <sup>1</sup> %Solids  
Aliquot

AMF 4/26/10



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: 958939

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7470

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045017

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 86

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	2.22	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate Isotope Ratio			3.16			1	19-MAR-10 01:07	per0318078a
14797-73-0	Perchlorate-101	.584	2.34	2.20	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate-O(18)			7.57	ug/kg		1	19-MAR-10 01:07	per0318078a

<sup>^</sup> 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 <sup>1</sup> %Solids  
Aliquot

AMF 4/26/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7515  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045018  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 72

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate Isotope Ratio						1	19-MAR-10 01:15	per0318079a
14797-73-0	Perchlorate-101	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate-O(18)			7.97	ug/kg		1	19-MAR-10 01:15	per0318079a

<sup>^</sup> 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

AMF 4/26/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 959043

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE36-10-7528

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075-1

GEL Sample ID: 248046001

Date Filtered: 03-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate Isotope Ratio						1	09-MAR-10 06:25	per0308098a
14797-73-0	Perchlorate-101	.05	2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate-O(18)			0.422	ug/L		1	09-MAR-10 06:25	per0308098a

<sup>^</sup> 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

AMF 4/26/10

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 959043  
 Extraction Type: Filter/DAI  
 Client Sample No. RE36-10-7527  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075-1  
 GEL Sample ID: 248046002  
 Date Filtered: 03-MAR-10  
 Injection Volume (uL): 20  
 % Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate Isotope Ratio						1	09-MAR-10 07:02	per0308102a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate-O(18)			0.464	ug/L		1	09-MAR-10 07:02	per0308102a

<sup>a</sup> 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

AMF 4/26/10

**DATA VALIDATION COVER SHEET****5118-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2075 VALIDATION DATE: 4/23/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Allison Felix 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 aqueous MB, Pb, Se, Tl and V were detected. The Tl result for sample RE36-10-7528 was an ND and, thus, was not qualified. All other associated sample results were detects  $\leq 5X$  the MB concentrations and, thus, were qualified U,I4. In the soil MB, U and V were detected. The U results for samples -7414, -7413, -7471, -7472, and -7476 and the V results for samples -7414, -7473, -7471, -7472, -7468, -7475, -7466, -7476, and -7515 were detects  $> 5X$  but  $\leq 50X$  the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were detects  $> 50X$  the MB concentration. Based on professional judgment, those sample results were not qualified.
- In the aqueous ICB/CCBs, Se, V, and Tl were detected. The Tl result for sample -7528 was an ND and, thus, was not qualified. All other associated sample results were detects  $\leq 5X$  the greatest blank concentrations and, thus, were qualified U,I4b. In the soil ICB/CCBs, Sb and V were detected. The Sb results for samples -7413 and -7471 were detects  $\leq 5X$  the greatest blank concentration and, thus, were qualified U,I4b. All other Sb results were NDs and, thus, were not qualified. All associated V results were detects  $> 5X$  the greatest blank concentration and, thus, were not qualified.
- In the FR blanks, samples -7528 and -7527, associated with all sample in this RN, Ca, Cr, Cu, Mn, K, Na, and Zn were detected. The Na result for sample -7473 was a detect  $\leq 5X$  the greatest FR blank concentration and, thus, was qualified U,I4d. All other associated sample results were detects  $> 5X$  the greatest FR blank concentration and, thus, were not qualified.
- The soil MS %R for Ca was  $<$  the laboratory LAL but  $\geq 10\%$ . The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %R for Cu was  $>$  the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs for Al and Fe were outside the laboratory acceptance limits, however, the parent sample concentrations were  $> 4X$  the spike concentrations. Based on professional

DATA VALIDATION COVER SHEET	
5118-1	Records Use only
<b>Data Validation Cover Sheet</b>	
	
<p>judgment, the Al and Fe results were not qualified.</p> <p>5. The soil duplicate RPDs for Al, Mg, and Ni were &gt;35%, and the parent sample duplicate sample results were <math>\geq 5X</math> the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.</p> <p>6. It should be noted that the aqueous matrix QC for Hg were performed on a LANL sample from another RN. No sample results were qualified.</p> <p><b>Reviewed by:</b> <u>Monica Dymerski</u>      <b>Level I</b>      <b>Date:</b> <u>04/27/10</u></p>	
<p>VALIDATOR'S SIGNATURE: <u>Allison Gellix</u>      DATE: <u>4/23/10</u></p>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project


METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	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	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	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"/>	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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 $<$ 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 $>$ the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b



METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	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 checked="" type="checkbox"/>	<input 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	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	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"/>	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: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045001

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7414

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	3830000	ug/Kg	*	7560	22200	22200	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-36-0	Antimony	1110	ug/Kg	U	367	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-38-2	Arsenic	1.1	mg/kg	J	0.248	1.24	1.24	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-39-3	Barium	39500	ug/Kg		111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-41-7	Beryllium	0.613	mg/kg	*	0.0248	0.124	0.124	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-43-9	Cadmium	215	ug/Kg	J	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-70-2	Calcium J,16a	853000	ug/Kg	*N	8900	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-47-3	Chromium	9780	ug/Kg		167	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-48-4	Cobalt	1450	ug/Kg		167	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-50-8	Copper J+,16b	18500	ug/Kg	*N	334	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-89-6	Iron	9200000	ug/Kg	*	8900	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-92-1	Lead	11900	ug/Kg	*	278	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-95-4	Magnesium J,110a	631000	ug/Kg	*E	9450	33400	33400	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-96-5	Manganese	240000	ug/Kg	*	222	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-97-6	Mercury	45.7	ug/kg		4.93	14.5	14.5	1	AV	JXL1	03/15/10 15:14	031510S1-4	958747
7440-02-0	Nickel J,110a	4.23	mg/kg	*	0.124	0.496	0.496	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-09-7	Potassium	1020000	ug/Kg	*	7120	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7782-49-2	Selenium	1.24	mg/kg	UN	0.62	1.24	1.24	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-22-4	Silver	295	ug/Kg	J	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-23-5	Sodium	332000	ug/Kg		7790	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-28-0	Thallium	0.190	mg/kg	J	0.0744	0.248	0.248	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-61-1	Uranium J,14a	0.648	mg/kg		0.0164	0.0496	0.0496	2	MS	PRB	04/12/10 14:15	100412-3	959107
7440-62-2	Vanadium J,14a	8870	ug/Kg	*	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-66-6	Zinc	56300	ug/Kg	*	367	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.525	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.57	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.511	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045002

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7413

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	2800000	ug/Kg	*	8080	23800	23800	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-36-0	Antimony U,14b	1000	ug/Kg	J	392	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-38-2	Arsenic	1.11	mg/kg		0.221	1.11	1.11	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-39-3	Barium	44100	ug/Kg		119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-41-7	Beryllium	0.153	mg/kg	*	0.0221	0.111	0.111	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-43-9	Cadmium	436	ug/Kg	J	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-70-2	Calcium J,16a	1920000	ug/Kg	*N	9510	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-47-3	Chromium	57800	ug/Kg		178	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-48-4	Cobalt	3700	ug/Kg		178	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-50-8	Copper J+,16b	88200	ug/Kg	*N	357	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-89-6	Iron	8320000	ug/Kg	*	9510	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-92-1	Lead	41600	ug/Kg	*	297	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-93-4	Magnesium J,110a	1010000	ug/Kg	*E	10100	35700	35700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-96-5	Manganese	165000	ug/Kg	*	238	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-97-6	Mercury	77.4	ug/kg		5.1	15	15	1	AV	JXL1	03/15/10 15:22	031510S1-4	958747
7440-02-0	Nickel J,110a	3.95	mg/kg	*	0.111	0.442	0.442	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-09-7	Potassium	784000	ug/Kg	*	7610	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7782-49-2	Selenium	1.11	mg/kg	UN	0.553	1.11	1.11	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-22-4	Silver	216	ug/Kg	J	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-23-5	Sodium	233000	ug/Kg		8320	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-28-0	Thallium	0.221	mg/kg	U	0.0663	0.221	0.221	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-61-1	Uranium J,14a	0.751	mg/kg		0.0146	0.0442	0.0442	2	MS	PRB	04/12/10 14:27	100412-3	959107
7440-62-2	Vanadium	16600	ug/Kg	*	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-66-6	Zinc	109000	ug/Kg	*	392	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.506	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.532	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.572	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045003

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7462

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	4090000	ug/Kg	*	7110	20900	20900	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-36-0	Antimony	1050	ug/Kg	U	345	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-38-2	Arsenic	1.13	mg/kg		0.211	1.05	1.05	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-39-3	Barium	46000	ug/Kg		105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-41-7	Beryllium	0.557	mg/kg	*	0.0211	0.105	0.105	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-43-9	Cadmium	250	ug/Kg	J	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-70-2	Calcium J-,16a	1490000	ug/Kg	*N	8370	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-47-3	Chromium	11000	ug/Kg		157	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-48-4	Cobalt	1800	ug/Kg		157	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-50-8	Copper J+,16b	420000	ug/Kg	*N	314	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-89-6	Iron	8920000	ug/Kg	*	8370	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-92-1	Lead	35400	ug/Kg	*	262	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-95-4	Magnesium J,110a	738000	ug/Kg	*E	8890	31400	31400	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-96-5	Manganese	232000	ug/Kg	*	209	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-97-6	Mercury	42.2	ug/kg		4.4	13	13	1	AV	JXL1	03/15/10 15:24	031510S1-4	958747
7440-02-0	Nickel J,110a	4.35	mg/kg	*	0.105	0.422	0.422	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-09-7	Potassium	529000	ug/Kg	*	6700	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7782-49-2	Selenium	1.05	mg/kg	UN	0.527	1.05	1.05	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-22-4	Silver	237	ug/Kg	J	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-23-5	Sodium	304000	ug/Kg		7320	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-28-0	Thallium	0.0709	mg/kg	J	0.0633	0.211	0.211	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-61-1	Uranium	0.786	mg/kg		0.0139	0.0422	0.0422	2	MS	PRB	04/12/10 14:29	100412-3	959107
7440-62-2	Vanadium	11000	ug/Kg	*	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-66-6	Zinc	188000	ug/Kg	*	345	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.503	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.519	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.515	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045004

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7465

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	2430000	ug/Kg	*	8100	23800	23800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-36-0	Antimony	1190	ug/Kg	U	393	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-38-2	Arsenic	0.933	mg/kg	J	0.242	1.21	1.21	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-39-3	Barium	39600	ug/Kg		119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-41-7	Beryllium	0.264	mg/kg	*	0.0242	0.121	0.121	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-43-9	Cadmium	411	ug/Kg	J	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-70-2	Calcium J-,16a	1870000	ug/Kg	*N	9530	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-47-3	Chromium	14200	ug/Kg		179	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-48-4	Cobalt	3020	ug/Kg		179	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-50-8	Copper J+,16b	37900	ug/Kg	*N	357	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-89-6	Iron	7280000	ug/Kg	*	9530	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-92-1	Lead	65000	ug/Kg	*	298	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-95-4	Magnesium J,110a	970000	ug/Kg	*E	10100	35700	35700	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-96-5	Manganese	168000	ug/Kg	*	238	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-97-6	Mercury	78.7	ug/kg		4.77	14	14	1	AV	JXL1	03/15/10 15:26	031510S1-4	958747
7440-02-0	Nickel J,110a	8.88	mg/kg	*	0.121	0.484	0.484	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-09-7	Potassium	1150000	ug/Kg	*	7620	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7782-49-2	Selenium	1.21	mg/kg	UN	0.605	1.21	1.21	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-22-4	Silver	177	ug/Kg	J	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-23-5	Sodium	324000	ug/Kg		8340	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-28-0	Thallium	0.242	mg/kg	U	0.0726	0.242	0.242	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-61-1	Uranium	2.35	mg/kg		0.016	0.0484	0.0484	2	MS	PRB	04/12/10 14:30	100412-3	959107
7440-62-2	Vanadium	12800	ug/Kg	*	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-66-6	Zinc	80800	ug/Kg	*	393	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.55	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.54	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.532	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045005

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7473

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	4460000	ug/Kg	*	8610	25300	25300	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-36-0	Antimony	1270	ug/Kg	U	418	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-38-2	Arsenic	1.77	mg/kg		0.219	1.09	1.09	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-39-3	Barium	118000	ug/Kg		127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-41-7	Beryllium	0.647	mg/kg	*	0.0219	0.109	0.109	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-43-9	Cadmium	361	ug/Kg	J	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-70-2	Calcium J,16a	6260000	ug/Kg	*N	10100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-47-3	Chromium	15600	ug/Kg		190	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-48-4	Cobalt	1920	ug/Kg		190	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-50-8	Copper J+,16b	12800	ug/Kg	*N	380	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-89-6	Iron	6550000	ug/Kg	*	10100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-92-1	Lead	19100	ug/Kg	*	316	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-95-4	Magnesium J,110a	1350000	ug/Kg	*E	10800	38000	38000	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-96-5	Manganesec	505000	ug/Kg	*	253	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-97-6	Mercury	2320	ug/kg		48.9	144	144	10	AV	JXL1	03/15/10 16:06	031510S1-4	958747
7440-02-0	Nickel J,110a	5.53	mg/kg	*	0.109	0.438	0.438	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-09-7	Potassium	1410000	ug/Kg	*	8100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7782-49-2	Selenium	1.09	mg/kg	UN	0.547	1.09	1.09	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-22-4	Silver	450	ug/Kg	J	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-23-5	Sodium U,14d	101000	ug/Kg		8860	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-28-0	Thallium	0.0783	mg/kg	J	0.0656	0.219	0.219	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-61-1	Uranium	1.8	mg/kg		0.0144	0.0438	0.0438	2	MS	PRB	04/12/10 14:32	100412-3	959107
7440-62-2	Vanadium J,14a	9710	ug/Kg	*	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-66-6	Zinc	47200	ug/Kg	*	418	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.546	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.517	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.598	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045006

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7471

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	1770000	ug/Kg	*	9590	28200	28200	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-36-0	Antimony U,14b	1430	ug/Kg		465	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-38-2	Arsenic	1.79	mg/kg		0.269	1.34	1.34	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-39-3	Barium	42600	ug/Kg		141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-41-7	Beryllium	0.330	mg/kg	*	0.0269	0.134	0.134	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-43-9	Cadmium	642	ug/Kg	J	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-70-2	Calcium J-,16a	674000	ug/Kg	*N	11300	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-47-3	Chromium	99000	ug/Kg		212	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-48-4	Cobalt	3050	ug/Kg		212	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-50-8	Copper J+,16b	33300	ug/Kg	*N	423	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-89-6	Iron	10500000	ug/Kg	*	11300	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-92-1	Lead	26700	ug/Kg	*	353	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-95-4	Magnesium J,110a	501000	ug/Kg	*E	12000	42300	42300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-96-5	Manganese	318000	ug/Kg	*	282	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-97-6	Mercury	421	ug/kg		5.32	15.7	15.7	1	AV	JXL1	03/15/10 15:32	031510S1-4	958747
7440-02-0	Nickel J,110a	4.06	mg/kg	*	0.134	0.538	0.538	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-09-7	Potassium	559000	ug/Kg	*	9030	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7782-49-2	Selenium	1.34	mg/kg	UN	0.672	1.34	1.34	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-22-4	Silver	163	ug/Kg	J	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-23-5	Sodium	208000	ug/Kg		9870	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-28-0	Thallium	0.269	mg/kg	U	0.0806	0.269	0.269	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-61-1	Uranium J,14a	0.757	mg/kg		0.0177	0.0538	0.0538	2	MS	PRB	04/12/10 14:34	100412-3	959107
7440-62-2	Vanadium J,14a	9940	ug/Kg	*	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-66-6	Zinc	96700	ug/Kg	*	465	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.546	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.505	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.53	g	50	mL	03/08/10	FGA

AMF  
4/23/10



**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045007

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7472

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	2550000	ug/Kg	*	8520	25000	25000	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-36-0	Antimony	1250	ug/Kg	U	413	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-38-2	Arsenic	0.753	mg/kg	J	0.22	1.1	1.1	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-39-3	Barium	32700	ug/Kg		125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-41-7	Beryllium	0.532	mg/kg	*	0.022	0.11	0.11	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-43-9	Cadmium	386	ug/Kg	J	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-70-2	Calcium J-,16a	515000	ug/Kg	*N	10000	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-47-3	Chromium	5520	ug/Kg		188	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-48-4	Cobalt	888	ug/Kg		188	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-50-8	Copper J+,16b	13700	ug/Kg	*N	376	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-89-6	Iron	7320000	ug/Kg	*	10000	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-92-1	Lead	10600	ug/Kg	*	313	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-95-4	Magnesium J,110a	467000	ug/Kg	*E	10600	37600	37600	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-96-5	Manganese	352000	ug/Kg	*	250	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-97-6	Mercury	111	ug/kg		4.83	14.2	14.2	1	AV	JXL1	03/15/10 15:34	031510S1-4	958747
7440-02-0	Nickel J,110a	3.18	mg/kg	*	0.11	0.439	0.439	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-09-7	Potassium	742000	ug/Kg	*	8020	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7782-49-2	Selenium	1.1	mg/kg	UN	0.549	1.1	1.1	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-22-4	Silver	416	ug/Kg	J	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-23-5	Sodium	203000	ug/Kg		8770	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-28-0	Thallium	0.220	mg/kg	U	0.0659	0.22	0.22	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-61-1	Uranium J,14a	0.508	mg/kg		0.0145	0.0439	0.0439	2	MS	PRB	04/12/10 14:35	100412-3	959107
7440-62-2	Vanadium J,14a	5020	ug/Kg	*	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-66-6	Zinc	50700	ug/Kg	*	413	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.541	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.511	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.583	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045008

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7468

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	3870000	ug/Kg	*	8900	26200	26200	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-36-0	Antimony	1310	ug/Kg	U	432	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-38-2	Arsenic	1.33	mg/kg		0.266	1.33	1.33	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-39-3	Barium	54500	ug/Kg		131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-41-7	Beryllium	0.630	mg/kg	*	0.0266	0.133	0.133	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-43-9	Cadmium	895	ug/Kg		131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-70-2	Calcium J-,16a	2740000	ug/Kg	*N	10500	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-47-3	Chromium	9450	ug/Kg		196	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-48-4	Cobalt	1730	ug/Kg		196	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-50-8	Copper J+,16b	15100	ug/Kg	*N	393	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-89-6	Iron	6800000	ug/Kg	*	10500	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-92-1	Lead	53500	ug/Kg	*	327	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-95-4	Magnesium J,110a	1040000	ug/Kg	*E	11100	39300	39300	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-96-5	Manganese	234000	ug/Kg	*	262	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-97-6	Mercury	1750	ug/kg		51.5	152	152	10	AV	JXL1	03/15/10 16:08	031510S1-4	958747
7440-02-0	Nickel J,110a	9.31	mg/kg	*	0.133	0.532	0.532	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-09-7	Potassium	894000	ug/Kg	*	8380	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7782-49-2	Selenium	1.33	mg/kg	UN	0.665	1.33	1.33	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-22-4	Silver	269	ug/Kg	J	131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-23-5	Sodium	113000	ug/Kg		9160	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-28-0	Thallium	0.266	mg/kg	U	0.0798	0.266	0.266	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-61-1	Uranium	1.01	mg/kg		0.0176	0.0532	0.0532	2	MS	PRB	04/12/10 14:37	100412-3	959107
7440-62-2	Vanadium J,14a	8920	ug/Kg	*	131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-66-6	Zinc	47500	ug/Kg	*	432	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.539	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.52	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.512	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045009

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7464

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	8170000	ug/Kg	*	6790	20000	20000	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-36-0	Antimony	998	ug/Kg	U	329	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-38-2	Arsenic	1.86	mg/kg		0.204	1.02	1.02	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-39-3	Barium	68100	ug/Kg		99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-41-7	Beryllium	0.960	mg/kg	*	0.0204	0.102	0.102	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-43-9	Cadmium	176	ug/Kg	J	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-70-2	Calcium J-,16a	2190000	ug/Kg	*N	7980	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-47-3	Chromium	15600	ug/Kg		150	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-48-4	Cobalt	2030	ug/Kg		150	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-50-8	Copper J+,16b	7110	ug/Kg	*N	299	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-89-6	Iron	11500000	ug/Kg	*	7980	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-92-1	Lead	11000	ug/Kg	*	249	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-95-4	Magnesium J,110a	1390000	ug/Kg	*E	8480	29900	29900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-96-5	Manganese	240000	ug/Kg	*	200	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-97-6	Mercury	42.2	ug/kg		3.83	11.3	11.3	1	AV	JXL1	03/15/10 15:37	031510S1-4	958747
7440-02-0	Nickel J,110a	7.53	mg/kg	*	0.102	0.408	0.408	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-09-7	Potassium	1060000	ug/Kg	*	6390	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7782-49-2	Selenium	1.02	mg/kg	UN	0.509	1.02	1.02	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-22-4	Silver	499	ug/Kg	U	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-23-5	Sodium	92100	ug/Kg		6990	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-28-0	Thallium	0.108	mg/kg	J	0.0611	0.204	0.204	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-61-1	Uranium	0.748	mg/kg		0.0134	0.0408	0.0408	2	MS	PRB	04/12/10 14:39	100412-3	959107
7440-62-2	Vanadium	15200	ug/Kg	*	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-66-6	Zinc	44300	ug/Kg	*	329	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.573	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.539	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.528	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045010

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7463

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	4810000	ug/Kg	*	6250	18400	18400	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-36-0	Antimony	919	ug/Kg	U	303	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-38-2	Arsenic	1.48	mg/kg		0.206	1.03	1.03	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-39-3	Barium	71100	ug/Kg		91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-41-7	Beryllium	0.737	mg/kg	*	0.0206	0.103	0.103	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-43-9	Cadmium	200	ug/Kg	J	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-70-2	Calcium J-,16a	1960000	ug/Kg	*N	7350	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-47-3	Chromium	5370	ug/Kg		138	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-48-4	Cobalt	1780	ug/Kg		138	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-50-8	Copper J+,16b	9860	ug/Kg	*N	276	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-89-6	Iron	9680000	ug/Kg	*	7350	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-92-1	Lead	20800	ug/Kg	*	230	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-95-4	Magnesium J,110a	972000	ug/Kg	*E	7810	27600	27600	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-96-5	Manganese	259000	ug/Kg	*	184	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-97-6	Mercury	41.5	ug/kg		4.4	12.9	12.9	1	AV	JXL1	03/15/10 15:39	031510S1-4	958747
7440-02-0	Nickel J,110a	6.42	mg/kg	*	0.103	0.411	0.411	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-09-7	Potassium	813000	ug/Kg	*	5880	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7782-49-2	Selenium	1.03	mg/kg	UN	0.514	1.03	1.03	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-22-4	Silver	174	ug/Kg	J	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-23-5	Sodium	109000	ug/Kg		6430	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-28-0	Thallium	0.0886	mg/kg	J	0.0617	0.206	0.206	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-61-1	Uranium	0.890	mg/kg		0.0136	0.0411	0.0411	2	MS	PRB	04/12/10 14:44	100412-3	959107
7440-62-2	Vanadium	11700	ug/Kg	*	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-66-6	Zinc	46400	ug/Kg	*	303	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.505	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.593	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.53	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045011

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7475

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	3170000	ug/Kg	*	8850	26000	26000	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-36-0	Antimony	1300	ug/Kg	U	429	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-38-2	Arsenic	1.12	mg/kg	J	0.273	1.36	1.36	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-39-3	Barium	59800	ug/Kg		130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-41-7	Beryllium	0.670	mg/kg	*	0.0273	0.136	0.136	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-43-9	Cadmium	554	ug/Kg	J	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-70-2	Calcium J-,16a	1190000	ug/Kg	*N	10400	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-47-3	Chromium	7550	ug/Kg		195	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-48-4	Cobalt	1970	ug/Kg		195	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-50-8	Copper J+,16b	87400	ug/Kg	*N	390	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-89-6	Iron	7640000	ug/Kg	*	10400	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-92-1	Lead	39400	ug/Kg	*	325	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-95-4	Magnesium J,110a	732000	ug/Kg	*E	11100	39000	39000	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-96-5	Manganesec	367000	ug/Kg	*	260	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-97-6	Mercury	862	ug/kg		11.1	32.6	32.6	2	AV	JXL	03/15/10 16:39	031510S1-4	958747
7440-02-0	Nickel J,110a	5.83	mg/kg	*	0.136	0.545	0.545	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-09-7	Potassium	667000	ug/Kg	*	8330	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7782-49-2	Selenium	1.36	mg/kg	UN	0.682	1.36	1.36	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-22-4	Silver	370	ug/Kg	J	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-23-5	Sodium	560000	ug/Kg		9110	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-28-0	Thallium	0.273	mg/kg	U	0.0818	0.273	0.273	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-61-1	Uranium	1.12	mg/kg		0.018	0.0545	0.0545	2	MS	PRB	04/12/10 14:46	100412-3	959107
7440-62-2	Vanadium J,14a	8950	ug/Kg	*	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-66-6	Zinc	126000	ug/Kg	*	429	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.506	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.528	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.504	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045012

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7466

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,10a	2510000	ug/Kg	*	7640	22500	22500	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-36-0	Antimony	1120	ug/Kg	U	371	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-38-2	Arsenic	0.764	mg/kg	J	0.248	1.24	1.24	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-39-3	Barium	27800	ug/Kg		112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-41-7	Beryllium	0.351	mg/kg	*	0.0248	0.124	0.124	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-43-9	Cadmium	348	ug/Kg	J	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-70-2	Calcium J-,16a	923000	ug/Kg	*N	8980	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-47-3	Chromium	9350	ug/Kg		168	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-48-4	Cobalt	1760	ug/Kg		168	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-50-8	Copper J+,16b	76500	ug/Kg	*N	337	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-89-6	Iron	7100000	ug/Kg	*	8980	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-92-1	Lead	45300	ug/Kg	*	281	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-95-4	Magnesium J,10a	623000	ug/Kg	*E	9540	33700	33700	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-96-5	Manganese	164000	ug/Kg	*	225	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-97-6	Mercury	469	ug/kg		4.46	13.1	13.1	1	AV	JXL1	03/15/10 15:42	031510S1-4	958747
7440-02-0	Nickel J,10a	153	mg/kg	*	0.124	0.495	0.495	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-09-7	Potassium	745000	ug/Kg	*	7190	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7782-49-2	Selenium	1.24	mg/kg	UN	0.619	1.24	1.24	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-22-4	Silver	419	ug/Kg	J	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-23-5	Sodium	281000	ug/Kg		7860	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-28-0	Thallium	0.248	mg/kg	U	0.0743	0.248	0.248	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-61-1	Uranium	0.934	mg/kg		0.0163	0.0495	0.0495	2	MS	PRB	04/12/10 14:47	100412-3	959107
7440-62-2	Vanadium J,14a	6970	ug/Kg	*	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-66-6	Zinc	69400	ug/Kg	*	371	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.575	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.56	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.508	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045013

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7476

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	4640000	ug/Kg	*	8060	23700	23700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-36-0	Antimony	1190	ug/Kg	U	391	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-38-2	Arsenic	1.13	mg/kg	J	0.238	1.19	1.19	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-39-3	Barium	44000	ug/Kg		119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-41-7	Beryllium	0.901	mg/kg	*	0.0238	0.119	0.119	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-43-9	Cadmium	159	ug/Kg	J	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-70-2	Calcium J,16a	1040000	ug/Kg	*N	9490	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-47-3	Chromium	6460	ug/Kg		178	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-48-4	Cobalt	1030	ug/Kg		178	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-50-8	Copper J+,16b	7560	ug/Kg	*N	356	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-89-6	Iron	8800000	ug/Kg	*	9490	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-92-1	Lead	6470	ug/Kg	*	297	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-95-4	Magnesium J,110a	771000	ug/Kg	*E	10100	35600	35600	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-96-5	Manganese	369000	ug/Kg	*	237	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-97-6	Mercury	146	ug/kg		4.58	13.5	13.5	1	AV	JXL	03/15/10 15:44	031510S1-4	958747
7440-02-0	Nickel J,110a	5.01	mg/kg	*	0.119	0.475	0.475	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-09-7	Potassium	487000	ug/Kg	*	7590	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7782-49-2	Selenium	1.19	mg/kg	UN	0.594	1.19	1.19	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-22-4	Silver	197	ug/Kg	J	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-23-5	Sodium	574000	ug/Kg		8300	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-28-0	Thallium	0.238	mg/kg	U	0.0713	0.238	0.238	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-61-1	Uranium J,14a	0.517	mg/kg		0.0157	0.0475	0.0475	2	MS	PRB	04/12/10 14:49	100412-3	959107
7440-62-2	Vanadium J,14a	7490	ug/Kg	*	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-66-6	Zinc	51800	ug/Kg	*	391	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.537	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.508	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.507	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045014

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7461

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	2210000	ug/Kg	*	7240	21300	21300	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-36-0	Antimony	1060	ug/Kg	U	351	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-38-2	Arsenic	0.937	mg/kg	J	0.22	1.1	1.1	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-39-3	Barium	35800	ug/Kg		106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-41-7	Beryllium	0.226	mg/kg	*	0.022	0.11	0.11	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-43-9	Cadmium	239	ug/Kg	J	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-70-2	Calcium J-,16a	1410000	ug/Kg	*N	8520	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-47-3	Chromium	6360	ug/Kg		160	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-48-4	Cobalt	1850	ug/Kg		160	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-50-8	Copper J+,16b	13900	ug/Kg	*N	319	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-89-6	Iron	6290000	ug/Kg	*	8520	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-92-1	Lead	13000	ug/Kg	*	266	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-95-4	Magnesium J,110a	1120000	ug/Kg	*E	9050	31900	31900	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-96-5	Manganese	111000	ug/Kg	*	213	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-97-6	Mercury	15.2	ug/kg		4.27	12.5	12.5	1	AV	JXL1	03/15/10 15:46	031510S1-4	958747
7440-02-0	Nickel J,110a	6.36	mg/kg	*	0.11	0.44	0.44	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-09-7	Potassium	522000	ug/Kg	*	6810	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7782-49-2	Selenium	1.1	mg/kg	UN	0.55	1.1	1.1	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-22-4	Silver	126	ug/Kg	J	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-23-5	Sodium	91500	ug/Kg		7450	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-28-0	Thallium	0.220	mg/kg	U	0.066	0.22	0.22	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-61-1	Uranium	0.816	mg/kg		0.0145	0.044	0.044	2	MS	PRB	04/12/10 14:51	100412-3	959107
7440-62-2	Vanadium	11300	ug/Kg	*	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-66-6	Zinc	40200	ug/Kg	*	351	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.548	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.538	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.521	g	50	mL	03/08/10	FGA

AMF  
4/23/10



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045015

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7467

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	5330000	ug/Kg	*	7800	23000	23000	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-36-0	Antimony	1150	ug/Kg	U	379	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-38-2	Arsenic	1.53	mg/kg		0.214	1.07	1.07	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-39-3	Barium	68100	ug/Kg		115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-41-7	Beryllium	0.451	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-43-9	Cadmium	1230	ug/Kg		115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-70-2	Calcium J-,16a	4780000	ug/Kg	*N	9180	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-47-3	Chromium	10000	ug/Kg		172	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-48-4	Cobalt	2160	ug/Kg		172	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-50-8	Copper J+,16b	20900	ug/Kg	*N	344	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-89-6	Iron	8560000	ug/Kg	*	9180	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-92-1	Lead	59700	ug/Kg	*	287	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-95-4	Magnesium J,110a	1250000	ug/Kg	*E	9760	34400	34400	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-96-5	Manganese	248000	ug/Kg	*	230	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-97-6	Mercury	1680	ug/kg		43.1	127	127	10	AV	JXL1	03/15/10 16:10	031510S1-4	958747
7440-02-0	Nickel J,110a	6.68	mg/kg	*	0.107	0.429	0.429	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-09-7	Potassium	1290000	ug/Kg	*	7350	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7782-49-2	Selenium	1.07	mg/kg	UN	0.536	1.07	1.07	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-22-4	Silver	319	ug/Kg	J	115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-23-5	Sodium	97100	ug/Kg		8030	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-28-0	Thallium	0.214	mg/kg	U	0.0643	0.214	0.214	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-61-1	Uranium	0.951	mg/kg		0.0142	0.0429	0.0429	2	MS	PRB	04/12/10 14:52	100412-3	959107
7440-62-2	Vanadium	12600	ug/Kg	*	115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-66-6	Zinc	59700	ug/Kg	*	379	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.569	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.524	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.561	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045016

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7469

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	7450000	ug/Kg	*	7430	21900	21900	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-36-0	Antimony	1090	ug/Kg	U	361	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-38-2	Arsenic	1.71	mg/kg		0.226	1.13	1.13	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-39-3	Barium	75900	ug/Kg		109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-41-7	Beryllium	0.863	mg/kg	*	0.0226	0.113	0.113	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-43-9	Cadmium	376	ug/Kg	J	109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-70-2	Calcium J-,16a	3780000	ug/Kg	*N	8740	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-47-3	Chromium	7560	ug/Kg		164	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-48-4	Cobalt	2590	ug/Kg		164	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-50-8	Copper J+,16b	33500	ug/Kg	*N	328	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-89-6	Iron	10300000	ug/Kg	*	8740	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-92-1	Lead	75700	ug/Kg	*	273	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-95-4	Magnesium J,110a	1530000	ug/Kg	*E	9290	32800	32800	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-96-5	Manganese	344000	ug/Kg	*	219	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-97-6	Mercury	25000	ug/kg		464	1370	1370	100	AV	JXL1	03/15/10 16:11	031510S1-4	958747
7440-02-0	Nickel J,110a	12.2	mg/kg	*	0.113	0.452	0.452	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-09-7	Potassium	1360000	ug/Kg	*	6990	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7782-49-2	Selenium	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-22-4	Silver	1500	ug/Kg		109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-23-5	Sodium	254000	ug/Kg		7650	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-28-0	Thallium	0.0831	mg/kg	J	0.0678	0.226	0.226	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-61-1	Uranium	1.99	mg/kg		0.0149	0.0452	0.0452	2	MS	PRB	04/12/10 14:54	100412-3	959107
7440-62-2	Vanadium	13200	ug/Kg	*	109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-66-6	Zinc	70600	ug/Kg	*	361	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.502	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.523	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.506	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045017

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7470

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	7120000	ug/Kg	*	7410	21800	21800	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-36-0	Antimony	1090	ug/Kg	U	359	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-38-2	Arsenic	1.86	mg/kg		0.232	1.16	1.16	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-39-3	Barium	68000	ug/Kg		109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-41-7	Beryllium	1.07	mg/kg	*	0.0232	0.116	0.116	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-43-9	Cadmium	237	ug/Kg	J	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-70-2	Calcium J-,16a	2680000	ug/Kg	*N	8710	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-47-3	Chromium	7270	ug/Kg		163	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-48-4	Cobalt	3610	ug/Kg		163	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-50-8	Copper J+,16b	16100	ug/Kg	*N	327	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-89-6	Iron	11300000	ug/Kg	*	8710	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-92-1	Lead	23200	ug/Kg	*	272	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-95-4	Magnesium J,110a	1480000	ug/Kg	*E	9260	32700	32700	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-96-5	Manganese	357000	ug/Kg	*	218	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-97-6	Mercury	22000	ug/kg		430	1260	1260	100	AV	JXL1	03/15/10 16:13	031510S1-4	958747
7440-02-0	Nickel J,110a	7.14	mg/kg	*	0.116	0.464	0.464	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-09-7	Potassium	1180000	ug/Kg	*	6970	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7782-49-2	Selenium	1.16	mg/kg	UN	0.58	1.16	1.16	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-22-4	Silver	263	ug/Kg	J	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-23-5	Sodium	177000	ug/Kg		7630	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-28-0	Thallium	0.0954	mg/kg	J	0.0697	0.232	0.232	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-61-1	Uranium	1.31	mg/kg		0.0153	0.0464	0.0464	2	MS	PRB	04/12/10 14:56	100412-3	959107
7440-62-2	Vanadium	14300	ug/Kg	*	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-66-6	Zinc	59600	ug/Kg	*	359	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.554	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.536	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.503	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045018

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7515

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J,110a	1890000	ug/Kg	*	7790	22900	22900	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-36-0	Antimony	1150	ug/Kg	U	378	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-38-2	Arsenic	1.02	mg/kg	J	0.233	1.17	1.17	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-39-3	Barium	26300	ug/Kg		115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-41-7	Beryllium	0.220	mg/kg	*	0.0233	0.117	0.117	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-43-9	Cadmium	397	ug/Kg	J	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-70-2	Calcium J,16a	2190000	ug/Kg	*N	9170	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-47-3	Chromium	10600	ug/Kg		172	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-48-4	Cobalt	2740	ug/Kg		172	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-50-8	Copper J+,16b	96600	ug/Kg	*N	344	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-89-6	Iron	10000000	ug/Kg	*	9170	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-92-1	Lead	79000	ug/Kg	*	286	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-95-4	Magnesium J,110a	863000	ug/Kg	*E	9740	34400	34400	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-96-5	Manganese	156000	ug/Kg	*	229	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-97-6	Mercury	120	ug/kg		5.15	15.2	15.2	1	AV	JXL1	03/15/10 15:56	031510S1-4	958747
7440-02-0	Nickel J,110a	8.19	mg/kg	*	0.117	0.467	0.467	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-09-7	Potassium	963000	ug/Kg	*	7330	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7782-49-2	Selenium	1.17	mg/kg	UN	0.583	1.17	1.17	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-22-4	Silver	175	ug/Kg	J	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-23-5	Sodium	279000	ug/Kg		8020	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-28-0	Thallium	0.233	mg/kg	U	0.07	0.233	0.233	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-61-1	Uranium	1.86	mg/kg		0.0154	0.0467	0.0467	2	MS	PRB	04/12/10 14:57	100412-3	959107
7440-62-2	Vanadium J,14a	7120	ug/Kg	*	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-66-6	Zinc	70500	ug/Kg	*	378	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.5	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.551	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.541	g	50	mL	03/08/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248046001

BASIS: As Received

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7528

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 13:03	100413-3	959091
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-70-2	Calcium	84.9	ug/L	J	50	200	200	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-50-8	Copper	5.99	ug/L	J	3	10	10	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-92-1	Lead U,14	0.850	ug/L	J	0.5	2	2	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/02/10 11:42	030210W3-6	958951
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-09-7	Potassium	259	ug/L		50	150	150	1	P	HSC	03/26/10 23:30	032610A-1	959089
7782-49-2	Selenium U,14	6.94	ug/L	J	5	30	30	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-23-5	Sodium	158	ug/L	J	100	300	300	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 16:05	100413-5	959091
7440-62-2	Vanadium U,14	1.47	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-66-6	Zinc	6.17	ug/L	J	3.3	10	10	1	P	HSC	03/26/10 23:30	032610A-1	959089

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958951	958949	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959089	959088	SW846 3005A	50	mL	50	mL	03/04/10	LYH1
959091	959090	SW846 3005A	50	mL	50	mL	03/02/10	FGA

AMF  
4/23/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248046002

BASIS: As Received

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7527

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 13:26	100413-3	959091
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-70-2	Calcium	60.7	ug/L	J	50	200	200	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-47-3	Chromium	1.64	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-50-8	Copper	6.19	ug/L	J	3	10	10	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-92-1	Lead	0.708	ug/L	J	0.5	2	2	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-96-5	Manganese	1.69	ug/L	J	1	5	5	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXLI	03/02/10 11:44	030210W3-6	958951
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-09-7	Potassium	266	ug/L		50	150	150	1	P	HSC	03/26/10 23:57	032610A-1	959089
7782-49-2	Selenium	6.64	ug/L	J	5	30	30	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-23-5	Sodium	155	ug/L	J	100	300	300	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-28-0	Thallium	0.474	ug/L	J	0.3	1	1	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 16:07	100413-5	959091
7440-62-2	Vanadium	1.35	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-66-6	Zinc	6.02	ug/L	J	3.3	10	10	1	P	HSC	03/26/10 23:57	032610A-1	959089

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958951	958949	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959089	959088	SW846 3005A	50	mL	50	mL	03/04/10	LYH1
959091	959090	SW846 3005A	50	mL	50	mL	03/02/10	FGA

AMF  
4/23/10

## DATA VALIDATION COVER SHEET

5120-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2075 VALIDATION DATE: 4/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix 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):            |                                          |                                                 |                                                               |

## 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. Nitrate/Nitrite was detected in the aqueous MB. The associated sample results were NDs and, thus, were not qualified.
2. The soil MS %R for nitrate-N was < the laboratory LAL but  $\geq 10\%$ . Associated sample results that were detected were qualified J-,I6a. Sample results that were NDs were qualified UJ,I6a.
3. It should be noted that the aqueous matrix QC analyses and the Total CN soil matrix QC analyses associated with samples RE36-10-7466, -7476, -7461, -7467, -7469, -7470, and -7515 were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski Level I Date: 04/27/10

VALIDATOR'S SIGNATURE:


Allison Felix

DATE: 4/26/10


GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5120-2</b>  <b>General Chemistry Analytical Data Validation Checklist</b>	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 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 checked="" type="checkbox"/>	<input 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	
<b>5120-2</b>  <b>General Chemistry Analytical Data Validation Checklist</b>	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"/>	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 ≤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 checked="" type="checkbox"/>	<input type="checkbox"/>	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<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 checked="" type="checkbox"/>	<input 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	
<b>5120-2</b>  <b>General Chemistry Analytical Data Validation Checklist</b>	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"/>	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: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7414  
Sample ID: 248045001  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 21.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.75	0.010	0.100	SU	1	LXA1	03/01/10	1838	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.1	269	ug/kg	1	AXC2	03/05/10	1245	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.376	1.25	mg/kg	1	GXM	03/19/10	1836	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7413  
Sample ID: 248045002  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 20.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 18.9C	H	7.40	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		868	84.3	310	ug/kg	1	AXC2	03/05/10	1246	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.372	1.24	mg/kg	1	GXM	03/19/10	2036	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7462  
Sample ID: 248045003  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 7.92%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	8.12	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2	03/05/10	1305	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.323	1.08	mg/kg	1	GXM	03/19/10	2106	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7465  
Sample ID: 248045004  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 22.3%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.0C	H	7.73	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	87.5	322	ug/kg	1	AXC2	03/05/10	1306	958163	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.380	1.27	mg/kg	1	GXM	03/19/10	2136	962075	3

3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

**The following Analytical Methods were performed**

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

AMF  
4/26/10

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7473  
Sample ID: 248045005  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 23.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 18.9C	H	7.35	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		376	83.9	309	ug/kg	1	AXC2	03/05/10	1307	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.25	J-,16a	0.393	1.31	mg/kg	1	GXM	03/19/10	2206	962075 3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

**The following Analytical Methods were performed**

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7471  
Sample ID: 248045006  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 29.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.0C	H	7.72	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	88.1	324	ug/kg	1	AXC2	03/05/10	1308	958163	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.426	1.42	mg/kg	1	GXM	03/19/10	2335	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10



# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7472  
Sample ID: 248045007  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 21.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.0C	H	7.39	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	85.3	314	ug/kg	1	AXC2	03/05/10	1309	958163	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.381	1.27	mg/kg	1	GXM	03/20/10	0005	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7468  
Sample ID: 248045008  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 26.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	7.63	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	98.2	89.0	327	ug/kg	1	AXC2	03/05/10	1309	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.408	1.36	mg/kg	1	GXM	03/20/10	0035	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7464  
Sample ID: 248045009  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 7.05%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.0C	H	7.37	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	70.3	259	ug/kg	1	AXC2	03/05/10	1310	958163	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		1.56	J-16a	0.323	1.08	mg/kg	1	GXM	03/20/10	0105	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7463  
Sample ID: 248045010  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 8.23%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	7.82	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	71.3	262	ug/kg	1	AXC2	03/05/10	1311	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.87	J-,16a	0.321	1.07	mg/kg	1	GXM	03/20/10	0135	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7475  
Sample ID: 248045011  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 27.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.4C	H	7.52	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	J	120	89.8	330	ug/kg	1	AXC2	03/05/10	1312	958163	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.412	1.37	mg/kg	1	GXM	03/20/10	0205	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7466  
Sample ID: 248045012  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 20.5%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.2C	H	7.31	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	134	77.7	286	ug/kg	1	AXC2	03/04/10	1519	957580	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.375	1.25	mg/kg	1	GXM	03/20/10	0235	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7476  
Sample ID: 248045013  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 17%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.4C	H	7.77	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2	03/04/10	1520	957580	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.361	1.20	mg/kg	1	GXM	03/20/10	0305	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7461  
Sample ID: 248045014  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 12.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.2C	H	8.11	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2	03/04/10	1521	957580	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,16a	0.344	1.15	mg/kg	1	GXM	03/20/10	0335	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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

AMF  
4/26/10



# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7467  
Sample ID: 248045015  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 16.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.4C	H	7.56	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		427	77.2	284	ug/kg	1	AXC2	03/05/10	1203	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.66	J-,l6a	0.354	mg/kg	1	GXM	03/20/10	0404	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7469  
Sample ID: 248045016  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 12.5%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.9C	H	6.28	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		327	73.3	270	ug/kg	1	AXC2	03/05/10	1227	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	h	19.9	J-16a	0.343	1.14	mg/kg	1	GXM	03/24/10	0102	962075 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7470  
Sample ID: 248045017  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 14.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.3C	H	7.08	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	J	77.0	72.2	265	ug/kg	1	AXC2	03/05/10	1228	960509	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	h	2.91	J-,16a	0.349	1.16	mg/kg	1	GXM	03/24/10	0132	962075	3

3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

AMF  
4/26/10

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID:	RE36-10-7515	Project:	LANL01004
Sample ID:	248045018	Client ID:	LANL010
Matrix:	R		
Collect Date:	20-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		
Moisture:	20.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 19.1C	H	7.49	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	J	91.7	81.0	298	ug/kg	1	AXC2	03/05/10	1229	960509	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	h	1.84	J-16a	0.374	1.25	mg/kg	1	GXM	03/24/10	0202	962075	3

3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

**The following Analytical Methods were performed**

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

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 22, 2010

Client SDG: 10-2075-1

Client Sample ID: RE36-10-7528  
Sample ID: 248046001  
Matrix: W  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/04/10	1544	960499	1
<b>Nutrient Analysis</b>											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	U	ND	0.100	0.500	mg/L	10	AXH3	03/03/10	1142	958150	2

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1259	960498

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

AMF  
4/26/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 22, 2010

Client SDG: 10-2075-1

Client Sample ID: RE36-10-7527  
Sample ID: 248046002  
Matrix: W  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/04/10	1545	960499	1
<b>Nutrient Analysis</b>											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	03/03/10	1116	958150	2

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1259	960498

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

AMF  
4/26/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

LOS ALAMOS

REQUEST NUMBER: 10-2075

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248045, 248046%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7414	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7413	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7413	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7462	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7462	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7465	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7465	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7473	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7473	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7471	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7471	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7472	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7472	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7468	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7468	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7464	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7464	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7463	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7463	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7475	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7475	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7466	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7476	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7476	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7461	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7461	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7467	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7467	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7469	1	POLY	METALS+U-GEL	Ice	R

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7470	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7515	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7515	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7528	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7528	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7528	1	POLY	SW-846:6850	Ice	W
RE36-10-7528	1	POLY	TCN	Sodium Hydroxide	W
RE36-10-7527	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7527	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7527	1	POLY	SW-846:6850	Ice	W
RE36-10-7527	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By: Geoffrey W. [Signature] Date 2/24/10 Time 1500 Received By: Patricia Dover-Dent P.H. Unit Date 2/25/10 Time 08:45

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Received for DISPOSAL By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Remarks: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_



Wednesday, February 24, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

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

These Samples are on:  
LANL Request Number: 10-2075  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/24/2010  
TURNAROUND/REPORT DUE: 3/26/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0					
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7478	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	EPA-353.2	1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846-B010B	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-80108	1	RE36-10-7515	R	2/20/2010	
	SW-846-8029	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7481	R	2/20/2010	
		1	RE36-10-7482	R	2/20/2010	
		1	RE36-10-7483	R	2/20/2010	
		1	RE36-10-7484	R	2/20/2010	
		1	RE36-10-7485	R	2/20/2010	
		1	RE36-10-7486	R	2/20/2010	
		1	RE36-10-7487	R	2/20/2010	
		1	RE36-10-7488	R	2/20/2010	
		1	RE36-10-7489	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846-8850	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7481	R	2/20/2010	
		1	RE36-10-7482	R	2/20/2010	
		1	RE36-10-7483	R	2/20/2010	
		1	RE36-10-7484	R	2/20/2010	
		1	RE36-10-7485	R	2/20/2010	

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-6850	1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846-7470A	1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846-7471A	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-7471A	1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7478	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846-9012A	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846-9045C	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

REQUEST NUMBER: 10-2075

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-9045C	1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2075



March 03, 2010

[www.gel.com](http://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 Orders: 248045 248046  
SDG: 10-2075

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-2075  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248045 and 248046**  
**SDG: 10-2075**



## Table of Contents

<b>Case Narrative.....</b>	<b>1</b>
<b>Chain of Custody and Supporting Documentation .....</b>	<b>5</b>
<b>Data Review Qualifier Flag Definition Sheet .....</b>	<b>25</b>
<b>LC/MS/MS Perchlorate Analysis.....</b>	<b>27</b>
Sample Data Summary .....	32
Quality Control Summary.....	51
Sample Data .....	81
Standards Data.....	118
Quality Control .....	142
Miscellaneous Data .....	151
<b>LC/MS/MS Perchlorate Analysis.....</b>	<b>158</b>
Sample Data Summary .....	163
Quality Control Summary.....	166
Sample Data .....	197
Standards Data.....	202
Quality Control .....	231
Miscellaneous Data .....	236
<b>Metals Analysis .....</b>	<b>245</b>
Case Narrative.....	246
Sample Data Summary .....	253
Quality Control Summary.....	272
Standards .....	337
Raw Data.....	349
Miscellaneous .....	740
<b>Metals Analysis .....</b>	<b>782</b>
Case Narrative.....	783
Sample Data Summary .....	789
Quality Control Summary.....	792
Standards .....	835
Raw Data.....	848
Miscellaneous .....	1084
<b>General Chemistry Analysis .....</b>	<b>1123</b>
Case Narrative.....	1124
Sample Data Summary .....	1136

Quality Control Summary.....	1156
Instrument QC Data Summary .....	1160
Cyanide, Total .....	1163
Ion Chromatography .....	1197
pH .....	1261
Miscellaneous .....	1265
<b>General Chemistry Analysis .....</b>	<b>1270</b>
Case Narrative.....	1271
Sample Data Summary .....	1279
Quality Control Summary.....	1283
Instrument QC Data Summary .....	1286
Cyanide, Total .....	1289
Nitrate Nitrite by Cadmium Reduction .....	1300

# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248045 and 248046  
SDG # : 10-2075**

**March 03, 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 25, 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 lab did not receive NO3NO2 containers for samples RE36-10-7528 and 7527. Los Alamos was notified. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

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

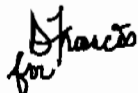
<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467
248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
248046001	RE36-10-7528
248046002	RE36-10-7527

### **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: General Chemistry, Metals and Perchlorates by LCMSMS.

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

A handwritten signature in black ink, appearing to read "for Valerie Davis".

Valerie Davis

Project Manager

**List of current GEL Certifications as of 03 March 2010**

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

# **Chain of Custody and Supporting Documentation**

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

LOS ALAMOS

REQUEST NUMBER: 10-2075

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248045, 248046%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7414	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7413	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7413	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7462	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7462	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7465	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7465	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7473	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7473	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7471	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7471	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7472	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7472	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7468	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7468	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7464	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7464	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7463	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7463	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7475	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7475	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7466	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7476	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7476	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7461	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7461	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7467	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7467	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7469	1	POLY	METALS+U-GEL	Ice	R



Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2075

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7470	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7515	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7515	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7528	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7528	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7528	1	POLY	SW-846:6850	Ice	W
RE36-10-7528	1	POLY	TCN	Sodium Hydroxide	W
RE36-10-7527	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7527	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE36-10-7527	1	POLY	SW-846:6850	Ice	W
RE36-10-7527	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received By: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name Signature Printed Name Signature  
*Geoffrey* *2/24/10* *1600* *Patricia Dover-Dent* *P.H. Dent* *2/25/10* *08:45*

Printed Name Signature Printed Name Signature  
 Printed Name Signature Printed Name Signature

Received for DISPOSAL By: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Remarks: \_\_\_\_\_

Printed Name Signature

Wednesday, February 24, 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: 2/24/2010**

**TURNAROUND/REPORT DUE: 3/26/2010**

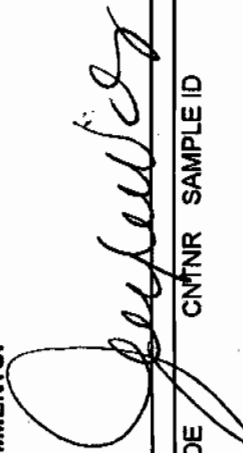
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



These Samples are on:  
LANL Request Number: 10-2075  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Page 1 of 6  
REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0					
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	

Wednesday, February 24, 2010

Page 2 of 6

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	EPA-353.2	1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846:6010B	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE36-10-7515	R	2/20/2010	
	SW-846:6020	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846:6850	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	

Wednesday, February 24, 2010

Page 4 of 6

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846:7470A	1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
	SW-846:7471A	1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	

Wednesday, February 24, 2010

Page 5 of 6

REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846:9012A	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7527	W	2/20/2010	
		1	RE36-10-7528	W	2/20/2010	
	SW-846:9045C	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

Wednesday, February 24, 2010

Page 6 of 6  
REQUEST NUMBER: 10-2075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C					
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2075



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL		SDG/ARCO/Work Order: 10-2075	
Received By: Patricia Dover-Dent		Date Received: FEB-25-2010	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 80 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other (describe) 0-6, 12-14
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5 Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?			X	Sample ID's affected: No Time On chain of custody
11 Number of containers received match number indicated on COC?			X	Sample ID's affected: RE36-10-7528,7527 the lab did not receive a container for NO3NO2
12 COC form is properly signed in relinquished/received sections?	X			

## Comments: FEDEX#s

7209 7850 1919 0C	7209 7850 2076 2C	7209 7850 2238 3C	7209 7850 1893 12C
7209 7850 2146 1C	7209 7850 2065 2C	7209 7850 2124 3C	7209 7850 1849 12C
7209 7850 1952 1C	7209 7850 1996 3C	7209 7850 1974 4C	7209 7850 1838 13C
7209 7850 2054 1C	7209 7850 2135 3C	7209 7850 1985 4C	7209 7850 1860 13C
7209 7850 1963 1C	7209 7850 2032 3C	7209 7850 2000 4C	7209 7850 1850 13C
7209 7850 2021 2C	7209 7850 2249 3C	7209 7850 2087 4C	7209 7850 2098 13C
7209 7850 2113 2C	7209 7850 2168 3C	7209 7850 2010 5C	7209 7850 1908 14C
7209 7850 2102 2C	7209 7850 1941 3C	7209 7850 2157 6C	
7209 7850 1882 2C	7209 7850 2043 3C	7209 7850 1871 12C	

PM (or PMA) review: Initials

M

Date

2/26/10



**Subject:** Sample Receipt for 2/25/10

**From:** Dionne Francis <Dionne.Francis@gel.com>

**Date:** Thu, 25 Feb 2010 20:59:32 -0500

**To:** "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2059 2052, 2046 and 2040: the Gross A/B containers will be preserved prior to analysis.

RN 10-2051: the lab rec'd (1) 40ml vial 8260B container for sample WST05-10-12495 instead of (2) as indicated on the COC.

RN 10-2057: the lab rec'd (2) 1L amber glass HEXP container for sample CAPA-10-13803 instead of (3) as indicated on the COC.

RN 10-2069: the lab did not receive a NO3NO2 container for sample RE15-10-8406.

RN 10-2075: the lab did not receive a NO3NO2 container for sample RE36-10-7528 and 7527. An aliquot will be taken from the perchlorate container and preserved prior to analysis.

The following containers were received without a COC:

RE36-10-7404, 7405, 7425, 7426, 7431, 7433, 7434, 8281, 8482 - 500ml glass containers for 8270C+NMED Exp

RE36-10-7403, 7406, 7516, 7429, 7432 - 125ml poly containers for Metals

RE36-10-8928 - (2) 500ml glass containers for 8270C+8082+TPH-DRO, TCLP P/H/S/V

Thanks,  
Dionne

--

Dionne Francis  
Project Manager Assistant  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC (USA) 29407  
Direct: 843.769.7376 Ext. 4432  
Main: 843.556.8171  
Fax: 843.766.1178  
E-mail: [daf@gel.com](mailto:daf@gel.com)  
Web: [www.gel.com](http://www.gel.com)

Let the Bible fill the memory, rule the heart, and guide the feet.

VILENE VALDEZ  
05 ALAMOS NATL LAB  
A00 BLDG 1237 DPU 03  
05 ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB M  
CAD: 0014176/CAFE  
BILL SENDER

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

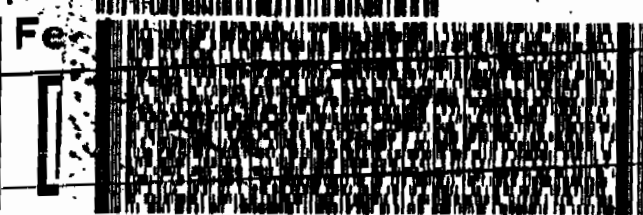
SHIP DATE: 24FEB10  
ACTWGT: 63.0 LB MANT  
CAD: 0014176/CAFE2450  
BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

HARLESTON SC 29407  
(43) 556-8171  
EF: 6B010AMR3A0532VA00

CHARLESTON SC 29407  
(43) 556-8171  
REF: 6B010AMR1A015AGNMO



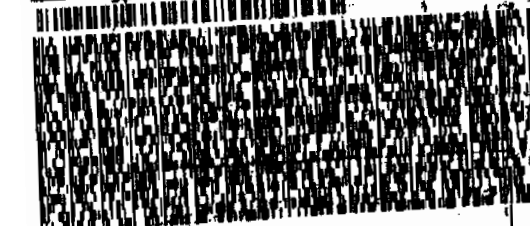
2 of 2  
# 7209 7850 1919  
THU - 25FEB  
PRIORITY OVERNIGHT  
rM 7209 7850 1905 0201  
X CHSA

2 of 2  
# 7209 7850 2146  
THU - 25FEB A1  
PRIORITY OVERNIGHT  
MatrM 7209 7850 2135 0201  
XX CHSA  
29407  
SC-US  
CHS



VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
HARLESTON SC 29407  
(43) 556-8171  
EF: 6B010AMR3A05529E00

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
CHARLESTON SC 29407  
(43) 556-8171  
REF: 6B010AMR1A015AGNMO



2 of 3  
# 7209 7850 1952  
THU - 25FEB A1  
PRIORITY OVERNIGHT  
rM 7209 7850 1941 0201  
X CHSA  
29407  
SC-US  
CHS

1 of 2  
# 7209 7850 2054  
THU - 25FEB A1  
PRIORITY OVERNIGHT  
MM MASTER MM  
XX CHSA  
29407  
SC-US  
CHS



ORIGIN ID: 58FA (505) 000-8900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1A00 BLDG 1237 DPU 03

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

ERIE DAVIS  
GENERAL ENGINEERING LAB  
10 SAVAGE RD

CHARLESTON SC 29407

(556-8171)  
REF: 6B010AMR3A05529E00

FedEx  
Express



ORIGIN ID: 58FA (505) 000-8900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1A00 BLDG 1237 DPU 03

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(543) 556-8171  
REF: 6B010AMR2A0515BYDO

FedEx  
Express



3 of 3  
7209 7850 1963

THU - 25FEB A1  
PRIORITY OVERNIGHT

7209 7850 1941 0201

CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

ERIE DAVIS  
GENERAL ENGINEERING LAB  
40 SAVAGE RD

CHARLESTON SC 29407

(556-8171)  
REF: 6B010AMR1A015AGWMO

FedEx  
Express



1 of 2  
7209 7850 2113

THU - 25FEB A1  
PRIORITY OVERNIGHT

MASTER NH

CHSA

29407  
SC-US  
CHS



TRKH 7209 7850 2021

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS



TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(543) 556-8171  
REF: 6B010AMR1A015AGWMO

FedEx  
Express



MPSH 7209 7850 2102

THU - 25FEB A1  
PRIORITY OVERNIGHT

Master 7209 7850 2098 0201

29407  
SC-US  
CHS

CHSA



ORIGIN ID: SAFA (505) 666-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

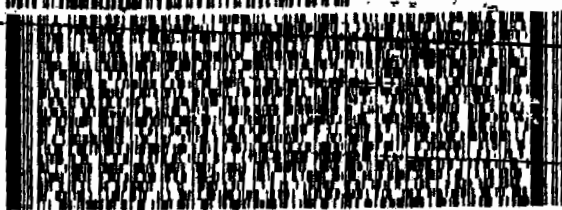
CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0532VA00

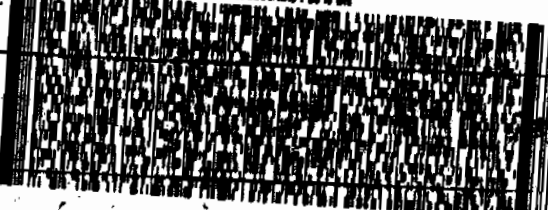
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO



FedEx



FedEx Express



2 of 3  
MPSH 7209 7850 1882  
Matrn 7209 7850 1871 0201

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA

29407



Part 1 JSCMB-434 NMT V3 04 08

1 of 2  
TRKH 7209 7850 2076  
MASTER

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

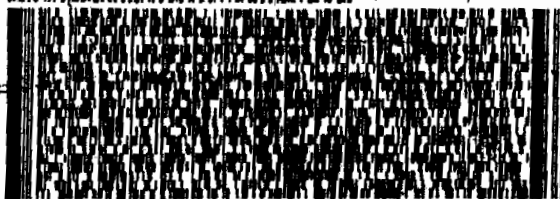
SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR2A0515BYDO



FedEx Express



FedEx Express



2 of 2  
MPSH 7209 7850 2065  
Matrn 7209 7850 2054 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

2 of 2  
MPSH 7209 7850 1996  
Matrn 7209 7850 1985 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 51.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

ORIGIN ID: SAFA (505) 865-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

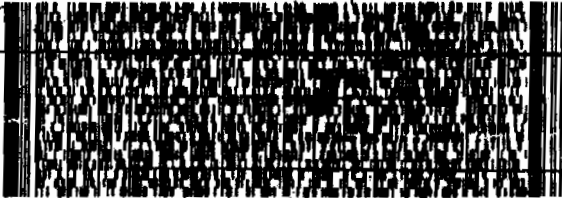
SHIP DATE: 24FEB10  
ACTWGT: 51.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR1A015AGWMO

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR3A0223KY10



FedEx



FedEx Express



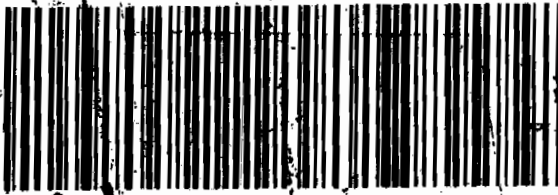
0022691103223

1 of 2  
TRKH 7209 7850 2135  
0201  
NN MASTER NN

THU - 25FEB  
PRIORITY OVERNIGHT

29

XX CHSA



Part # 156148-434 NRT V3 04-09

1 of 2  
TRKH 7209 7850 2032  
0201  
NN MASTER NN

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 50.0 LB MAN  
CAD: 0014176/CAFE2450  
BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

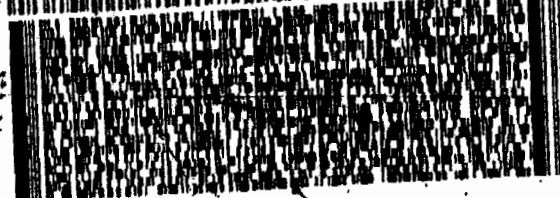
CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR1A015AGWMO

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AAREW0140T500



FedEx Express



FedEx Express



0022691103223

2 of 2  
MPSH 7209 7850 2249  
0263  
Matr# 7209 7850 2238 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



TRKH 7209 7850 2168  
0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA





JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB18  
ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 865-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A05529E00

3c

1 of 3



FedEx

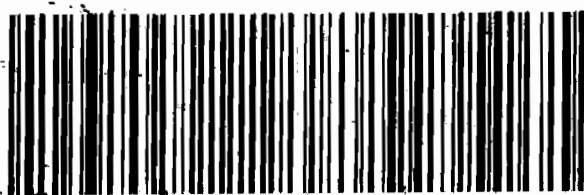


THU - 25FEB A1  
PRIORITY OVERNIGHT

TRKH 7209 7850 1941  
0201  
NN MASTER NN

XX CHSA

29407  
SC-US  
CHS



ORIGIN ID: SAFA (505) 865-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

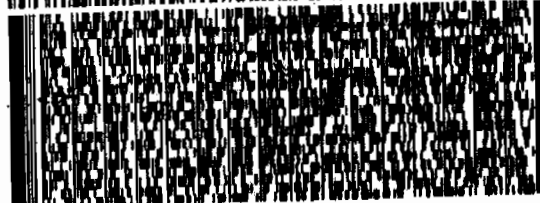
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

3

1 of 2



FedEx



THU - 25FEB A1  
PRIORITY OVERNIGHT

TRKH 7209 7850 2238  
0201  
NN MASTER NN

XX CHSA

29407  
SC-US  
CHS

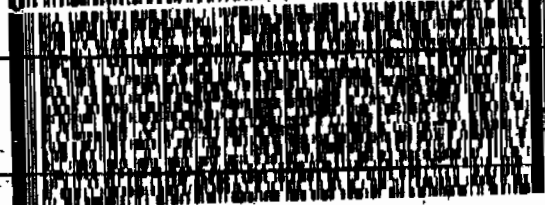
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0223KY10

3c

2 of 2



FedEx



TRKH 7209 7850 2043  
0263  
MatrN 7209 7850 2032 0201

XX CHSA

29407  
SC-US  
CHS



ORIGIN ID: SAFA (505) 865-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB18  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

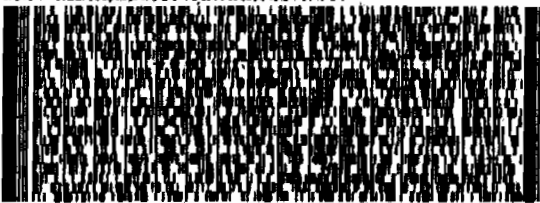
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

3c

2 of 2



FedEx



TRKH 7209 7850 2124  
0263  
MatrN 7209 7850 2113 0201

XX CHSA

29407  
SC-US  
CHS

ORIGIN ID: SAFA (605) 685-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

SHIP D  
ACTWGT  
CAD: 04

48.0 LB MAN  
314176/CAFE2450

LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

ACTWGT: 51.0 LB-MAN  
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

DER

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR2A0515BYDO

FedEx  
Express



FedEx  
Express



TRKH  
0201 7209 7850 1974

THU -  
PRIORITY

25FEB A1  
OVERNIGHT

1 of 2  
TRKH  
0201 7209 7850 1985

THU - 25FEB A1  
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407  
SC-US  
CHS

XX CHSA

29407  
SC-US  
CHS

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR2A0515BYDO

LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

ACTWGT: 55.0 LB-MAN  
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGWMO

FedEx  
Express



FedEx  
Express



1 of 2  
TRKH  
0201 7209 7850 2000

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

2 of 2  
TRKH  
0201 7209 7850 2087

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 62.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 46.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

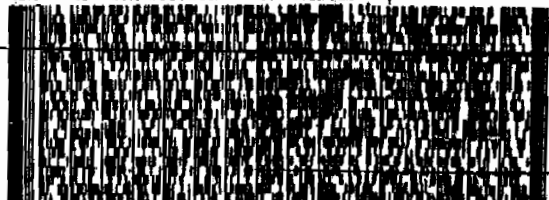
REF: 6B010AMR2A0515BYDO

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AME6L11570000



FedEx



FedEx



2 of 2  
MPSH 7209 7850 2010  
0263  
Mstr# 7209 7850 2000 0201

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA

294



OR  
JOY  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00



FedEx



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00



FedEx



1 of 3  
TRKH 7209 7850 1871  
0201  
NM MASTER NM

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA

294



3 of 3  
MPSH 7209 7850 1893  
0263  
Mstr# 7209 7850 1871 0201

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA

29407

SC-US  
CHS





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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 54.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

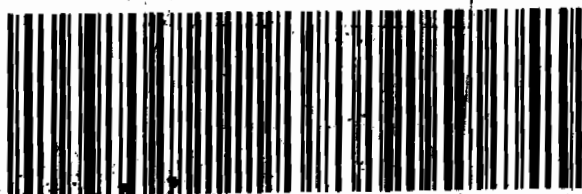


3 of 3  
MPS# 7209 7850 1809  
0263  
Matr# 7209 7850 1827 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



2 of 3  
MPS# 7209 7850 1838  
0263  
Matr# 7209 7850 1827 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 54.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 54.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

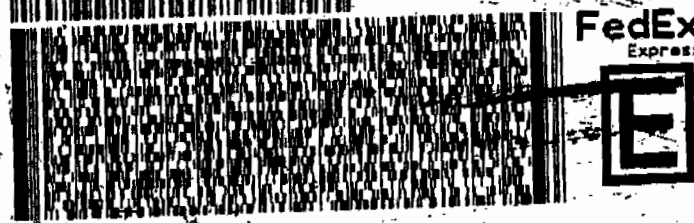
REF: 6B010AMR3A0532VA00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00



2 of 2  
MPS# 7209 7850 1860  
0263  
Matr# 7209 7850 1850 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

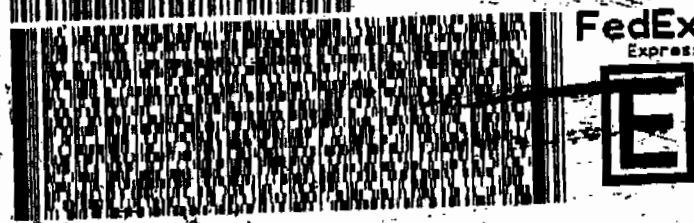
29407  
SC-US  
CHS

1 of 2  
MPS# 7209 7850 1850  
0201  
NN MASTER NN

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS





# **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 10-2075**

**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: 958946

Prep Batch Number: 958939

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467

10-2075-PERLCMS

Page 1 of 4

248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
1202056572	Interference Check Sample (ICS)
1202056563	Method Blank (MB)
1202056564	Laboratory Control Sample (LCS)
1202056565	248045001(RE36-10-7414) Matrix Spike (MS)
1202056566	248045001(RE36-10-7414) Matrix Spike Duplicate (MSD)

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

#### **Preparation/Analytical Method Verification**

##### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

#### **Calibration Information**

##### **Initial Calibration**

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

##### **CCV Requirements**

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

##### **CCB Requirements**

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

##### **CCV Requirements**

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

##### **Low Level Standard (CRI) Requirements**

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

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

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

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

##### **Interference Check Sample (ICS)**

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

10-2075-PERLCMS

Page 2 of 4

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Sample 248045001 (RE36-10-7414) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**

The MS recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

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

**Retention Time Standard Area Acceptance**

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

**Retention Time**

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

**Technical Information****Holding Time Specifications**

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

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

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

**Miscellaneous Information****Data Exception (DER) Documentation**

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

10-2075-PERLCMS

Page 3 of 4



#### **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:

*Herbert M. Moore* Date: *03/23/10*

10-2075-PERLCMS

Page 4 of 4

# SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 258939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7414  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045001  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:05	per0318054a
14797-73-0	Perchlorate-101	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate-O(18)			8.15	ug/kg		1	18-MAR-10 22:05	per0318054a

<sup>^</sup> 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  $\frac{1}{\% \text{Solids}}$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7413  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045002  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 % Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:27	per0318057a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate-O(18)			7.35	ug/kg		1	18-MAR-10 22:27	per0318057a

<sup>^</sup> 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 Client Sample No. RE36-10-7462

Lab Code: GEL Date Received: 25-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-2075

Method: SW846 6850 Modified GEL Sample ID: 248045003

Matrix: SOIL Date Filtered: 11-MAR-10

Extraction Batch ID: 258939 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 92.1

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:35	per0318058a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate-O(18)			7.36	ug/kg		1	18-MAR-10 22:35	per0318058a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 258939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7465

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045004

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:42	per0318059a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate-O(18)			8.30	ug/kg		1	18-MAR-10 22:42	per0318059a

<sup>^</sup> 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

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7473  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045005  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 76

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.654	2.62	10.7	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 22:50	per0318060a
14797-73-0	Perchlorate-101	.654	2.62	11.0	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate-O(18)			7.80	ug/kg		1	18-MAR-10 22:50	per0318060a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 258939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7471  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045006  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 70

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:21	per0318064a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate-O(18)			8.17	ug/kg		1	18-MAR-10 23:21	per0318064a

<sup>^</sup> 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



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 258939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7472  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045007  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 78

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:28	per0318065a
14797-73-0	Perchlorate-101	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate-O(18)			7.87	ug/kg		1	18-MAR-10 23:28	per0318065a

<sup>^</sup> 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

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:** 958939  
**Extraction Type:** Solid Prep  
**Sample Volume/Weight:** 2.00 g  
**Concentrated Extract Volume:** 20.0  
**Client Sample No.** RE36-10-7468  
**Date Received:** 25-FEB-10  
**GEL Job No (SDG):** 10-2075  
**GEL Sample ID:** 248045008  
**Date Filtered:** 11-MAR-10  
**Injection Volume (uL):** 20  
**%Solids:** 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:36	per0318066a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate-O(18)			8.00	ug/kg		1	18-MAR-10 23:36	per0318066a

<sup>^</sup> 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

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: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7464  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045009  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 % Solids: 93  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.602	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate Isotope Ratio			3.29			1	18-MAR-10 23:44	per0318067a
14797-73-0	Perchlorate-101	.538	2.15	0.572	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate-O(18)			6.56	ug/kg		1	18-MAR-10 23:44	per0318067a

<sup>^</sup> 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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7463  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045010  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 21.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.689	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate Isotope Ratio			2.91			1	18-MAR-10 23:51	per0318068a
14797-73-0	Perchlorate-101	.545	2.18	0.742	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate-O(18)			6.37	ug/kg		1	18-MAR-10 23:51	per0318068a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7475  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045011  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 73

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.687	2.75	3.47	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate Isotope Ratio			3			1	18-MAR-10 23:59	per0318069a
14797-73-0	Perchlorate-101	.687	2.75	3.62	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate-O(18)			8.46	ug/kg		1	18-MAR-10 23:59	per0318069a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Client Sample No.

RE36-10-7466

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045012

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 80

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846.6850 Modified

Matrix: SOIL

Extraction Batch ID: 258932

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:06	per0318070a
14797-73-0	Perchlorate-101	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate-O(18)			8.51	ug/kg		1	19-MAR-10 00:06	per0318070a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7476  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045013  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 83

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	2.00	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate Isotope Ratio			3.04			1	19-MAR-10 00:14	per0318071a
14797-73-0	Perchlorate-101	.602	2.41	2.05	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate-O(18)			7.74	ug/kg		1	19-MAR-10 00:14	per0318071a

<sup>^</sup> 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

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7461  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045014  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 87

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:21	per0318072a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate-O(18)			6.45	ug/kg		1	19-MAR-10 00:21	per0318072a

<sup>^</sup> 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



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7467  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045015  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 83

Concentrated Extract Volume: 20.0

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.601	2.41	0.720	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate Isotope Ratio			2.93			1	19-MAR-10 00:29	per0318073a
14797-73-0	Perchlorate-101	.601	2.41	0.769	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate-O(18)			6.80	ug/kg		1	19-MAR-10 00:29	per0318073a

^ 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7469  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045016  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 88

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	9.05	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate Isotope Ratio			3.18			1	19-MAR-10 00:59	per0318077a
14797-73-0	Perchlorate-101	.571	2.29	8.90	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate-O(18)			7.63	ug/kg		1	19-MAR-10 00:59	per0318077a

<sup>^</sup> 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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7470

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045017

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	2.22	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate Isotope Ratio			3.16			1	19-MAR-10 01:07	per0318078a
14797-73-0	Perchlorate-101	.584	2.34	2.20	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate-O(18)			7.57	ug/kg		1	19-MAR-10 01:07	per0318078a

<sup>^</sup> 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

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7515  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045018  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate Isotope Ratio						1	19-MAR-10 01:15	per0318079a
14797-73-0	Perchlorate-101	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate-O(18)			7.97	ug/kg		1	19-MAR-10 01:15	per0318079a

<sup>^</sup> 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): 10-2075

Extract Batch Code: 958939 Date Filtered: 11-MAR-10

Matrix: SOIL Sample ID: 1202056564

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.24	ug/kg	112		70 - 130
Perchlorate Isotope Ratio		3.1				-
Perchlorate-101	2.00	2.26	ug/kg	113		70 - 130
Perchlorate-O(18)		5.8	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): 10-2075

Extract Batch Code: 958939

Date Filtered: 11-MAR-10

Matrix: SOIL

Sample ID: 1202056572

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.3	ug/kg	115		70 - 130
Perchlorate Isotope Ratio		3.08				
Perchlorate-101	2.00	2.34	ug/kg	117		70 - 130
Perchlorate-O(18)		5.97	ug/kg			

<sup>^</sup> 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.

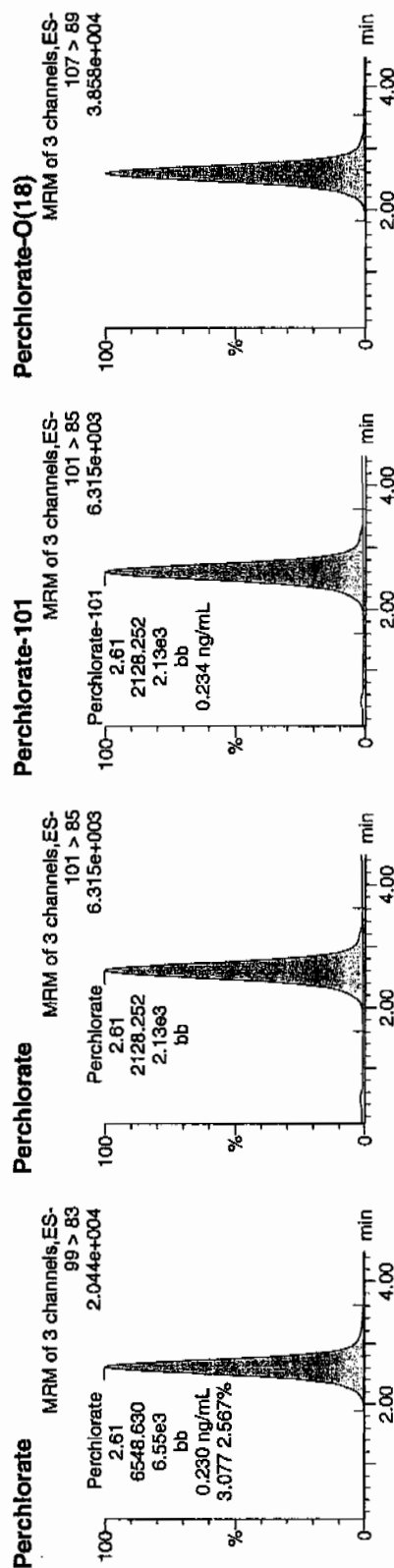
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318053a  
Date: 18-Mar-2010  
Time: 21:57:28  
ID: 1202056572  
Vial: 2:1,C

33-14-10

11/11/2020 15:59:11



ID	Name	Trace	Area	Response	Flags	Mod	Time	Height	Area	SN	Ion Ratio	
1202056572	Perchlorate	99 > 83	2.61	6548.630		bb		0.2305	115.24	15.24	2714.5...	3.08
1202056572	Perchlorate-101	101 > 85	2.61	2128.252	✓	bb		0.2344	117.20	17.20	495.768	3.077
1202056572	Perchlorate-O(18)	107 > 89	2.60	12671.211		bb		0.5973	119.47	19.47	3768.7...	3/25/03

$$\frac{6548.630}{2128.252} = 3.0770$$



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2075

Extract Batch Code: 958939

Date Extracted: 11-MAR-10

GEL MS/PS ID: 1202056565

Client ID: RE36-10-7414

GEL MSD/PSD ID: 1202056566

QC Type: MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.54	0.0536	ug/kg	2.93	113		2.97	115		1.37		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.18			3.09			0			-
Perchlorate-101	2.54	0.0459	ug/kg	2.88	112		3	117		4.27		30	75 - 125
Perchlorate-O(18)	0	8.15	ug/kg	7.37			8.01			8.26			-

<sup>^</sup> 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:

Perchlorate Initial Calibration Blank

GEL Job No.(SDG): 10-2075

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	18-MAR-10	per0318001a	IPB001
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318001a	IPB001
Perchlorate	0.00	0	NA	18-MAR-10	per0318002a	IPB001
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318002a	IPB001

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

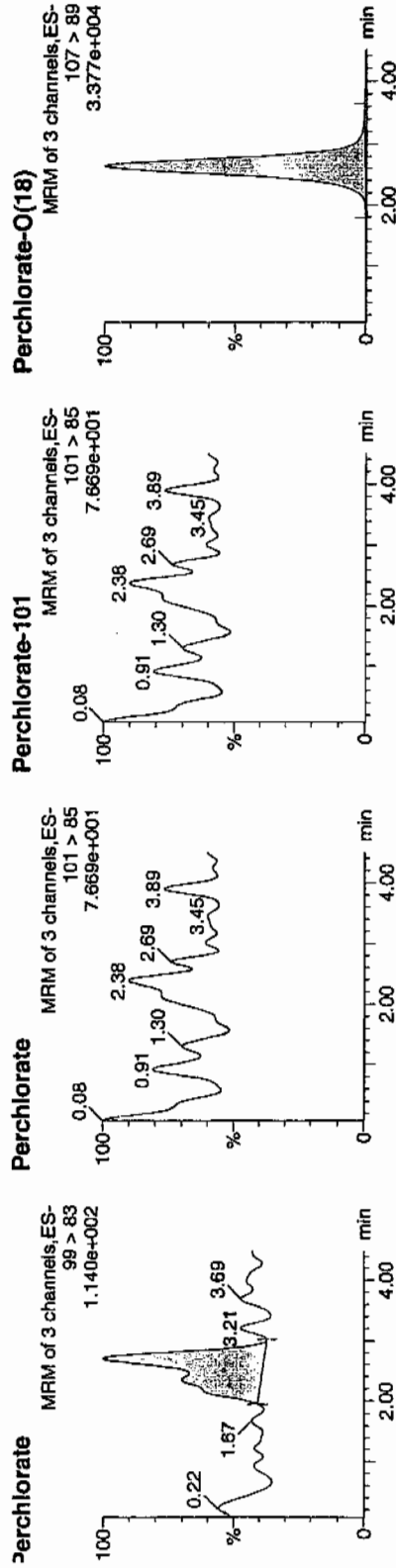
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031810a.mdb 19 Mar 2010 06:40:51  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031810a.cdb 19 Mar 2010 06:42:20

Name: per0318001a  
Date: 18-Mar-2010  
Time: 15:22:32  
D: IPB001  
Vial: 1:1,A

03-14-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	2.69	33.044	33.044	bb			0.0012			40.429	0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	2.64	11193.372	11193.372	bb			0.5277	105.54	5.54	1312.0...	

107 >  
3/20/10

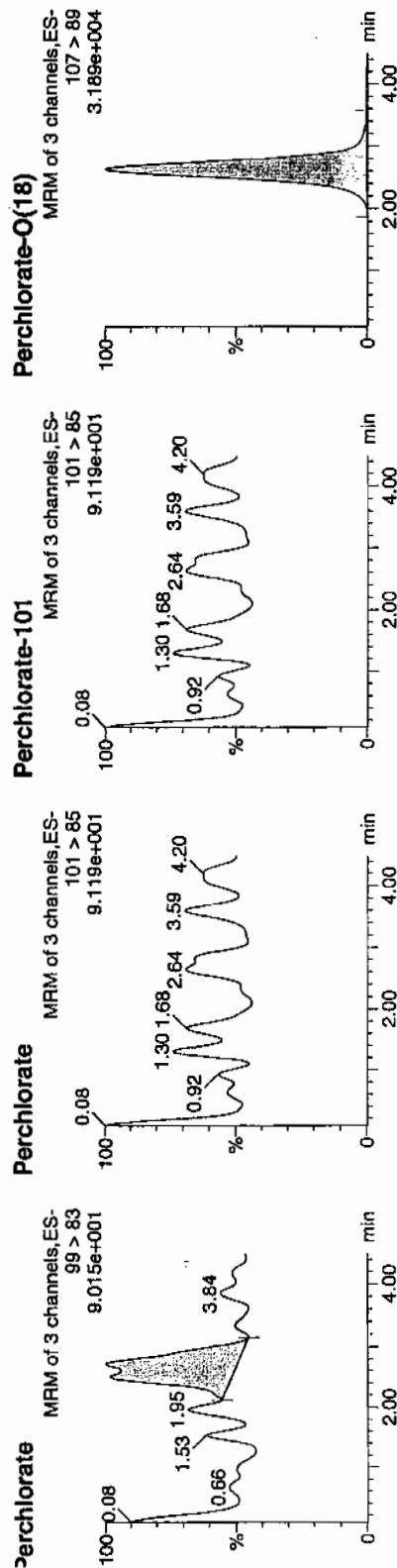
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318002a  
Date: 18-Mar-2010  
Time: 15:30:05  
D: IPB001  
Vial: 1:1,A

03-14-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
PB001	Perchlorate	99 > 83	2.71	23.658	23.658	bb			0.0008			18.601	0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	2.64	10588.210	10588.210	bb			0.4992	99.83	-0.17	1167.5...	

not  
3/23/10

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2075

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	18-MAR-10	per0318008a	IPB002
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318008a	IPB002
Perchlorate	0.00	0	NA	18-MAR-10	per0318010a	IPB003
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318010a	IPB003
Perchlorate	0.00	0	NA	18-MAR-10	per0318023a	IPB004
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318023a	IPB004
Perchlorate	0.00	0	NA	18-MAR-10	per0318036a	IPB005
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318036a	IPB005
Perchlorate	0.00	0	NA	18-MAR-10	per0318049a	IPB006
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318049a	IPB006
Perchlorate	0.00	0	NA	18-MAR-10	per0318062a	IPB007
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318062a	IPB007
Perchlorate	0.00	0	NA	19-MAR-10	per0318075a	IPB008

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2075

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-101	0.00	0	NA	19-MAR-10	per0318075a	IPB008
Perchlorate	0.00	0	NA	19-MAR-10	per0318080a	IPB009
Perchlorate-101	0.00	0	NA	19-MAR-10	per0318080a	IPB009
Perchlorate	0.00	0	NA	19-MAR-10	per0318088a	IPB010
Perchlorate-101	0.00	0	NA	19-MAR-10	per0318088a	IPB010

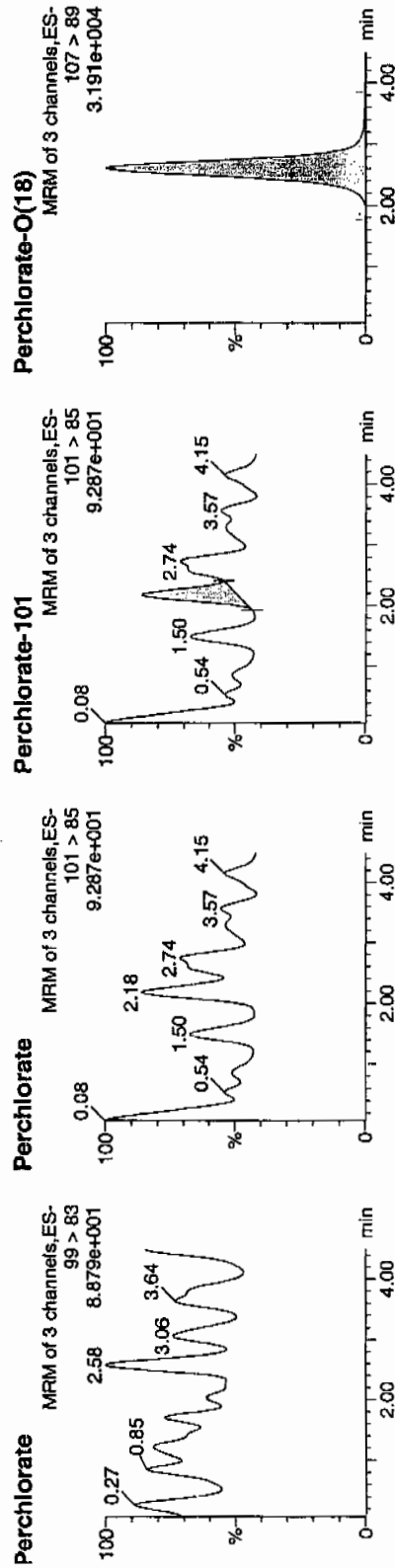
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318008a  
Date: 18-Mar-2010  
Time: 16:15:20  
ID: IPB002  
Vial: 1:1,A

03-14-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											
PB002	Perchlorate-101	101 > 85	2.18	7.701	7.701	bb			0.0008			7.796	
PB002	Perchlorate-O(18)	107 > 89	2.61	10521.018	10521.018	bb			0.4960	99.20	-0.80	2297.4...	

107  
3/15/10

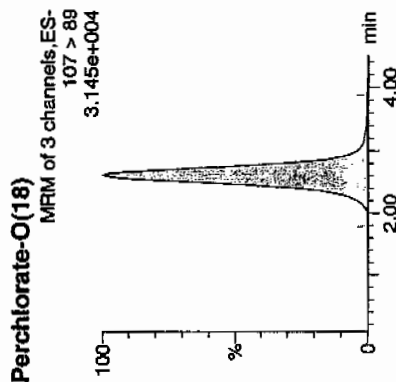
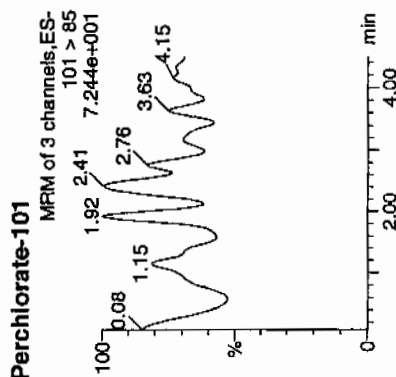
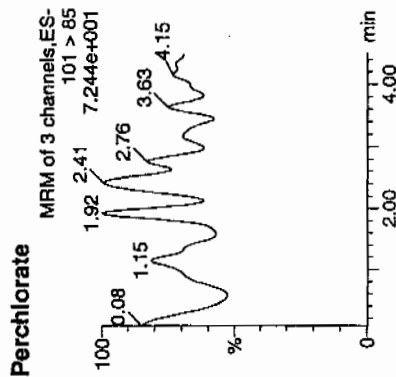
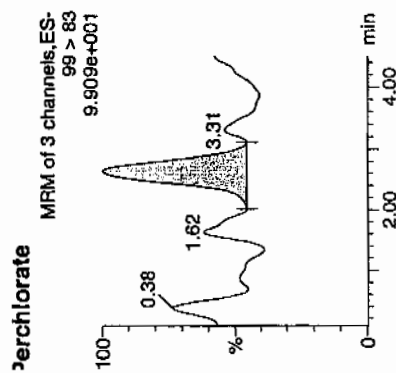
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per03181010a  
Date: 18-Mar-2010  
Time: 16:30:25  
D: IPB003  
/lal: 1:1,A

03-19-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83	2.64	23.061	23.061	bb			0.0008			3.530	0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	2.61	10502.757	10502.757	bb			0.4951	99.02	-0.98	2502.8...	

3/19/10



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

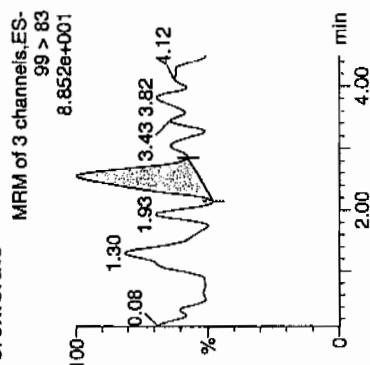
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

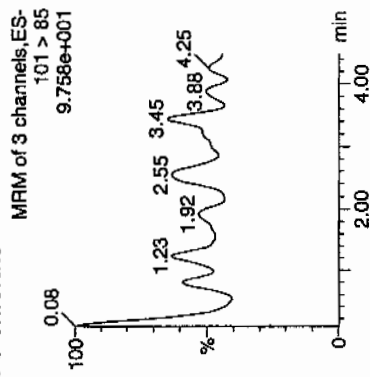
Name: per0318023a  
Date: 18-Mar-2010  
Time: 18:09:12  
ID: IPB004  
Vial: 1:1,A

0.08  
3.049e+004

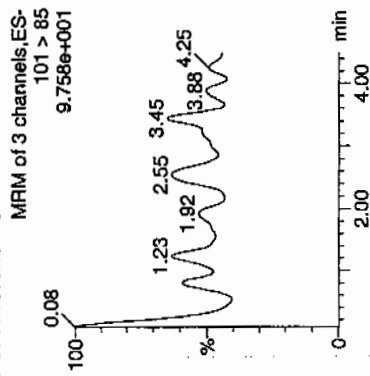
**Perchlorate**



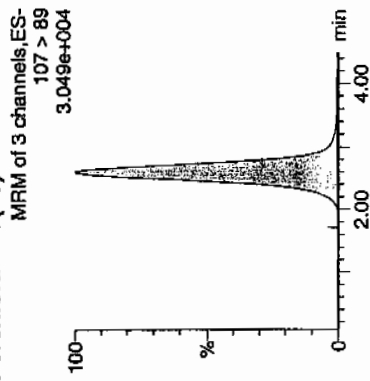
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	2.55	14.728	14.728	bb			0.0005			15.782	0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.60	10125.706	10125.706	bb			0.4773	95.47	-4.53	2985.1...	

not  
3/18/10

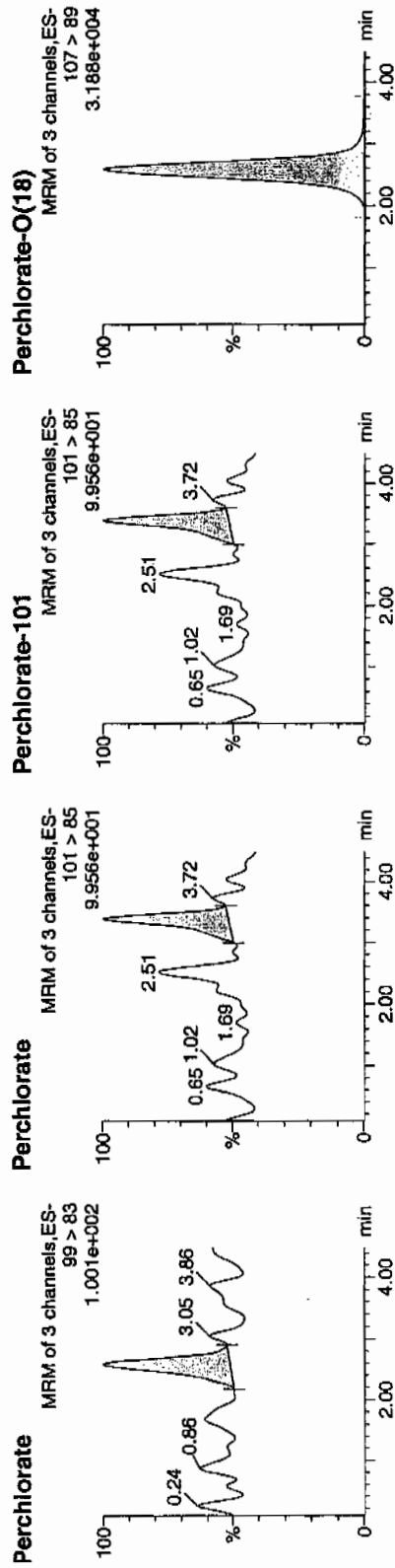
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318036a  
Date: 18-Mar-2010  
Time: 19:47:48  
ID: IPB005  
Vial: 1:1,A

03-19-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	2.58	13.906	13.906	bb			0.0005			9.591	1.20
IPB005	Perchlorate-101	101 > 85	3.38	11.565	11.565	bb			0.0013			9.523	
IPB005	Perchlorate-O(18)	107 > 89	2.58	10513.121	10513.121	bb			0.4956	99.12	-0.88	1661.3...	

3/19/10

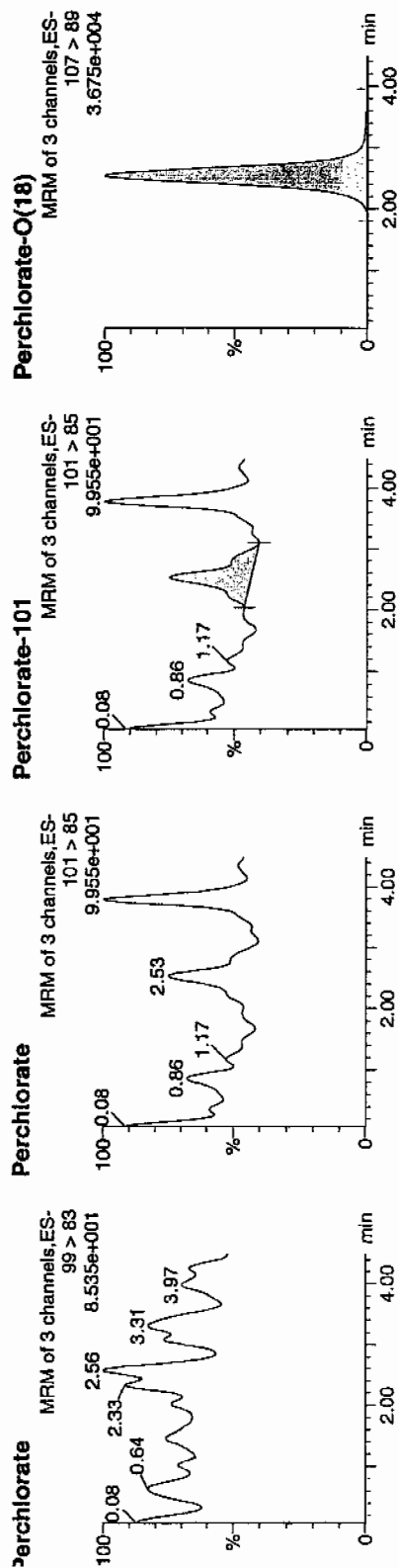
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318049a  
Date: 18-Mar-2010  
Time: 21:26:30  
D: IPB006  
Vial: 1:1,A

03-19-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83											0.00
PB006	Perchlorate-101	101 > 85	2.53	11,712	11,712	bb			0.0013			24.286	
PB006	Perchlorate-O(18)	107 > 89	2.54	12402.828	12402.828	bb			0.5847	116.94	16.94	941.441	

1147  
3/20/10

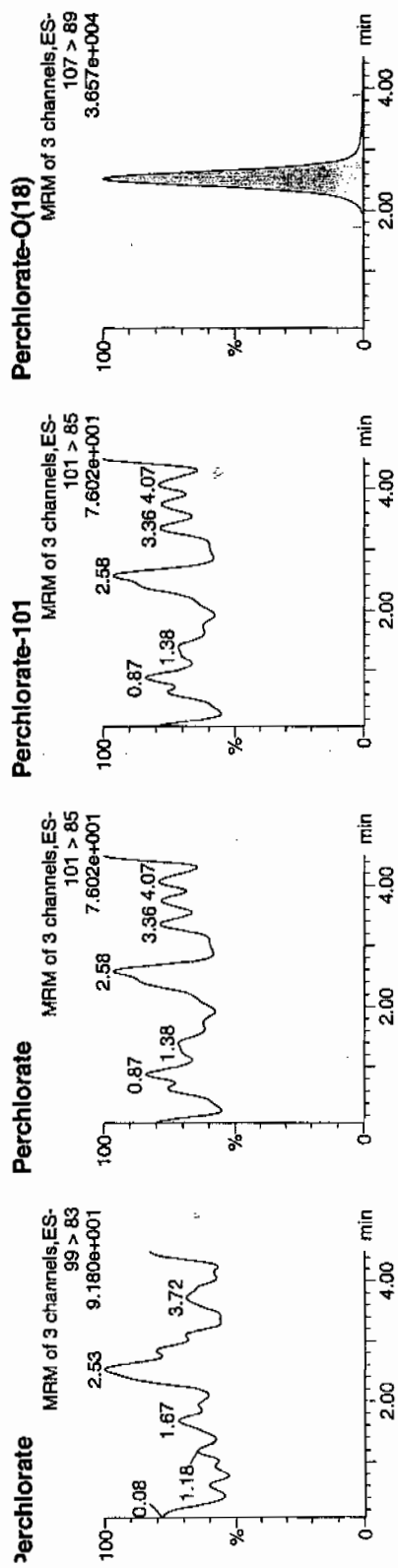
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318062a  
Date: 18-Mar-2010  
Time: 23:05:43  
D: IPB007  
Vial: 1:1,A

03-11-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	2.53	12166.955	12166.955	bb			0.5736	114.72	14.72	3227.7...	0.00

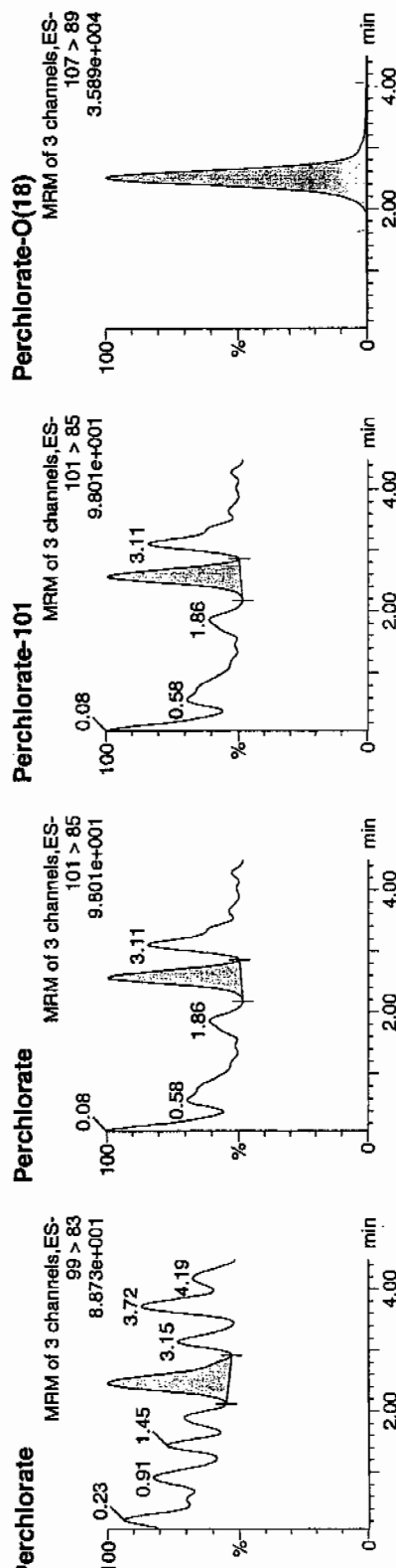
1477  
3/20/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318075a  
Date: 19-Mar-2010  
Time: 00:44:35  
Operator: IPB008  
File: 1:1,A



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	2.46	13.469	13.469	bb			0.0005			4.523	1.04
PB008	Perchlorate-101	101 > 85	2.56	12.942	12.942	bb			0.0014			17.673	
PB008	Perchlorate-O(18)	107 > 89	2.51	11870.186	11870.186	bb			0.5596	111.92	11.92	4363.6...	

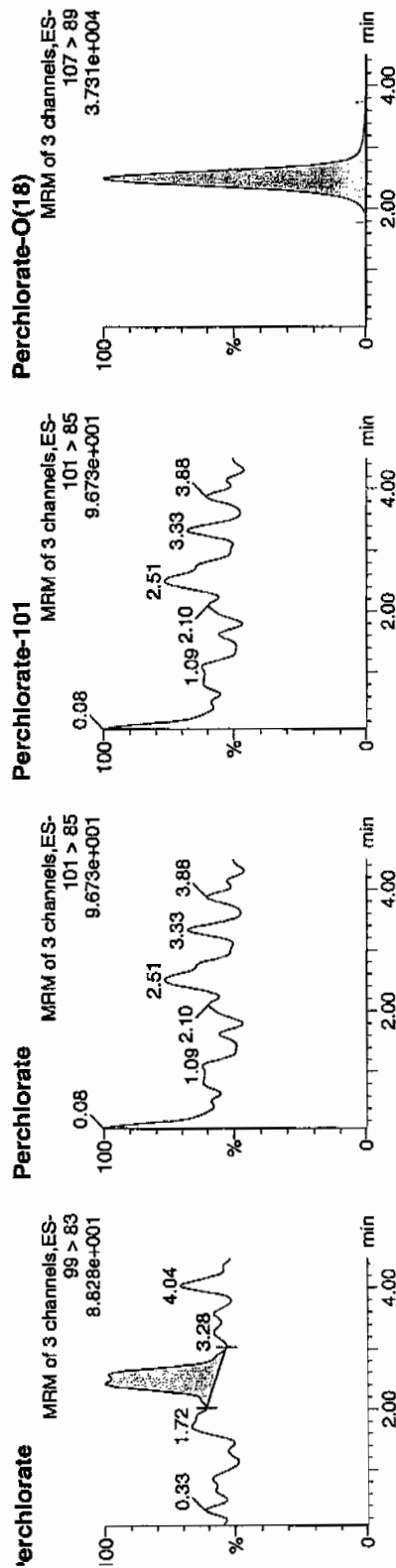
0.994  
2.0502  
1.04  
3/22/10

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
 Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318080a  
 Date: 19-Mar-2010  
 Time: 01:22:34  
 ID: IPB009  
 Vial: 1:1,A

0.03  
 03-H-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	2.43	15.601	15.601	bb			0.0005			12.466	0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	2.50	12269.100	12269.100	bb			0.5784	115.68	15.68	1411.1...	

107  
 3/20/10

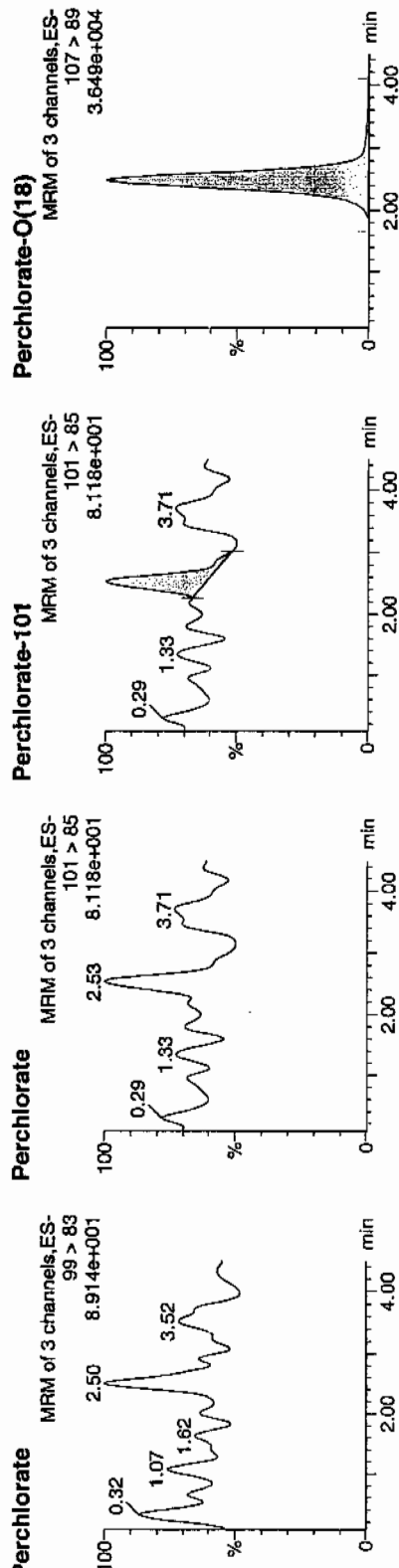
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample: per0318088a  
Date: 19-Mar-2010  
Time: 02:23:43  
D: IPB010  
File: 1:1,A

03-19-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB010	Perchlorate	99 > 83	2.53	8.500	8.500	bb			0.0009				
PB010	Perchlorate-101	101 > 85	2.49	12044.923	12044.923	bb			0.5678	113.56	13.56	246.668	
PB010	Perchlorate-O(18)	107 > 89											0.00

WAT  
3/23/10

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

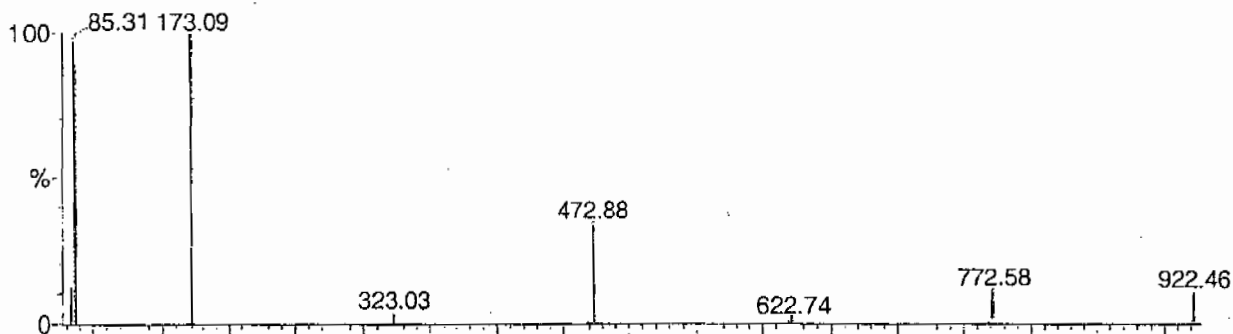
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

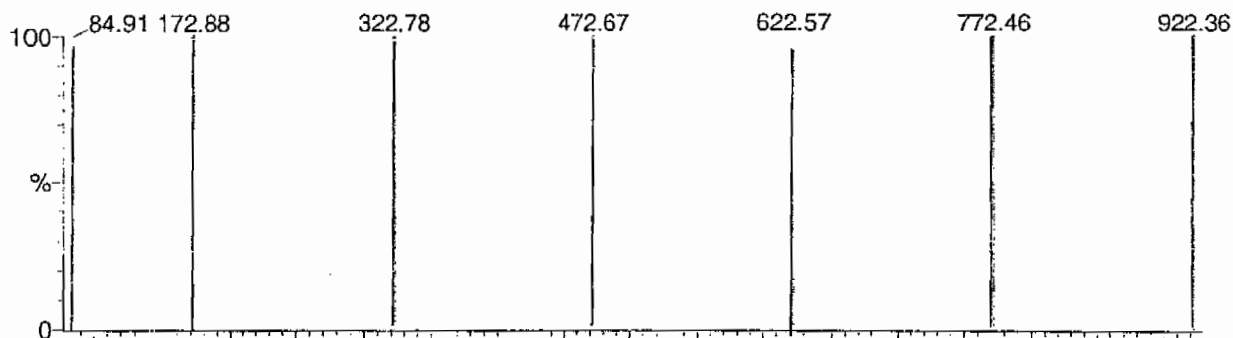
POINTS HIGHLIGHTED BY CURVED 01-07-03

Data file: STATMS1 - Uncalibrated

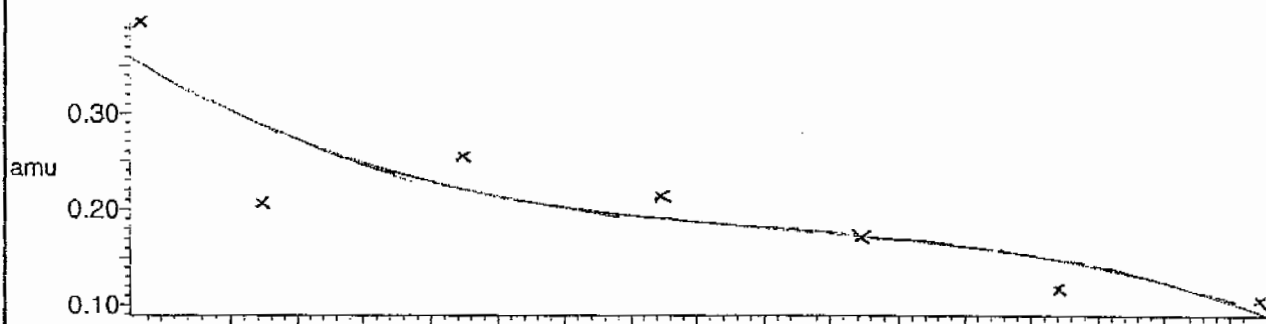
7 matches of 7 tested references



Reference file: Nairb

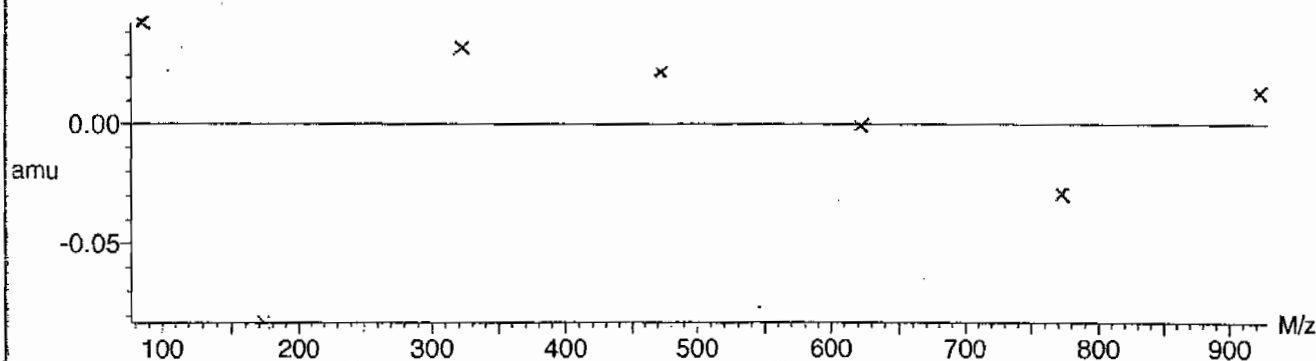


Mass difference (Raw - Ref mass)



Residuals

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



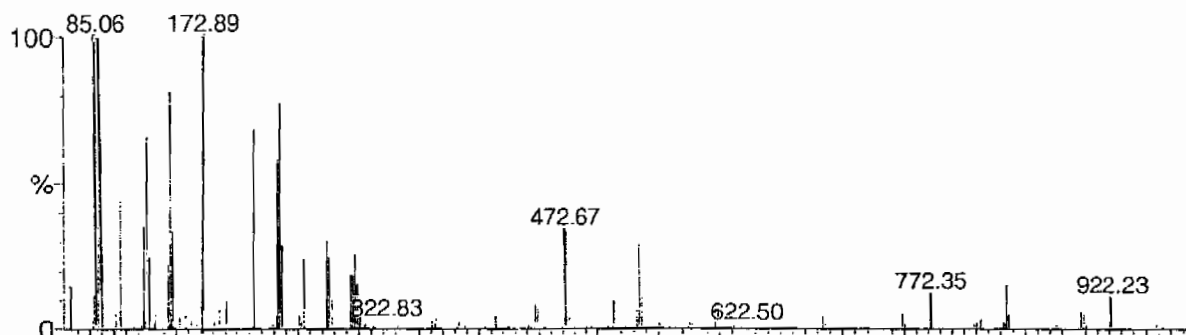
Calibration Report - MS1 Scanning

Page 1 of 1

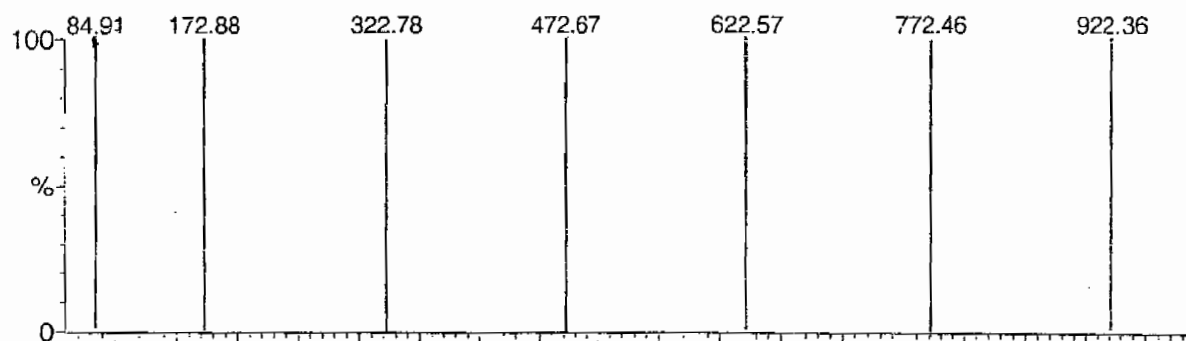
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

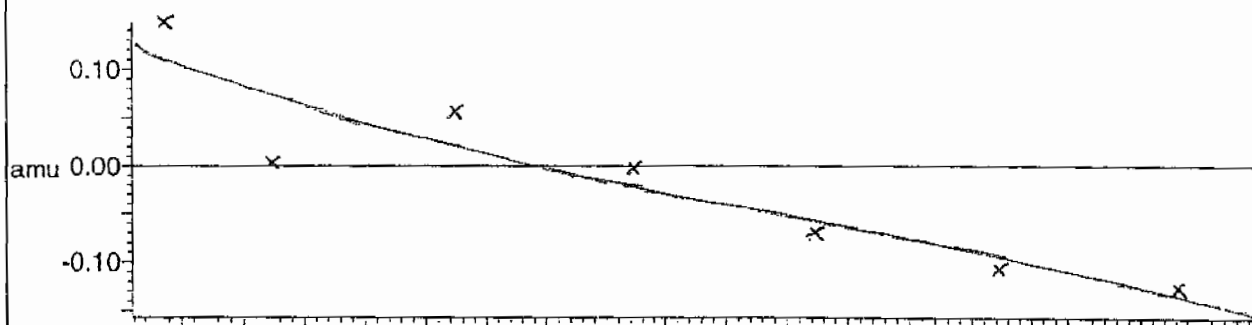
7 matches of 7 tested references



Reference file: Nairb

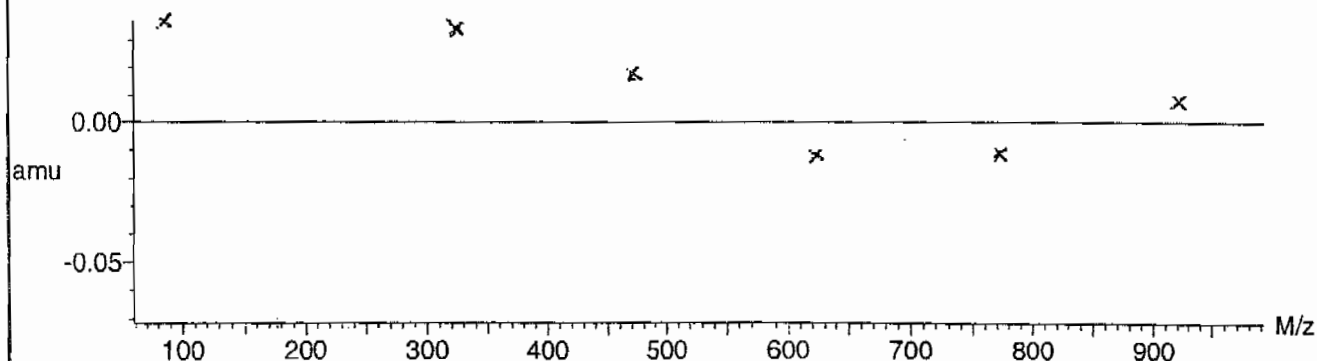


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$



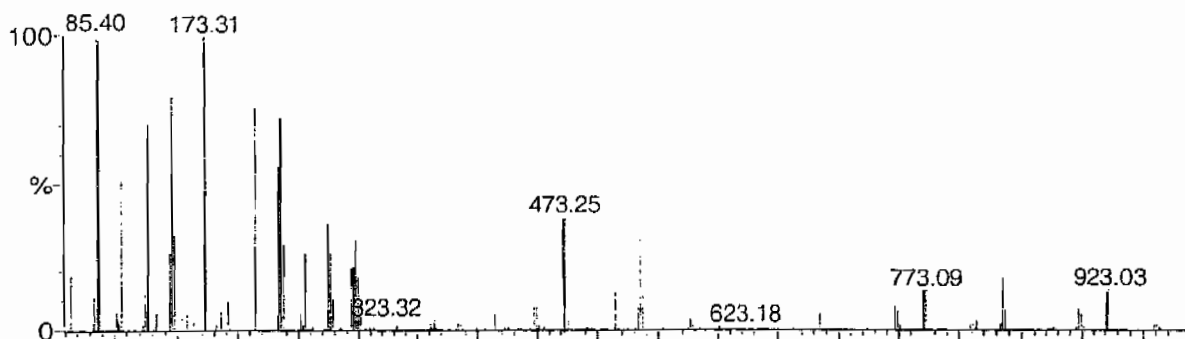
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

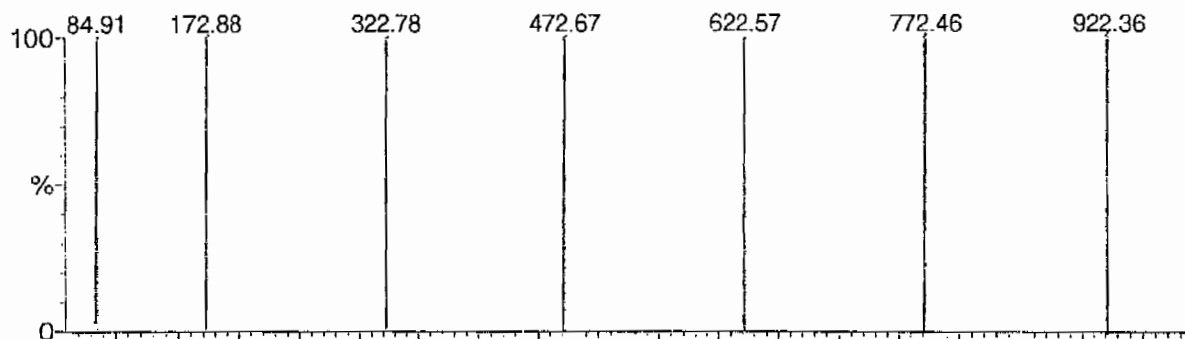
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

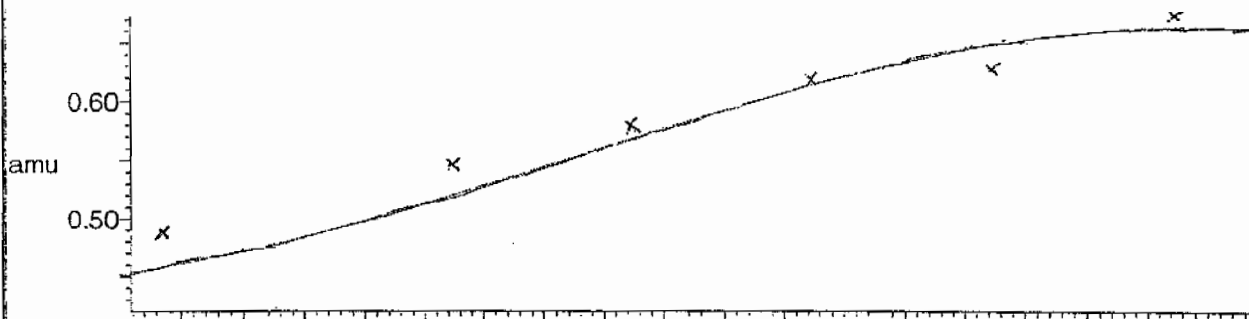
7 matches of 7 tested references



Reference file: Nairb

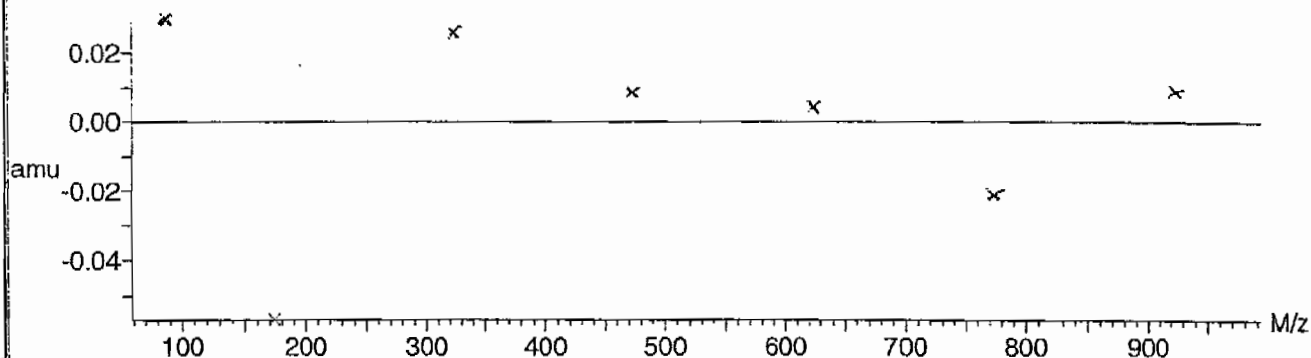


Mass difference (Raw - Ref mass)



Residuals

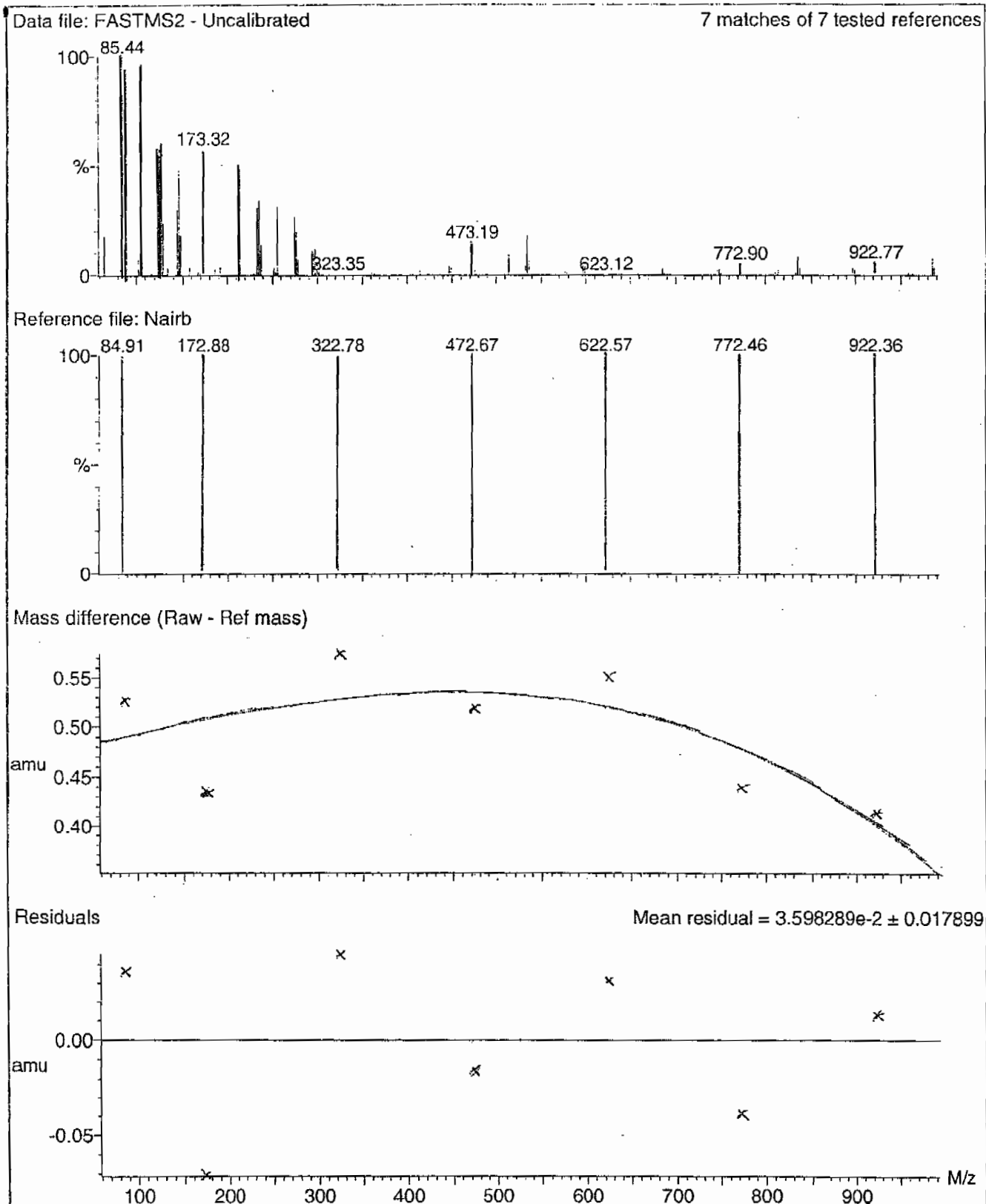
Mean residual =  $2.224580 \times 10^{-2} \pm 0.016544$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



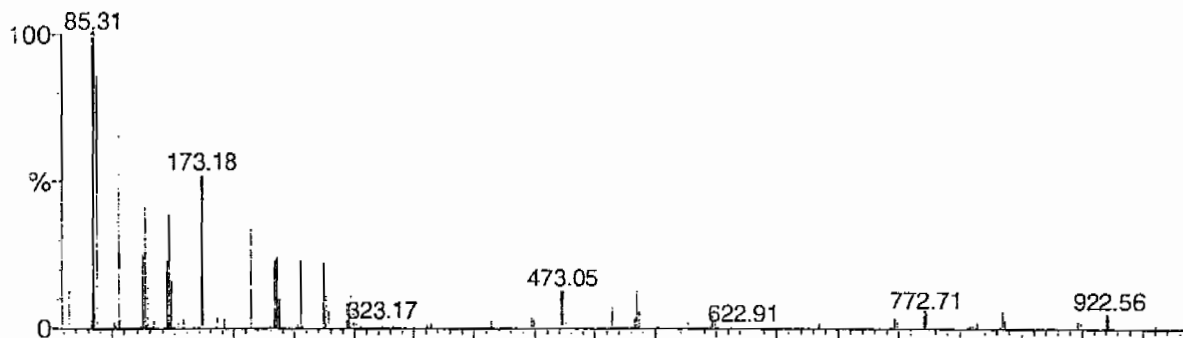
Calibration Report - MS2 Scanning

Page 1 of 1

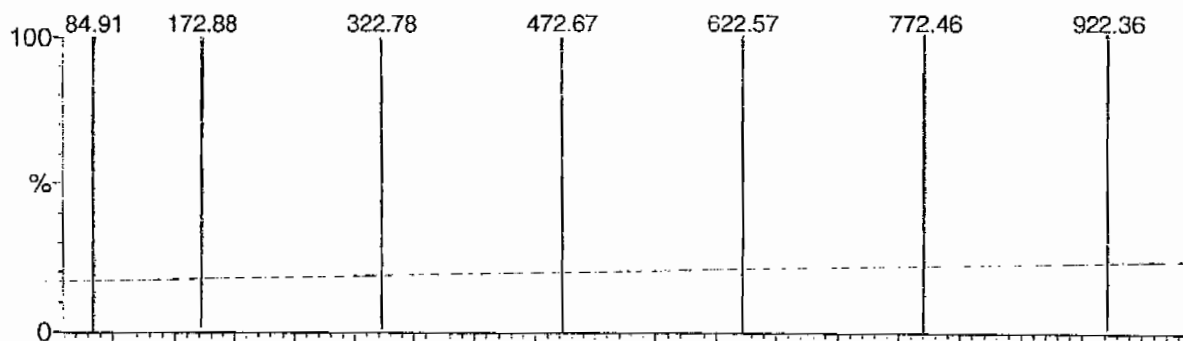
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

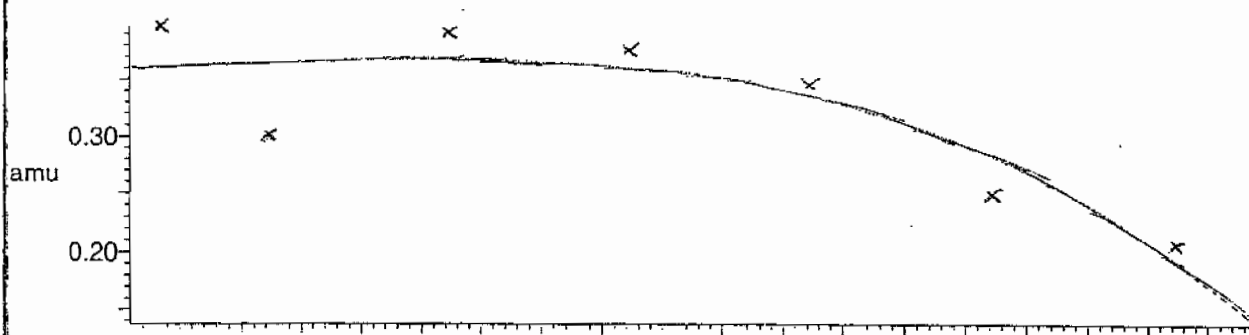
7 matches of 7 tested references



Reference file: Nairb

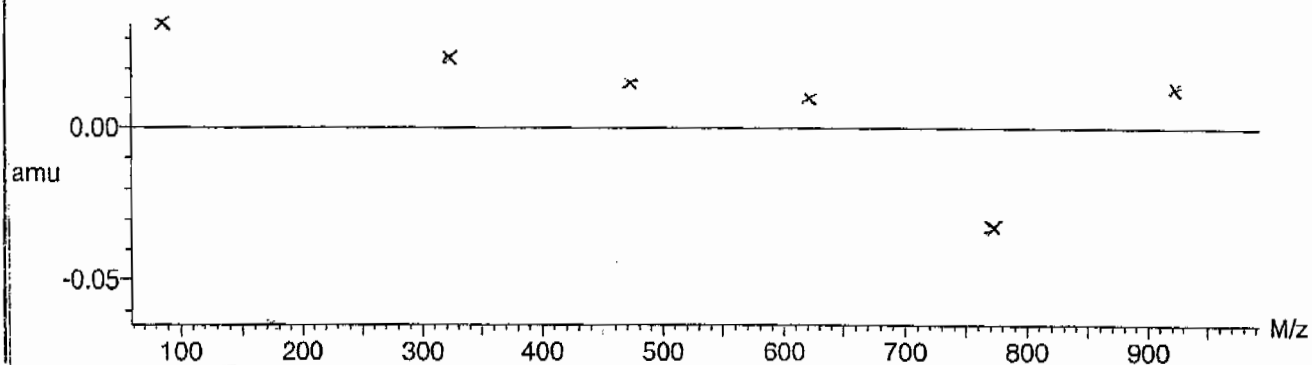


Mass difference (Raw - Ref mass)



Residuals

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



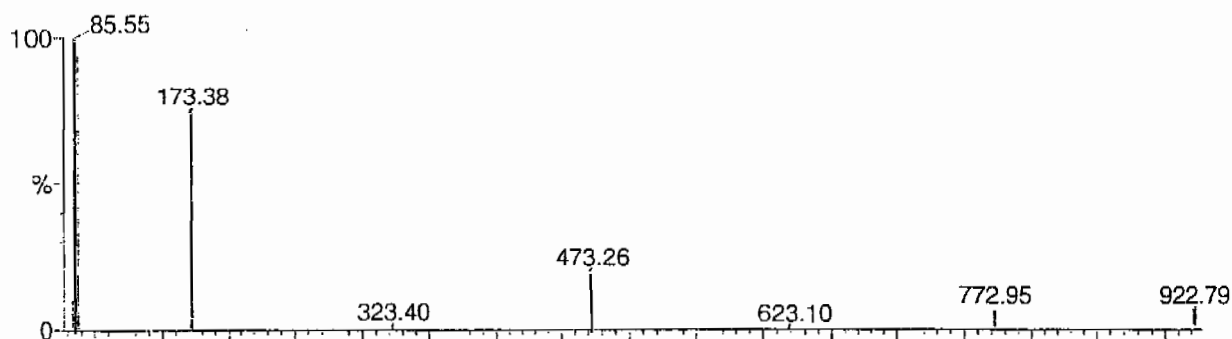
Calibration Report - MS2 Static

Page 1 of 1

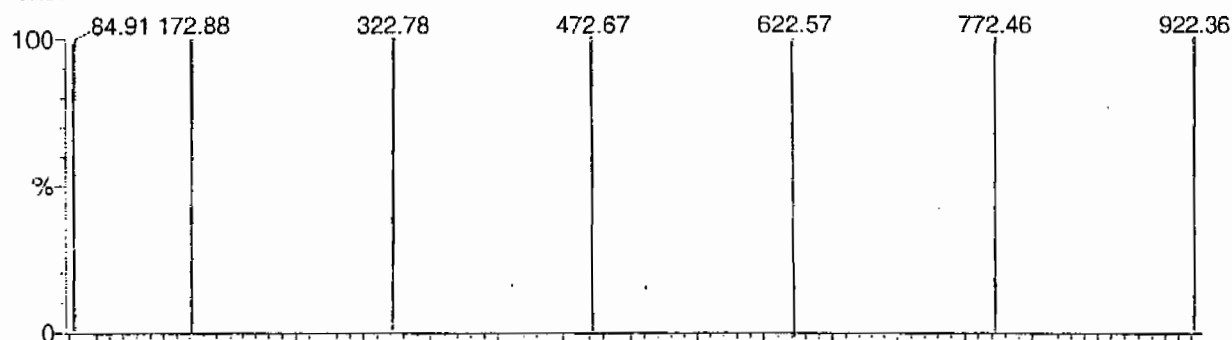
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

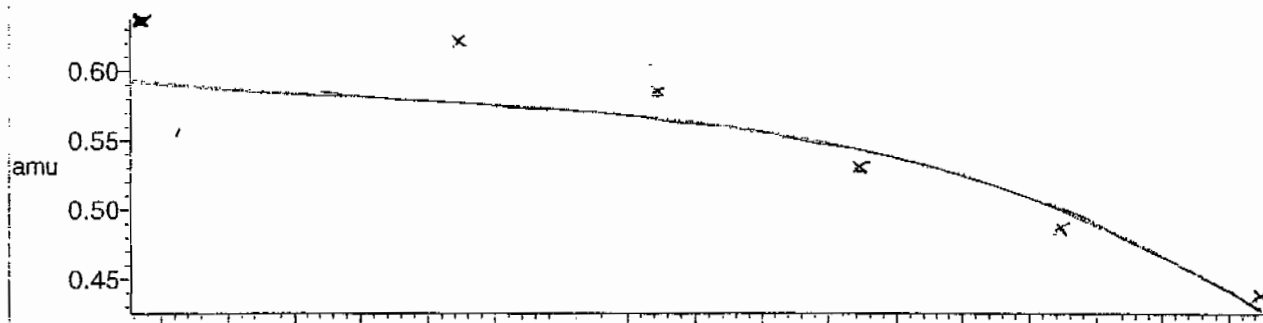
7 matches of 7 tested references



Reference file: Nairb

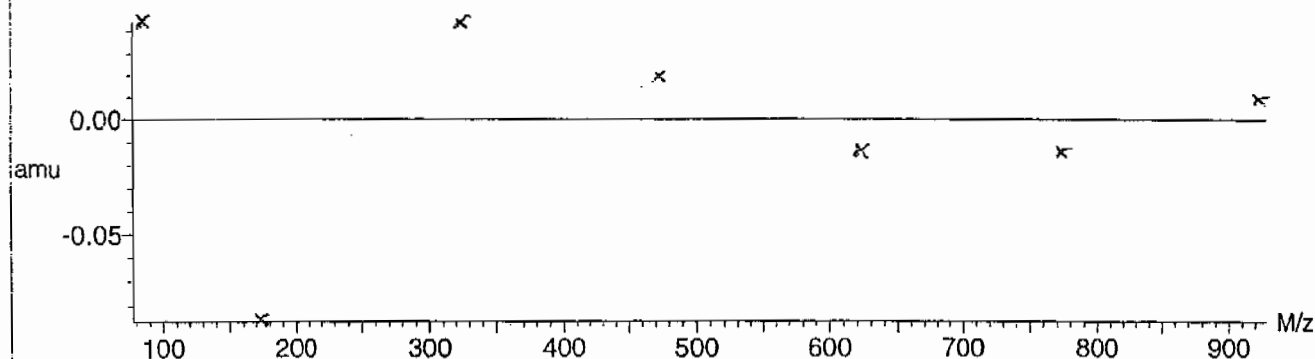


Mass difference (Raw - Ref mass)



Residuals

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



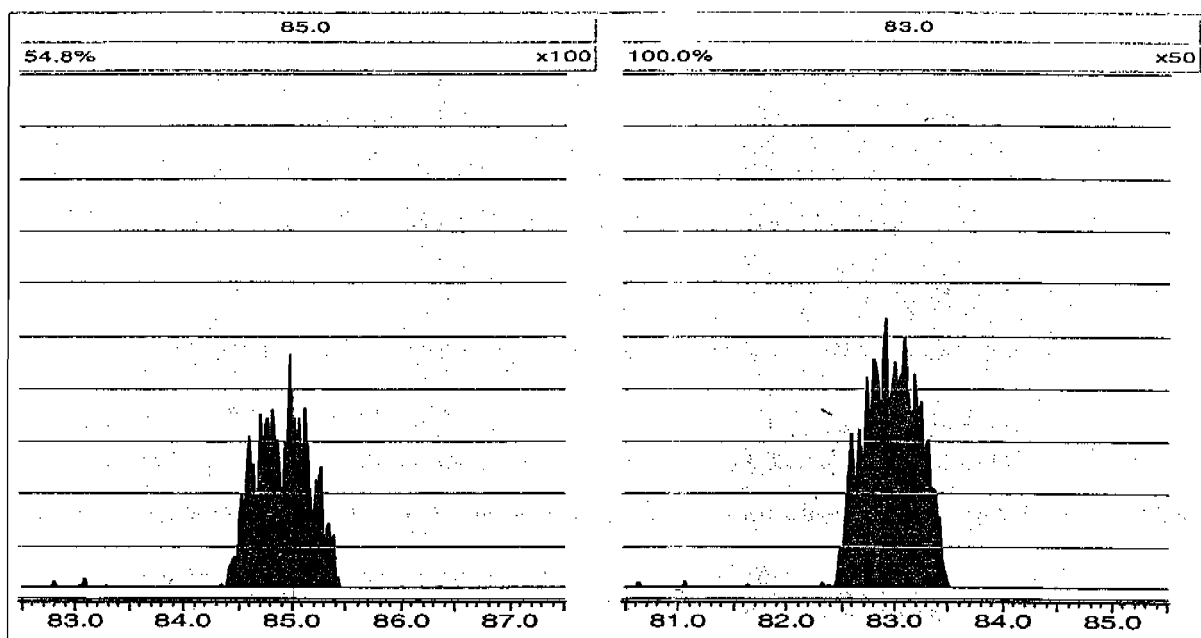
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQ\UDB\Perchlorate.IPR

Printed: Thursday, March 18, 2010 08:59:42 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

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	per0318006a	18-MAR-10	10946.9				
Lower Area Limit			5473.45				
Upper Area Limit			21893.8				
1202056563	per0318051a	18-MAR-10 21:41	12506.9	2.56	2.57602	1.006	
1202056564	per0318052a	18-MAR-10 21:49	12305.4	2.55	2.56353	1.005	
1202056572	per0318053a	18-MAR-10 21:57	12671.2	2.6	2.61328	1.005	
248045001	per0318054a	18-MAR-10 22:05	13633.1	2.55	2.57603	1.01	
1202056565	per0318055a	18-MAR-10 22:12	12331.3	2.55	2.57602	1.01	
1202056566	per0318056a	18-MAR-10 22:20	13394.4	2.55	2.56355	1.005	
248045002	per0318057a	18-MAR-10 22:27	12331	2.54	2.55107	1.004	
248045003	per0318058a	18-MAR-10 22:35	14370.1	2.55	2.56355	1.005	



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

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	per0318006a	18-MAR-10	10946.9				
Lower Area Limit			5473.45				
Upper Area Limit			21893.8				
248045004	per0318059a	18-MAR-10 22:42	13691.7	2.54	2.56355	1.009	
248045005	per0318060a	18-MAR-10 22:50	12637.8	2.53	2.5388	1.003	
248045006	per0318064a	18-MAR-10 23:21	12169.5	2.53	2.55107	1.008	
248045007	per0318065a	18-MAR-10 23:28	13038.7	2.53	2.53877	1.003	
248045008	per0318066a	18-MAR-10 23:36	12469.1	2.53	2.53873	1.003	
248045009	per0318067a	18-MAR-10 23:44	12929.2	2.53	2.53873	1.003	
248045010	per0318068a	18-MAR-10 23:51	12407.7	2.53	2.53873	1.003	
248045011	per0318069a	18-MAR-10 23:59	13066.5	2.53	2.53875	1.003	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

GEL Job No.(SDG): 10-2075

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0318006a	18-MAR-10	10946.9				
Lower Area Limit			5473.45				
Upper Area Limit			21893.8				
248045012	per0318070a	19-MAR-10 00:06	14347.8	2.53	2.53877	1.003	
248045013	per0318071a	19-MAR-10 00:14	13632.8	2.58	2.60083	1.008	
248045014	per0318072a	19-MAR-10 00:21	11936.9	2.51	2.53875	1.011	
248045015	per0318073a	19-MAR-10 00:29	11997.6	2.51	2.52628	1.006	
248045016	per0318077a	19-MAR-10 00:59	14162.6	2.49	2.50147	1.005	
248045017	per0318078a	19-MAR-10 01:07	13745.3	2.49	2.50147	1.005	
248045018	per0318079a	19-MAR-10 01:15	13389.3	2.5	2.50148	1.001	

# SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 258939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7414

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045001

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:05	per0318054a
14797-73-0	Perchlorate-101	.634	2.54	0.634	ug/kg	U	1	18-MAR-10 22:05	per0318054a
	Perchlorate-O(18)			8.15	ug/kg		1	18-MAR-10 22:05	per0318054a

<sup>^</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318054a

Date: 18-Mar-2010

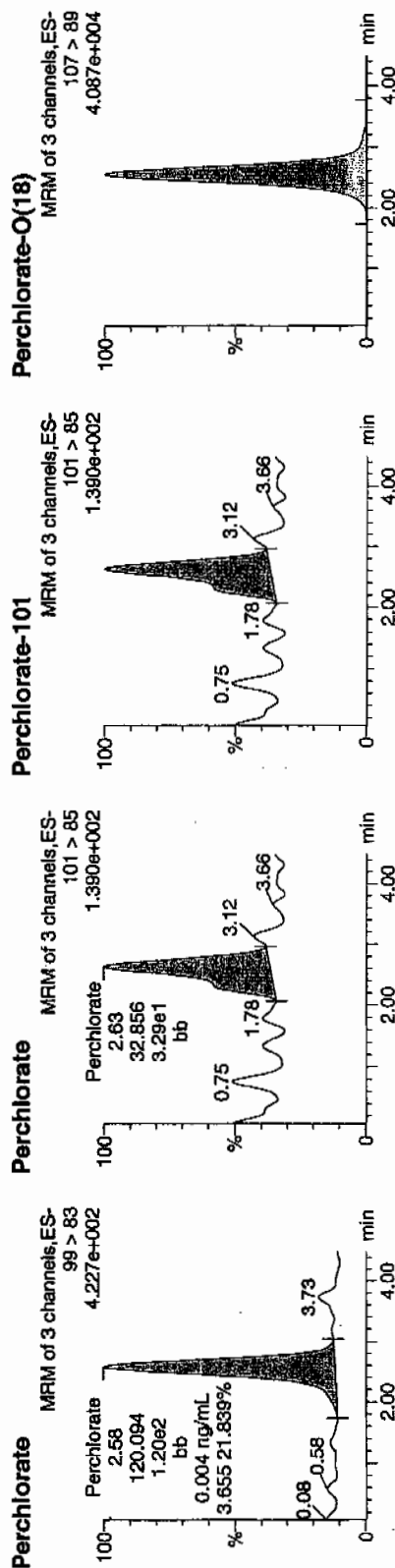
Time: 22:05:00

ID: 248045001

Vial: 2:1,D

03-19-10

120094 / 50075 / 11



ID	Name	Trace	Area	RT	Area	Response	Flags	Volume	Time	Conc	Dev	S/N	Ratio
248045001	Perchlorate	99 > 83	2.58	120.094	120.094	bb		0.0042		110.844	3.66		
248045001	Perchlorate-101	101 > 85	2.63	32.856	32.856	bb		0.0036		32.293			
248045001	Perchlorate-O(18)	107 > 89	2.55	13633.083	13633.083	bb		0.6427	128.54	28.54	7130.9...		

107  
3/22/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7413  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045002  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 % Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:27	per0318057a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	18-MAR-10 22:27	per0318057a
	Perchlorate-O(18)			7.35	ug/kg		1	18-MAR-10 22:27	per0318057a

<sup>^</sup> 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  
 Aliquot %Solids

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318057a

Date: 18-Mar-2010

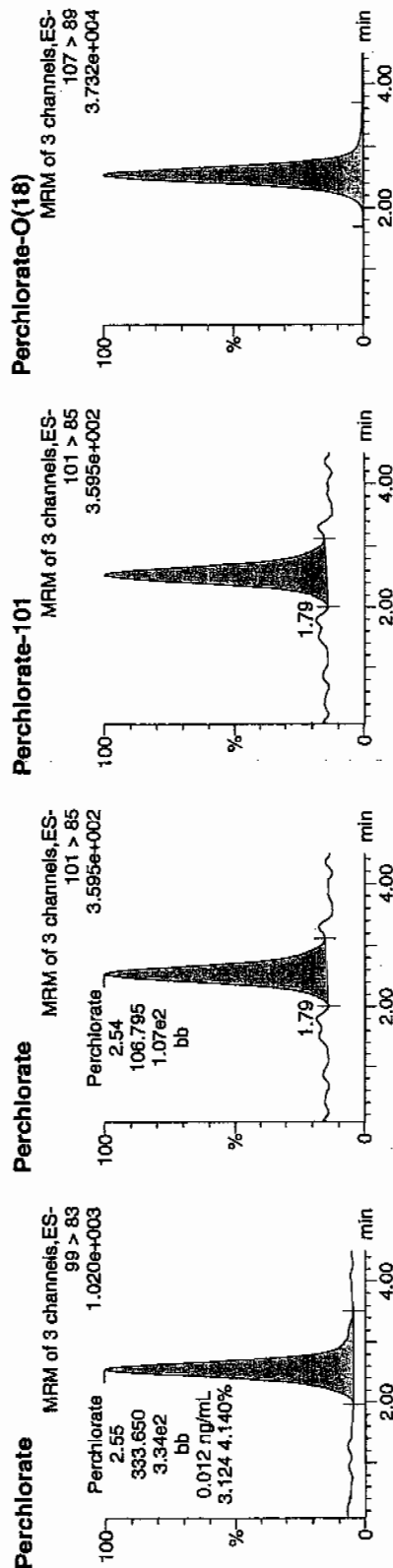
Time: 22:27:41

ID: 248045002

Vial: 2:2,A

03-17-10

14722-1958946 | 5020 | 11



ID	Name	Mass	Time	Area	Response	Peak	Vol	Time	ng/mL	Ratio	SN	Ratio
248045002	Perchlorate	99 > 83	2.55	333.650	333.650	bb			0.0117	196.834	3.12	
248045002	Perchlorate-101	101 > 85	2.54	106.795	106.795	bb			0.0118	19.495		
248045002	Perchlorate-Q(18)	107 > 89	2.54	12330.959	12330.959	bb			0.5813	116.26	16.26	4270.3...

3/25/10

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: 258932  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7462  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045003  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 92.1

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:35	per0318058a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	18-MAR-10 22:35	per0318058a
	Perchlorate-O(18)			7.36	ug/kg		1	18-MAR-10 22:35	per0318058a

<sup>^</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318058a

Date: 18-Mar-2010

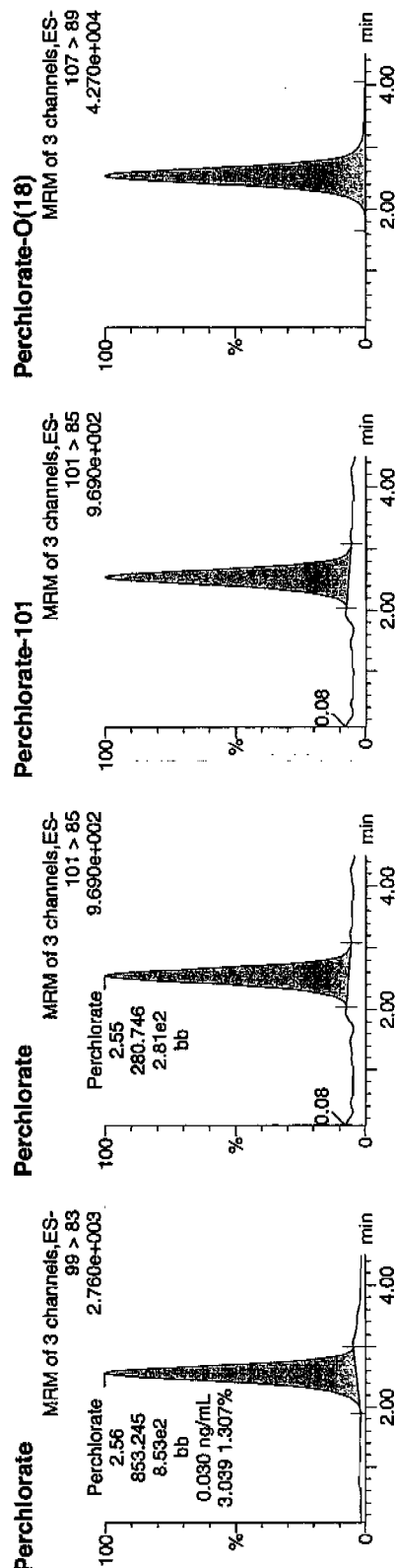
Time: 22:35:14

D: 248045003

Vial: 2:2,B

3/22/10

158946 | 5000 | 1



Name	Trace	RT	Area	Response	ES-MS Vol Data	Vol Data	De	Ratio
248045003	Perchlorate	99 > 83	2.56	853.245	853.245	bb	0.0300	453.249 3.04
248045003	Perchlorate-101	101 > 85	2.55	280.746	280.746	bb	0.0309	422.607
248045003	Perchlorate-O(18)	107 > 89	2.55	14370.051	14370.051	bb	0.6774	135.49 35.49 3199.5...

NOT  
3/20/10

Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC  
**Lab Code:** GEL  
**Instrument:** LCMSMS  
**Method:** SW846 6850 Modified  
**Matrix:** SOIL  
**Extraction Batch ID:** 958939  
**Extraction Type:** Solid Prep  
**Client Sample No.** RE36-10-7465  
**Date Received:** 25-FEB-10  
**GEL Job No (SDG):** 10-2075  
**GEL Sample ID:** 248045004  
**Date Filtered:** 11-MAR-10  
**Injection Volume (uL):** 20  
**%Solids:** 78

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate Isotope Ratio						1	18-MAR-10 22:42	per0318059a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	18-MAR-10 22:42	per0318059a
	Perchlorate-O(18)			8.30	ug/kg		1	18-MAR-10 22:42	per0318059a

<sup>^</sup> 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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

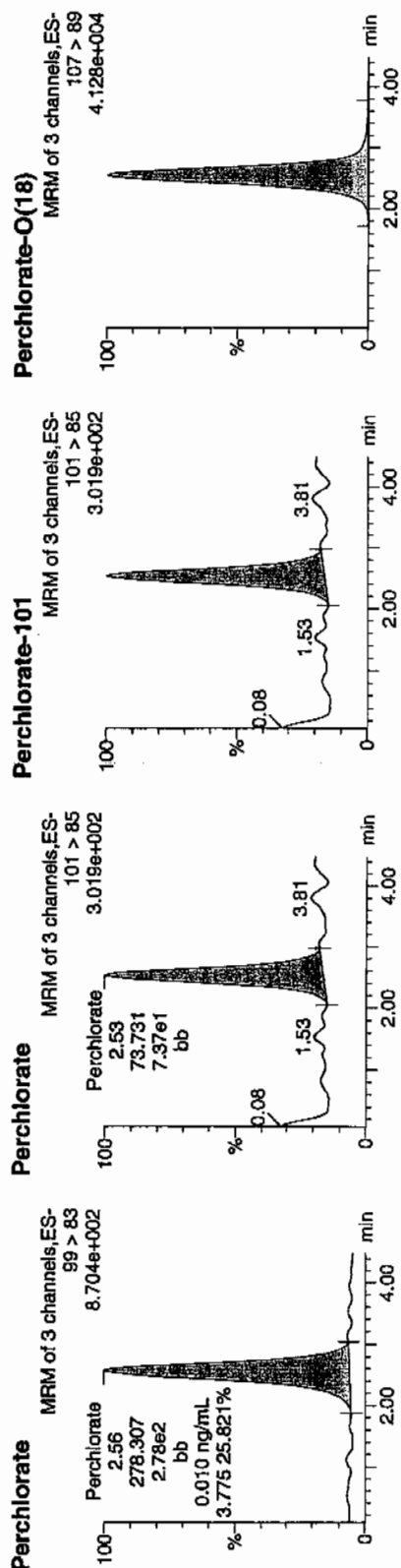
Name: per0318059a

Date: 18-Mar-2010

Time: 22:42:46

**ID: 248045004**

Vial: 2:2,C



ID	Name	Trace	Area	Response	Flux	Mod Date	Mod Time	Log ML	% Rec	% Dev	SN on Ratio
248045004	Perchlorate	99 > 83	2.56	278.307	bb			0.0098			24.661
248045004	Perchlorate-101	101 > 85	2.53	73.731	bb			0.0081			55.378
248045004	Perchlorate-O(18)	107 > 89	2.54	13691.665	bb			0.6455	129.09	29.09	1388.8..

2/2/18  
Agn

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958932  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7473  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045005  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 76

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.654	2.62	10.7	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 22:50	per0318060a
14797-73-0	Perchlorate-101	.654	2.62	11.0	ug/kg		1	18-MAR-10 22:50	per0318060a
	Perchlorate-O(18)			7.80	ug/kg		1	18-MAR-10 22:50	per0318060a

<sup>^</sup> 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 %Solids  
 Aliquot



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7471

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045006

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 70

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:21	per0318064a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	18-MAR-10 23:21	per0318064a
	Perchlorate-O(18)			8.17	ug/kg		1	18-MAR-10 23:21	per0318064a

<sup>^</sup> 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 <sup>1</sup>  
Aliquot %Solids

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318064a

Date: 18-Mar-2010

Time: 23:21:07

ID: 248045006

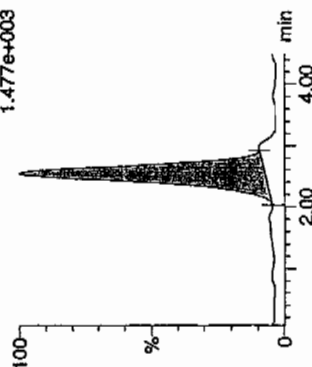
File: 2:2,E

1222-958946 | 5070 | 11

03-19-10

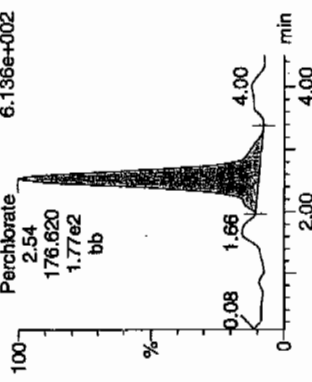
Perchlorate

MRM of 3 channels, ES-  
99 > 83  
1.477e+003



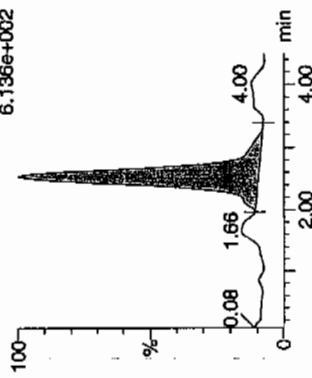
Perchlorate

MRM of 3 channels, ES-  
101 > 85  
6.136e+002



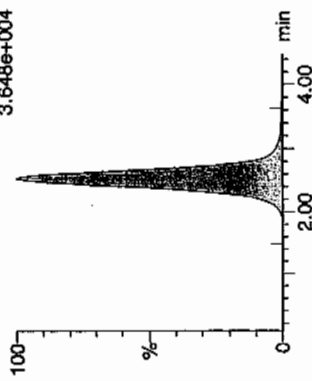
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85  
6.136e+002



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89  
3.648e+004



Name	Flags	Area	Response	Flags	Yield	Spec	Dev	S/N	Ratio
248045006	Perchlorate	99 > 83	2.55	424.517	424.517	bb	-	0.0149	92.958 2.40
248045006	Perchlorate-101	101 > 85	2.54	176.620	176.620	bb	-	0.0195	71.960
248045006	Perchlorate-O(18)	107 > 89	2.53	12169.509	12169.509	bb	-	0.5737	114.74 14.74 937.307

NOT  
3/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7472

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045007

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:28	per0318065a
14797-73-0	Perchlorate-101	.64	2.56	0.640	ug/kg	U	1	18-MAR-10 23:28	per0318065a
	Perchlorate-O(18)			7.87	ug/kg		1	18-MAR-10 23:28	per0318065a

<sup>^</sup> 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



Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qid

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
 Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318065a

Date: 18-Mar-2010

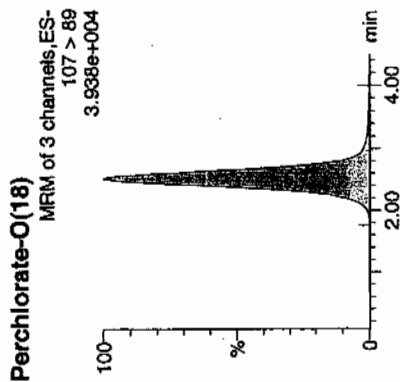
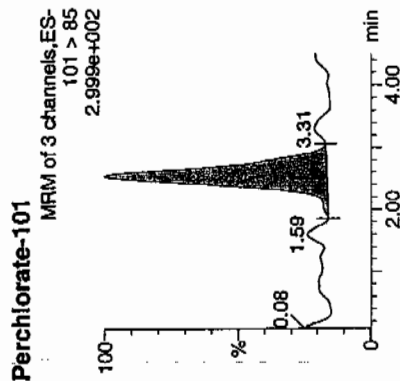
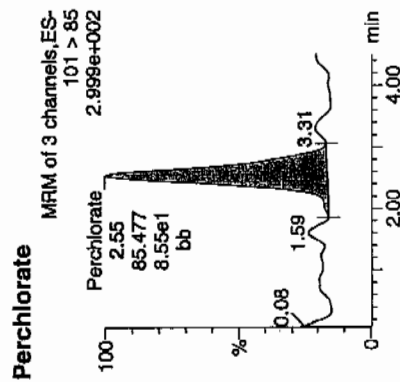
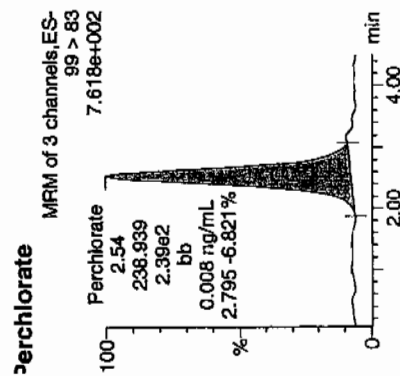
Time: 23:28:50

**D: 248045007**

Vial: 2:2,F

303-10

11/20/2025 11:25 AM



ID	Name	Trace	RF	Ave	Response	Flags	ModDate	Model	mg/L	%Rec	%Dev	SN	IntRate
248045007	Perchlorate	99 > 83	2.54	238.939	238.939	bb			0.0084	~		79.656	2.80
248045007	Perchlorate-101	101 > 85	2.55	85.477	85.477	bb			0.0094			47.228	
248045007	Perchlorate-O(18)	107 > 89	2.53	13038.713	13038.713	bb			0.5147	122.93	✓	22.93	1280.6...

2/2/18  
Liam

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7468

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045008

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate Isotope Ratio						1	18-MAR-10 23:36	per0318066a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	18-MAR-10 23:36	per0318066a
	Perchlorate-O(18)			8.00	ug/kg		1	18-MAR-10 23:36	per0318066a

<sup>^</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318066a

Date: 18-Mar-2010

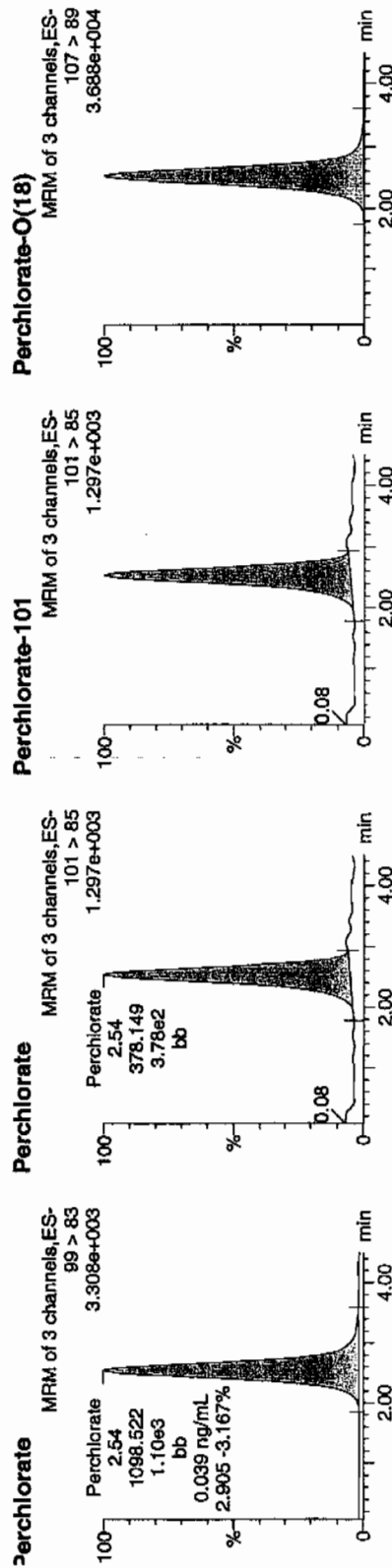
Time: 23:36:21

D: 248045008

Vial: 2:3,A

W3  
03-14-10

15226 | 958946 | 5070 | 11



Name	Trace	Area	Response	Flag	Mod	Time	Area	%Area	S/N	Ratio
248045008	Perchlorate	99 > 83	2.54	1098.522	bb	1098.522	378.149	0.0387	593.332	2.90
248045008	Perchlorate-101	101 > 85	2.54	378.149	bb	378.149	12469.078	0.0416	399.692	
248045008	Perchlorate-O(18)	107 > 89	2.53	12469.078	bb	12469.078	17.56	0.5878	4218.3...	

W3  
3/12/10

DEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE36-10-7464  
 Lab Code: GEL Date Received: 25-FEB-10  
 Instrument: LCMSMS GEL Job No (SDG): 10-2075  
 Method: SW846 6850 Modified GEL Sample ID: 248045009  
 Matrix: SOIL Date Filtered: 11-MAR-10  
 Extraction Batch ID: 958939 Injection Volume (uL): 20  
 Extraction Type: Solid Prep %Solids: 93  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.602	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate Isotope Ratio			3.29			1	18-MAR-10 23:44	per0318067a
14797-73-0	Perchlorate-101	.538	2.15	0.572	ug/kg	J	1	18-MAR-10 23:44	per0318067a
	Perchlorate-O(18)			6.56	ug/kg		1	18-MAR-10 23:44	per0318067a

<sup>^</sup> 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 %Solids Aliquot

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

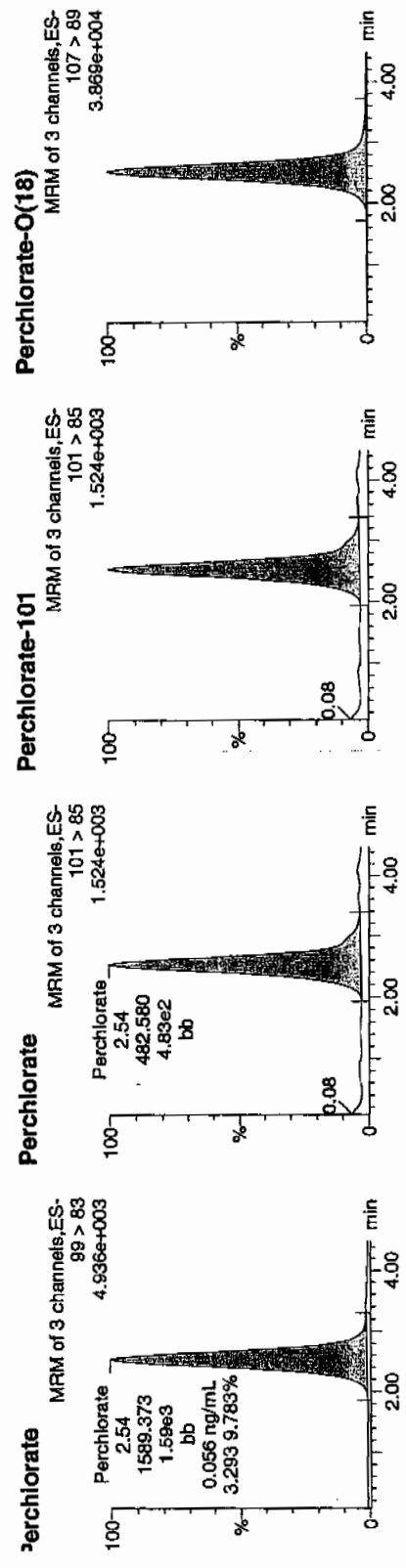
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318067a  
Date: 18-Mar-2010  
Time: 23:44:02  
D: 248045009  
/file: 2:3,B

03-14-10

1589.373 | 482.580 | 4.83e2 | 11



Name	Area	Height	Area	Height	Area	Height	Area	Height	Area	Height	Area	Height
Perchlorate	1589.373	2.54	1589.373	2.54	1589.373	2.54	1589.373	2.54	1589.373	2.54	1589.373	2.54
Perchlorate-101	482.580	2.54	482.580	2.54	482.580	2.54	482.580	2.54	482.580	2.54	482.580	2.54
Perchlorate-O(18)	12929.243	2.53	12929.243	2.53	12929.243	2.53	12929.243	2.53	12929.243	2.53	12929.243	2.53

$$\frac{1589.373}{482.580} = 3.2935$$

WAT  
3/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 258939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7463

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045010

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 21.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.689	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate Isotope Ratio			2.91			1	18-MAR-10 23:51	per0318068a
14797-73-0	Perchlorate-101	.545	2.18	0.742	ug/kg	J	1	18-MAR-10 23:51	per0318068a
	Perchlorate-O(18)			6.37	ug/kg		1	18-MAR-10 23:51	per0318068a

<sup>^</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318068a

Date: 18-Mar-2010

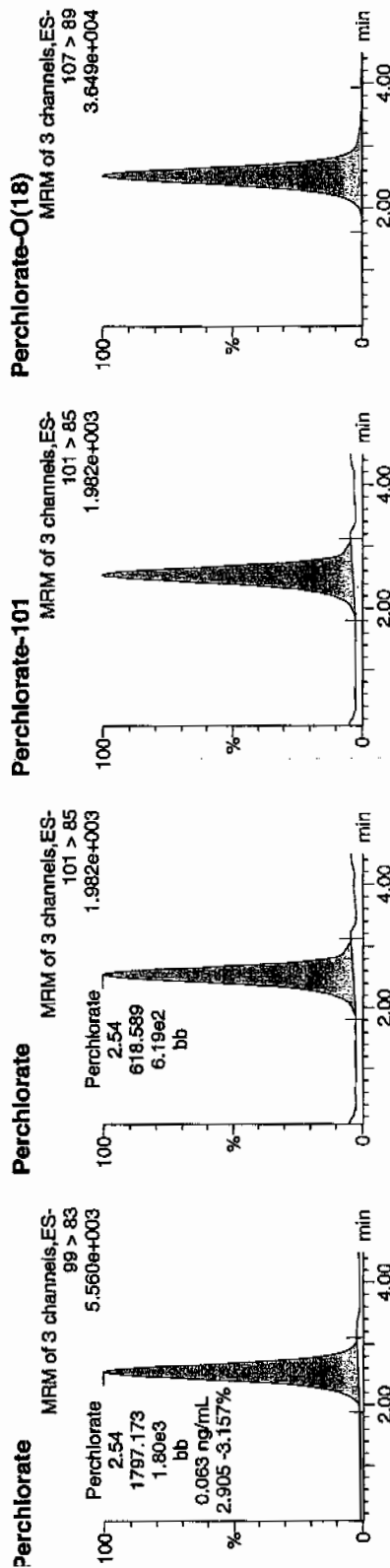
Time: 23:51:35

D: 248045010

Vial: 2:3,C

1720-195846 | 2020 | 11

03-19-10



Sample	Trace	Area	Response	Mass	Mod Time	Integ	Rec	% Data	SN	Ratio
248045010	Perchlorate	99 > 83	2.54	1797.173	bb	0.0633	482.440	2.91		
248045010	Perchlorate-101	101 > 85	2.54	618.589	bb	0.0681	366.369			
248045010	Perchlorate-Q(18)	107 > 89	2.53	12407.724	bb	0.5849	116.99	16.99	5717.0...	

$$\frac{1797.173}{23413.1} = 0.0633$$

WAT  
3/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7475  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045011  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 % Solids: 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.687	2.75	3.47	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate Isotope Ratio			3			1	18-MAR-10 23:59	per0318069a
14797-73-0	Perchlorate-101	.687	2.75	3.62	ug/kg		1	18-MAR-10 23:59	per0318069a
	Perchlorate-O(18)			8.46	ug/kg		1	18-MAR-10 23:59	per0318069a

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

\*Concentration =

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



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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318069a

Date: 18-Mar-2010

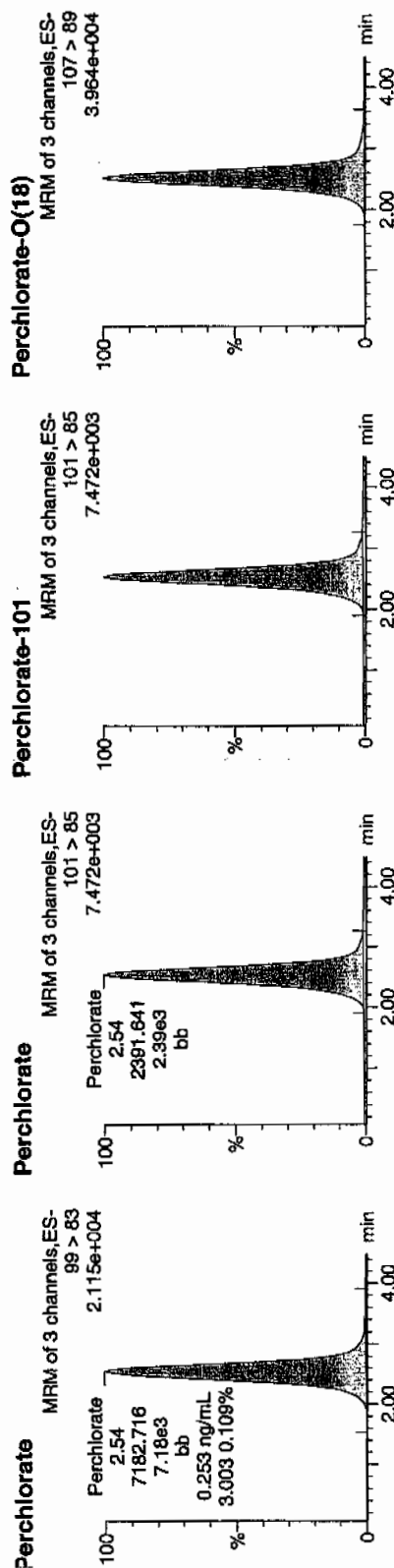
Time: 23:59:07

D: 248045011

Vial: 2:3,D

03-11-10

158946 | 5070 | 11



ID	Name	Trace	Area	RT	Response	Flags	Mod	Time	100%	Res	Dev	SS	Ion	Rate
248045011	Perchlorate	99 > 83	2.54	7182.716	7182.716	bb			0.2528	✓		1022.8...	3.00	
248045011	Perchlorate-101	101 > 85	2.54	2391.641	2391.641	bb			0.2634			3684.2...		
248045011	Perchlorate-O(18)	107 > 89	2.53	13066.512	13066.512	bb			0.6160			123.20	✓	23.20 2024.2...

MM7  
3/10/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0

Client Sample No.  
RE36-10-7466  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045012  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 80

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:06	per0318070a
14797-73-0	Perchlorate-101	.629	2.52	0.629	ug/kg	U	1	19-MAR-10 00:06	per0318070a
	Perchlorate-O(18)			8.51	ug/kg		1	19-MAR-10 00:06	per0318070a

<sup>^</sup> 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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318070a

Date: 19-Mar-2010

Time: 00:06:39

ID: 248045012

Vial: 2:3,E

1622-153446 | 5020 | 11

03-17-10

**Perchlorate**

MRM of 3 channels, ES-

99 > 83

3.840e+002

Perchlorate

2.54

96.102

9.61e1

bb

0.003 ng/mL

2.861 -4.624%

0.75 1.38

3.35

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

**Perchlorate**

MRM of 3 channels, ES-

101 > 85

1.484e+002

Perchlorate

2.59

33.587

3.36e1

bb

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

**Perchlorate-101**

MRM of 3 channels, ES-

101 > 85

1.484e+002

Perchlorate

2.59

33.587

3.36e1

bb

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

**Perchlorate-O(18)**

MRM of 3 channels, ES-

107 > 89

4.348e+004

Perchlorate

2.59

33.587

3.36e1

bb

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

min

2.00

4.00

min

100

%

0.08

1.09

1.78

3.30

3.57

ID	Name	Area	RT	Response	Flag	Volume	Mod	Time	Int	Rec	Day	SN	Ratio
248045012	Perchlorate	98 > 83	2.54	96.102	bb	0.0034	✓	19.688	2.86				
248045012	Perchlorate-101	101 > 85	2.59	33.587	bb	0.0037	✓	47.729					
248045012	Perchlorate-O(18)	107 > 89	2.53	14347.790	bb	0.6764	✓	35.28	5712.9...				

1477  
3/20/10

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE36-10-7476

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045013

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 83

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	2.00	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate Isotope Ratio			3.04			1	19-MAR-10 00:14	per0318071a
14797-73-0	Perchlorate-101	.602	2.41	2.05	ug/kg	J	1	19-MAR-10 00:14	per0318071a
	Perchlorate-O(18)			7.74	ug/kg		1	19-MAR-10 00:14	per0318071a

<sup>^</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318071a

Date: 19-Mar-2010

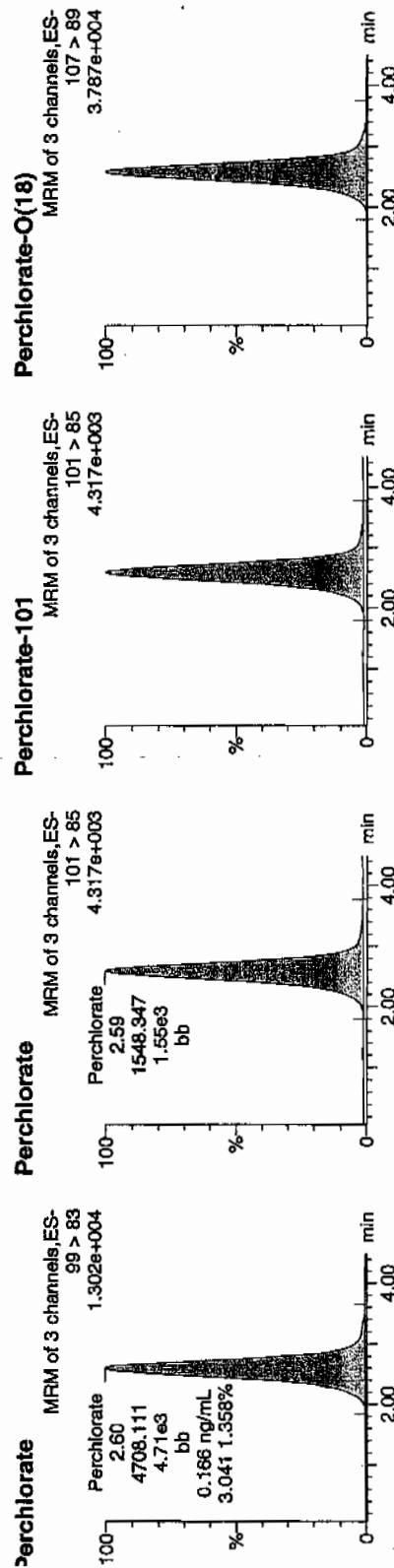
Time: 00:14:11

D: 248045013

/lal: 2:3,F

1222 | 958446 | 3070 | 11

03-19-10



Name	Retention Time (min)	Area	Height	Width	Signal-to-Noise Ratio
Perchlorate	2.60	1548.347	1.55e3	bb	0.1657
Perchlorate-101	4.71	1548.347	1.55e3	bb	0.1705
Perchlorate-O(18)	3.78	1548.347	1.55e3	bb	0.6427

$$\frac{4708.111}{23413.1} = 0.1657$$

107  
3/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7461

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045014

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate Isotope Ratio						1	19-MAR-10 00:21	per0318072a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	19-MAR-10 00:21	per0318072a
	Perchlorate-O(18)			6.45	ug/kg		1	19-MAR-10 00:21	per0318072a

<sup>^</sup> 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: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318072a

Date: 19-Mar-2010

Time: 00:21:42

D: 248045014

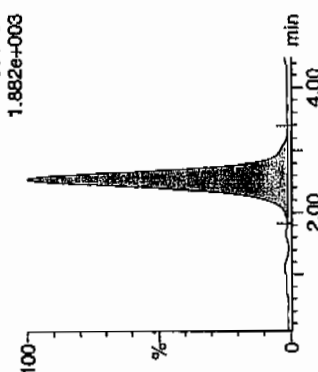
Vial: 2:4,A

LAN-958946 | 5000 | 11

03-14-10

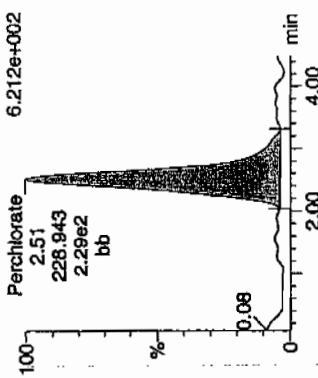
Perchlorate

MRM of 3 channels, ES-  
99 > 83



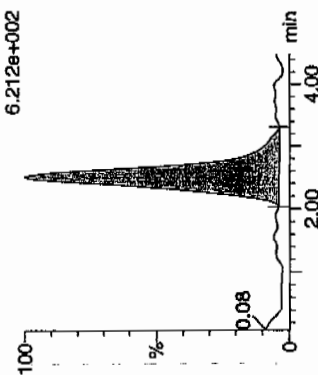
Perchlorate

MRM of 3 channels, ES-  
101 > 85



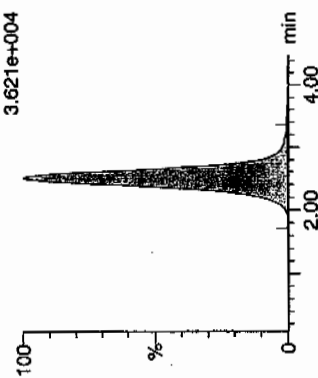
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89



Name	Time	Area	Response	Mass	Retention Time	Area	Response	Mass	Retention Time
248045014	Perchlorate	99 > 83	2.54	616.198	bb	0.0217	✓	591.045	2.59
248045014	Perchlorate-101	101 > 85	2.51	228.943	bb	0.0252		92.022	
248045014	Perchlorate-O(18)	107 > 89	2.51	11936.882	bb	0.5627		12.55	1674.1...

not  
3/14/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7467  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045015  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.601	2.41	0.720	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate Isotope Ratio			2.93			1	19-MAR-10 00:29	per0318073a
14797-73-0	Perchlorate-101	.601	2.41	0.769	ug/kg	J	1	19-MAR-10 00:29	per0318073a
	Perchlorate-O(18)			6.80	ug/kg		1	19-MAR-10 00:29	per0318073a

^ 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 %Solids  
 Aliquot



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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
 Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318073a

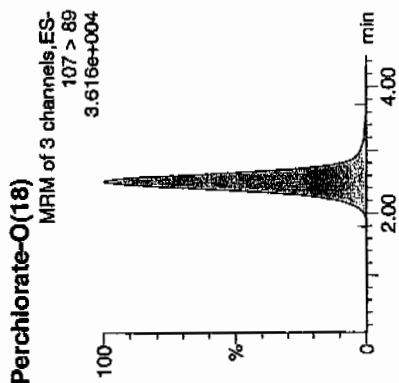
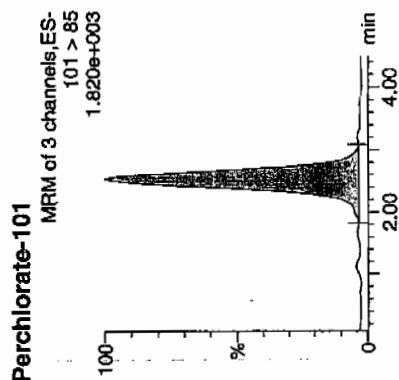
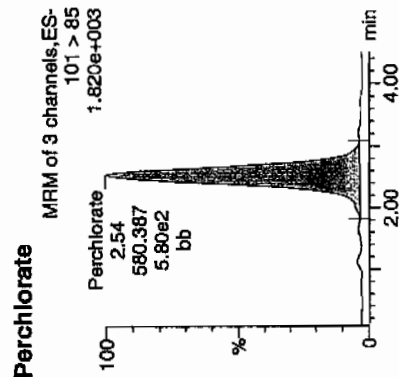
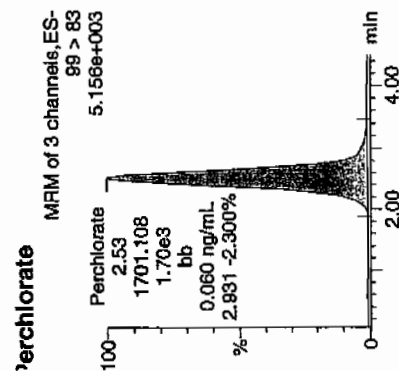
Date: 19-Mar-2010

Time: 00:29:16

D: 248045015

Ratio: 2:4:B

112571-25846/2005/11



ID	Name	Trace	Time	Area	Response	Play	No. Data	Mod. Time	Point	Rec	2Dev	Sat. Time	Tag
148045015	Perchlorate	99 > 83	2.53	1701.108	✓	1701.108	bb		0.0599		211.149	2.93	
148045015	Perchlorate-101	101 > 85	2.54	580.387	✓	580.387	bb		0.0639		419.874		
148045015	Perchlorate-O(18)	107 > 89	2.51	11997.613		11997.613	bb		0.5656	113.12	13.12	1507.8...	

$$\frac{1701.103}{28413.1} = 0.0599$$

3/20/20  
21047

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: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7469

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 248045016

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	9.05	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate Isotope Ratio			3.18			1	19-MAR-10 00:59	per0318077a
14797-73-0	Perchlorate-101	.571	2.29	8.90	ug/kg		1	19-MAR-10 00:59	per0318077a
	Perchlorate-O(18)			7.63	ug/kg		1	19-MAR-10 00:59	per0318077a

<sup>^</sup> 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  $\frac{\% \text{Solids}}{1}$

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318077a

Date: 19-Mar-2010

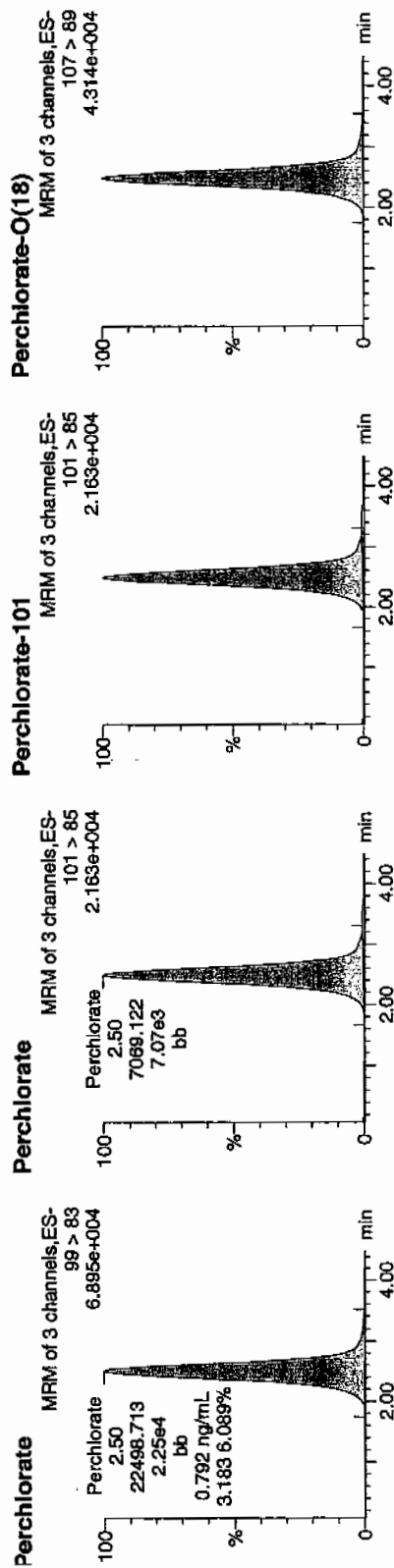
Time: 00:59:47

ID: 248045016

Vial: 2:4,C

03-14-10

1220195846 | 2020111



ID	Name	Area	Height	Response	Flag	NonData	Molecular Weight	Ratio	Dev	S/N	Ratio
248045016	Perchlorate	99 > 83	2.50	22498.713	bb		0.7918	2380.3...		3.18	
248045016	Perchlorate-101	101 > 85	2.50	7069.122	bb		0.7786	2958.0...			
248045016	Perchlorate-O(18)	107 > 89	2.49	14162.629	bb		0.6677	33.53	133.53	3004.9...	

1407  
3/20/10

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: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7470  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045017  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 86

CAS No.	Analyte <sup>A</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	2.22	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate Isotope Ratio			3.16			1	19-MAR-10 01:07	per0318078a
14797-73-0	Perchlorate-101	.584	2.34	2.20	ug/kg	J	1	19-MAR-10 01:07	per0318078a
	Perchlorate-O(18)			7.57	ug/kg		1	19-MAR-10 01:07	per0318078a

<sup>A</sup> 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318078a

Date: 19-Mar-2010

Time: 01:07:30

D: 248045017

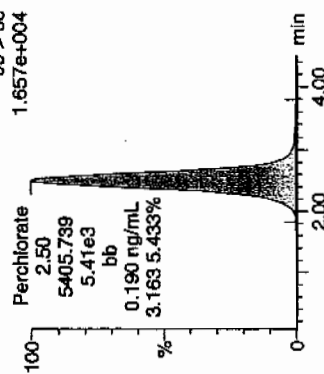
/lal: 2:4,D

03-A-10

15722 | 958446 | 50220 | 11

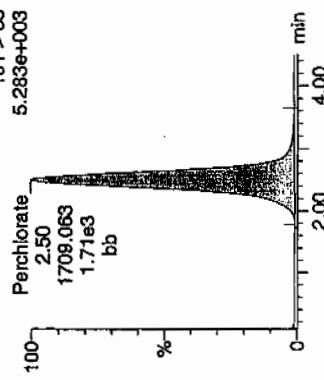
Perchlorate

MRM of 3 channels, ES-  
99 > 83



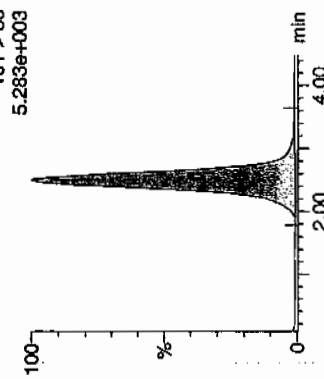
Perchlorate

MRM of 3 channels, ES-  
101 > 85



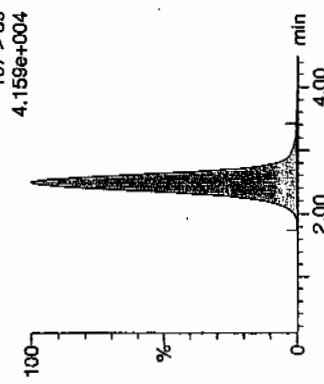
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89



Name	Time	Area	Residue	Mass	Mod Date	Mod Time	Total	Area	%Area	SN	Ratio
248045017	Perchlorate	99 > 83	2.50	5405.739	5405.739	bb	0.1903	1189.3...	3.16		
248045017	Perchlorate-101	101 > 85	2.50	1709.063	1709.063	bb	0.1882	132.653			
248045017	Perchlorate-O(18)	107 > 89	2.49	13745.347	13745.347	bb	0.6480	29.60	3355.8...		

not  
3/20/10

3EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-7515  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 248045018  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate Isotope Ratio						1	19-MAR-10 01:15	per0318079a
14797-73-0	Perchlorate-101	.631	2.53	0.631	ug/kg	U	1	19-MAR-10 01:15	per0318079a
	Perchlorate-O(18)			7.97	ug/kg		1	19-MAR-10 01:15	per0318079a

<sup>^</sup> 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: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318079a

Date: 19-Mar-2010

Time: 01:15:02

D: 248045018

File: 2:4,E

1958546 | 50320 | 11

03-19-10

### Perchlorate

MRM of 3 channels, ES-

99 > 83

6.748e+002

Perchlorate

2.50

198.283

1.98e2

bb

0.007 ng/mL

3.687 22.906%

0.08

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

### Perchlorate-101

MRM of 3 channels, ES-

101 > 85

2.257e+002

Perchlorate

2.55

53.779

5.38e1

bb

0.08

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

### Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

4.119e+004

Perchlorate

2.50

198.283

1.98e2

bb

0.007 ng/mL

3.687 22.906%

0.08

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

1.72

4.15

min

4.00

2.00

0

100

%

Name	Trace	Area	Height	Response	Flags	Mod	Date	Mod	Time	Day	Time	Ion	Ratio
48045018	Perchlorate	99 > 83	2.50	198.293	bb							93.824	3.69
48045018	Perchlorate-101	101 > 85	2.55	53.779	bb							57.837	
48045018	Perchlorate-O(18)	107 > 89	2.50	13389.308	bb							26.24	3270.3...

WAT  
3/20/10

# STANDARDS DATA



Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

Date Analyzed: 18-MAR-10

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

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

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 28413.12

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2075

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 18-MAR-10

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

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

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 9079.7

Response Type: External Standard

Curve Type: RF

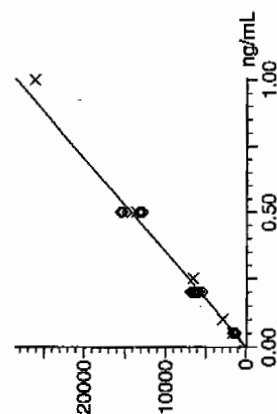
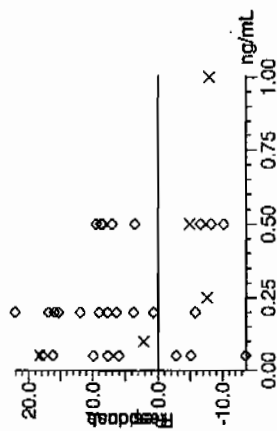
Quantify Calibration Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

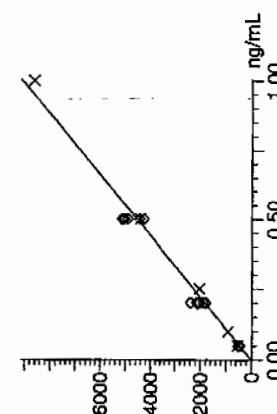
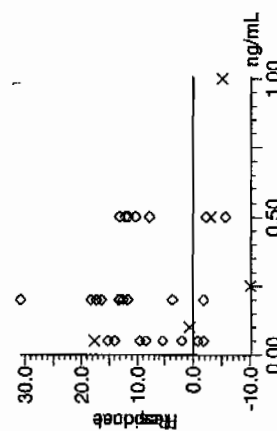
Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031810a.mdb 19 Mar 2010 06:40:51  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031810a.cdb 19 Mar 2010 06:42:20

Compound name: Perchlorate  
Response Factor: 28413.1  
RF SD: 3130.27, % Relative SD: 11.017  
Response type: External Std, Area  
Curve type: RF



Compound name: Perchlorate-101  
Response Factor: 9079.7  
RF SD: 961.652, % Relative SD: 10.5912  
Response type: External Std, Area  
Curve type: RF



303-10-10

unt  
3/20/10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time

Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

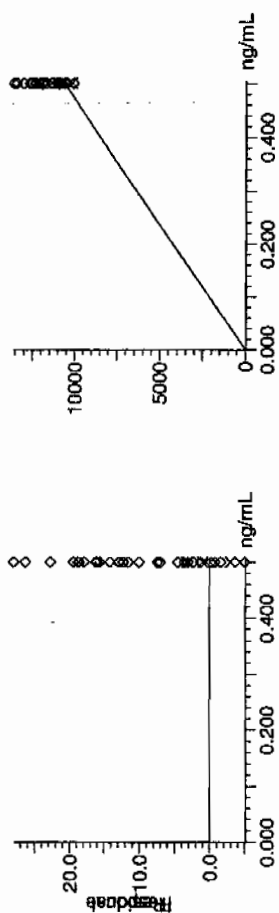
Compound name: Perchlorate-O(18)

Response Factor: 21212.5

RF SD: 738.389, % Relative SD: 3.48092

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.79	18-MAR-10 16:22	per0318009a
Perchlorate Isotope Ratio		3.05		18-MAR-10 16:22	per0318009a
Perchlorate-101	.5	.47	94.29	18-MAR-10 16:22	per0318009a

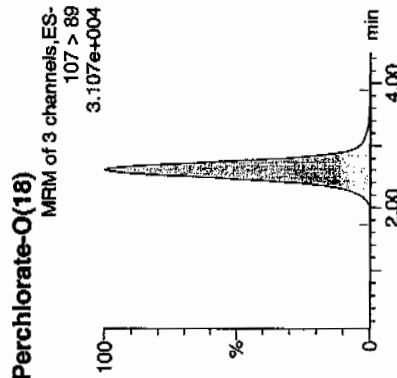
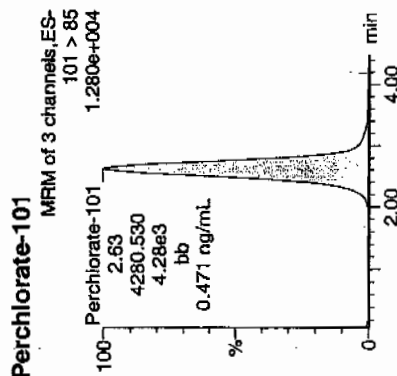
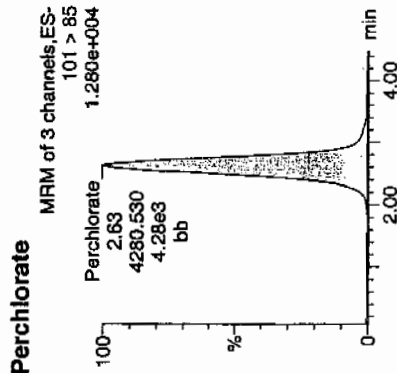
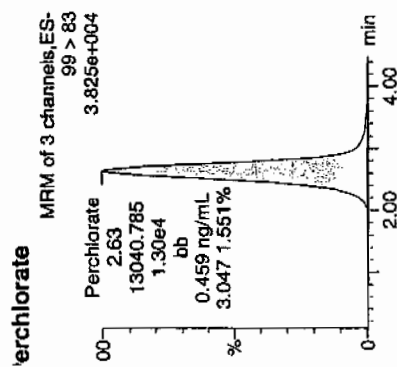
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318009a  
Date: 18-Mar-2010  
Time: 16:22:53  
J: WCL100318-06ICV  
Vial: 1:2,A

*Perchlorate*  
03-14-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100318-06ICV	99 > 83	2.63	13040.785	13040.785	bb			0.4590	91.79	-8.21	1141.4...	3.05
/CL100318-06ICV	101 > 85	2.63	4280.530	4280.530	bb			0.4714	94.29	-5.71	797.830	
/CL100318-06ICV	107 > 89	2.61	10520.682	10520.682	bb			0.4960	99.19	-0.81	757.902	

13040.785  
28413.1  
0.4590

1477  
3/20/10

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.45	89.82	18-MAR-10 18:01	per0318022a
Perchlorate Isotope Ratio		2.88		18-MAR-10 18:01	per0318022a
Perchlorate-101	.5	.49	97.72	18-MAR-10 18:01	per0318022a
Perchlorate	.5	.47	93.41	18-MAR-10 19:40	per0318035a
Perchlorate Isotope Ratio		3.1		18-MAR-10 19:40	per0318035a
Perchlorate-101	.5	.47	94.42	18-MAR-10 19:40	per0318035a
Perchlorate	.5	.52	103.6	18-MAR-10 21:18	per0318048a
Perchlorate Isotope Ratio		2.94		18-MAR-10 21:18	per0318048a
Perchlorate-101	.5	.55	110.37	18-MAR-10 21:18	per0318048a
Perchlorate	.5	.54	108.45	18-MAR-10 22:57	per0318061a
Perchlorate Isotope Ratio		3.08		18-MAR-10 22:57	per0318061a
Perchlorate-101	.5	.55	110.29	18-MAR-10 22:57	per0318061a
Perchlorate	.5	.54	108.73	19-MAR-10 00:36	per0318074a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.04		19-MAR-10 00:36	per0318074a
Perchlorate-101	.5	.56	112.07	19-MAR-10 00:36	per0318074a
Perchlorate	.5	.54	107.06	19-MAR-10 02:15	per0318087a
Perchlorate Isotope Ratio		3		19-MAR-10 02:15	per0318087a
Perchlorate-101	.5	.56	111.56	19-MAR-10 02:15	per0318087a



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318022a

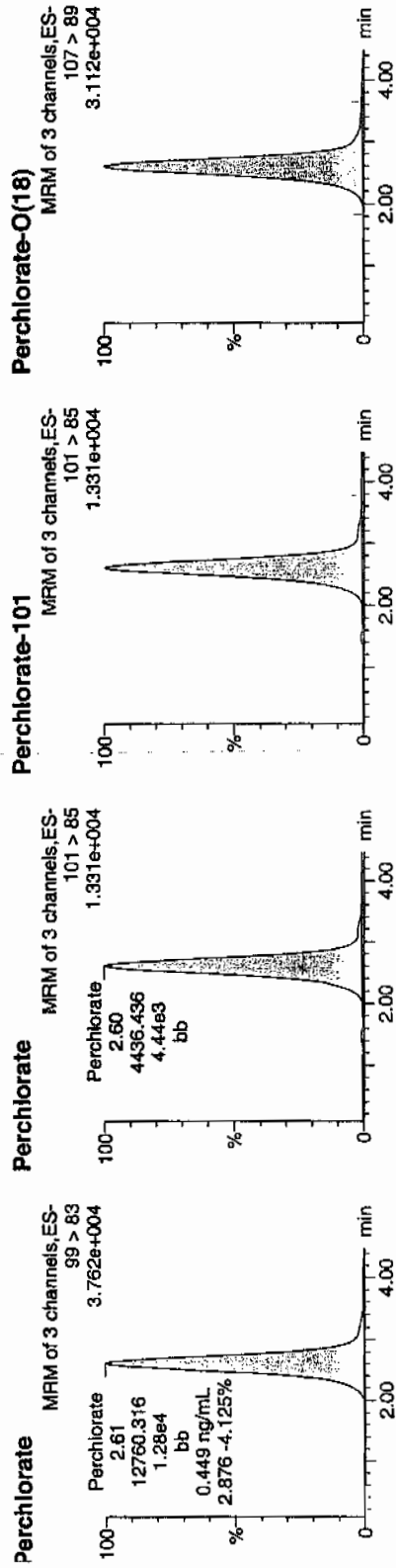
Date: 18-Mar-2010

Time: 18:01:32

ID: WCL100318-06CCV

Vial: 1:2,A

Pure  
623  
03-M-D



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.61	12760.316	12760.316	bb			0.4491	89.82	-10.18	4991.8...	2.88
WCL100318-06CCV	Perchlorate-101	101 > 85	2.60	4436.436	4436.436	bb			0.4886	97.72	-2.28	1099.8...	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.59	10436.040	10436.040	bb			0.4920	98.40	-1.60	1243.0...	

$$\frac{12760.316}{4436.436} = 2.8763$$

4436  
3/23/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318035a

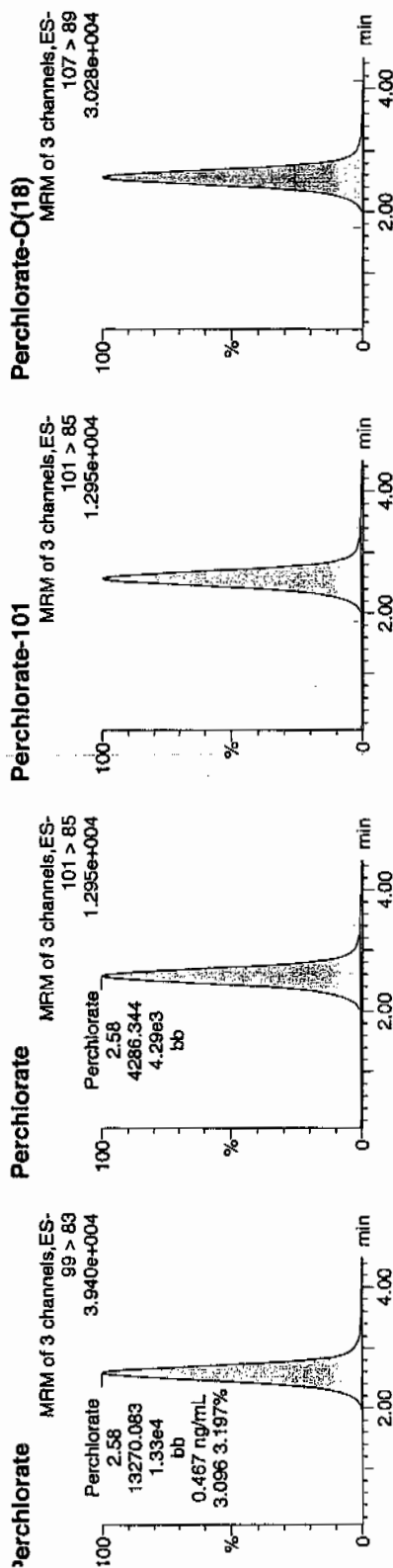
Date: 18-Mar-2010

Time: 19:40:15

D: WCL100318-06CCV

/fal: 1:2,A

*per0318035a*  
*03-19-10*



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
VCL100318-06CCV	Perchlorate	99 > 83	2.58	13270.083	13270.083	bb			0.4670	93.41	-6.59	1092.7...	3.10
VCL100318-06CCV	Perchlorate-101	101 > 85	2.58	4286.344	4286.344	bb			0.4721	94.42	-5.58	594.417	
VCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.56	10071.807	10071.807	bb			0.4748	94.96	-5.04	5666.7...	

*per0318035a*  
*3/20/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318048a

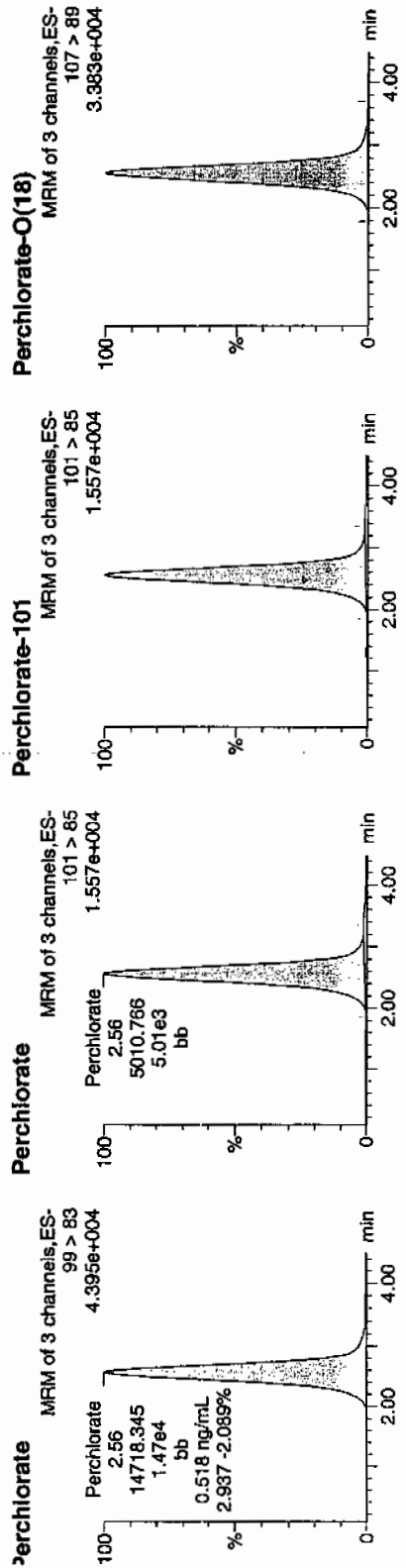
Date: 18-Mar-2010

Time: 21:18:57

D: WCL100318-06CCV

Vial: 1:2,A

*Per*  
*03-14-10*



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.56	14718.345	bb			0.5180	103.60	3.60	1990.5...	2.94
WCL100318-06CCV	Perchlorate-101	101 > 85	2.56	5010.766	bb			0.5519	110.37	10.37	542.237	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.55	11348.905	bb			0.5350	107.00	7.00	292.517	

*4/11/10*  
*3/12/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318061a

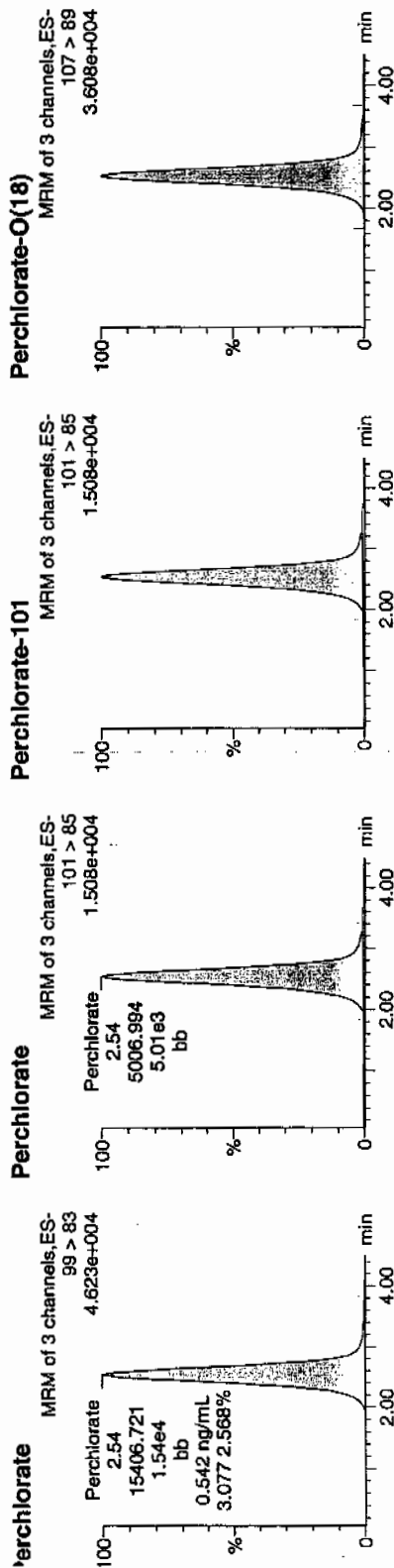
Sample Date: 18-Mar-2010

Sample Time: 22:57:49

Sample ID: WCL100318-06CCCV

Sample Label: 1:2,A

*Per*  
*03.14.10*



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-06CCCV	Perchlorate	99 > 83	2.54	15406.721	15406.721	bb			0.5422	108.45	8.45	3404.3...	3.08
VCL100318-06CCCV	Perchlorate-101	101 > 85	2.54	5006.994	5006.994	bb			0.5514	110.29	10.29	274.484	
VCL100318-06CCCV	Perchlorate-O(18)	107 > 89	2.53	11959.903	11959.903	bb			0.5638	112.76	12.76	2749.4...	

*Auth*  
*3/22/10*

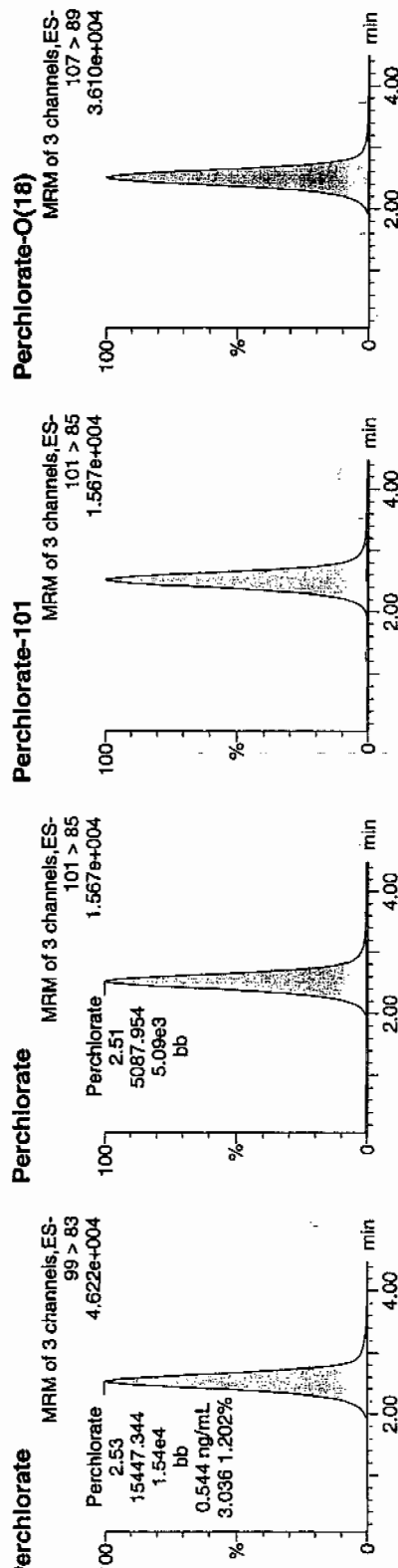
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318074a  
Date: 19-Mar-2010  
Time: 00:36:48  
Job: WCL100318-06CCV  
File: 1:2,A

Perchlorate  
03-19-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-06CCV	Perchlorate	2.53	15447.344	15447.344	bb			0.5437	108.73	8.73	1178.2...	3.04
VCL100318-06CCV	Perchlorate-101	2.51	5087.954	5087.954	bb			0.5604	112.07	12.07	2098.5...	
VCL100318-06CCV	Perchlorate-O(18)	2.51	11899.919	11899.919	bb			0.5610	112.20	12.20	13138...	

3/12/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318087a

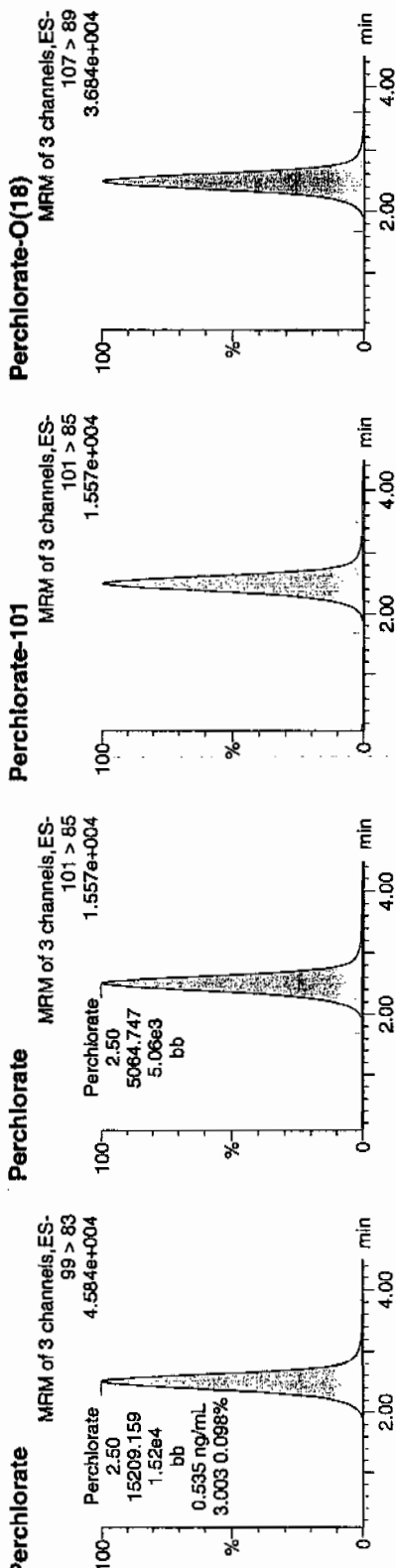
Date: 19-Mar-2010

Time: 02:15:56

D: WCL100318-06CCV

/ial: 1:2,A

*Perchlorate  
03/19/10*



D.	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.50	15209.159	15209.159	bb			-0.5353	107.06	7.06	1643.0...	3.00
WCL100318-06CCV	Perchlorate-101	101 > 85	2.50	5064.747	5064.747	bb			0.5578	111.56	11.56	1604.7...	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.49	12099.962	12099.962	bb			0.5704	114.08	14.08	3251.4...	

*not  
3/19/10*

IEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.91	18-MAR-10 16:38	per0318011a
Perchlorate Isotope Ratio		2.91		18-MAR-10 16:38	per0318011a
Perchlorate-101	.05	.05	101.99	18-MAR-10 16:38	per0318011a
Perchlorate	.05	.04	86.41	18-MAR-10 18:16	per0318024a
Perchlorate Isotope Ratio		2.75		18-MAR-10 18:16	per0318024a
Perchlorate-101	.05	.05	98.17	18-MAR-10 18:16	per0318024a
Perchlorate	.05	.05	97.21	18-MAR-10 19:55	per0318037a
Perchlorate Isotope Ratio		2.89		18-MAR-10 19:55	per0318037a
Perchlorate-101	.05	.05	105.34	18-MAR-10 19:55	per0318037a
Perchlorate	.05	.06	117.92	18-MAR-10 21:34	per0318050a
Perchlorate Isotope Ratio		3.4		18-MAR-10 21:34	per0318050a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	108.54	18-MAR-10 21:34	per0318050a
Perchlorate	.05	.05	107.73	18-MAR-10 23:13	per0318063a
Perchlorate Isotope Ratio		2.93		18-MAR-10 23:13	per0318063a
Perchlorate-101	.05	.06	115.22	18-MAR-10 23:13	per0318063a
Perchlorate	.05	.06	116.21	19-MAR-10 00:52	per0318076a
Perchlorate Isotope Ratio		3.67		19-MAR-10 00:52	per0318076a
Perchlorate-101	.05	.05	99.2	19-MAR-10 00:52	per0318076a
Perchlorate	.05	.05	107.69	19-MAR-10 02:31	per0318089a
Perchlorate Isotope Ratio		3.07		19-MAR-10 02:31	per0318089a
Perchlorate-101	.05	.05	109.59	19-MAR-10 02:31	per0318089a



Quantify Sample Report MassLynx 4.0 SP4

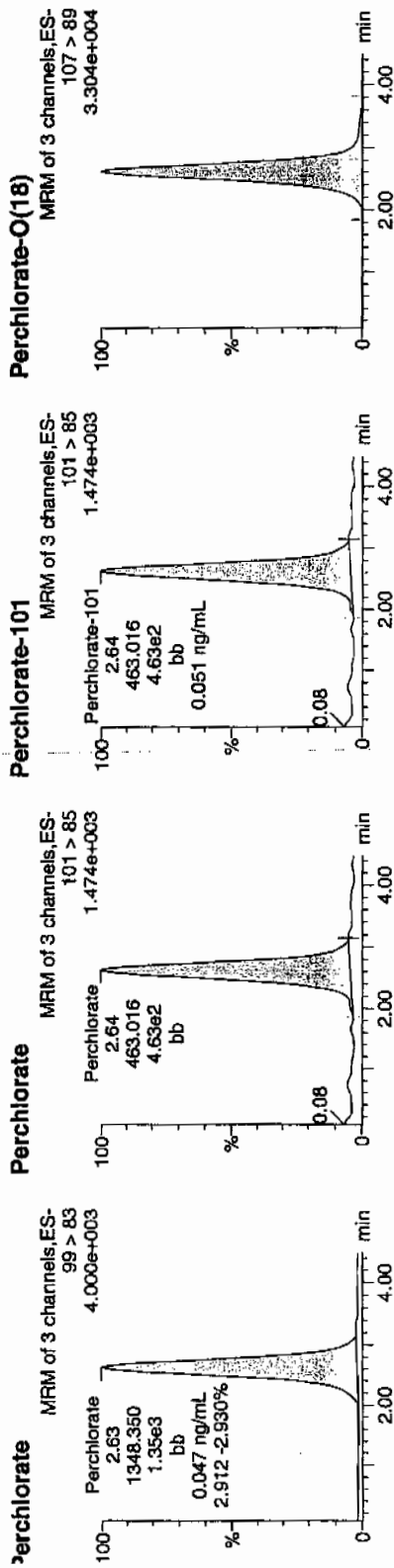
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318011a  
Date: 18-Mar-2010  
Time: 16:38:06  
D: WCL100318-07CRI  
/ial: 1:2,B

*QW*  
*633*  
*05-H-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-07CRI	99 > 83	2.63	1348.350	1348.350	bb			0.0475	94.91	-5.09	381.122	2.91
VCL100318-07CRI	101 > 85	2.64	463.016	463.016	bb			0.0510	101.99	1.99	170.309	
VCL100318-07CRI	107 > 89	2.61	10929.031	10929.031	bb			0.5152	103.04	3.04	2415.4...	

$$\frac{1348.350}{28413.1} = 0.0475$$

*447*  
*3/20/10*

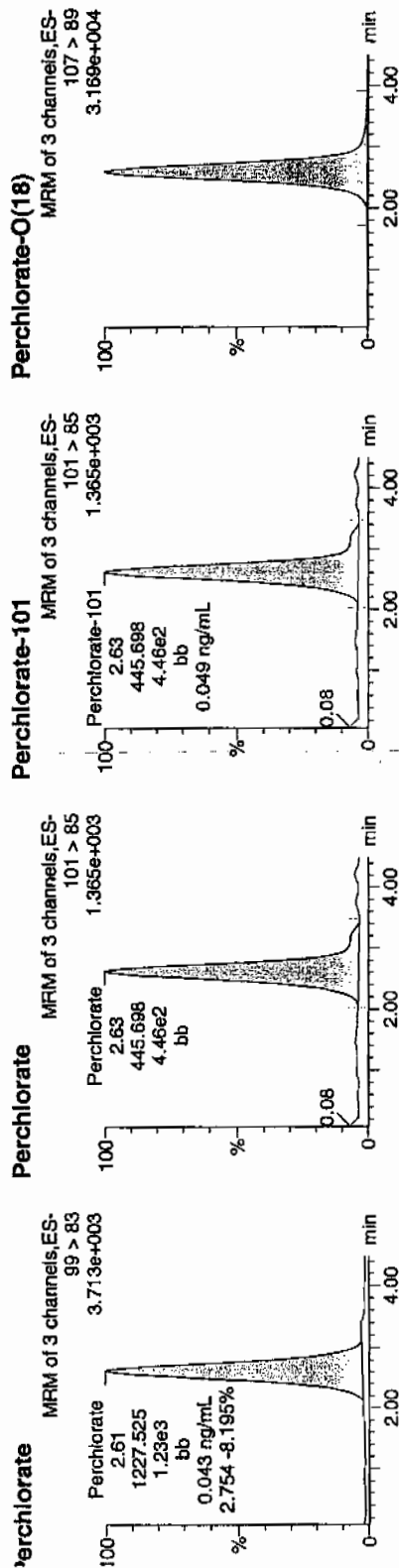
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qid

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318024a  
Date: 18-Mar-2010  
Time: 18:16:52  
D: WCL100318-07CRI  
File: 1:2,B

*Perchlorate*  
*03-18-10*



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-07CRI	Perchlorate	99 > 83	2.61	1227.525	1227.525	bb			0.0432	86.41	-13.59	601.923	2.75
VCL100318-07CRI	Perchlorate-101	101 > 85	2.63	445.698	445.698	bb			0.0491	98.17	-1.83	114.270	
VCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.59	10582.445	10582.445	bb			0.4989	99.78	-0.22	539.373	

*Perchlorate*  
*3/18/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318037a

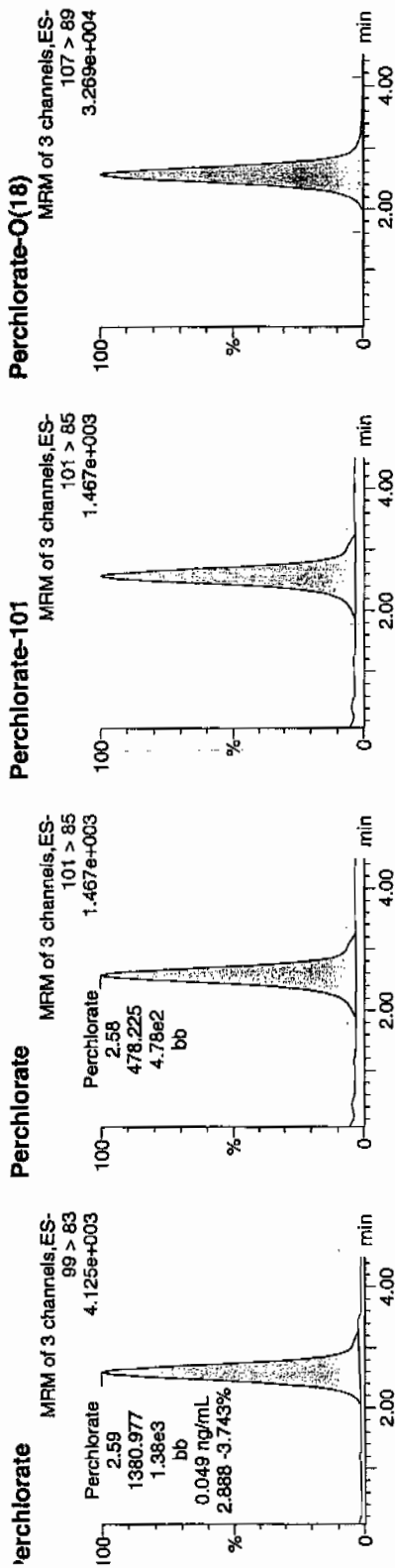
Date: 18-Mar-2010

Time: 19:55:20

D: WCL100318-07CRI

File: 1:2,B

Pure  
032  
035-17-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-07CRI	Perchlorate	2.59	1380.977	1380.977	bb			0.0486	97.21	-2.78	984.230	2.89
VCL100318-07CRI	Perchlorate-101	2.58	478.225	478.225	bb			0.0527	105.34	5.34	83.584	
VCL100318-07CRI	Perchlorate-O(18)	2.58	10977.331	10977.331	bb			0.5175	103.50	3.50	3142.5...	

1007  
3/20/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

# Quantify Sample Report MassLynx 4.0 SP4

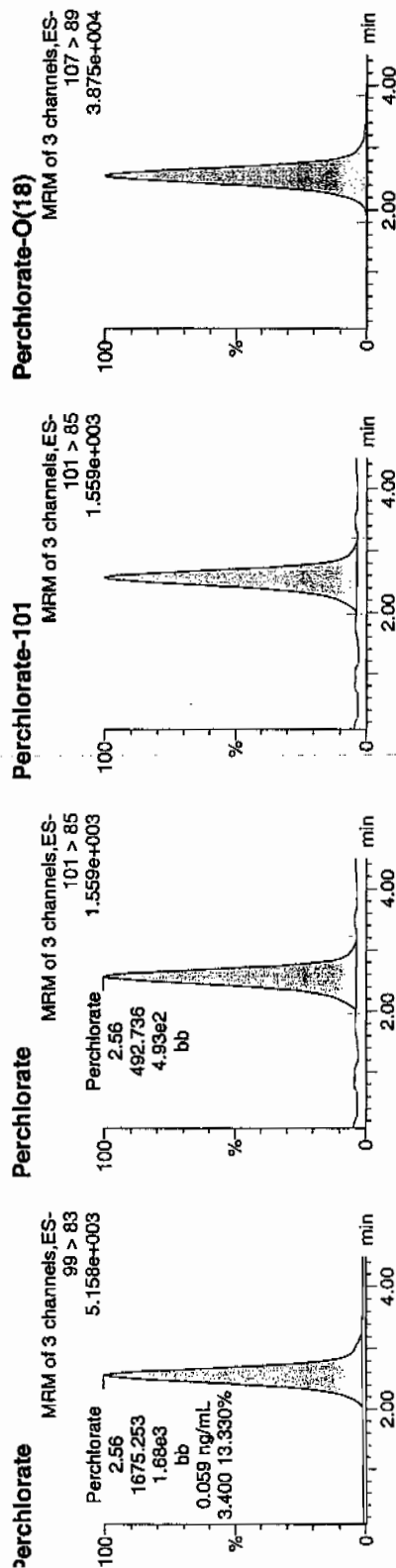
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
 Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318050a  
 Date: 18-Mar-2010  
 Time: 21:34:02  
 D: WCL100318-07CRI  
 /lal: 1:2,B

*Rep 333*  
*03-14-10*



D	Name	Trace	RT	Area	Response	Flags	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	2.56	1675.253	1675.253	bb	0.0590	117.92	17.92	2014.1...	3.40
WCL100318-07CRI	Perchlorate-101	101 > 85	2.56	492.736	492.736	bb	0.0543	108.54	8.54	153.068	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.55	13014.146	13014.146	bb	0.6135	122.70	22.70	560.337	

*3/20/10*

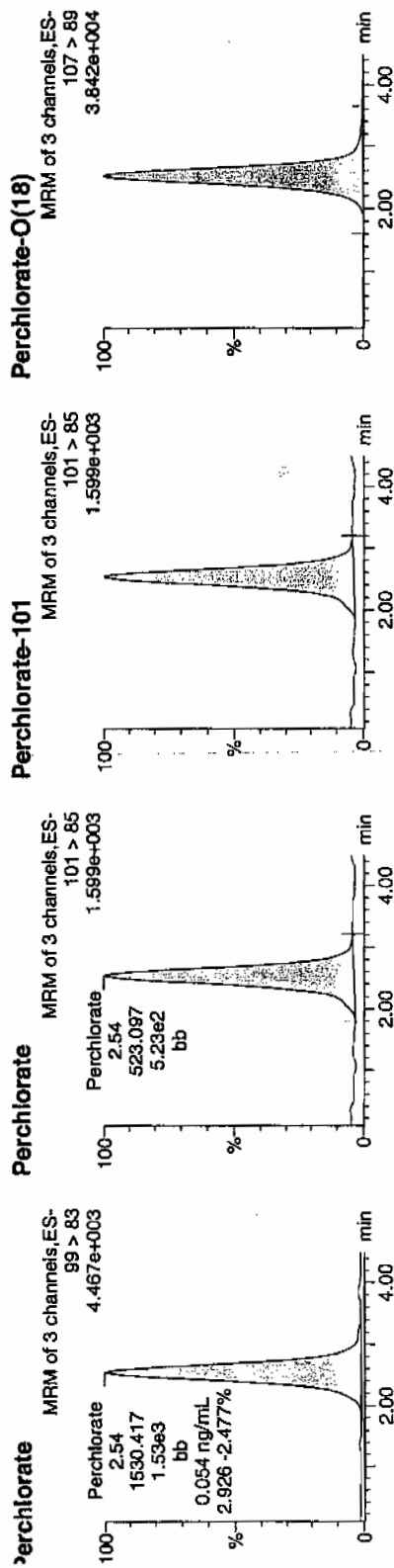
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318063a  
Date: 18-Mar-2010  
Time: 23:13:23  
D: WCL100318-07CRI  
/lal: 1:2,B

*Handwritten:*  
per  
03  
03-11-10



D	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
VCL100318-07CRI	Perchlorate	99 > 83	2.54	1530.417	1530.417	bb			-0.0539	107.73	7.73	394.391	2.93
VCL100318-07CRI	Perchlorate-101	101 > 85	2.54	523.097	523.097	bb			0.0576	115.22	15.22	298.070	
VCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.53	12564.487	12564.487	bb			0.5923	118.46	18.46	5034.6...	

*Handwritten:*  
HST  
3/10/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample: per0318076a

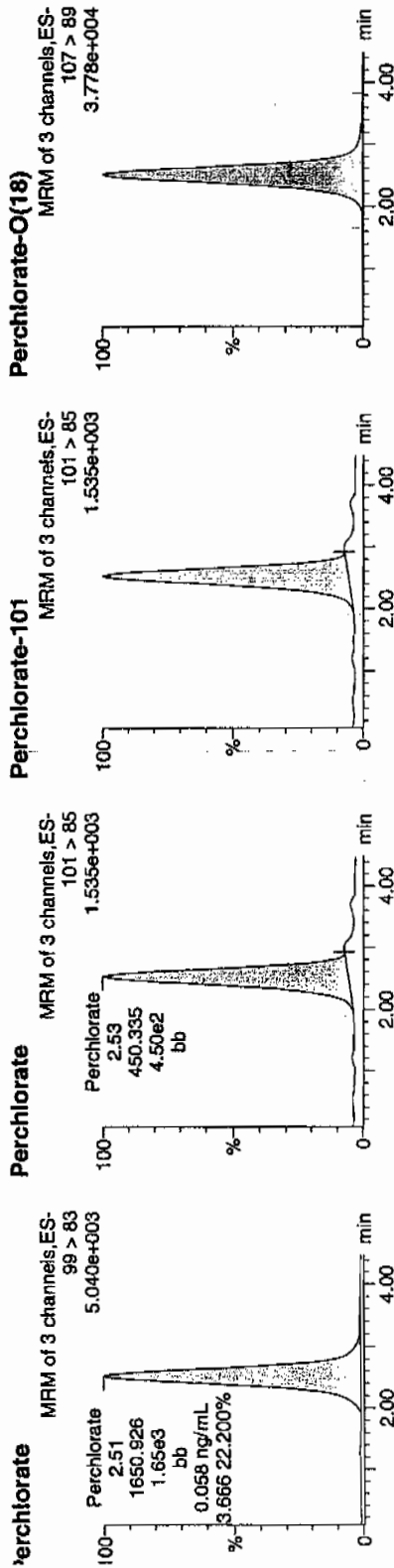
Date: 19-Mar-2010

Time: 00:52:15

D: WCL100318-07CRI

File: 1-2.B

Per  
03-14-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100318-07CRI	Perchlorate	2.51	1650.926	1650.926	bb			0.0581	116.21	16.21	684.248	3.67
VCL100318-07CRI	Perchlorate-101	2.53	450.335	450.335	bb			0.0496	99.20	-0.80	83.281	
VCL100318-07CRI	Perchlorate-O(18)	2.51	12598.017	12598.017	bb			0.5939	118.79	18.79	966.236	

3/20/10

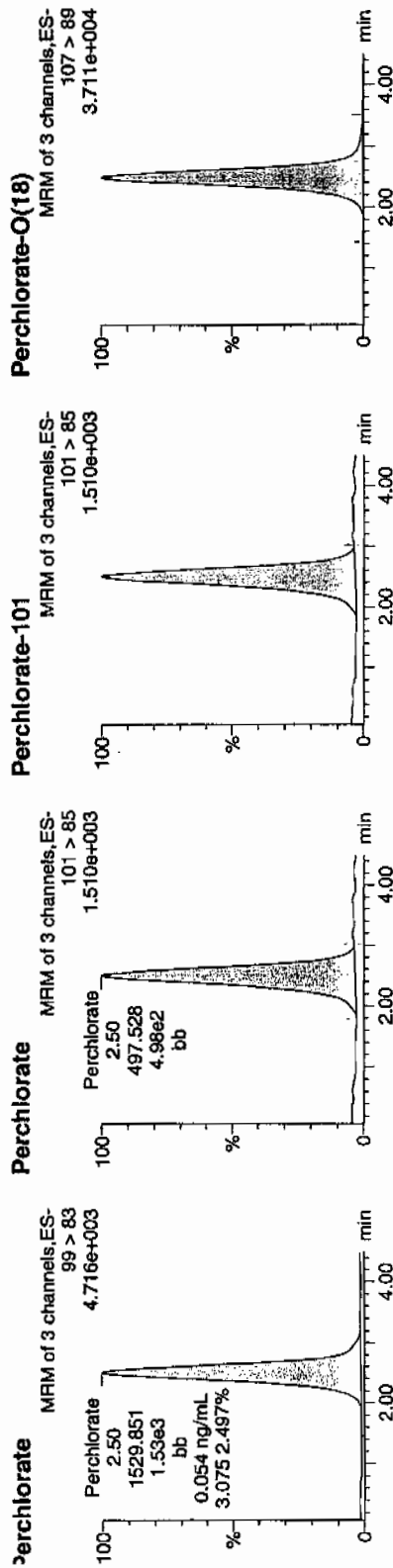
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318089a  
Date: 19-Mar-2010  
Time: 02:31:23  
D: WCL100318-07CRI  
/ial: 1:2,B

Pure  
3/20/10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
	Perchlorate	99 > 83	2.50	1529.851	1529.851	bb			0.0538	107.69	7.69	913.854	3.07
	Perchlorate-101	101 > 85	2.50	497.528	497.528	bb			0.0548	109.59	9.59	483.678	
	Perchlorate-O(18)	107 > 89	2.49	11974.758	11974.758	bb			0.5645	112.90	12.90	3593.8...	

NOT  
3/20/10

# QUALITY CONTROL



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. MB

Lab Code: GEL

Instrument: LCMSMS Date Received: 11-MAR-10

Method: EPA 6850 Modified GEL Job No (SDG): 10-2075

Matrix: SOIL GEL Sample ID: 1202056563

Extraction Batch ID: 958939 Date Filtered: 11-MAR-10

Extraction Type: Solid Prep Injection Volume (uL): 20

Sample Volume/Weight: 2.00 g % Solids: 100

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	18-MAR-10 21:41	per0318051a
	Perchlorate Isotope Ratio						1	18-MAR-10 21:41	per0318051a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	18-MAR-10 21:41	per0318051a
	Perchlorate-O(18)			5.90	ug/kg		1	18-MAR-10 21:41	per0318051a

<sup>^</sup> 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  $\frac{1}{\% \text{ Solids}}$

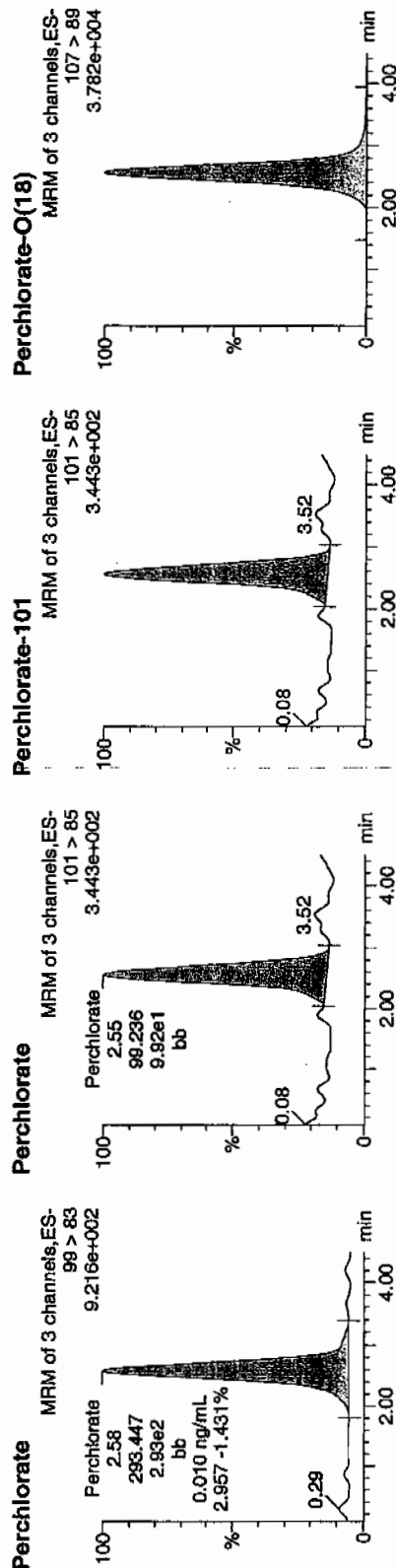
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318051a  
Date: 18-Mar-2010  
Time: 21:41:58  
ID: 1202056563  
Vial: 2:1,A

03-14-10  
L202056563 | 5020 | 100 | 1 |



ID	Name	Source	Time	Area	Height	Response	Flag	ModDate	ModTime	Unit	Area	Height	Response	Flag	ModDate	ModTime	Unit	Area	Height	Response	Flag	ModDate	ModTime	Unit
1202056563	Perchlorate	99 > 83	2.58	293.447	293.447	bb					0.0103	183.429	2.96											
1202056563	Perchlorate-101	101 > 85	2.55	99.236	99.236	bb					0.0109	36.008												
1202056563	Perchlorate-Q(18)	107 > 89	2.56	12506.857	12506.857	bb					0.5896	117.92	17.92	3219.1...										

100%  
3/20/10

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: 258939  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. LCS  
 Date Received: 11-MAR-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 1202056564  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 100

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.24	ug/kg		1	18-MAR-10 21:49	per0318052a
	Perchlorate Isotope Ratio			3.1			1	18-MAR-10 21:49	per0318052a
14797-73-0	Perchlorate-101	.5	2	2.26	ug/kg		1	18-MAR-10 21:49	per0318052a
	Perchlorate-O(18)			5.80	ug/kg		1	18-MAR-10 21:49	per0318052a

<sup>^</sup> 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

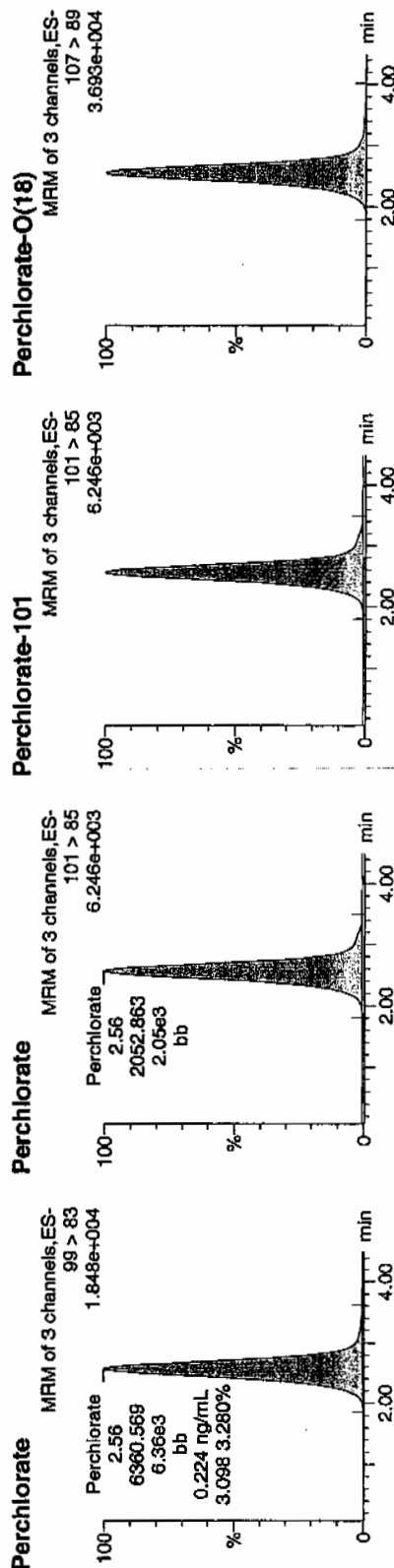
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318052a  
Date: 18-Mar-2010  
Time: 21:49:56  
ID: 1202056564  
Vial: 2:1,B

1202056564 | 2020 | 125 | 1 |



ID	Name	Trace	Time	Area	Response	Flags	Mass	bb	SN	Ion Ratio
1202056564	Perchlorate	99 > 83	2.56	6360.569	2052.863	✓	2052.863	bb	0.2239	111.93
1202056564	Perchlorate-101	101 > 85	2.56	6360.569	2052.863	✓	2052.863	bb	0.2261	113.05
1202056564	Perchlorate-O(18)	107 > 89	2.56	12305.354	12305.354			bb	0.5801	116.02
										16.02
										2240.1...
										4142.1...
										475.053
										3.10

$$\frac{6360.569}{28413.1} = 0.2239$$

not  
5/10/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 958939

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7414MS

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075

GEL Sample ID: 1202056565

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.634	2.54	2.93	ug/kg		1	18-MAR-10 22:12	per0318055a
	Perchlorate Isotope Ratio			3.18			1	18-MAR-10 22:12	per0318055a
14797-73-0	Perchlorate-101	.634	2.54	2.88	ug/kg		1	18-MAR-10 22:12	per0318055a
	Perchlorate-O(18)			7.37	ug/kg		1	18-MAR-10 22:12	per0318055a

<sup>^</sup> 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: Charfers W. Wilson

Page 55 of 114

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318055a

Date: 18-Mar-2010

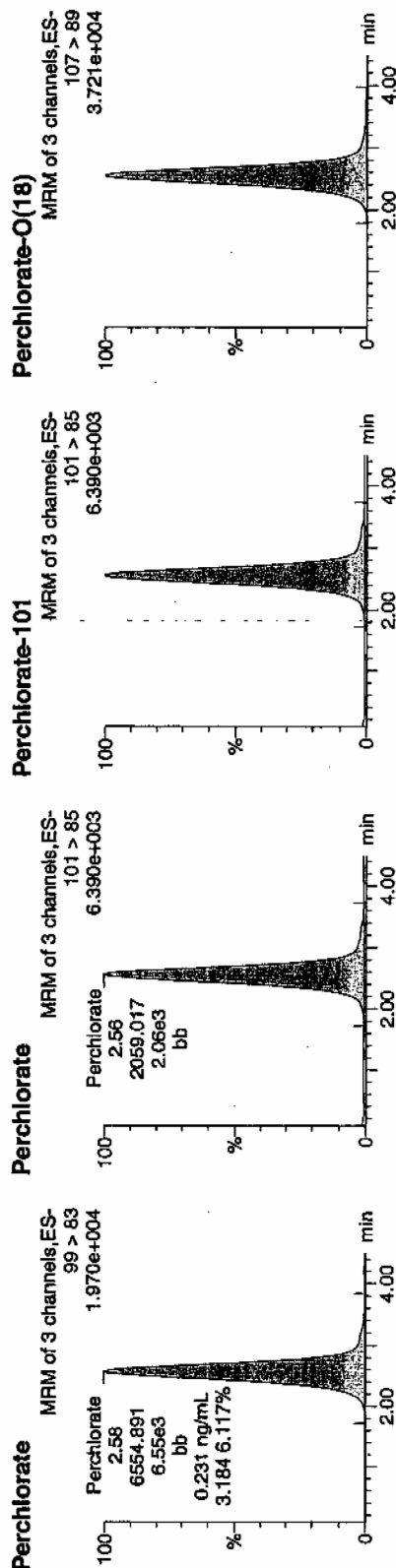
Time: 22:12:39

ID: 1202056565

Vial: 2-1,E

03 14-10

1202056565 | 95846 | 5020 | MS | 1 | 1



ID	Name	Trace	RT	Area	Response	Units	Method	Mod	DA	SN	ION	Ratio
1202056565	Perchlorate	99 > 83	2.58	6554.891	6554.891	bb				0.2307	115.35	15.35 1153.0...
1202056565	Perchlorate-101	101 > 85	2.56	2059.017	2059.017	bb				0.2268	113.39	13.39 305.606
1202056565	Perchlorate-Q(18)	107 > 89	2.55	12331.329	12331.329	bb				0.5813	116.27	16.27 4310.9...

$$\frac{6554.891}{28413.6} = 0.2307$$

107  
3/16/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 958939  
 Extraction Type: Solid Prep  
 Client Sample No. RE36-10-7414MSD  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075  
 GEL Sample ID: 1202056566  
 Date Filtered: 11-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 79  
 Concentrated Extract Volume: 20.0

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.634	2.54	2.97	ug/kg		1	18-MAR-10 22:20	per0318056a
	Perchlorate Isotope Ratio			3.09			1	18-MAR-10 22:20	per0318056a
14797-73-0	Perchlorate-101	.634	2.54	3.00	ug/kg		1	18-MAR-10 22:20	per0318056a
	Perchlorate-O(18)			8.01	ug/kg		1	18-MAR-10 22:20	per0318056a

^ 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\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318056a

Date: 18-Mar-2010

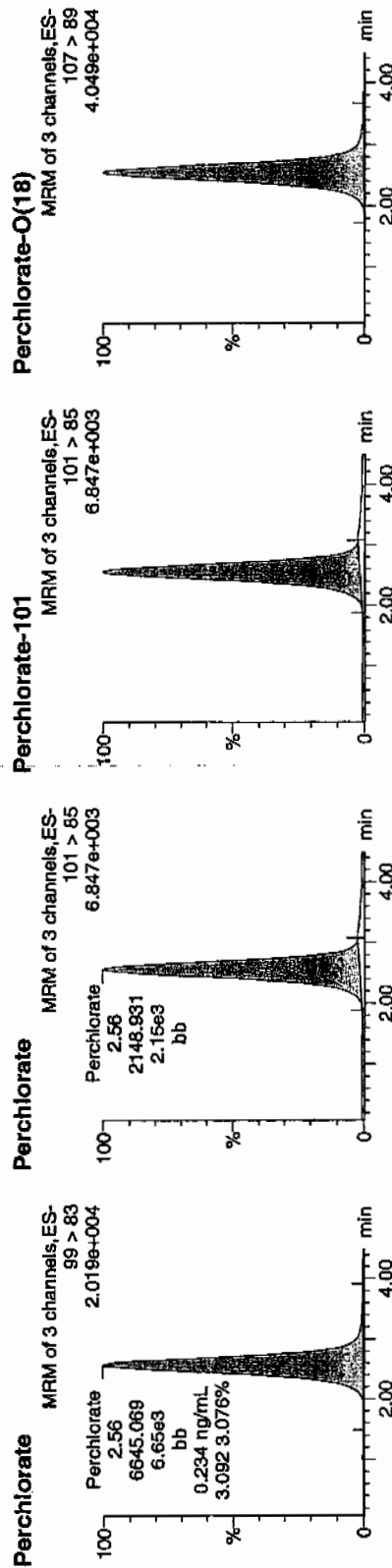
Time: 22:20:10

ID: 1202056566

Vial: 2:1,F

03/14/10

1422 1958946 | 5030 MSB11



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Area	%Dev	SN Ratio
1202056566	Perchlorate	99 > 83	2.56	6645.069	6645.069	bb			0.2339	116.94	16.94	3032.2...
1202056566	Perchlorate-101	101 > 85	2.56	2148.931	2148.931	bb			0.2367	118.34	18.34	1531.2...
1202056566	Perchlorate-O(18)	107 > 89	2.55	13394.391	13394.391	bb			0.6314	126.29	26.29	1558.5...

$$\frac{6645.069}{28413.1} \times 100 = 2.34\%$$

3/20/10



# 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: 958939 Verified by: Kaylie Westmoreland  
 Analyst: Kaylie Westmoreland Lab SOP: GL-OA-E-067 REV# 6  
 Method: SW846 6850 Modified Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202056563 MB	11-MAR-2010 14:09:00	2	20	10
1202056564 LCS	11-MAR-2010 14:09:00	2	20	10
248045001	11-MAR-2010 14:09:00	2	20	10
1202056565 MS (248045001)	11-MAR-2010 14:09:00	2	20	10
1202056566 MSD (248045001)	11-MAR-2010 14:09:00	2	20	10
248045002	11-MAR-2010 14:09:00	2	20	10
248045003	11-MAR-2010 14:09:00	2	20	10
248045004	11-MAR-2010 14:09:00	2	20	10
248045005	11-MAR-2010 14:09:00	2	20	10
248045006	11-MAR-2010 14:09:00	2	20	10
248045007	11-MAR-2010 14:09:00	2	20	10
248045008	11-MAR-2010 14:09:00	2	20	10
248045009	11-MAR-2010 14:09:00	2	20	10
248045010	11-MAR-2010 14:09:00	2	20	10
248045011	11-MAR-2010 14:09:00	2	20	10
248045012	11-MAR-2010 14:09:00	2	20	10
248045013	11-MAR-2010 14:09:00	2	20	10
248045014	11-MAR-2010 14:09:00	2	20	10
248045015	11-MAR-2010 14:09:00	2	20	10
248045016	11-MAR-2010 14:09:00	2	20	10
248045017	11-MAR-2010 14:09:00	2	20	10
248045018	11-MAR-2010 14:09:00	2	20	10
1202056572 ICS	11-MAR-2010 14:09:00	2	20	10

### Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056572	10 ug/L ICS/CCV Second Source	UCL100226-01.2	.4	mL
LCS	1202056564	10 ug/L ICS/CCV Second Source	UCL100226-01.2	.4	mL
MS	1202056565	10 ug/L ICS/CCV Second Source	UCL100226-01.2	.4	mL
MSD	1202056566	10 ug/L ICS/CCV Second Source	UCL100226-01.2	.4	mL

Desulting Cartridges used: 100216-1-H & 100223-1-Ba

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/18/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per031810a  
 Initial Calibration Date: 03/18/10

Method: EPA 6850-Modified  
 Int. Std.: UCL100210-01  
 Mobile Phase Lot#: 1278668, 1271949  
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: hah  
 Date: 3/20/10  
 SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100318-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0318001a	IPB001	CWW	3/18/2010 15:22			1		USE	B
per0318002a	IPB001	CWW	3/18/2010 15:30			1		USE	B
per0318003a	WCLICAL-01	CWW	3/18/2010 15:37			1		USE	I
per0318004a	WCLICAL-02	CWW	3/18/2010 15:45			1		USE	I
per0318005a	WCLICAL-03	CWW	3/18/2010 15:52			1		USE	I
per0318006a	WCLICAL-04	CWW	3/18/2010 16:00			1		USE	I
per0318007a	WCLICAL-05	CWW	3/18/2010 16:07			1		USE	I
per0318008a	IPB002	CWW	3/18/2010 16:15			1		USE	B
per0318009a	WCLICV	CWW	3/18/2010 16:22			1		USE	C
per0318010a	IPB003	CWW	3/18/2010 16:30			1		USE	B
per0318011a	WCLCRI	CWW	3/18/2010 16:38			1		USE	C
per0318012a	1202056547	CWW	3/18/2010 16:45	958937	VARIOUS	1	LANL	USE	S
per0318013a	1202056548	CWW	3/18/2010 16:53	958937	VARIOUS	1	LANL	USE	S
per0318014a	1202056551	CWW	3/18/2010 17:00	958937	VARIOUS	1	LANL	USE	S
per0318015a	248025001	CWW	3/18/2010 17:08	958937	10-2048	1	LANL	USE	S
per0318016a	248025002	CWW	3/18/2010 17:15	958937	10-2048	1	LANL	USE	S
per0318017a	248025003	CWW	3/18/2010 17:23	958937	10-2048	1	LANL	USE	S
per0318018a	248025004	CWW	3/18/2010 17:30	958937	10-2048	1	LANL	USE	S
per0318019a	248025005	CWW	3/18/2010 17:38	958937	10-2048	1	LANL	USE	S
per0318020a	248025006	CWW	3/18/2010 17:46	958937	10-2048	1	LANL	USE	S
per0318021a	248025007	CWW	3/18/2010 17:53	958937	10-2048	1	LANL	USE	S
per0318022a	WCLCCV	CWW	3/18/2010 18:01			1		USE	C
per0318023a	IPB004	CWW	3/18/2010 18:09			1		USE	B
per0318024a	WCLCRI	CWW	3/18/2010 18:16			1		USE	C
per0318025a	248033001	CWW	3/18/2010 18:24	958937	10-2072	1	LANL	USE	S
per0318026a	1202056549	CWW	3/18/2010 18:31	958937	10-2072	1	LANL	USE	S
per0318027a	1202056550	CWW	3/18/2010 18:39	958937	10-2072	1	LANL	USE	S
per0318028a	248033002	CWW	3/18/2010 18:47	958937	10-2072	1	LANL	USE	S
per0318029a	248033003	CWW	3/18/2010 18:54	958937	10-2072	1	LANL	USE	S

per0318030a	248033004	CWW	3/18/2010 19:02	958937	10-2072	1	LANL	USE	S
per0318031a	248033005	CWW	3/18/2010 19:10	958937	10-2072	1	LANL	USE	S
per0318032a	248033006	CWW	3/18/2010 19:17	958937	10-2072	1	LANL	USE	S
per0318033a	248033007	CWW	3/18/2010 19:25	958937	10-2072	1	LANL	USE	S
per0318034a	248033008	CWW	3/18/2010 19:32	958937	10-2072	1	LANL	USE	S
per0318035a	WCLCCV	CWW	3/18/2010 19:40			1		USE	C
per0318036a	IPB005	CWW	3/18/2010 19:47			1		USE	B
per0318037a	WCLCRI	CWW	3/18/2010 19:55			1		USE	C
per0318038a	248033009	CWW	3/18/2010 20:03	958937	10-2072	1	LANL	USE	S
per0318039a	248202002	CWW	3/18/2010 20:10	959029	10-2124	4	LANL	USE	S
per0318040a	248203002	CWW	3/18/2010 20:18	959029	10-2125	1	LANL	USE	S
per0318041a	248247002	CWW	3/18/2010 20:25	959029	10-2138-1	1	LANL	USE	S
per0318042a	248247003	CWW	3/18/2010 20:33	959029	10-2138-1	1	LANL	USE	S
per0318043a	248247004	CWW	3/18/2010 20:40	959029	10-2138-1	1	LANL	USE	S
per0318044a	248247005	CWW	3/18/2010 20:48	959029	10-2138-1	1	LANL	USE	S
per0318045a	248247006	CWW	3/18/2010 20:56	959029	10-2138-1	1	LANL	USE	S
per0318046a	248247007	CWW	3/18/2010 21:03	959029	10-2138-1	1	LANL	USE	S
per0318047a	248247008	CWW	3/18/2010 21:11	959029	10-2138-1	1	LANL	USE	S
per0318048a	WCLCCV	CWW	3/18/2010 21:18			1		USE	C
per0318049a	IPB006	CWW	3/18/2010 21:26			1		USE	B
per0318050a	WCLCRI	CWW	3/18/2010 21:34			1		USE	C
per0318051a	1202056563	CWW	3/18/2010 21:41	958946	10-2075	1	LANL	USE	S
per0318052a	1202056564	CWW	3/18/2010 21:49	958946	10-2075	1	LANL	USE	S
per0318053a	1202056572	CWW	3/18/2010 21:57	958946	10-2075	1	LANL	USE	S
per0318054a	248045001	CWW	3/18/2010 22:05	958946	10-2075	1	LANL	USE	S
per0318055a	1202056565	CWW	3/18/2010 22:12	958946	10-2075	1	LANL	USE	S
per0318056a	1202056566	CWW	3/18/2010 22:20	958946	10-2075	1	LANL	USE	S
per0318057a	248045002	CWW	3/18/2010 22:27	958946	10-2075	1	LANL	USE	S
per0318058a	248045003	CWW	3/18/2010 22:35	958946	10-2075	1	LANL	USE	S
per0318059a	248045004	CWW	3/18/2010 22:42	958946	10-2075	1	LANL	USE	S
per0318060a	248045005	CWW	3/18/2010 22:50	958946	10-2075	1	LANL	USE	S
per0318061a	WCLCCV	CWW	3/18/2010 22:57			1		USE	C
per0318062a	IPB007	CWW	3/18/2010 23:05			1		USE	B
per0318063a	WCLCRI	CWW	3/18/2010 23:13			1		USE	C
per0318064a	248045006	CWW	3/18/2010 23:21	958946	10-2075	1	LANL	USE	S
per0318065a	248045007	CWW	3/18/2010 23:28	958946	10-2075	1	LANL	USE	S
per0318066a	248045008	CWW	3/18/2010 23:36	958946	10-2075	1	LANL	USE	S

per0318067a	248045009	CWW	3/18/2010 23:44	958946	10-2075	1	LANL	USE	S
per0318068a	248045010	CWW	3/18/2010 23:51	958946	10-2075	1	LANL	USE	S
per0318069a	248045011	CWW	3/18/2010 23:59	958946	10-2075	1	LANL	USE	S
per0318070a	248045012	CWW	3/19/2010 0:06	958946	10-2075	1	LANL	USE	S
per0318071a	248045013	CWW	3/19/2010 0:14	958946	10-2075	1	LANL	USE	S
per0318072a	248045014	CWW	3/19/2010 0:21	958946	10-2075	1	LANL	USE	S
per0318073a	248045015	CWW	3/19/2010 0:29	958946	10-2075	1	LANL	USE	S
per0318074a	WCLCCV	CWW	3/19/2010 0:36			1		USE	C
per0318075a	IPB008	CWW	3/19/2010 0:44			1		USE	B
per0318076a	WCLCRI	CWW	3/19/2010 0:52			1		USE	C
per0318077a	248045016	CWW	3/19/2010 0:59	958946	10-2075	1	LANL	USE	S
per0318078a	248045017	CWW	3/19/2010 1:07	958946	10-2075	1	LANL	USE	S
per0318079a	248045018	CWW	3/19/2010 1:15	958946	10-2075	1	LANL	USE	S
per0318080a	IPB009	CWW	3/19/2010 1:22			1		USE	B
per0318081a	1202056668	CWW	3/19/2010 1:30	959004	10-2117	1	LANL	USE	S
per0318082a	1202056669	CWW	3/19/2010 1:38	959004	10-2117	1	LANL	USE	S
per0318083a	1202056672	CWW	3/19/2010 1:45	959004	10-2117	1	LANL	USE	S
per0318084a	248183001	CWW	3/19/2010 1:53	959004	10-2117	1	LANL	USE	S
per0318085a	1202056670	CWW	3/19/2010 2:00	959004	10-2117	1	LANL	USE	S
per0318086a	1202056671	CWW	3/19/2010 2:08	959004	10-2117	1	LANL	USE	S
per0318087a	WCLCCV	CWW	3/19/2010 2:15			1		USE	C
per0318088a	IPB010	CWW	3/19/2010 2:23			1		USE	B
per0318089a	WCLCRI	CWW	3/19/2010 2:31			1		USE	C
per0318090a	248183002	CWW	3/19/2010 2:39	959004	10-2117	1	LANL	USE	S
per0318091a	248183003	CWW	3/19/2010 2:46	959004	10-2117	1	LANL	USE	S
per0318092a	248183004	CWW	3/19/2010 2:54	959004	10-2117	1	LANL	USE	S
per0318093a	248183005	CWW	3/19/2010 3:01	959004	10-2117	1	LANL	USE	S
per0318094a	248183006	CWW	3/19/2010 3:09	959004	10-2117	1	LANL	USE	S
per0318095a	248183007	CWW	3/19/2010 3:17	959004	10-2117	1	LANL	USE	S
per0318096a	248183008	CWW	3/19/2010 3:24	959004	10-2117	1	LANL	USE	S
per0318097a	248183009	CWW	3/19/2010 3:32	959004	10-2117	1	LANL	USE	S
per0318098a	248183010	CWW	3/19/2010 3:39	959004	10-2117	1	LANL	USE	S
per0318099a	248183011	CWW	3/19/2010 3:47	959004	10-2117	1	LANL	USE	S
per0318100a	WCLCCV	CWW	3/19/2010 3:54			1		USE	C
per0318101a	IPB011	CWW	3/19/2010 4:02			1		USE	B
per0318102a	WCLCRI	CWW	3/19/2010 4:10			1		USE	C
per0318103a	248183012	CWW	3/19/2010 4:17	959004	10-2117	1	LANL	USE	S

per0318104a	248183013	CWW	3/19/2010 4:25	959004	10-2117	1	LANL	USE	S
per0318105a	248183014	CWW	3/19/2010 4:33	959004	10-2117	1	LANL	USE	S
per0318106a	248183015	CWW	3/19/2010 4:40	959004	10-2117	1	LANL	USE	S
per0318107a	248183016	CWW	3/19/2010 4:48	959004	10-2117	1	LANL	USE	S
per0318108a	248183017	CWW	3/19/2010 4:55	959004	10-2117	1	LANL	USE	S
per0318109a	248183018	CWW	3/19/2010 5:03	959004	10-2117	1	LANL	USE	S
per0318110a	248183019	CWW	3/19/2010 5:11	959004	10-2117	1	LANL	USE	S
per0318111a	248183020	CWW	3/19/2010 5:18	959004	10-2117	1	LANL	USE	S
per0318112a	WCLCCV	CWW	3/19/2010 5:26			1		USE	C
per0318113a	IPB012	CWW	3/19/2010 5:34			1		USE	B
per0318114a	WCLCRI	CWW	3/19/2010 5:41			1		USE	C

### 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 PERCHLORATE ANALYSIS



**Perchlorate by LC/MSMS  
Los Alamos National Laboratory (LANL)  
SDG 10-2075-1**

**Method/Analysis Information**

**Procedure:** **Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**

Analytical Method: SW846 6850 Modified

Prep Method: SW846 6850 Modified

Analytical Batch Number: 959044

Prep Batch Number: 959043

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248046001	RE36-10-7528
248046002	RE36-10-7527
1202056714	Interference Check Sample (ICS)
1202056710	Method Blank (MB)
1202056711	Laboratory Control Sample (LCS)
1202056712	247908001(RE15-10-8089) Matrix Spike (MS)
1202056713	247908001(RE15-10-8089) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

**Calibration Information**

**Initial Calibration**

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

10-2075-1-PERLCMS

Page 1 of 4

**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 247908001 (RE15-10-8089) from SDG 10-2013-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

**Matrix Spike (MS) Recovery Statement**

The MS recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

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

**Retention Time Standard Area Acceptance**

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

**Retention Time**

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

10-2075-1-PERLCMS

Page 2 of 4

## **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: Nicholas K. Mauer Date: 03/16/10

# SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 959043  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0

Client Sample No.  
RE36-10-7528

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2075-1

GEL Sample ID: 248046001

Date Filtered: 03-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate Isotope Ratio						1	09-MAR-10 06:25	per0308098a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate-O(18)			0.422	ug/L		1	09-MAR-10 06:25	per0308098a

<sup>^</sup> 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

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 259043  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. RE36-10-7527  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075-1  
 GEL Sample ID: 248046002  
 Date Filtered: 03-MAR-10  
 Injection Volume (uL): 20  
 %Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate Isotope Ratio						1	09-MAR-10 07:02	per0308102a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate-O(18)			0.464	ug/L		1	09-MAR-10 07:02	per0308102a

^ 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

# QUALITY CONTROL SUMMARY



Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-2075-1

Extract Batch Code: 959043 Date Filtered: 03-MAR-10

Matrix: WATER Sample ID: 1202056711

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.179	ug/L	89.7		85 - 115
Perchlorate Isotope Ratio		3.2				-
Perchlorate-101	0.200	.184	ug/L	92.2		85 - 115
Perchlorate-O(18)		.419	ug/L			-

<sup>^</sup> 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): 10-2075-1

Extract Batch Code: 959043

Date Filtered: 03-MAR-10

Matrix: WATER

Sample ID: 1202056714

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.193	ug/L	96.7		70 - 130
Perchlorate Isotope Ratio		3.11				
Perchlorate-101	0.200	.204	ug/L	102		70 - 130
Perchlorate-O(18)		.46	ug/L			

<sup>^</sup> 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.

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

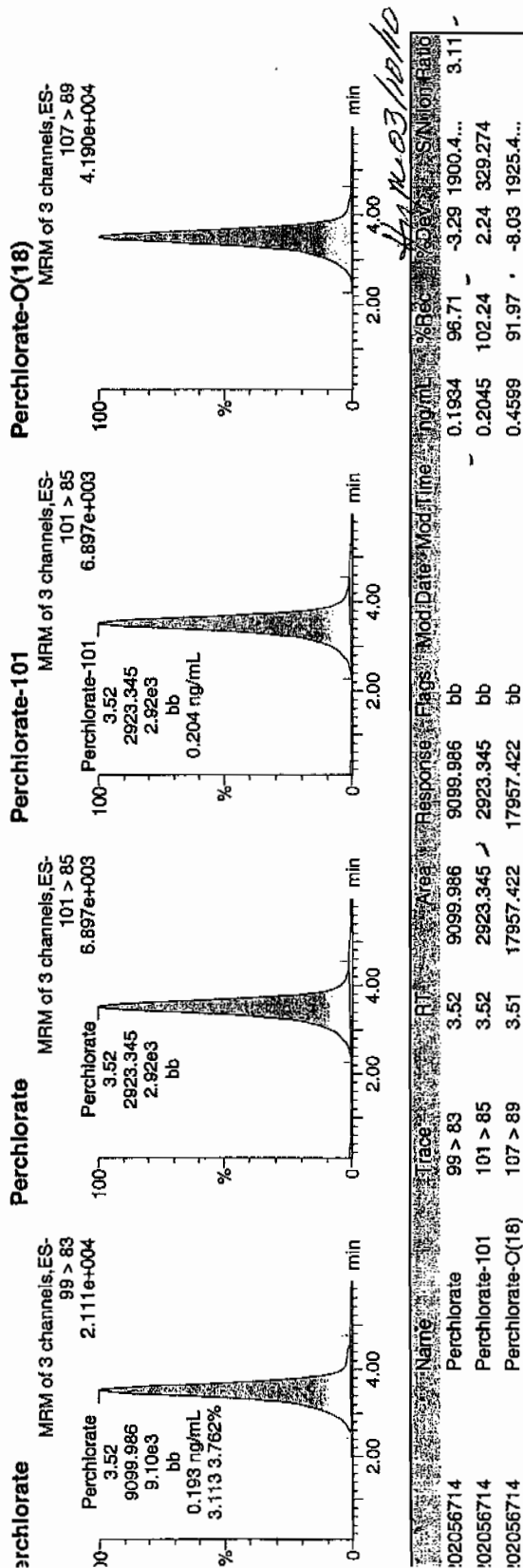
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

First Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 First: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308078a  
 Date: 09-Mar-2010  
 Time: 03:24:26  
 File: 1202056714  
 Ali: 2:4,C

03-09-10

15722 | 954044 | 1750 | 725 | 11



4/10/10

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2075-1

Extract Batch Code: 959043

Date Extracted: 03-MAR-10

GEL MS/PS ID: 1202056712

Client ID: RE15-10-8089

GEL MSD/PSD ID: 1202056713

QC Type: MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00111	ug/L	0.182	90.7		.19	94.7		4.26		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.13			3.16			0			-
Perchlorate-101	0.200	0.00107	ug/L	0.192	95.5		.199	98.7		3.33		30	75 - 125
Perchlorate-O(18)	0	0.438	ug/L	0.438			.447			2.15			-

<sup>^</sup> 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

GEL Job No.(SDG): 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-MAR-10	per0308001a	IPB001
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308001a	IPB001
Perchlorate	0.00	0	NA	08-MAR-10	per0308002a	IPB001
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308002a	IPB001

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

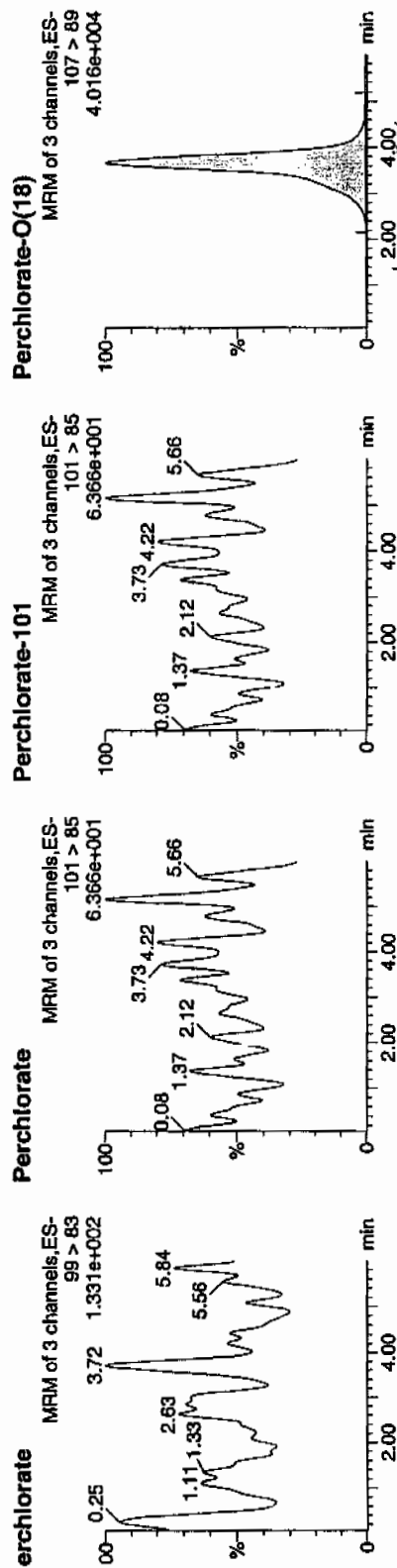
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Acquired: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

Sample Name: per0308001a  
Date: 08-Mar-2010  
Time: 15:44:43  
Injection: IPB001  
Injection Volume: 1:1,A

03-09-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.68	20012.854	20012.854	bb			0.5125	102.50	2.50	855.555	0.00

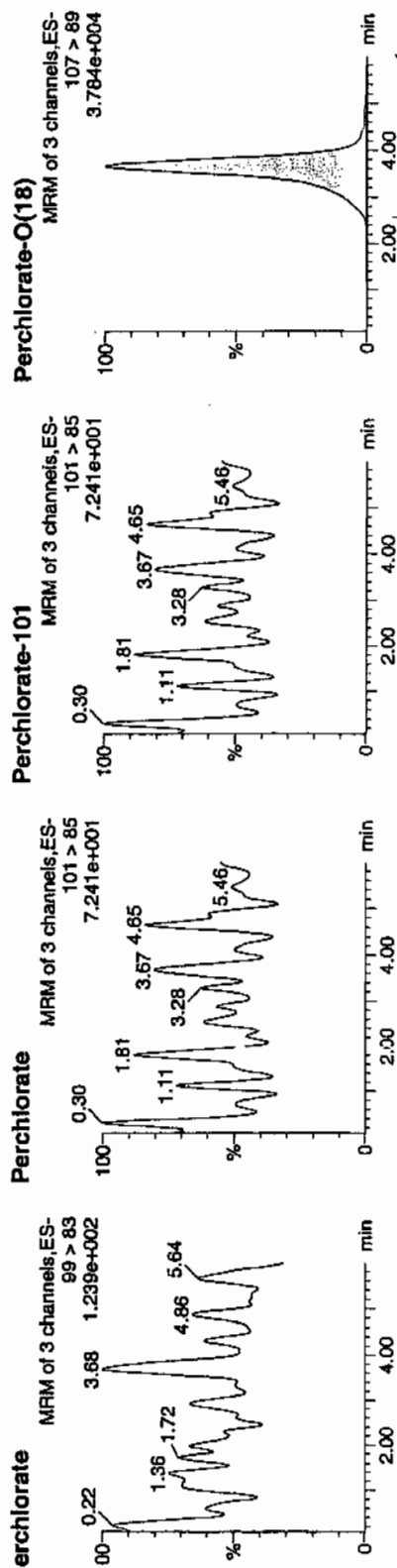
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308002a  
Date: 08-Mar-2010  
Time: 15:53:45  
ID: IPB001  
Label: 1:1,A

03-09-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											
Perchlorate-101	101 > 85	3.66	18783.678	18783.678	bb			0.4810	96.21	-3.79	1331.0...	0.00
Perchlorate-O(18)	107 > 89											

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-MAR-10	per0308008a	IPB002
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308008a	IPB002
Perchlorate	0.00	0	NA	08-MAR-10	per0308010a	IPB003
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308010a	IPB003
Perchlorate	0.00	0	NA	08-MAR-10	per0308022a	IPB004
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308022a	IPB004
Perchlorate	0.00	0	NA	08-MAR-10	per0308035a	IPB005
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308035a	IPB005
Perchlorate	0.00	0	NA	08-MAR-10	per0308048a	IPB006
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308048a	IPB006
Perchlorate	0.00	0	NA	08-MAR-10	per0308052a	IPB007
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308052a	IPB007
Perchlorate	0.00	0	NA	09-MAR-10	per0308061a	IPB008



Perchlorate Continuing Calibration Blank

GEL Job No.(SDG):- 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308061a	IPB008
Perchlorate	0.00	0	NA	09-MAR-10	per0308074a	IPB009
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308074a	IPB009
Perchlorate	0.00	0	NA	09-MAR-10	per0308087a	IPB010
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308087a	IPB010
Perchlorate	0.00	0	NA	09-MAR-10	per0308100a	IPB011
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308100a	IPB011
Perchlorate	0.00	0	NA	09-MAR-10	per0308106a	IPB012
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308106a	IPB012
Perchlorate	0.00	0	NA	09-MAR-10	per0308113a	IPB013
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308113a	IPB013

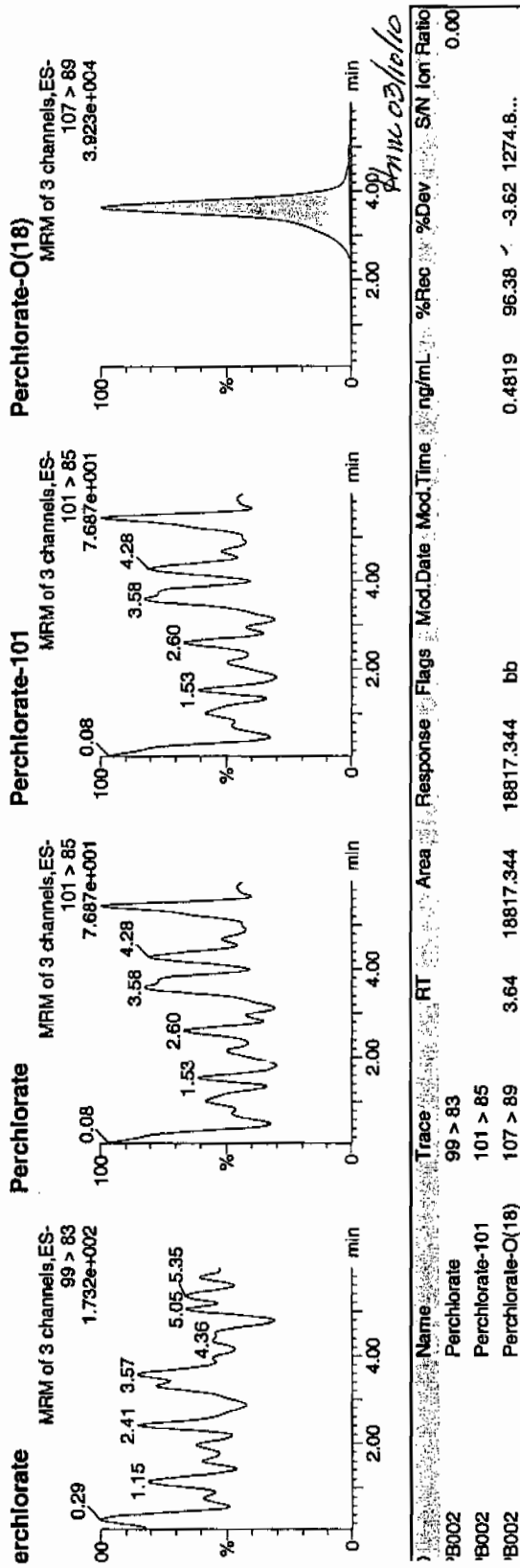
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\P perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308008a  
Date: 08-Mar-2010  
Time: 16:48:15  
Lab: IPB002  
Label: 1:1,A

*03-09-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85	3.64	18817.344	18817.344	bb			0.4819	96.38	-3.62	1274.8...	
Perchlorate-O(18)	107 > 89											

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308010a

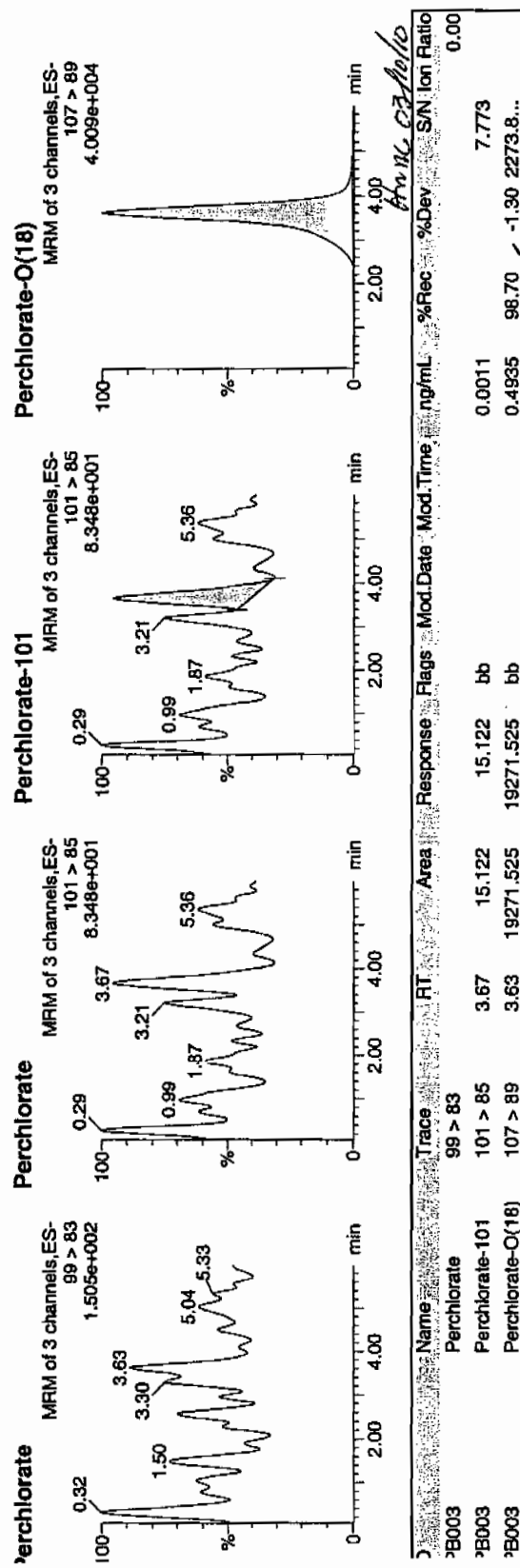
Date: 08-Mar-2010

Time: 17:06:27

ID: IPB003

Label: 1:1,A

03-09-10



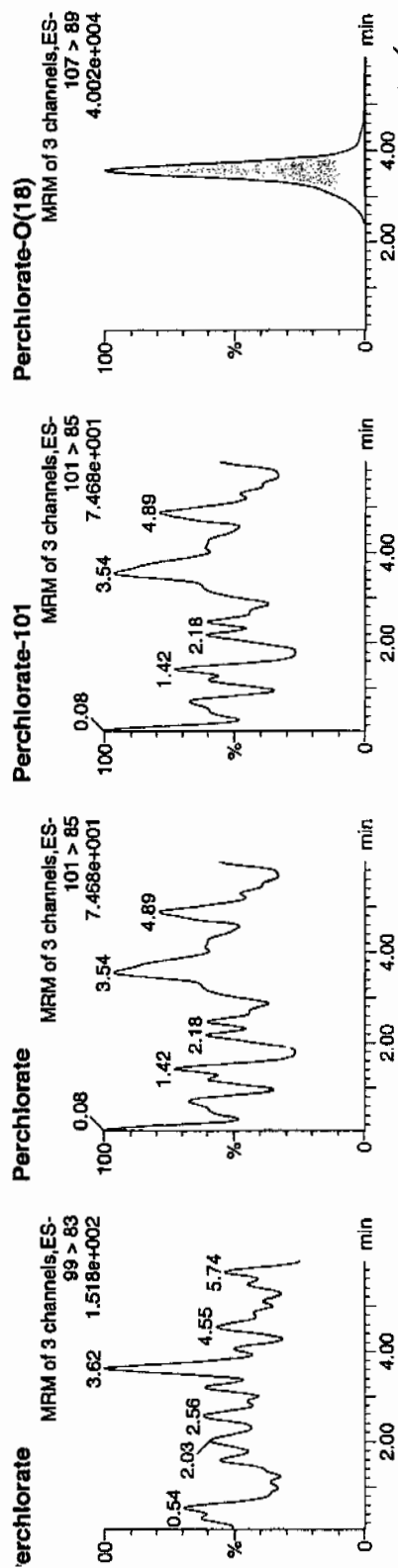
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308022a  
Date: 08-Mar-2010  
Time: 18:55:24  
ID: IPB004  
Label: 1:1,A

0309-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.58	19034.945	19034.945	bb			0.4875	97.49	-2.51	1930.8...	

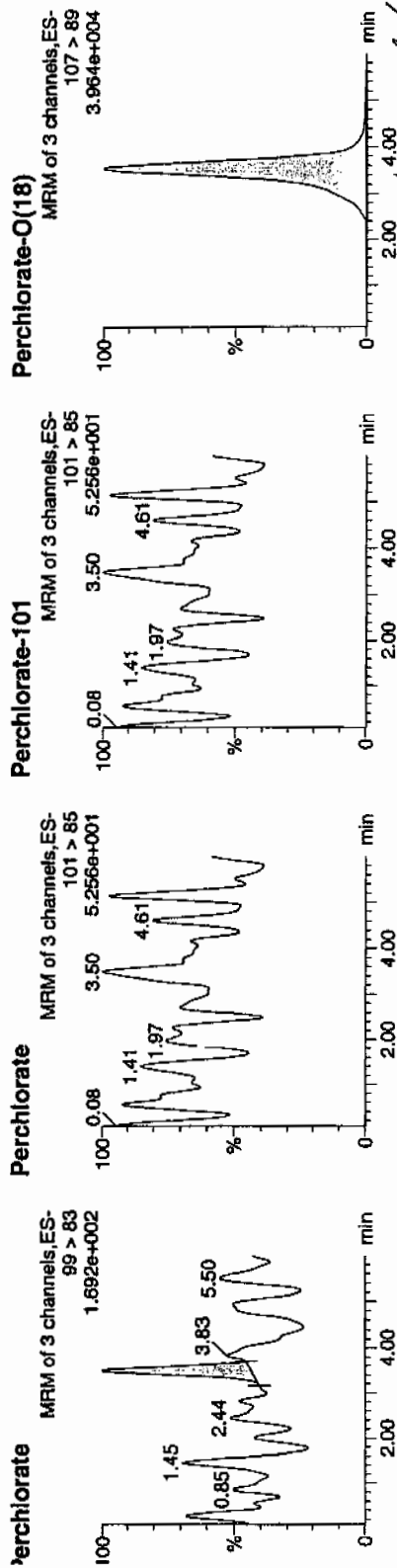
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308035a  
Date: 08-Mar-2010  
Time: 20:53:11  
D: IPB005  
File: 1:1,A

0309-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	3.50	20.240	20.240	bb			0.0004			12.166	0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.53	18853.305	18853.305	bb			0.4828	96.56	-3.44	2233.7	...

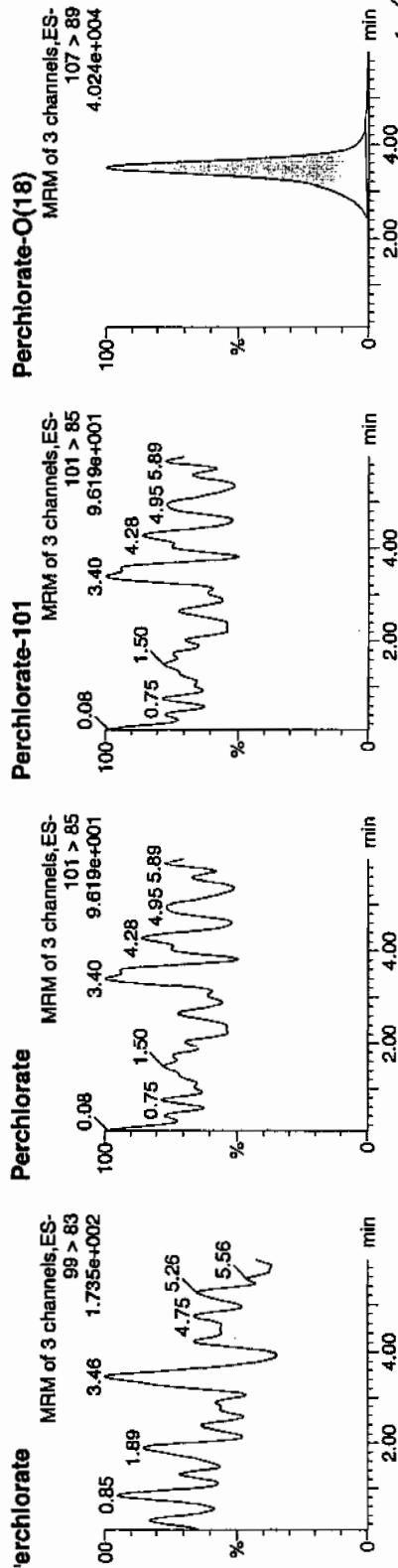
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Acquired: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308048a  
Date: 08-Mar-2010  
Time: 22:51:21  
ID: IPB006  
Label: 1:1,A

03-09-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.51	18258.602	18258.602	bb			0.4676	93.52	-6.48	1018.6...	

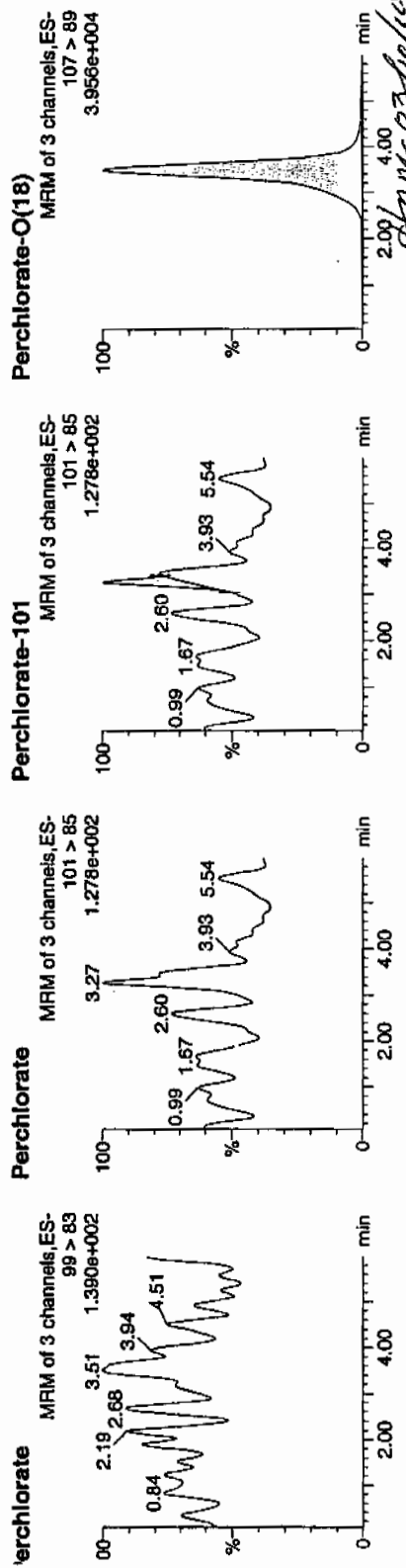
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308052a  
Date: 08-Mar-2010  
Time: 23:27:41  
User: IPB007  
File: 1:1,A

03-04-10



Sample	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B007	Perchlorate	99 > 83											
B007	Perchlorate-101	101 > 85	3.27	7.250	7.250	bb			0.0005			11.574	
B007	Perchlorate-O(18)	107 > 89	3.50	18495.547	18495.547	bb			0.4736	94.73	-5.27	613.571	

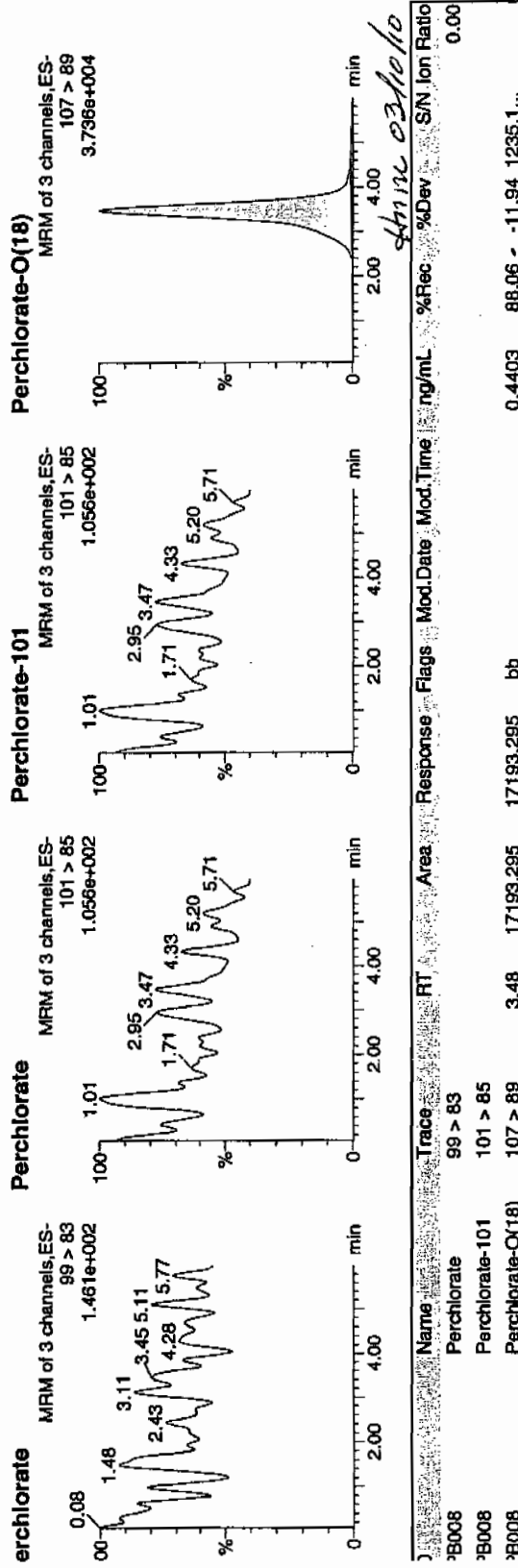
Quantify Sample Report MassLynx 4.0 SP4  
 he GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308061a  
 Date: 09-Mar-2010  
 Time: 00:50:02  
 ID: IPB008  
 Label: 1:1,A

*Handwritten:* 03-09-10





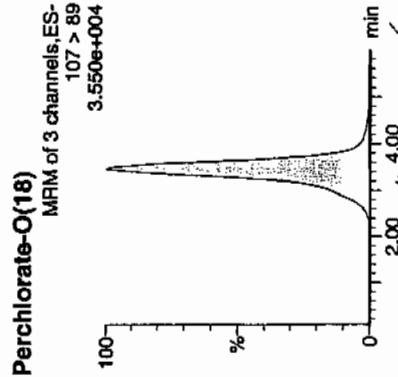
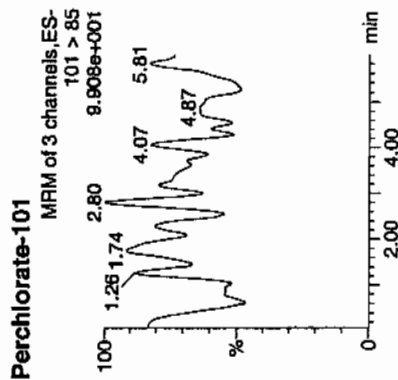
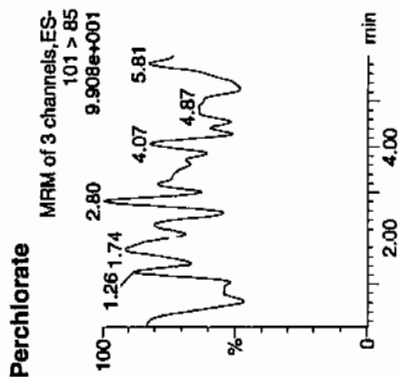
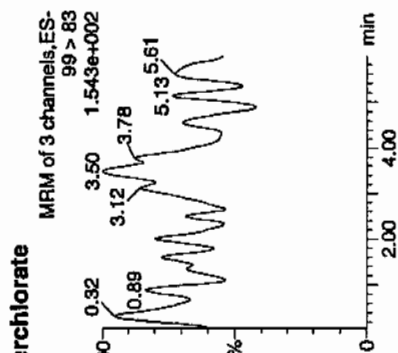
Identify Sample Report MassLynx 4.0 SP4  
e GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

st Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
nted: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

ime: per0308074a  
ite: 09-Mar-2010  
me: 02:48:02  
: IPB009  
al: 1:1,A

W20  
03-04-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.47	16711.643	16711.643	bb			0.4280	85.59	-14.41	2348.6...	

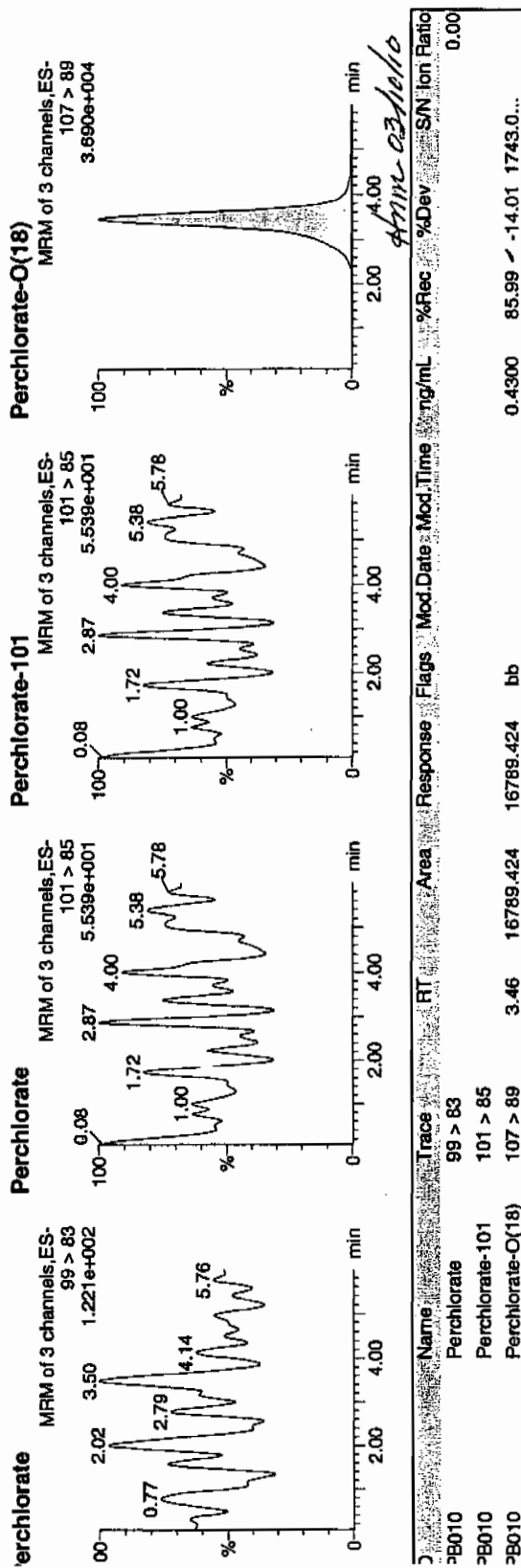
Quantity Sample Report MassLynx 4.0 SP4  
 he GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Sample Name: per0308087a  
 Date: 09-Mar-2010  
 Time: 04:46:06  
 ID: IPB010  
 Label: 1:1,A

03 04-10



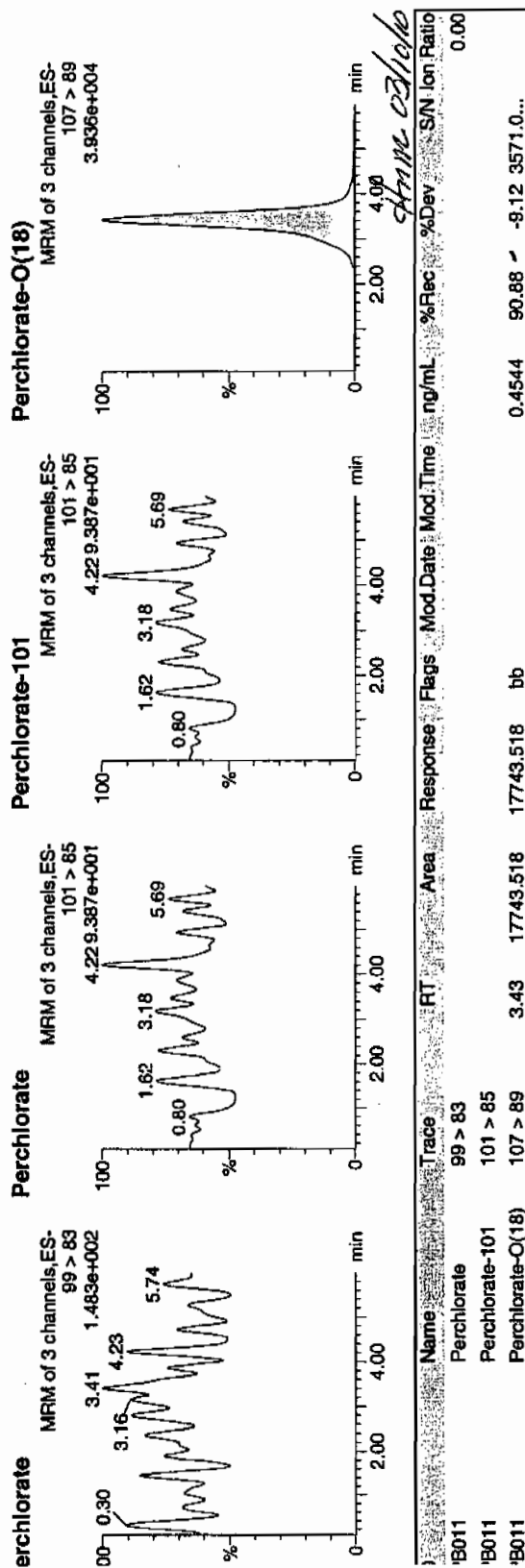
Quantify Sample Report MassLynx 4.0 SP4  
 to GEL Group, LLC Analyst: Charlers W. Wilson

atset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

First Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

name: per0308100a  
 ate: 09-Mar-2010  
 ime: 06:44:12  
 ): IPB011  
 ial: 1:1,A

03-04-10



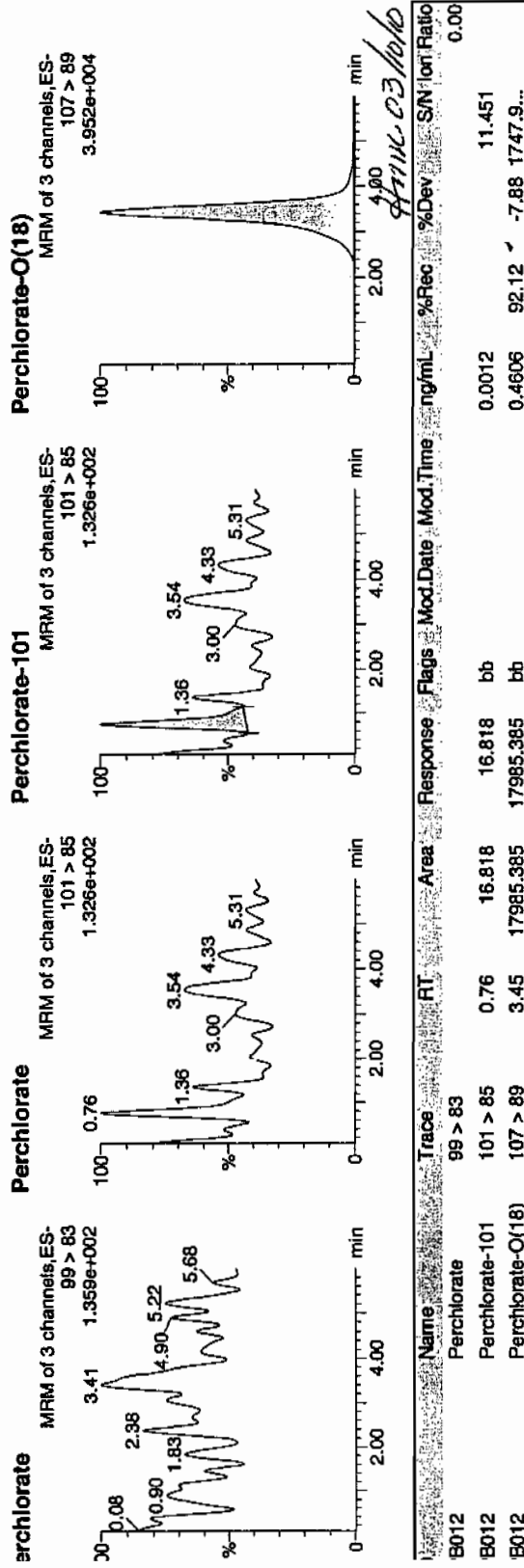
uantify Sample Report MassLynx 4.0 SP4  
 1e GEL Group, LLC Analyst: Charlers W. Wilson

atasset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

ist Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 ifted: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

ame: per0308106a  
 ate: 09-Mar-2010  
 ime: 07:38:40  
 i: IPB012  
 ial: 1:1,A

03-04-10



uantify Sample Report MassLynx 4.0 SP4  
 the GEL Group, LLC Analyst: Charlers W. Wilson

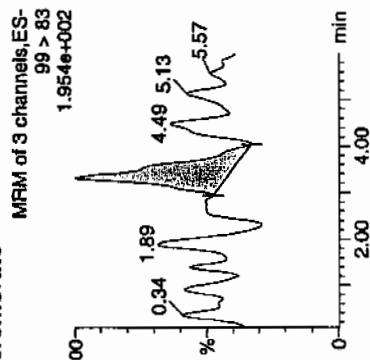
atasset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

ast Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 rinted: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

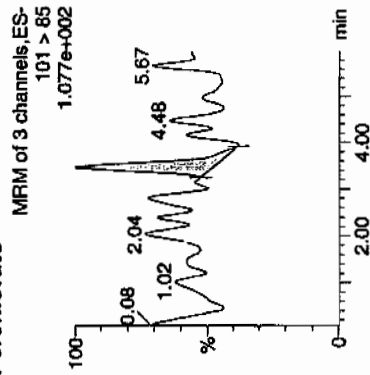
ame: per0308113a  
 ate: 09-Mar-2010  
 ime: 08:42:34  
 ): IPB013  
 lai: 1:1,A

03-04-10

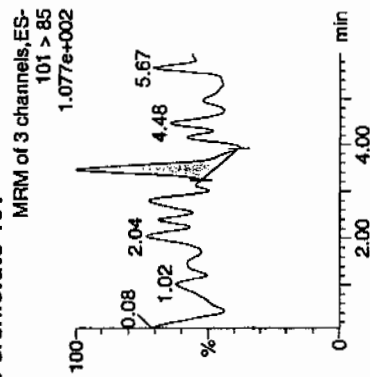
### Perchlorate



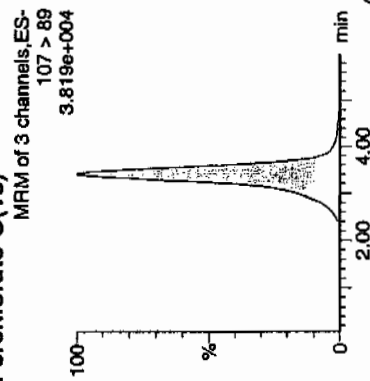
### Perchlorate



### Perchlorate-101



### Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	np/mL	%Rec	%Dev	SN	Ion Ratio
B013	Perchlorate	3.31	49.128	49.128	bb			0.0010	15.157	3.73		
B013	Perchlorate-101	3.47	13.179	13.179	bb			0.0009	10.441			
B013	Perchlorate-O(18)	3.41	17347.779	17347.779	bb			0.4443	88.85	-11.15	3743.1...	

Handwritten signature: *Handwritten signature*

Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

QUATRO ULTIMA: nairb 01\_08\_08.cal

Calibration Report - MS1 Static

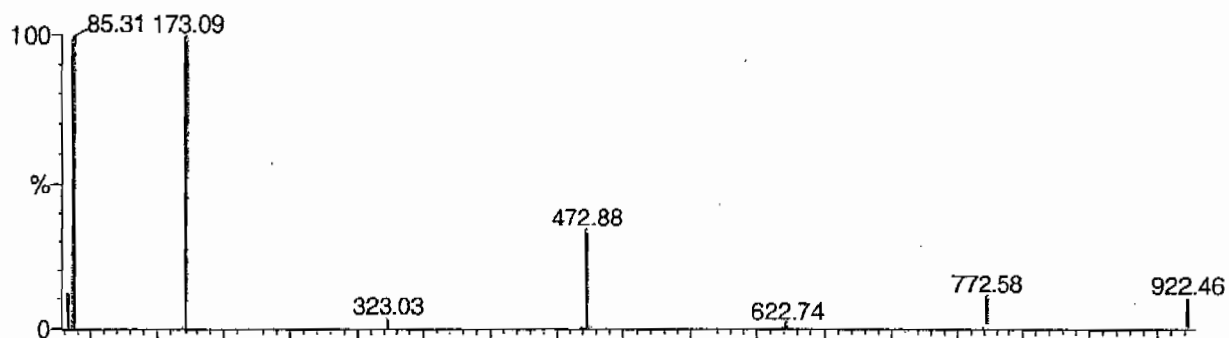
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

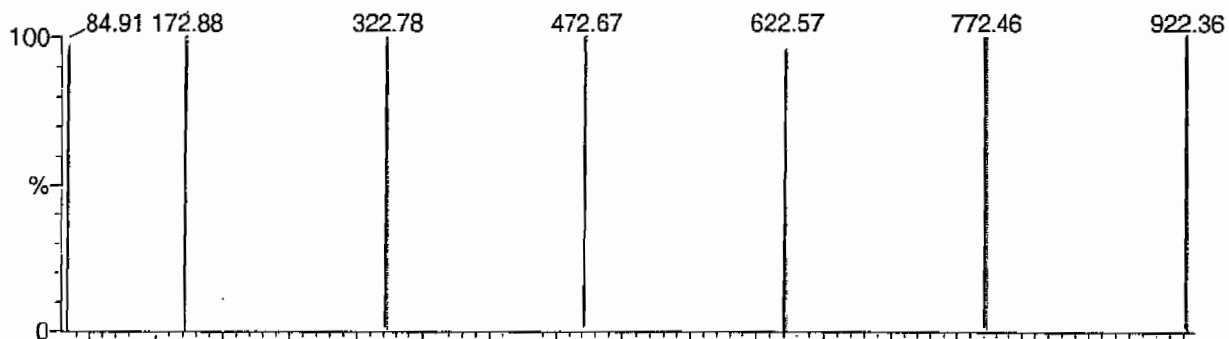
POINTS HIGHLIGHTED BY CURVE 01-09-08

Data file: STATMS1 - Uncalibrated

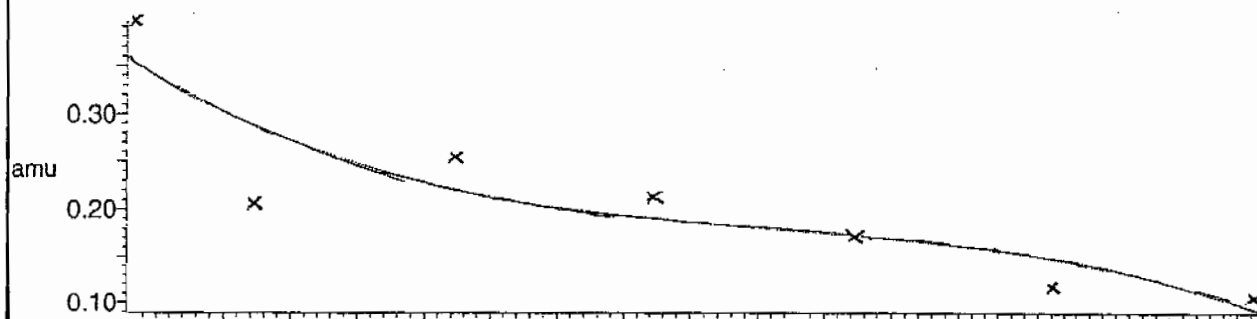
7 matches of 7 tested references



Reference file: Nairb

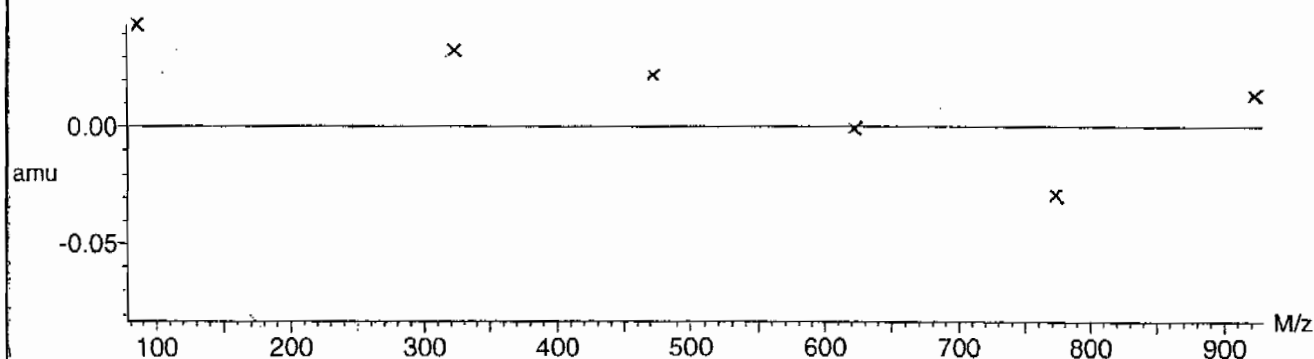


Mass difference (Raw - Ref mass)



Residuals

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



Calibration Report - MS1 Scanning

Page 1 of 1

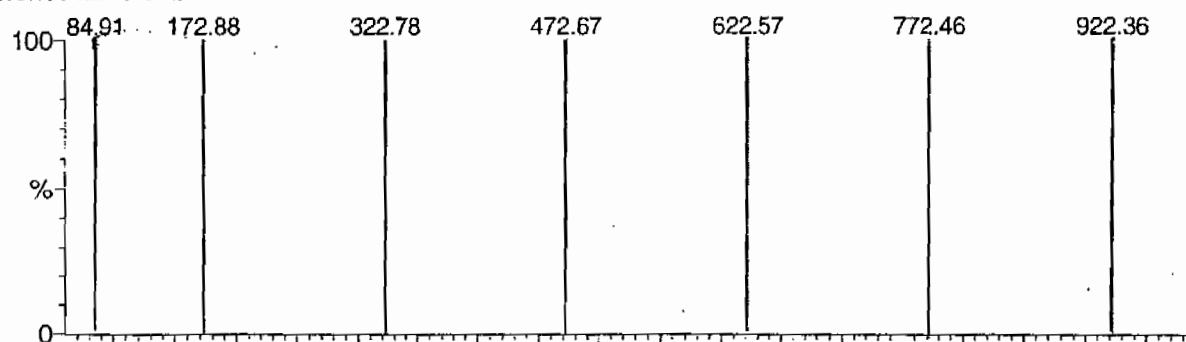
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

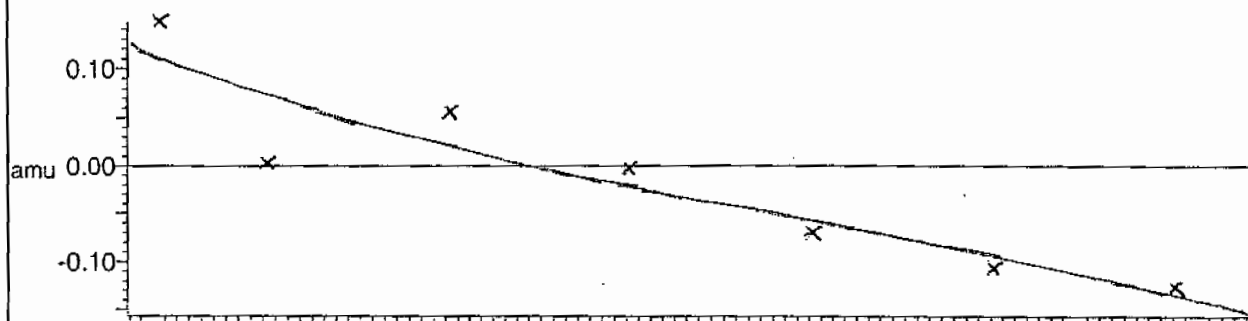
7 matches of 7 tested references



Reference file: Nairb

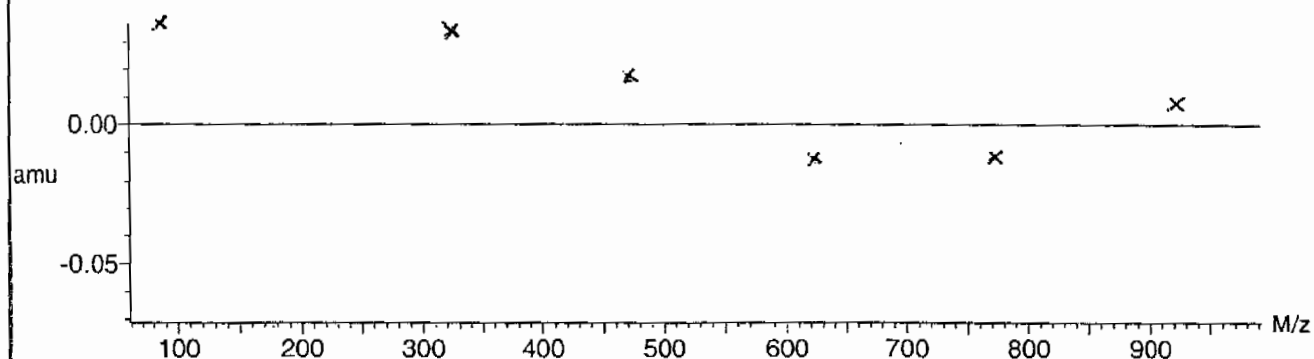


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$





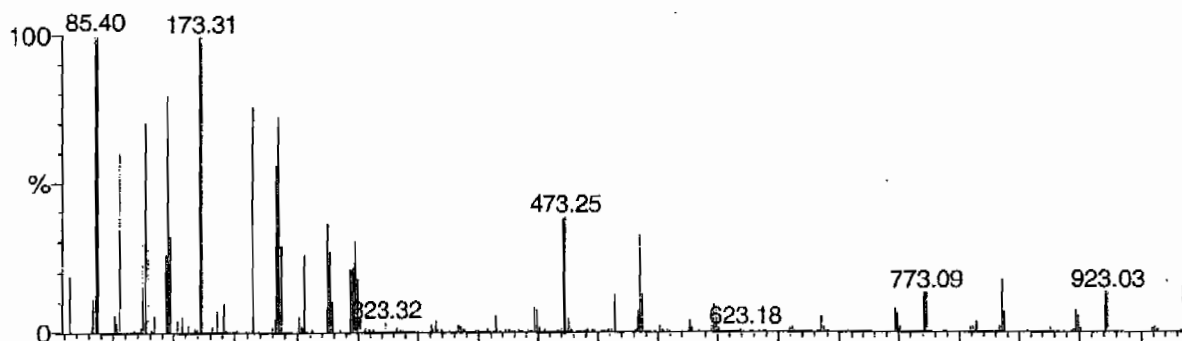
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

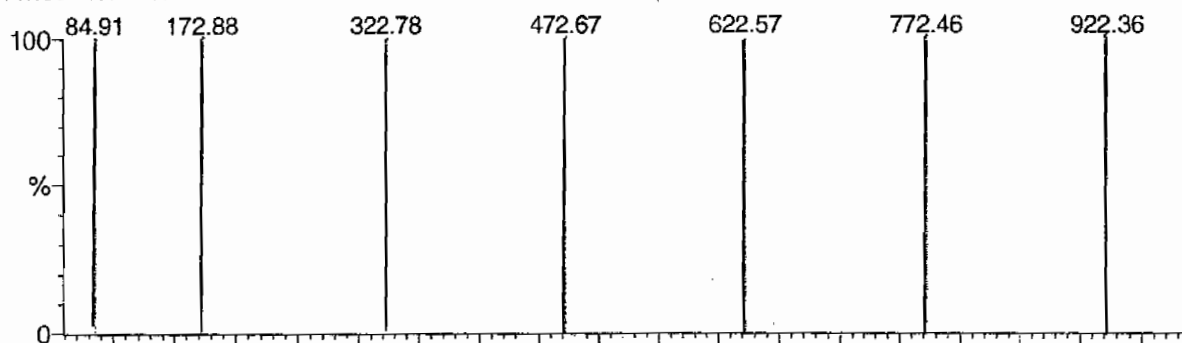
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

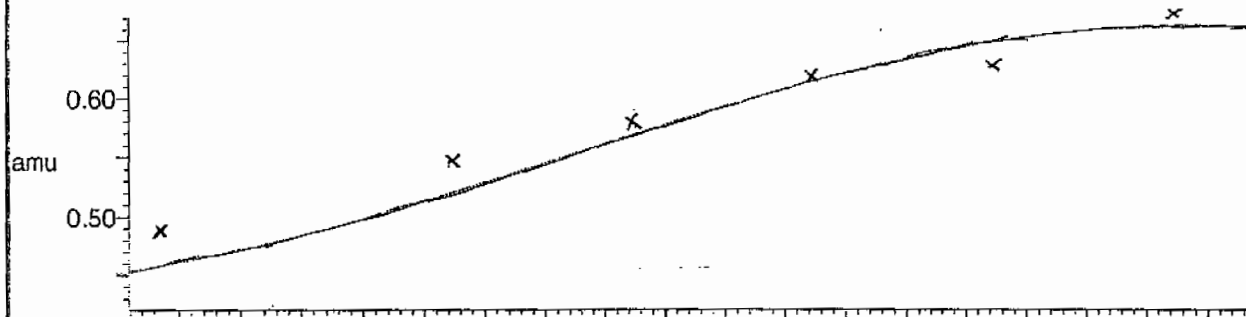
7 matches of 7 tested references



Reference file: Nairb

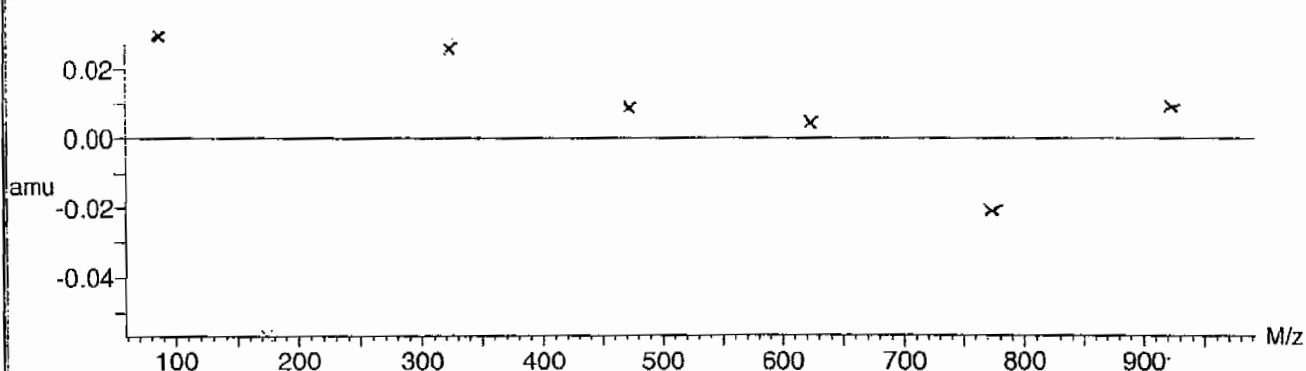


Mass difference (Raw - Ref mass)



Residuals

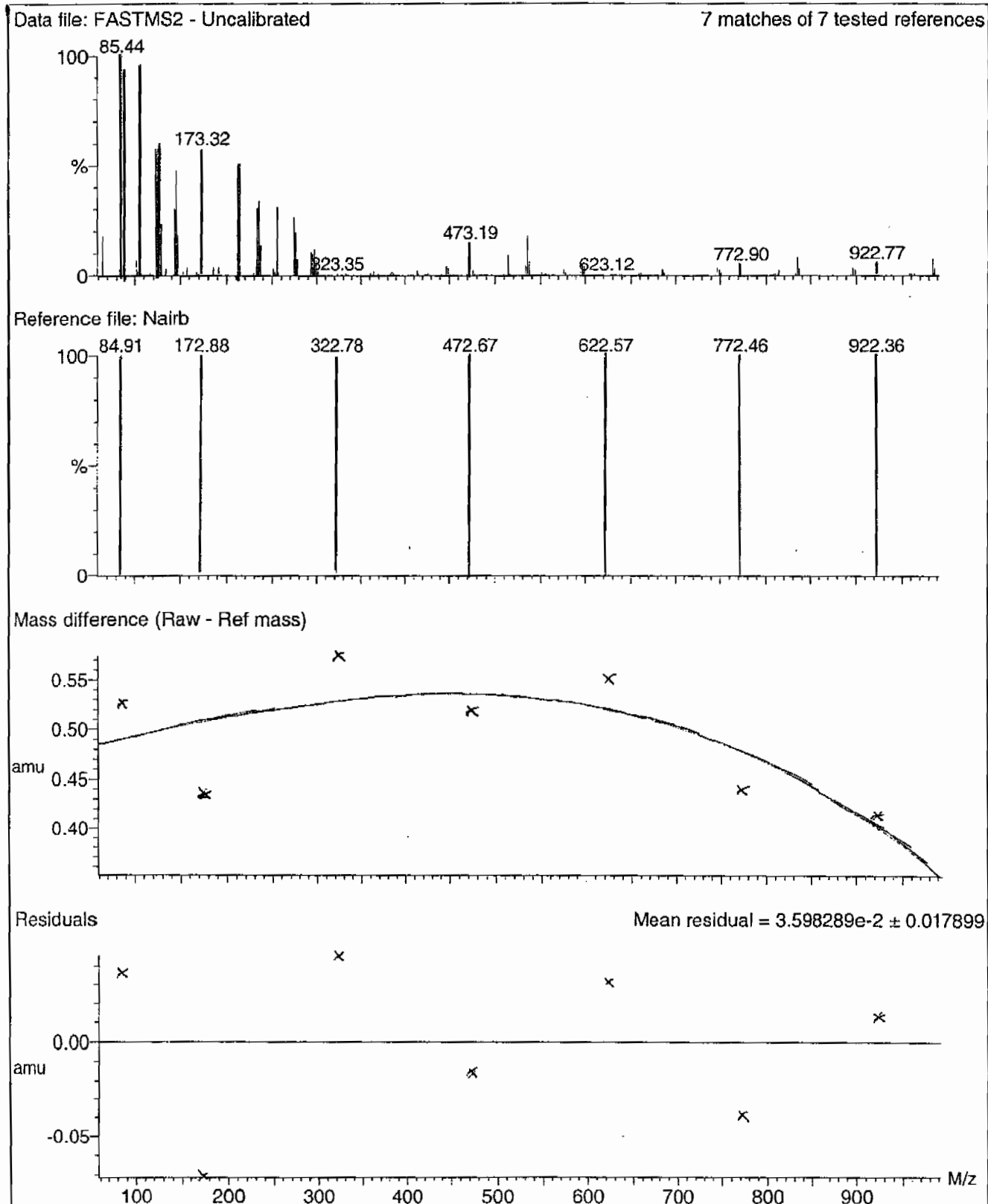
Mean residual =  $2.224580 \times 10^{-2} \pm 0.016544$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

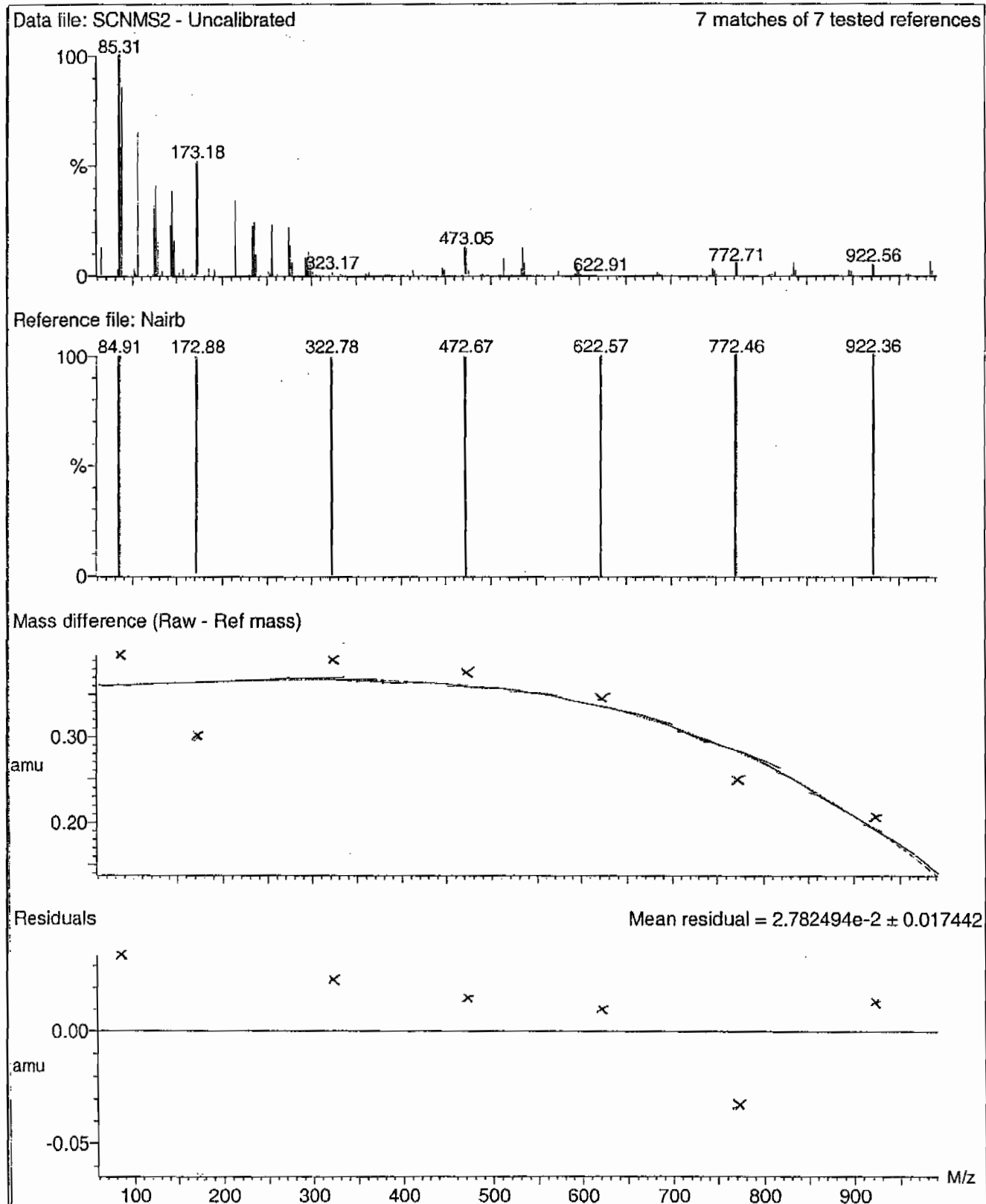
Printed: Tue Jan 08 12:23:51 2008



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008



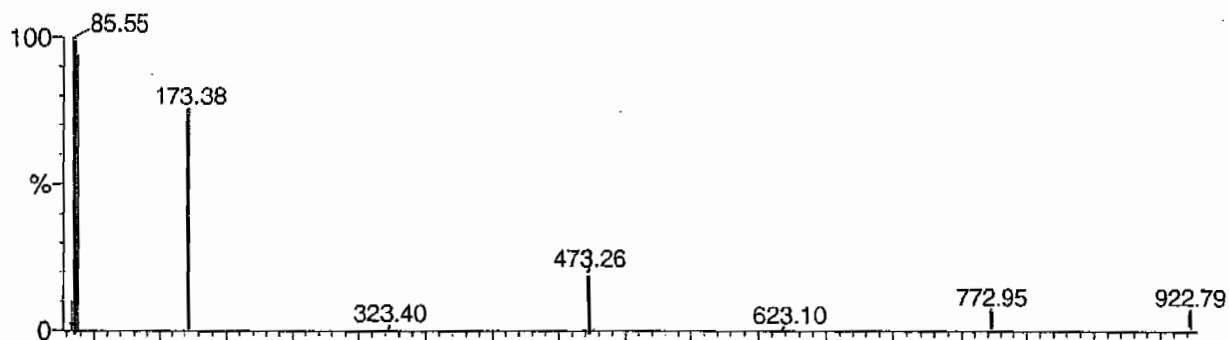
Calibration Report - MS2 Static

Page 1 of 1

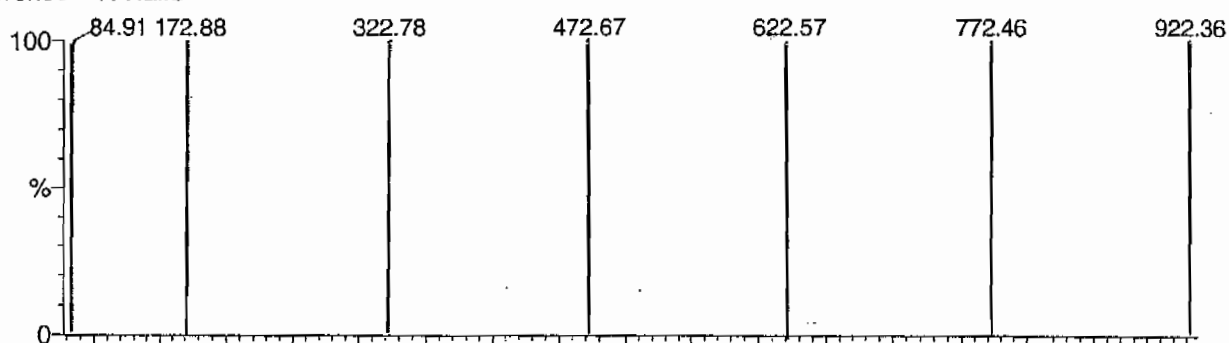
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

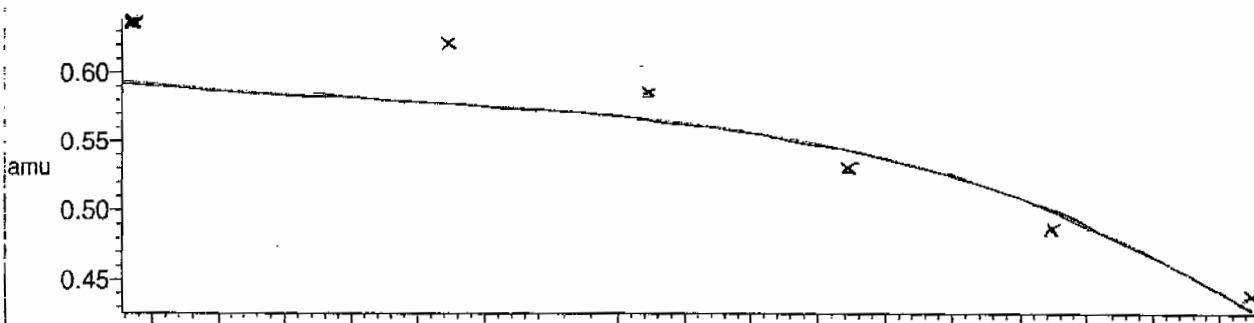
7 matches of 7 tested references



Reference file: Nairb

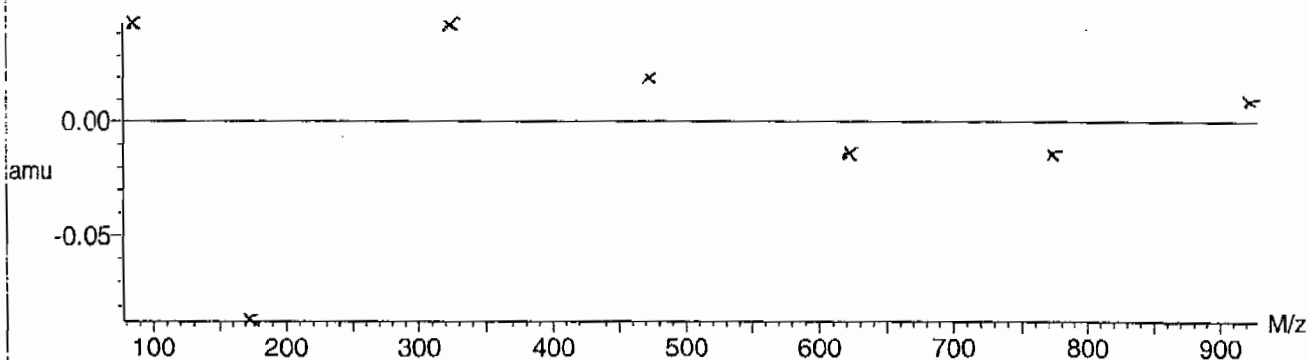


Mass difference (Raw - Ref mass)



Residuals

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



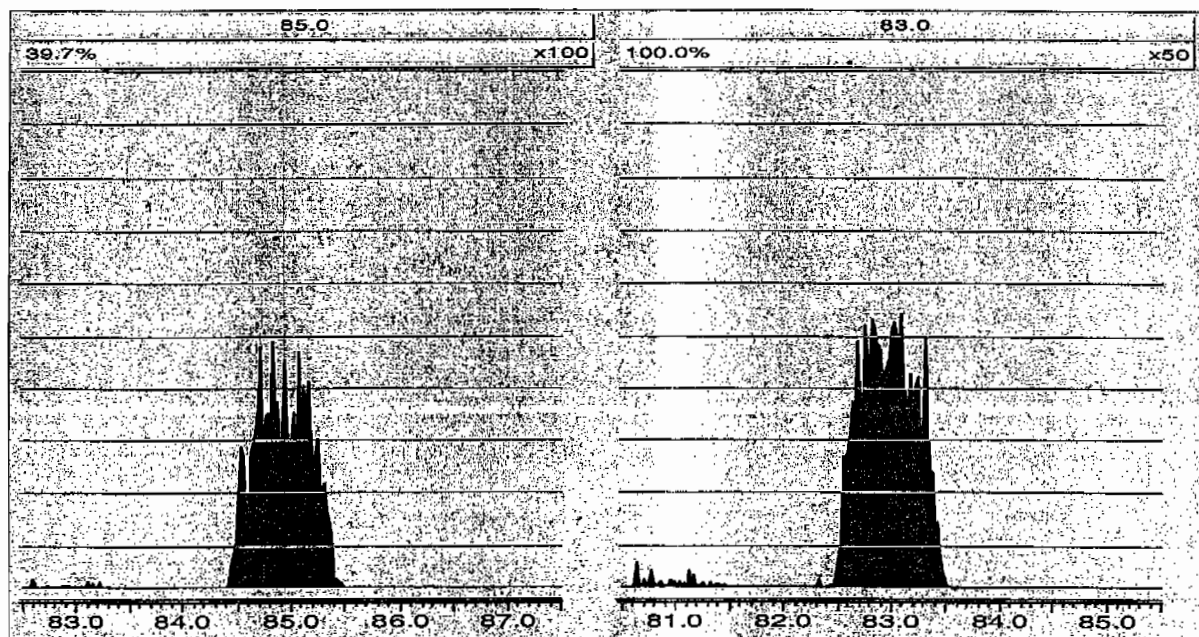
**Tune Parameters**

**MassLynx 4.0 SP4**

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, March 08, 2010 10:18:13 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-2075-1

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	per0308006a	08-MAR-10	19792.7				
Lower Area Limit			9896.35				
Upper Area Limit			39585.4				
1202056710	per0308076a	09-MAR-10 03:06	15825.6	3.47	3.43317	.989	
1202056711	per0308077a	09-MAR-10 03:15	16378.9	3.47	3.4828	1.004	
1202056714	per0308078a	09-MAR-10 03:24	17957.4	3.51	3.52005	1.003	
248046001	per0308098a	09-MAR-10 06:25	16479.3	3.45	3.43317	.995	
248046002	per0308102a	09-MAR-10 07:02	18110.6	3.43			

# SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 929043  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. RE36-10-7528  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075-1  
 GEL Sample ID: 248046001  
 Date Filtered: 03-MAR-10  
 Injection Volume (uL): 20  
 % Solids:

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate Isotope Ratio						1	09-MAR-10 06:25	per0308098a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 06:25	per0308098a
	Perchlorate-O(18)			0.422	ug/L		1	09-MAR-10 06:25	per0308098a

<sup>^</sup> 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  $\frac{1}{\% \text{Solids}}$



Identify Sample Report MassLynx 4.0 SP4

e GEL Group, LLC Analyst: Charlers W. Wilson

Fileset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Sample Name: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time

Sample ID: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

File Name: per0308098a

File Date: 09-Mar-2010

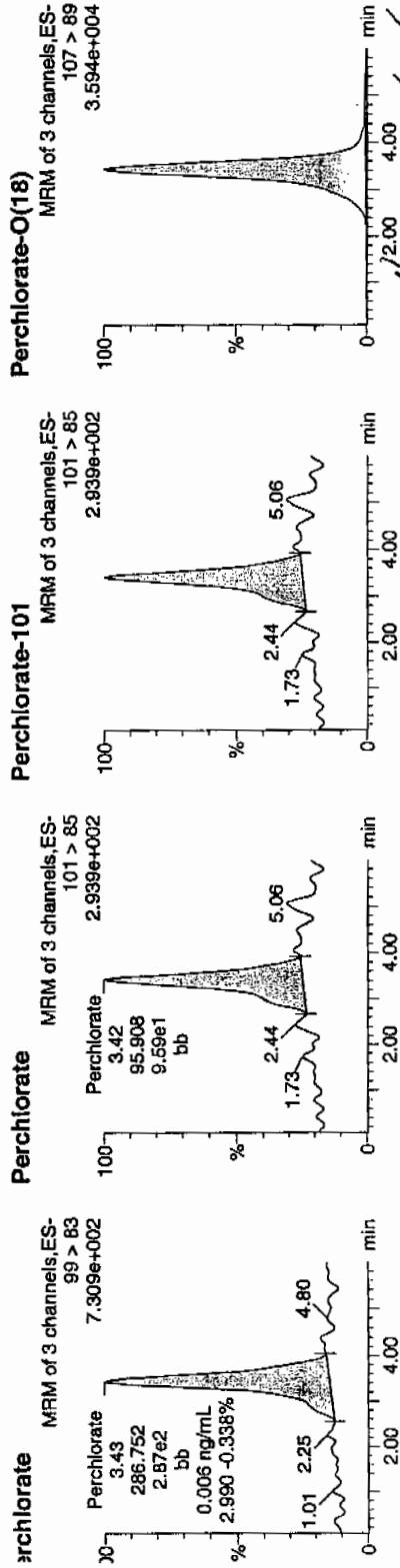
Time: 06:25:49

Sample ID: 248046001

Label: 2.7,B

1522-1959044 | LTA | 11

03-09-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
48046001	Perchlorate	99 > 83	3.43	286.752	bb			0.0061			20.808	2.99
48046001	Perchlorate-101	101 > 85	3.42	95.908	bb			0.0067			13.454	
48046001	Perchlorate-O(18)	107 > 89	3.45	16479.324	bb			0.4220	84.40	-15.60	617.489	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 259043  
 Extraction Type: Filter/DAI  
 Client Sample No. RE36-10-7527  
 Date Received: 25-FEB-10  
 GEL Job No (SDG): 10-2075-1  
 GEL Sample ID: 248046002  
 Date Filtered: 03-MAR-10  
 Injection Volume (uL): 20

%Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate Isotope Ratio						1	09-MAR-10 07:02	per0308102a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:02	per0308102a
	Perchlorate-O(18)			0.464	ug/L		1	09-MAR-10 07:02	per0308102a

<sup>^</sup> 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  $\frac{1}{\% \text{Solids}}$

Identify Sample Report MassLynx 4.0 SP4

ie GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

First Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time

infied: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

ame: per0308102a

ate: 09-Mar-2010

me: 07:02:16

: 248046002

al: 2:7,C

03-09-10

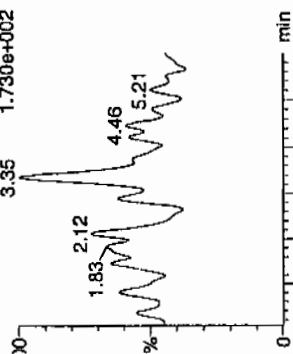
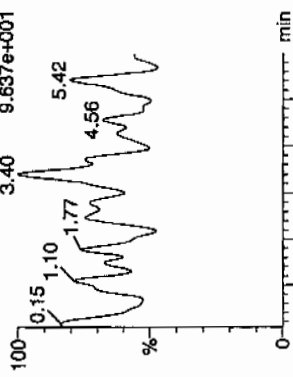
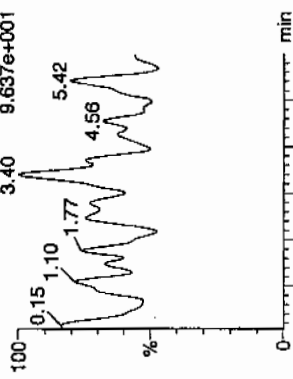
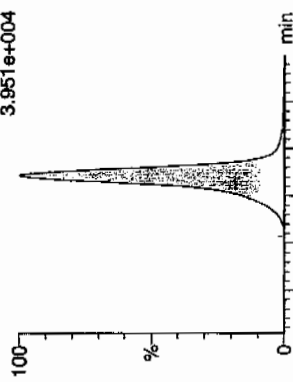
LANU | 959044 | 2011

Perchlorate-O(18)  
MRM of 3 channels, ES-  
107 > 89  
3.951e+004

Perchlorate-101  
MRM of 3 channels, ES-  
101 > 85  
9.637e+001

Perchlorate  
MRM of 3 channels, ES-  
101 > 85  
9.637e+001

Perchlorate  
MRM of 3 channels, ES-  
99 > 83  
1.730e+002



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
18046002	Perchlorate	99 > 83										0.00
18046002	Perchlorate-101	101 > 85										
18046002	Perchlorate-O(18)	107 > 89	3.43	18110.627	bb	18110.627		0.4638	92.76	-7.24	5799.7...	

# STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2075-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 08-MAR-10

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

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

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 47047.38

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 08-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16.2 X 50 mm

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

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 14296.94

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\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

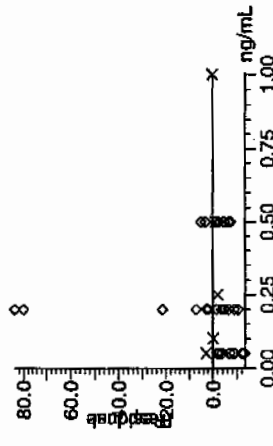
Compound name: Perchlorate

Response Factor: 47047.4

RF SD: 838.521, % Relative SD: 1.78229

Response type: External Std, Area

Curve type: RF



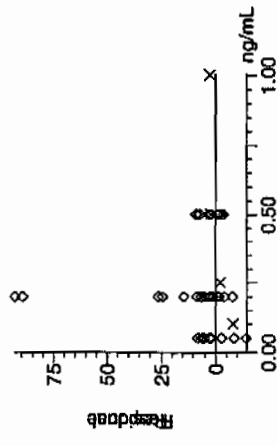
Compound name: Perchlorate-101

Response Factor: 14297

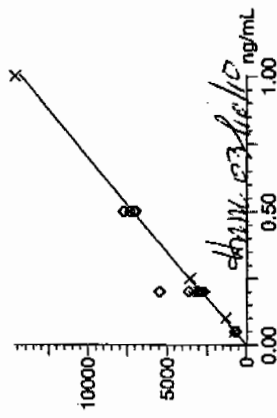
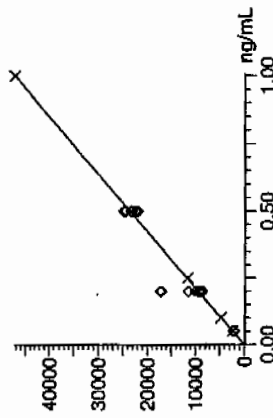
RF SD: 749.315, % Relative SD: 5.24108

Response type: External Std, Area

Curve type: RF



03-09-10

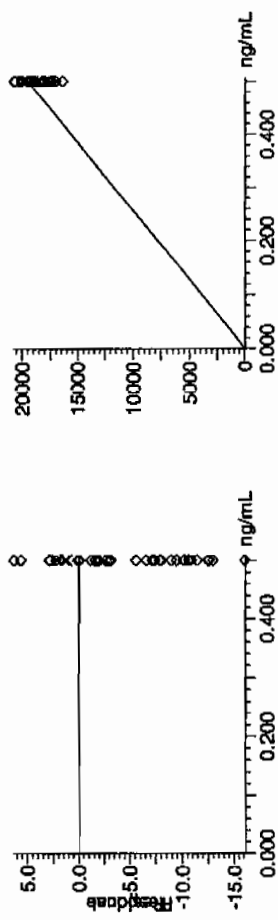


Quantify Calibration Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Compound name: Perchlorate-O(18)  
Response Factor: 39049  
RF SD: 832.552, % Relative SD: 2.13207  
Response type: External Std, Area  
Curve type: RF





Form 3

Perchlorate Initial Calibration Verification

GEL Job No.(SDG): 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.14	08-MAR-10 16:57	per0308009a
Perchlorate Isotope Ratio		3.18		08-MAR-10 16:57	per0308009a
Perchlorate-101	.5	.54	108.66	08-MAR-10 16:57	per0308009a

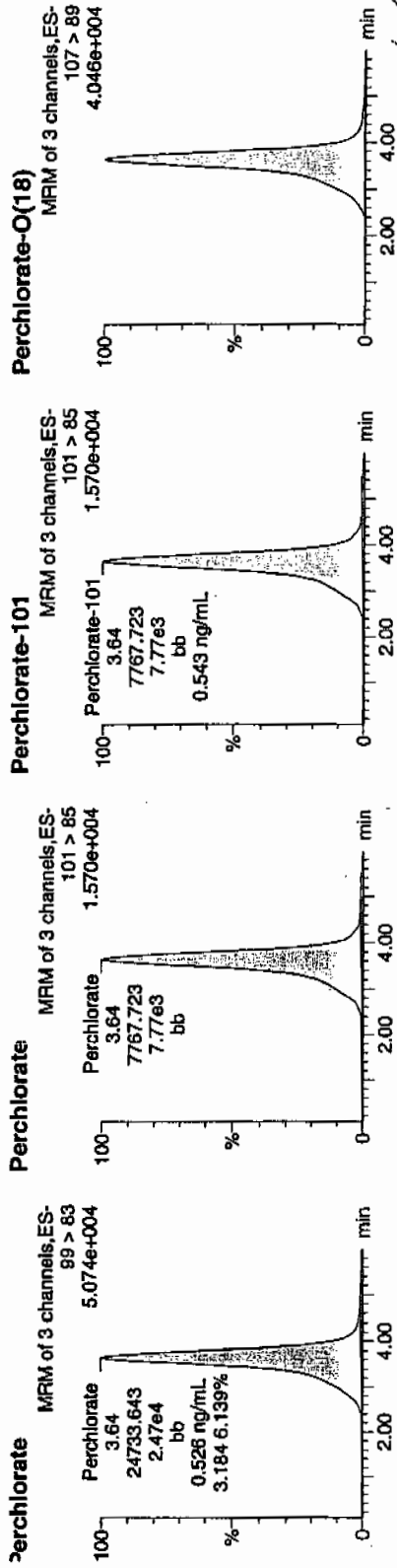
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308009a  
Date: 08-Mar-2010  
Time: 16:57:17  
D: WCL100227-06ICV  
Vial: 1:2,A

*Per  
0.528  
03-04-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100227-06ICV	Perchlorate	99 > 83	3.64	24733.643	24733.643	bb		0.5257	105.14	5.14	543.107	3.18
VCL100227-06ICV	Perchlorate-101	101 > 85	3.64	7767.723	7767.723	bb		0.5433	108.66	8.66	159.570	
VCL100227-06ICV	Perchlorate-O(18)	107 > 89	3.63	19967.303	19967.303	bb		0.5113	102.27	2.27	1535.3...	

*HW-03/10/10*

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.28	08-MAR-10 18:46	per0308021a
Perchlorate Isotope Ratio		3.14		08-MAR-10 18:46	per0308021a
Perchlorate-101	.5	.54	108.41	08-MAR-10 18:46	per0308021a
Perchlorate	.5	.53	105.15	08-MAR-10 20:44	per0308034a
Perchlorate Isotope Ratio		3.23		08-MAR-10 20:44	per0308034a
Perchlorate-101	.5	.54	107.08	08-MAR-10 20:44	per0308034a
Perchlorate	.5	.52	103.16	08-MAR-10 22:42	per0308047a
Perchlorate Isotope Ratio		3.13		08-MAR-10 22:42	per0308047a
Perchlorate-101	.5	.54	108.56	08-MAR-10 22:42	per0308047a
Perchlorate	.5	.5	99.29	09-MAR-10 00:40	per0308060a
Perchlorate Isotope Ratio		3.17		09-MAR-10 00:40	per0308060a
Perchlorate-101	.5	.51	102.95	09-MAR-10 00:40	per0308060a
Perchlorate	.5	.48	95.1	09-MAR-10 02:38	per0308073a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.07			09-MAR-10 02:38	per0308073a
Perchlorate-101	.5	.51	101.9		09-MAR-10 02:38	per0308073a
Perchlorate	.5	.46	92.67		09-MAR-10 04:36	per0308086a
Perchlorate Isotope Ratio		3.1			09-MAR-10 04:36	per0308086a
Perchlorate-101	.5	.49	98.48		09-MAR-10 04:36	per0308086a
Perchlorate	.5	.47	93.76		09-MAR-10 06:34	per0308099a
Perchlorate Isotope Ratio		3.2			09-MAR-10 06:34	per0308099a
Perchlorate-101	.5	.48	96.42		09-MAR-10 06:34	per0308099a
Perchlorate	.5	.48	95.65		09-MAR-10 08:33	per0308112a
Perchlorate Isotope Ratio		3.22			09-MAR-10 08:33	per0308112a
Perchlorate-101	.5	.49	97.77		09-MAR-10 08:33	per0308112a

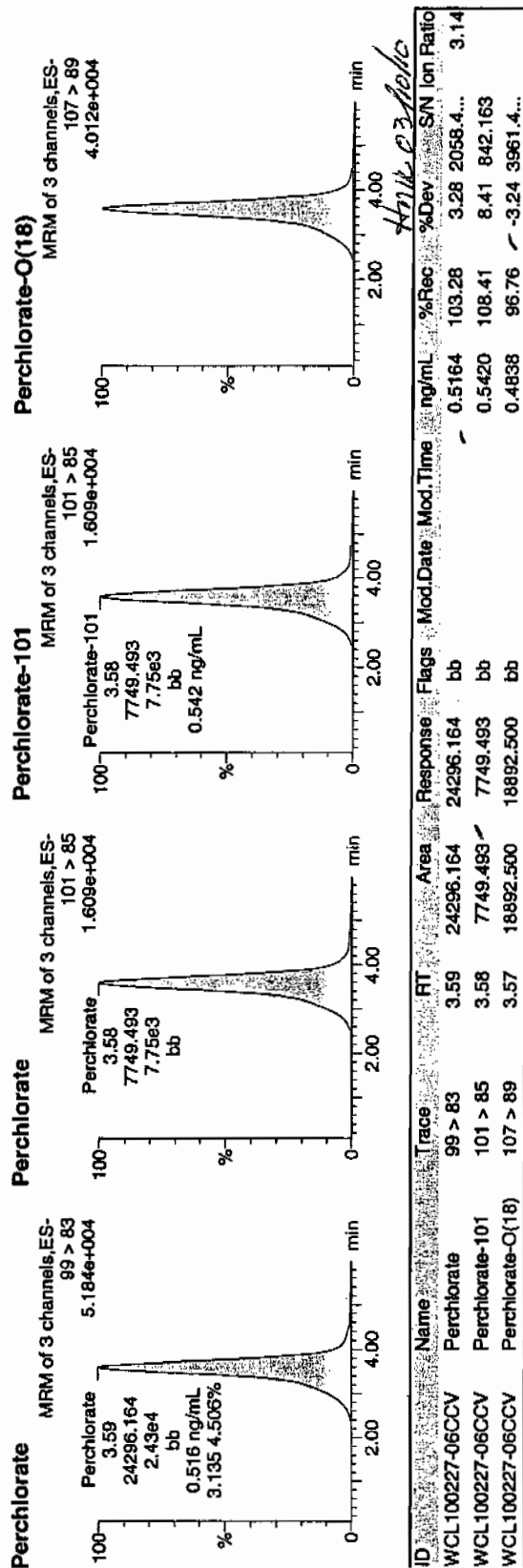
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308021a  
Date: 08-Mar-2010  
Time: 18:46:13  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Run*  
*0309-10*



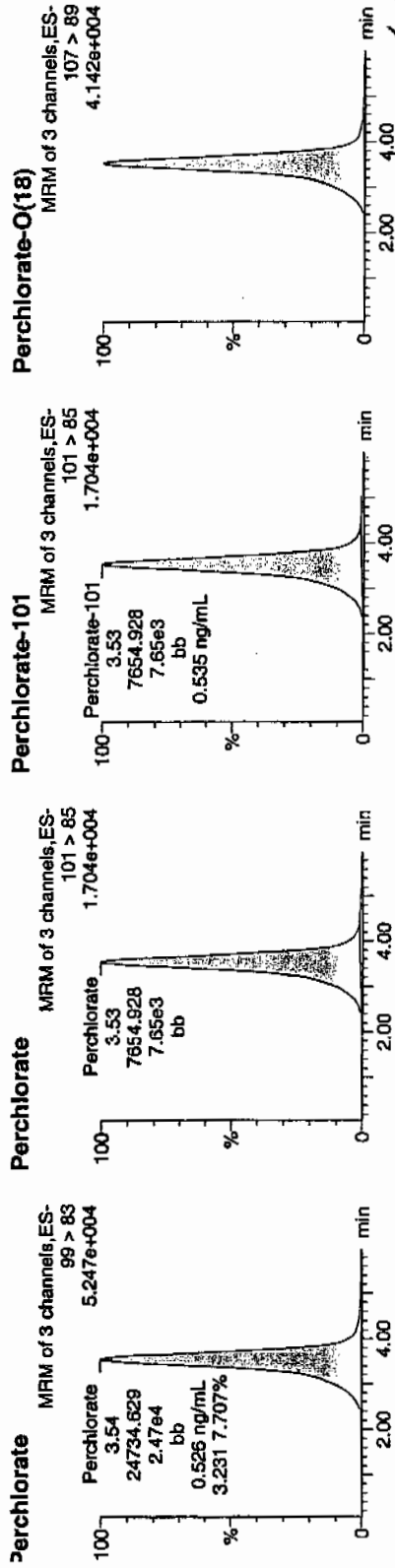
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308034a  
Date: 08-Mar-2010  
Time: 20:44:08  
ID: WCL100227-06CCV  
Vial: 1:2,A

*per*  
*03-09-10*



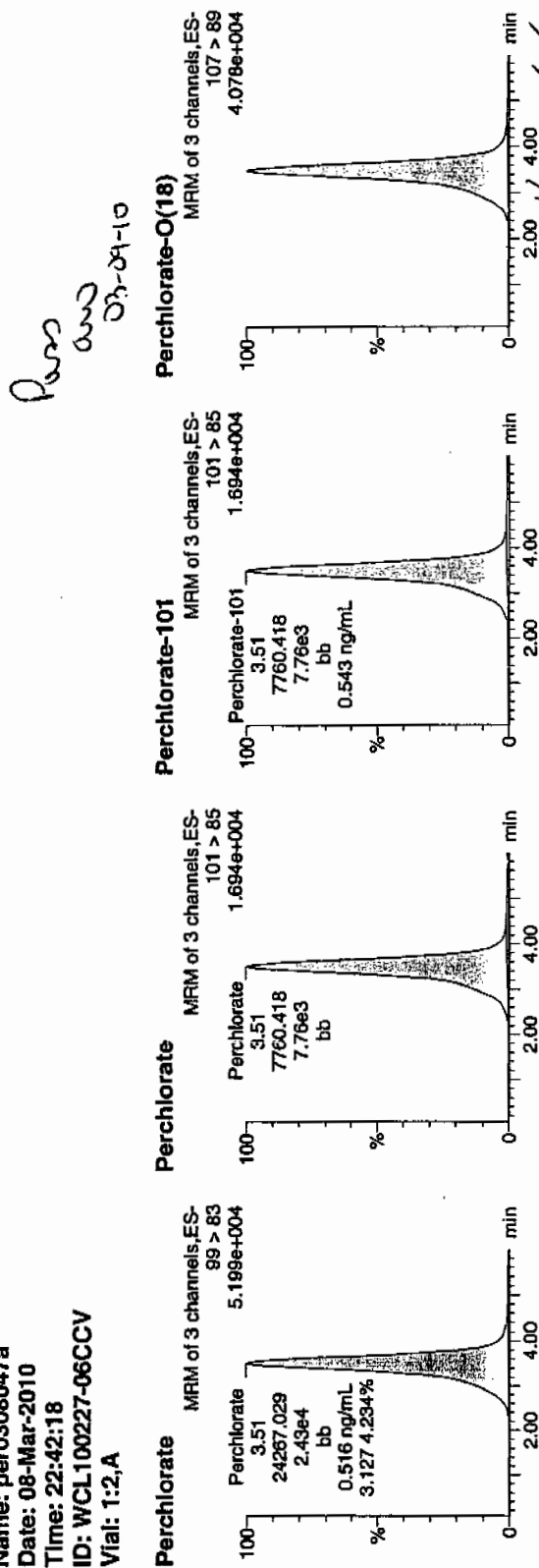
D	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
	WCL100227-06CCV	Perchlorate	99 > 83	3.54	24734.629	24734.629	bb		0.5257	105.15	5.15	2200.8...	3.23
	WCL100227-06CCV	Perchlorate-101	101 > 85	3.53	7654.928	7654.928	bb		0.5354	107.08	7.08	2331.6...	
	WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.53	19141.506	19141.506	bb		0.4902	98.04	-1.96	1232.7...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308047a  
Date: 08-Mar-2010  
Time: 22:42:18  
ID: WCL100227-06CCV  
Vial: 1:2,A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.51	24267.029	24267.029	bb			0.5158	103.16	3.16	1490.7...	3.13
WCL100227-06CCV	Perchlorate-101	101 > 85	3.51	7760.418	7760.418	bb			0.5428	108.56	8.56	1343.7...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.50	18936.834	18936.834	bb			0.4849	96.99	-3.01	1821.0...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308060a

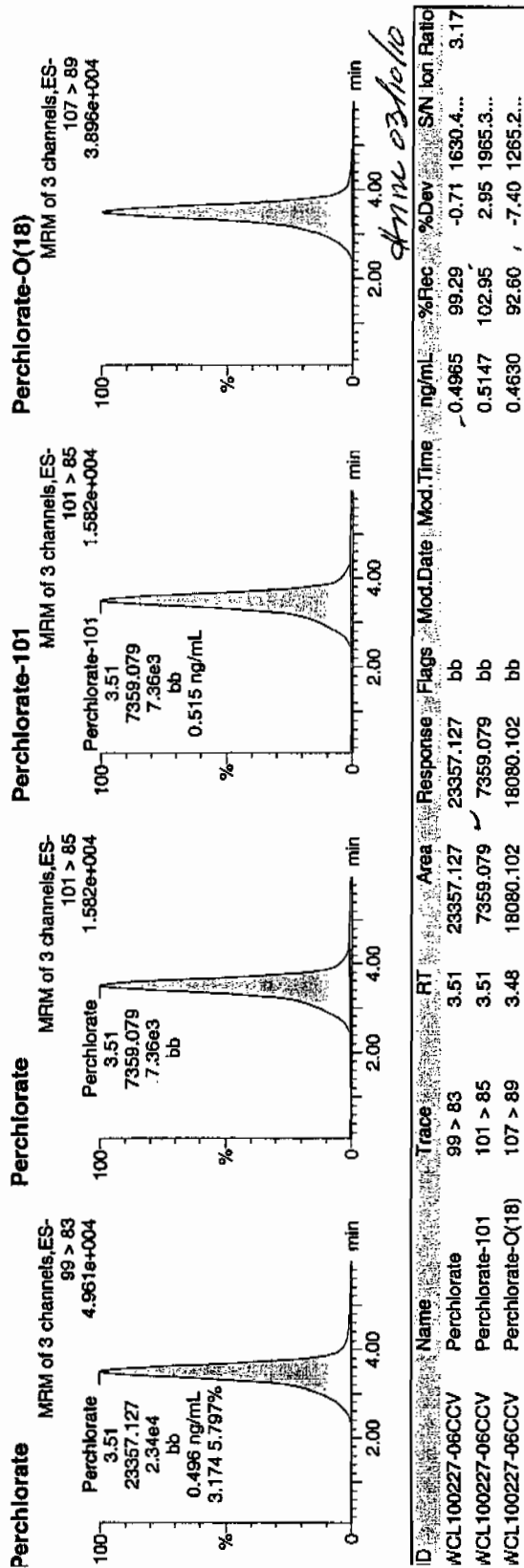
Date: 09-Mar-2010

Time: 00:40:46

ID: WCL100227-06CCV

Vial: 1:2,A

*Run  
03-09-10*





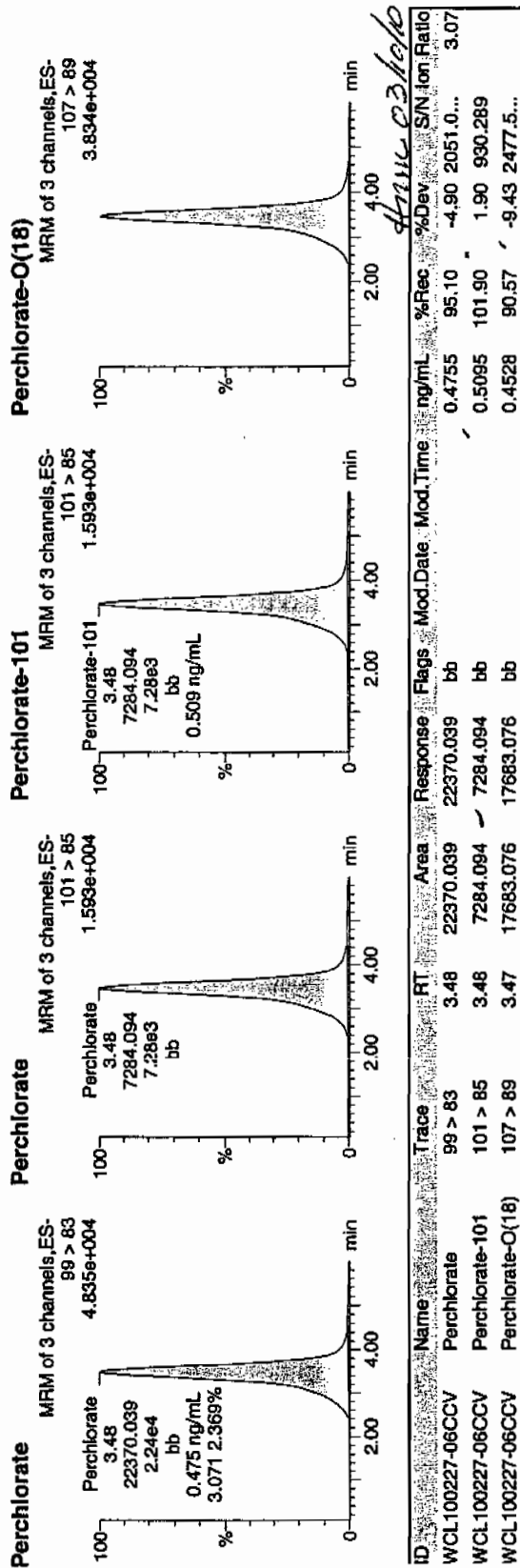
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308073a  
Date: 09-Mar-2010  
Time: 02:38:45  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Pur*  
*uu*  
*03-09-10*



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308086a

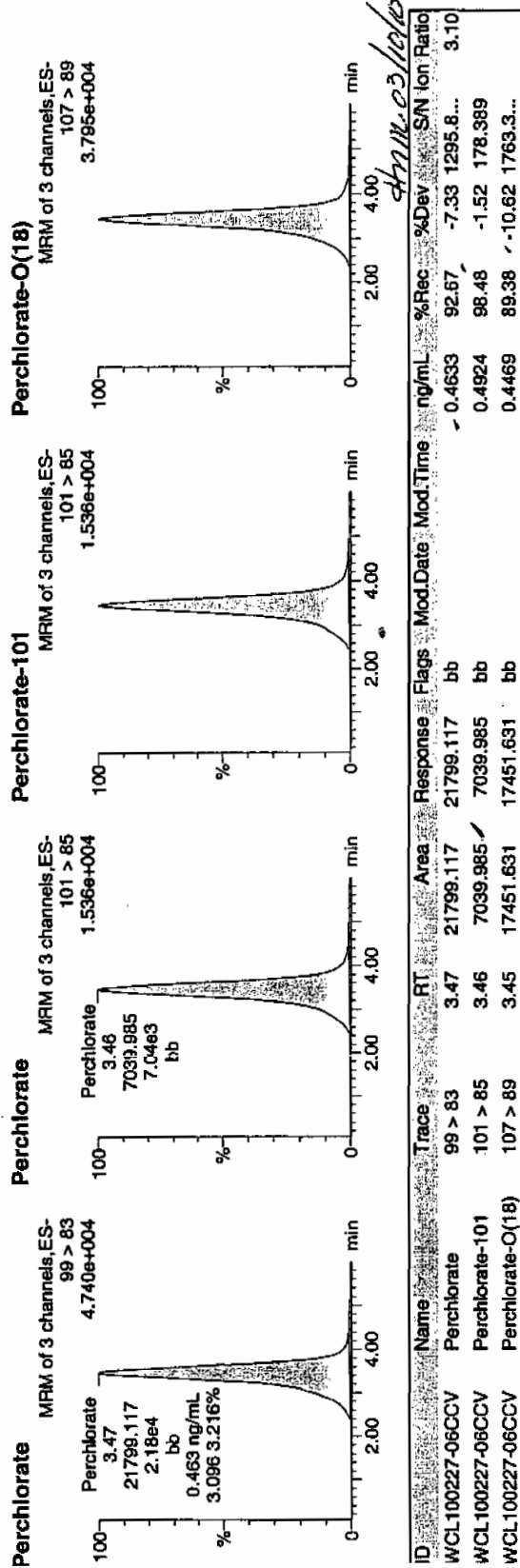
Date: 09-Mar-2010

Time: 04:36:48

ID: WCL100227-06CCV

Vial: 1:2,A

*Perchlorate*  
*03-04-10*



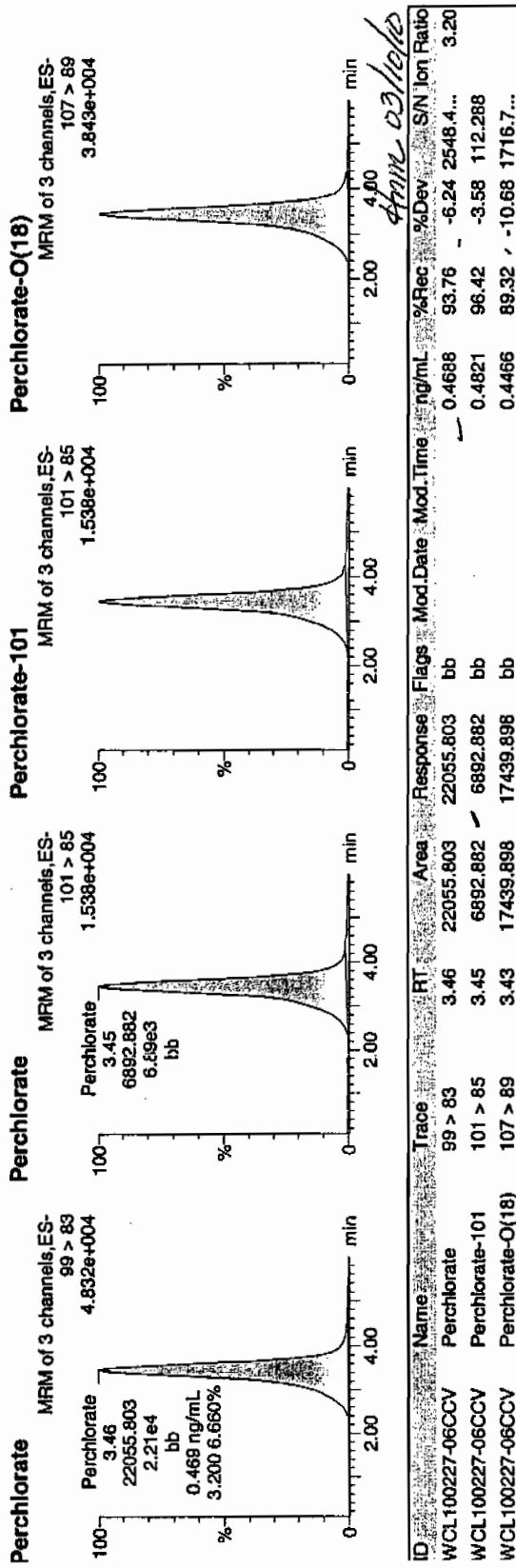
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308099a  
Date: 09-Mar-2010  
Time: 06:34:54  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Pure and 03-04-10*



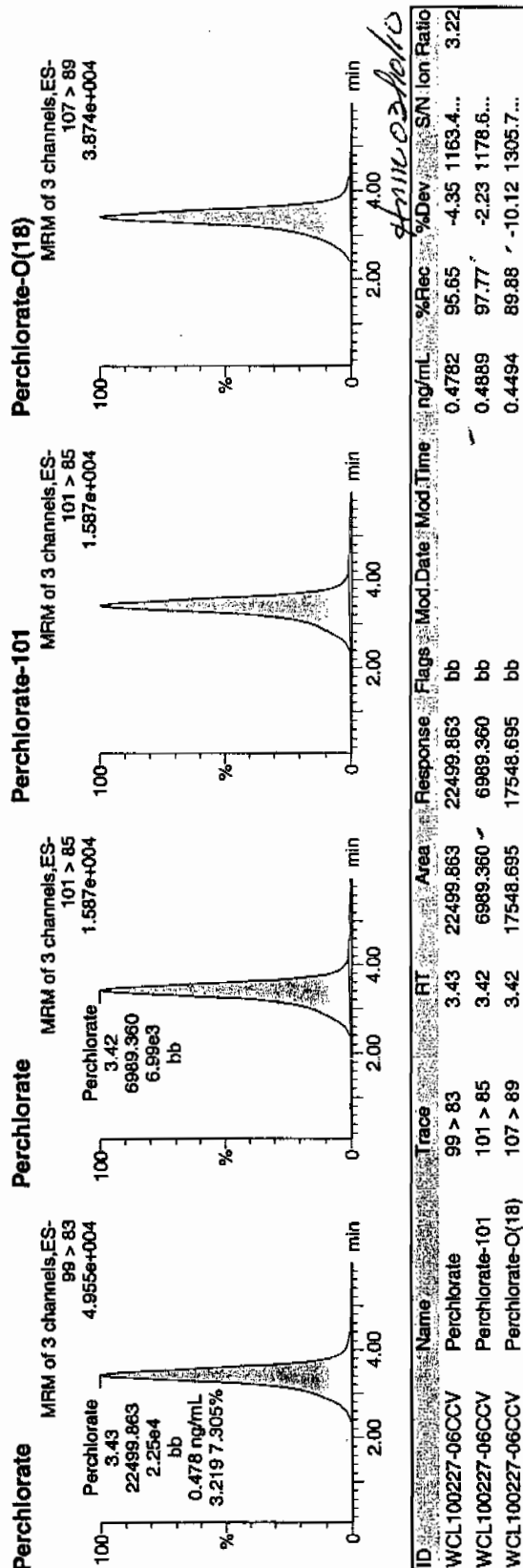
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308112a  
Date: 09-Mar-2010  
Time: 08:33:18  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Perchlorate-101*



Perchlorate MDL Verification

GEL Job No.(SDG): 10-2075-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.57	08-MAR-10 17:15	per0308011a
Perchlorate Isotope Ratio		2.95		08-MAR-10 17:15	per0308011a
Perchlorate-101	.05	.05	102.06	08-MAR-10 17:15	per0308011a
Perchlorate	.05	.05	97.28	08-MAR-10 19:04	per0308023a
Perchlorate Isotope Ratio		2.97		08-MAR-10 19:04	per0308023a
Perchlorate-101	.05	.05	107.82	08-MAR-10 19:04	per0308023a
Perchlorate	.05	.05	97.48	08-MAR-10 21:02	per0308036a
Perchlorate Isotope Ratio		3.14		08-MAR-10 21:02	per0308036a
Perchlorate-101	.05	.05	102.17	08-MAR-10 21:02	per0308036a
Perchlorate	.05	.05	98.41	08-MAR-10 23:00	per0308049a
Perchlorate Isotope Ratio		3.08		08-MAR-10 23:00	per0308049a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	105.1	08-MAR-10 23:00	per0308049a
Perchlorate	.05	.05	92.76	09-MAR-10 00:59	per0308062a
Perchlorate Isotope Ratio		3.13		09-MAR-10 00:59	per0308062a
Perchlorate-101	.05	.05	97.6	09-MAR-10 00:59	per0308062a
Perchlorate	.05	.04	87.02	09-MAR-10 02:57	per0308075a
Perchlorate Isotope Ratio		2.95		09-MAR-10 02:57	per0308075a
Perchlorate-101	.05	.05	97.15	09-MAR-10 02:57	per0308075a
Perchlorate	.05	.04	88.07	09-MAR-10 04:55	per0308088a
Perchlorate Isotope Ratio		2.98		09-MAR-10 04:55	per0308088a
Perchlorate-101	.05	.05	97.34	09-MAR-10 04:55	per0308088a
Perchlorate	.05	.05	93.32	09-MAR-10 06:53	per0308101a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2075-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.36		09-MAR-10 06:53	per0308101a
Perchlorate-101	.05	.05	91.41	09-MAR-10 06:53	per0308101a
Perchlorate	.05	.05	96.02	09-MAR-10 08:51	per0308114a
Perchlorate Isotope Ratio		3.69		09-MAR-10 08:51	per0308114a
Perchlorate-101	.05	.04	85.66	09-MAR-10 08:51	per0308114a

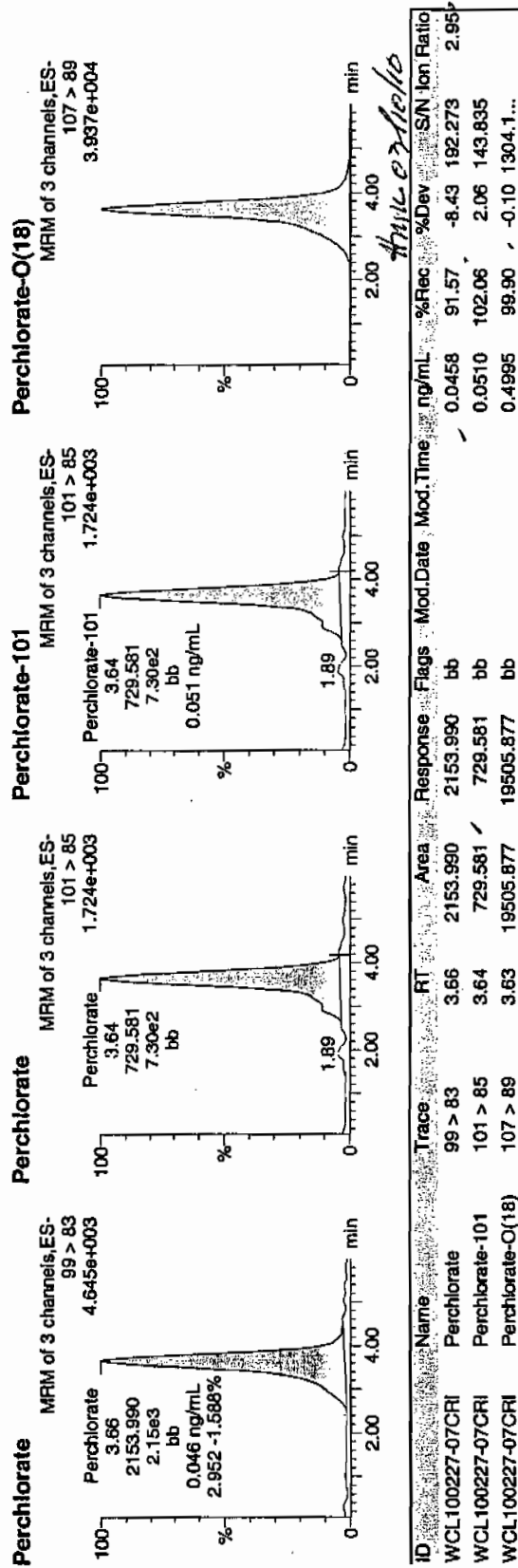
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308011a  
Date: 08-Mar-2010  
Time: 17:15:29  
ID: WCL100227-07CRI  
Vial: 1:2,B

*Pure and 03-09-10*





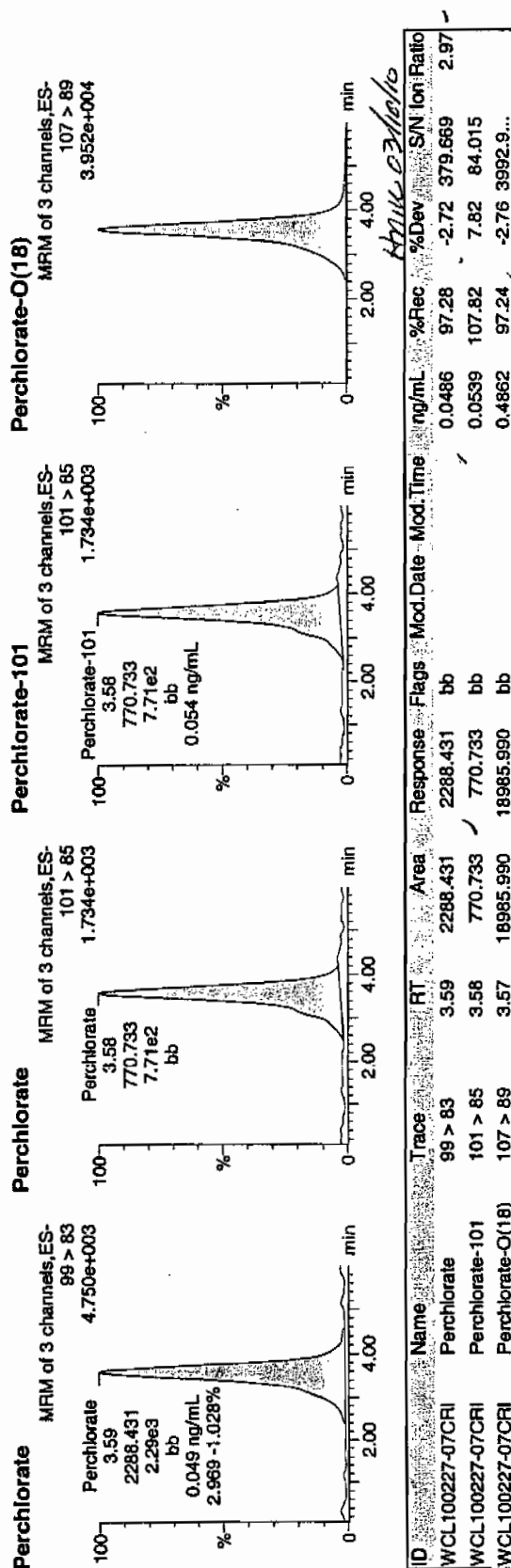
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308023a  
Date: 08-Mar-2010  
Time: 19:04:27  
ID: WCL100227-07CRI  
Vial: 1:2,B

*per*  
*WCL100227-07CRI*



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308036a

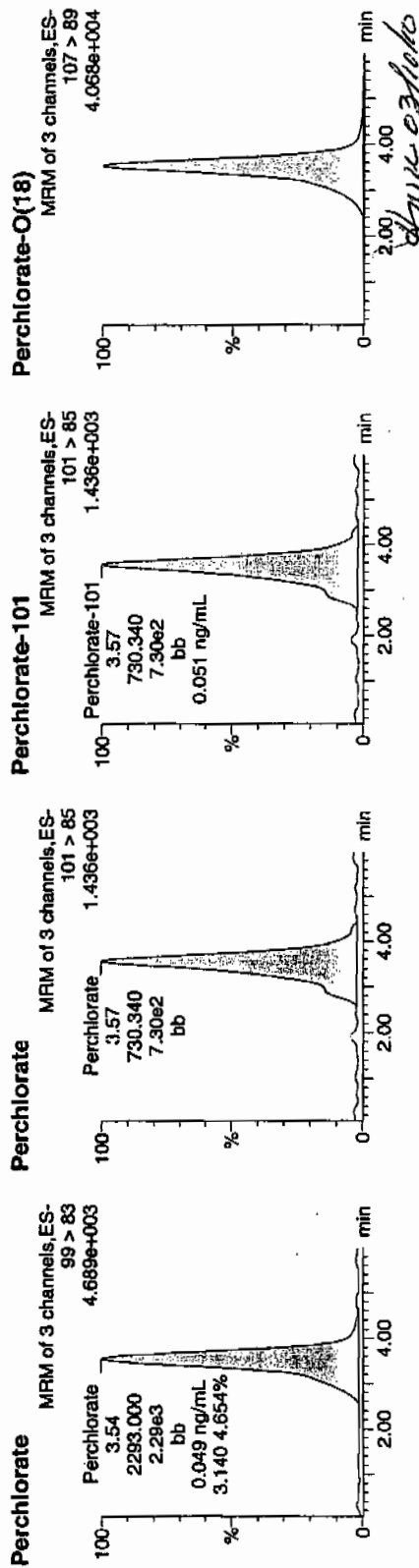
Date: 08-Mar-2010

Time: 21:02:14

ID: WCL100227-07CRI

Vial: 1:2,B

*per0308036a*  
*03-04-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.54	2293.000	2293.000	bb			0.0487	97.48	-2.52	112.560	3.14
WCL100227-07CRI	Perchlorate-101	101 > 85	3.57	730.340	730.340	bb			0.0511	102.17	2.17	21.006	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.53	19152.959	19152.959	bb			0.4905	98.10	-1.90	2778.2...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308049a

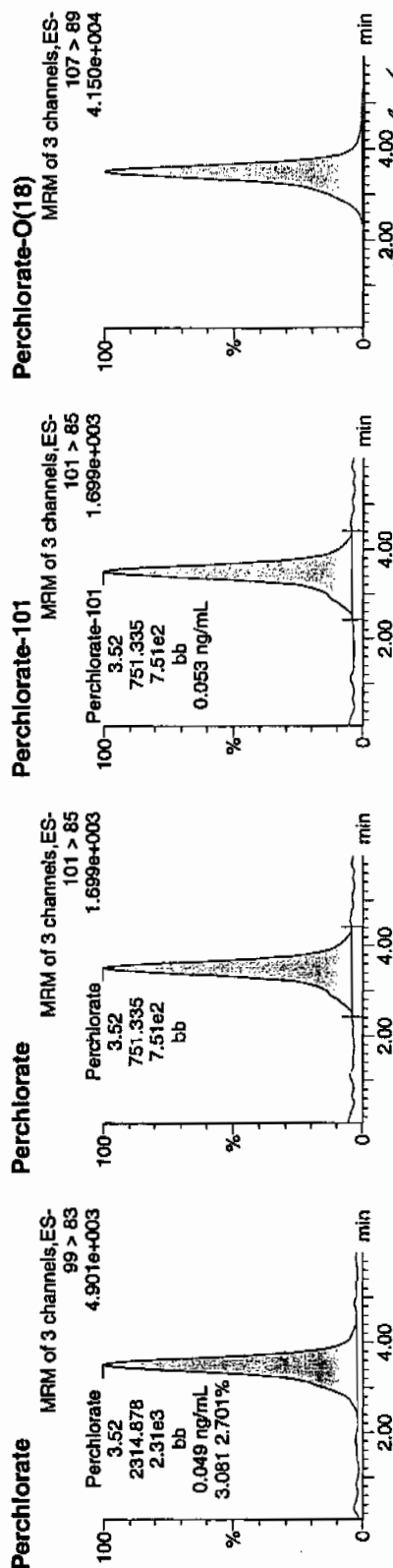
Date: 08-Mar-2010

Time: 23:00:24

ID: WCL100227-07CRI

Vial: 1:2,B

Pure  
0309-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.52	2314.878	2314.878	bb			0.0492	98.41	-1.59	318.865	3.08
WCL100227-07CRI	Perchlorate-101	101 > 85	3.52	751.335	751.335	bb			0.0526	105.10	5.10	86.661	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.51	19220.762	19220.762	bb			0.4922	98.44	-1.56	1856.7...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308062a

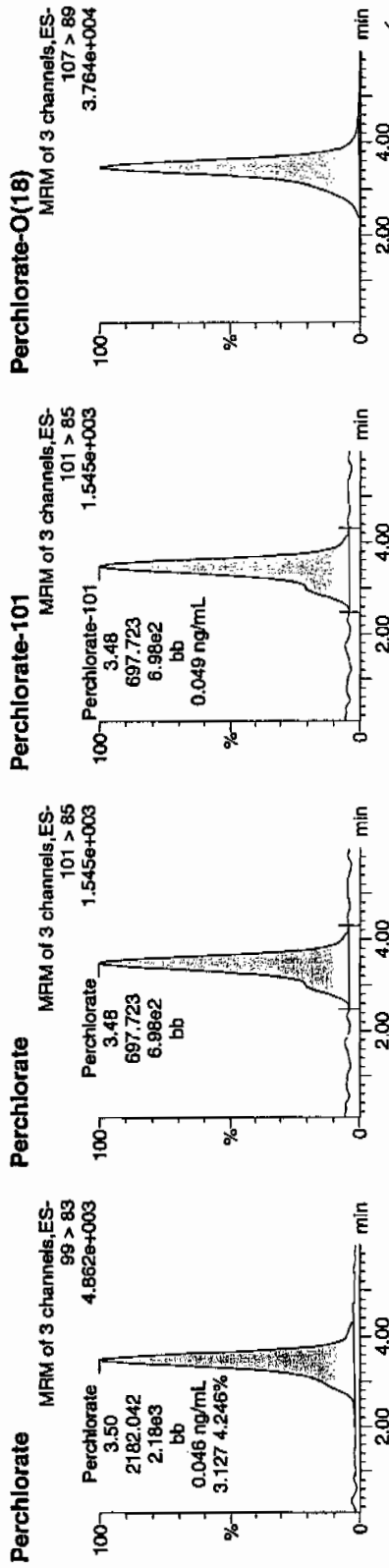
Date: 09-Mar-2010

Time: 00:59:13

ID: WCL100227-07CRI

Vial: 1:2,B

*Run*  
*03-09-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.50	2182.042	2182.042	bb			0.0464	92.76	-7.24	176.942	3.13
WCL100227-07CRI	Perchlorate-101	101 > 85	3.48	697.723	697.723	bb			0.0488	97.60	-2.40	55.243	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.47	17393.770	17393.770	bb			0.4454	89.09	-10.91	764.961	

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

Dataset: C:\MassLynx\P perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308075a

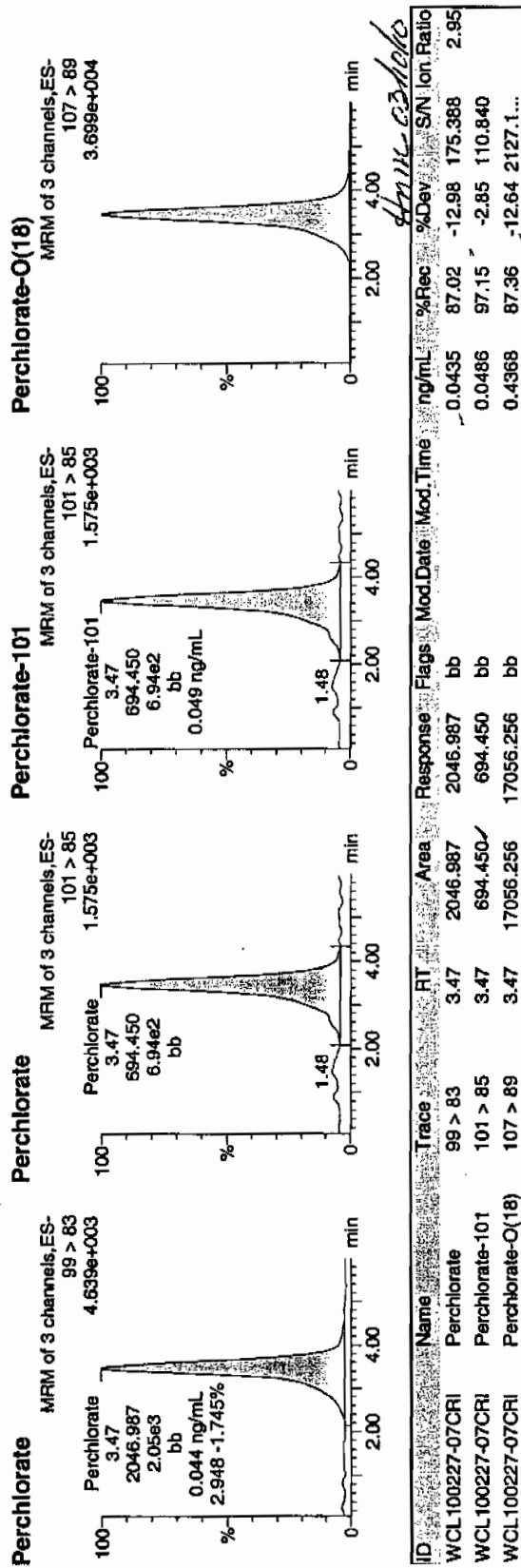
Date: 09-Mar-2010

Time: 02:57:04

ID: WCL100227-07CRI

Vial: 1:2,B

Pure  
and  
03-09-10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308088a

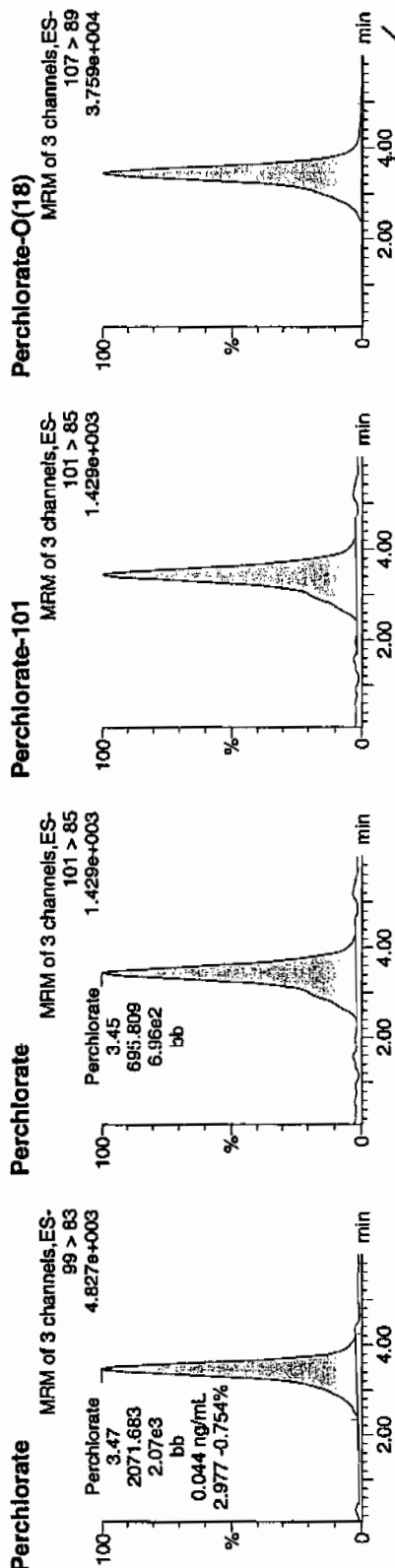
Date: 09-Mar-2010

Time: 04:55:08

ID: WCL100227-07CRI

Vial: 1:2,B

*Per  
and  
03-04-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.47	2071.683	2071.683	bb			0.0440	88.07	-11.93	130.882	2.98
WCL100227-07CRI	Perchlorate-101	101 > 85	3.45	695.809	695.809	bb			0.0487	97.34	-2.66	110.757	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.45	17290.361	17290.361	bb			0.4428	88.56	-11.44	1467.3...	

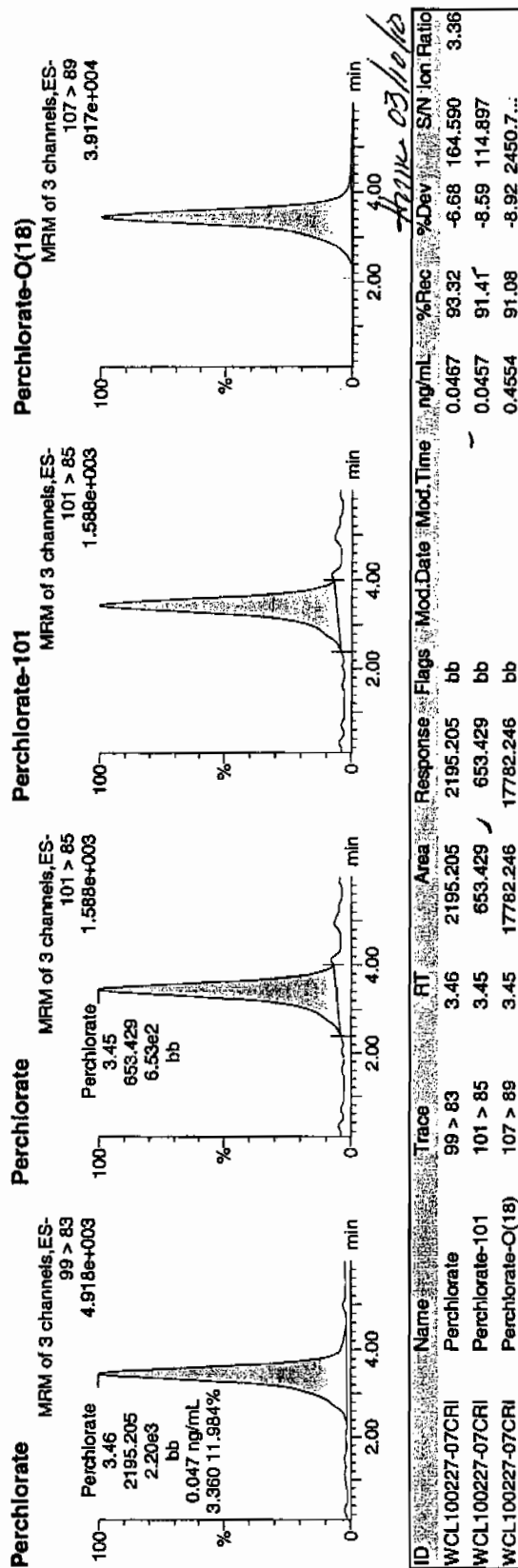
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308101a  
Date: 09-Mar-2010  
Time: 06:53:14  
ID: WCL100227-07CRI  
Vial: 1:2,B

Pers  
und  
03-04-10



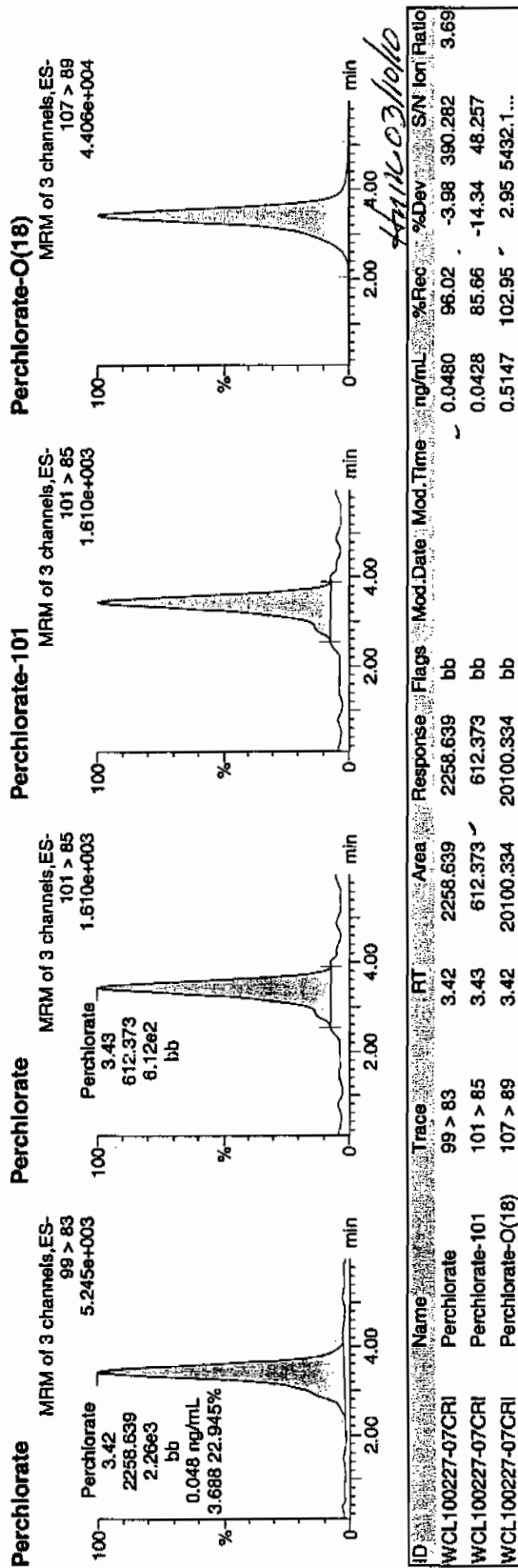
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308114a  
Date: 09-Mar-2010  
Time: 08:51:36  
ID: WCL100227-07CRI  
Vial: 1:2,B

*per  
and  
03-04-10*





# QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: EPA 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 959043  
 Extraction Type: Filter/DAI  
 Client Sample No. MB  
 Date Received: 03-MAR-10  
 GEL Job No (SDG): 10-2075-1  
 GEL Sample ID: 1202056710  
 Date Filtered: 03-MAR-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 10.0 mL  
 %Solids:

Concentrated Extract Volume: 10.0

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 03:06	per0308076a
	Perchlorate Isotope Ratio						1	09-MAR-10 03:06	per0308076a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 03:06	per0308076a
	Perchlorate-O(18)			0.405	ug/L		1	09-MAR-10 03:06	per0308076a

^ 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

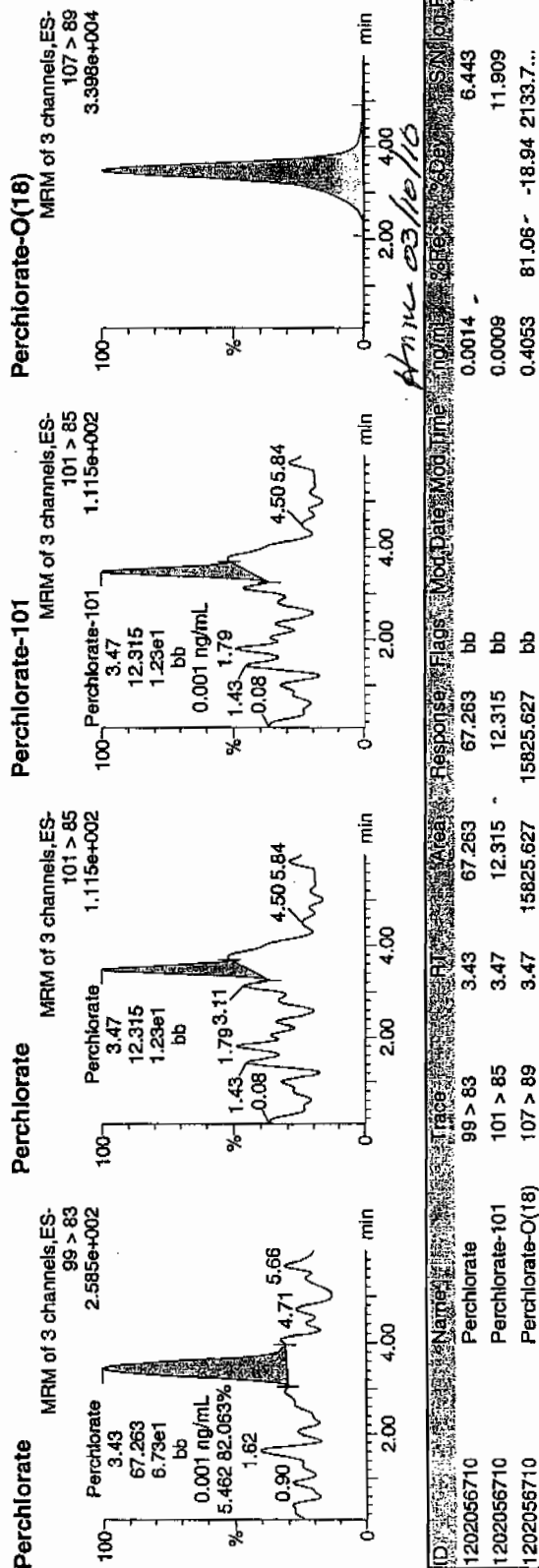
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308076a  
Date: 09-Mar-2010  
Time: 03:06:09  
ID: 1202056710  
Vial: 2:4,A

03-09-10

1202056710 | 1202056710 | 1202056710



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 959043

Extraction Type: Filter/DAI

Client Sample No.

LCS

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2075-1

GEL Sample ID: 1202056711

Date Filtered: 03-MAR-10

Injection Volume (uL): 20

%Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.179	ug/L	J	1	09-MAR-10 03:15	per0308077a
	Perchlorate Isotope Ratio			3.2			1	09-MAR-10 03:15	per0308077a
14797-73-0	Perchlorate-101	.05	.2	0.184	ug/L	J	1	09-MAR-10 03:15	per0308077a
	Perchlorate-O(18)			0.419	ug/L		1	09-MAR-10 03:15	per0308077a

<sup>^</sup> 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

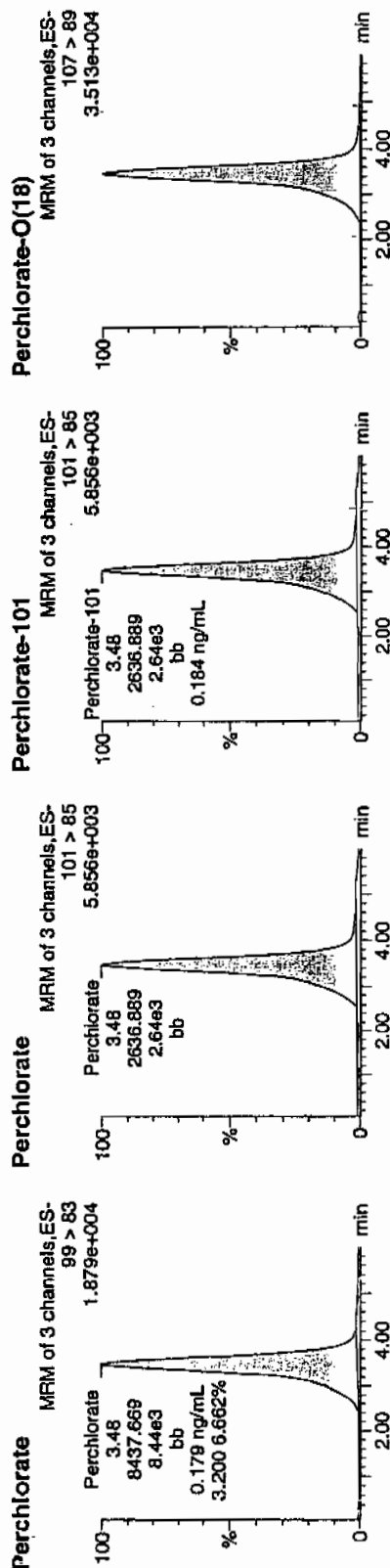
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308077a  
Date: 09-Mar-2010  
Time: 03:15:24  
ID: 1202056711  
Vial: 2:4,B

was  
03-08-10

1202056711 | 1202056711



ID	Name	Trace	RT	Area	Response	Flags	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056711	Perchlorate	99 > 83	3.48	8437.669	8437.669	bb		0.1793	89.67	-10.33	777.875	3.20
1202056711	Perchlorate-101	101 > 85	3.48	2636.889	2636.889	bb		0.1844	92.22	-7.78	581.015	
1202056711	Perchlorate-O(18)	107 > 89	3.47	16378.867	16378.867	bb		0.4194	83.89	-16.11	1862.2...	

8437.669  
47047.4 = 0.1793  
HMM 12/3/10

# 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: 959043 Verified by: Lab SOP: GL-OA-E-067 REV# 6  
 Analyst: Kaylie Westmoreland Instrument: MicroMass Quattro Ultima  
 Method: SW846 6850 Modified

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202056710 MB	03-MAR-2010 16:50:00	10	10	1
1202056711 LCS	03-MAR-2010 16:50:00	10	10	1
247908001	03-MAR-2010 16:50:00	10	10	1
1202056712 MS (247908001)	03-MAR-2010 16:50:00	10	10	1
1202056713 MSD (247908001)	03-MAR-2010 16:50:00	10	10	1
247908002	03-MAR-2010 16:50:00	10	10	1
247908003	03-MAR-2010 16:50:00	10	10	1
247919001	03-MAR-2010 16:50:00	10	10	1
247919002	03-MAR-2010 16:50:00	10	10	1
247923004	03-MAR-2010 16:50:00	10	10	1
247997001	03-MAR-2010 16:50:00	10	10	1
248001001	03-MAR-2010 16:50:00	10	10	1
248019001	03-MAR-2010 16:50:00	10	10	1
248019002	03-MAR-2010 16:50:00	10	10	1
248034001	03-MAR-2010 16:50:00	10	10	1
248038001	03-MAR-2010 16:50:00	10	10	1
248038002	03-MAR-2010 16:50:00	10	10	1
248039001	03-MAR-2010 16:50:00	10	10	1
248046001	03-MAR-2010 16:50:00	10	10	1
248046002	03-MAR-2010 16:50:00	10	10	1
248053001	03-MAR-2010 16:50:00	10	10	1
248053002	03-MAR-2010 16:50:00	10	10	1
248053003	03-MAR-2010 16:50:00	10	10	1
1202056714 LCS	03-MAR-2010 16:50:00	10	10	1

### Comments:

Desalting cartridges used: 100217-1-H & 100204-1-Ba

Type	Sample Id	Description	Serial Number	Spike Amt	Units
R/S	1202056714	10 ug/l, ICV/CV Second Source	UCL00210-02.2	2	mL
LCS	1202056711	10 ug/l, ICV/CV Second Source	UCL00210-02.2	2	mL
MS	1202056712	10 ug/l, ICV/CV Second Source	UCL00210-02.2	2	mL
MSD	1202056713	10 ug/l, ICV/CV Second Source	UCL00210-02.2	2	mL
RGST All		500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1207890	10	mL
RGST All		0.2% HPLC Grade Water	1271949	10	mL

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/07/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per030710a  
 Initial Calibration Date: 03/07/10

Method: EPA 6850-Modified  
 Int. Std.: UCL100126-01  
 Mobile Phase Lot#: 1278668, 1271949  
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *dhmc*  
 Date: *03/10/10*  
 SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100227-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0308001a	IPB001	CWW	3/8/2010 15:44			1		USE	B
per0308002a	IPB001	CWW	3/8/2010 15:53			1		USE	B
per0308003a	WCLICAL-01	CWW	3/8/2010 16:02			1		USE	I
per0308004a	WCLICAL-02	CWW	3/8/2010 16:11			1		USE	I
per0308005a	WCLICAL-03	CWW	3/8/2010 16:20			1		USE	I
per0308006a	WCLICAL-04	CWW	3/8/2010 16:29			1		USE	I
per0308007a	WCLICAL-05	CWW	3/8/2010 16:39			1		USE	I
per0308008a	IPB002	CWW	3/8/2010 16:48			1		USE	B
per0308009a	WCLICV	CWW	3/8/2010 16:57			1		USE	C
per0308010a	IPB003	CWW	3/8/2010 17:06			1		USE	B
per0308011a	WCLCRI	CWW	3/8/2010 17:15			1		USE	C
per0308012a	24687009	CWW	3/8/2010 17:24	955688	10-1782	1	LANL	USE	S
per0308013a	246870010	CWW	3/8/2010 17:33	955688	10-1782	1	LANL	USE	S
per0308014a	246982001	CWW	3/8/2010 17:42	955688	10-1812	1	LANL	USE	S
per0308015a	246982002	CWW	3/8/2010 17:51	955688	10-1812	1	LANL	USE	S
per0308016a	246982003	CWW	3/8/2010 18:01	955688	10-1812	1	LANL	USE	S
per0308017a	246982004	CWW	3/8/2010 18:10	955688	10-1812	1	LANL	USE	S
per0308018a	246982005	CWW	3/8/2010 18:19	955688	10-1812	1	LANL	USE	S
per0308019a	246982006	CWW	3/8/2010 18:28	955688	10-1812	1	LANL	USE	S
per0308020a	246982007	CWW	3/8/2010 18:37	955688	10-1812	1	LANL	USE	S
per0308021a	WCLCCV	CWW	3/8/2010 18:46			1		USE	C
per0308022a	IPB004	CWW	3/8/2010 18:55			1		USE	B
per0308023a	WCLCRI	CWW	3/8/2010 19:04			1		USE	C
per0308024a	1202049003	CWW	3/8/2010 19:13	955691	10-1809	1	LANL	USE	S
per0308025a	1202049004	CWW	3/8/2010 19:22	955691	10-1809	1	LANL	USE	S
per0308026a	1202049007	CWW	3/8/2010 19:31	955691	10-1809	1	LANL	USE	S
per0308027a	246974001	CWW	3/8/2010 19:40	955691	10-1809	1	LANL	USE	S
per0308028a	1202049005	CWW	3/8/2010 19:49	955691	10-1809	1	LANL	USE	S
per0308029a	1202049006	CWW	3/8/2010 19:58	955691	10-1809	1	LANL	USE	S



per0308030a	246974002	CWW	3/8/2010 20:07	955691	10-1809	1	LANL	USE	S
per0308031a	246974003	CWW	3/8/2010 20:16	955691	10-1809	1	LANL	USE	S
per0308032a	246974004	CWW	3/8/2010 20:26	955691	10-1809	1	LANL	USE	S
per0308033a	246974005	CWW	3/8/2010 20:35	955691	10-1809	1	LANL	USE	S
per0308034a	WCLCCV	CWW	3/8/2010 20:44			1		USE	C
per0308035a	IPB005	CWW	3/8/2010 20:53			1		USE	B
per0308036a	WCLCRI	CWW	3/8/2010 21:02			1		USE	C
per0308037a	246974006	CWW	3/8/2010 21:11	955691	10-1809	1	LANL	USE	S
per0308038a	246974007	CWW	3/8/2010 21:20	955691	10-1809	1	LANL	USE	S
per0308039a	246974008	CWW	3/8/2010 21:29	955691	10-1809	1	LANL	USE	S
per0308040a	246974009	CWW	3/8/2010 21:38	955691	10-1809	1	LANL	USE	S
per0308041a	246974010	CWW	3/8/2010 21:47	955691	10-1809	1	LANL	USE	S
per0308042a	246974011	CWW	3/8/2010 21:56	955691	10-1809	1	LANL	USE	S
per0308043a	246974012	CWW	3/8/2010 22:05	955691	10-1809	1	LANL	USE	S
per0308044a	246974013	CWW	3/8/2010 22:14	955691	10-1809	1	LANL	USE	S
per0308045a	246974014	CWW	3/8/2010 22:23	955691	10-1809	1	LANL	USE	S
per0308046a	246974015	CWW	3/8/2010 22:32	955691	10-1809	1	LANL	USE	S
per0308047a	WCLCCV	CWW	3/8/2010 22:42			1		USE	C
per0308048a	IPB006	CWW	3/8/2010 22:51			1		USE	B
per0308049a	WCLCRI	CWW	3/8/2010 23:00			1		USE	C
per0308050a	246974016	CWW	3/8/2010 23:09	955691	10-1809	1	LANL	USE	S
per0308051a	246974017	CWW	3/8/2010 23:18	955691	10-1809	1	LANL	USE	S
per0308052a	IPB007	CWW	3/8/2010 23:27			1		USE	B
per0308053a	1202049064	CWW	3/8/2010 23:36	955724	VARIOUS	1	LANL	USE	S
per0308054a	1202049065	CWW	3/8/2010 23:46	955724	VARIOUS	1	LANL	USE	S
per0308055a	1202049068	CWW	3/8/2010 23:55	955724	VARIOUS	1	LANL	USE	S
per0308056a	246964002	CWW	3/9/2010 0:04	955724	10-1802	1	LANL	USE	S
per0308057a	246964004	CWW	3/9/2010 0:13	955724	10-1802	1	LANL	USE	S
per0308058a	246967001	CWW	3/9/2010 0:22	955724	10-1807	1	LANL	USE	S
per0308059a	246967004	CWW	3/9/2010 0:31	955724	10-1807	1	LANL	DUSE-DL	S
per0308060a	WCLCCV	CWW	3/9/2010 0:40			1		USE	C
per0308061a	IPB008	CWW	3/9/2010 0:50			1		USE	B
per0308062a	WCLCRI	CWW	3/9/2010 0:59			1		USE	C
per0308063a	247036002	CWW	3/9/2010 1:08	955724	10-1826	1	LANL	USE	S
per0308064a	247036003	CWW	3/9/2010 1:17	955724	10-1826	1	LANL	USE	S
per0308065a	247036006	CWW	3/9/2010 1:26	955724	10-1826	1	LANL	USE	S
per0308066a	247037001	CWW	3/9/2010 1:35	955724	10-1823	1	LANL	DUSE-DL	S

per0308067a	247042002	CWW	3/9/2010 1:44	955724	10-1817	1	LANL	DUSE-RA	S
per0308068a	247042004	CWW	3/9/2010 1:53	955724	10-1817	1	LANL	USE	S
per0308069a	247042006	CWW	3/9/2010 2:02	955724	10-1817	1	LANL	USE	S
per0308070a	247261004	CWW	3/9/2010 2:11	955724	10-1886	1	LANL	USE	S
per0308071a	1202049066	CWW	3/9/2010 2:20	955724	10-1886	1	LANL	USE	S
per0308072a	1202049067	CWW	3/9/2010 2:29	955724	10-1886	1	LANL	USE	S
per0308073a	WCLCCV	CWW	3/9/2010 2:38			1		USE	C
per0308074a	IPB009	CWW	3/9/2010 2:48			1		USE	B
per0308075a	WCLCRI	CWW	3/9/2010 2:57			1		USE	C
per0308076a	1202056710	CWW	3/9/2010 3:06	959044	VARIOUS	1	LANL	USE	S
per0308077a	1202056711	CWW	3/9/2010 3:15	959044	VARIOUS	1	LANL	USE	S
per0308078a	1202056714	CWW	3/9/2010 3:24	959044	VARIOUS	1	LANL	USE	S
per0308079a	247908001	CWW	3/9/2010 3:33	959044	10-2013-1	1	LANL	USE	S
per0308080a	1202056712	CWW	3/9/2010 3:42	959044	10-2013-1	1	LANL	USE	S
per0308081a	1202056713	CWW	3/9/2010 3:51	959044	10-2013-1	1	LANL	USE	S
per0308082a	247908002	CWW	3/9/2010 4:00	959044	10-2013-1	1	LANL	USE	S
per0308083a	247908003	CWW	3/9/2010 4:09	959044	10-2013-1	1	LANL	USE	S
per0308084a	247919001	CWW	3/9/2010 4:18	959044	10-2016-1	1	LANL	USE	S
per0308085a	247919002	CWW	3/9/2010 4:27	959044	10-2016-1	1	LANL	USE	S
per0308086a	WCLCCV	CWW	3/9/2010 4:36			1		USE	C
per0308087a	IPB010	CWW	3/9/2010 4:46			1		USE	B
per0308088a	WCLCRI	CWW	3/9/2010 4:55			1		USE	C
per0308089a	247922004	CWW	3/9/2010 5:04	959044	10-2022	1	LANL	USE	S
per0308090a	247997001	CWW	3/9/2010 5:13	959044	10-2025	1	LANL	USE	S
per0308091a	248001001	CWW	3/9/2010 5:22	959044	10-2028	1	LANL	USE	S
per0308092a	248019001	CWW	3/9/2010 5:31	959044	10-2052	1	LANL	USE	S
per0308093a	248019002	CWW	3/9/2010 5:40	959044	10-2052	1	LANL	USE	S
per0308094a	248034001	CWW	3/9/2010 5:49	959044	10-2072-1	1	LANL	USE	S
per0308095a	248038001	CWW	3/9/2010 5:58	959044	10-2066-1	1	LANL	USE	S
per0308096a	248038002	CWW	3/9/2010 6:07	959044	10-2066-1	1	LANL	USE	S
per0308097a	248039001	CWW	3/9/2010 6:16	959044	10-2069	1	LANL	USE	S
per0308098a	248046001	CWW	3/9/2010 6:25	959044	10-2075-1	1	LANL	USE	S
per0308099a	WCLCCV	CWW	3/9/2010 6:34			1		USE	C
per0308100a	IPB011	CWW	3/9/2010 6:44			1		USE	B
per0308101a	WCLCRI	CWW	3/9/2010 6:53			1		USE	C
per0308102a	248046002	CWW	3/9/2010 7:02	959044	10-2075-1	1	LANL	USE	S
per0308103a	248053001	CWW	3/9/2010 7:11	959044	10-2081	1	LANL	USE	S

per0308104a	248053002	CWW	3/9/2010 7:20	959044	10-2081	1	LANL	USE	S
per0308105a	248053003	CWW	3/9/2010 7:29	959044	10-2081	1	LANL	USE	S
per0308106a	IPB012	CWW	3/9/2010 7:38			1		USE	B
per0308107a	1202056715	CWW	3/9/2010 7:47	959047	VARIOUS	1	LANL	USE	S
per0308108a	1202056716	CWW	3/9/2010 7:57	959047	VARIOUS	1	LANL	USE	S
per0308109a	1202056719	CWW	3/9/2010 8:06	959047	VARIOUS	1	LANL	USE	S
per0308110a	248108001	CWW	3/9/2010 8:15	959047	10-2090	1	LANL	USE	S
per0308111a	248117001	CWW	3/9/2010 8:24	959047	10-2093	1	LANL	USE	S
per0308112a	WCLCCV	CWW	3/9/2010 8:33			1		USE	C
per0308113a	IPB013	CWW	3/9/2010 8:42			1		USE	B
per0308114a	WCLCRI	CWW	3/9/2010 8:51			1		USE	C
per0308115a	248127001	CWW	3/9/2010 9:00	959047	10-2096	1	LANL	USE	S
per0308116a	248127002	CWW	3/9/2010 9:09	959047	10-2096	1	LANL	USE	S
per0308117a	248162001	CWW	3/9/2010 9:18	959047	10-2103	1	LANL	USE	S
per0308118a	248162002	CWW	3/9/2010 9:27	959047	10-2103	1	LANL	USE	S
per0308119a	1202056717	CWW	3/9/2010 9:37	959047	10-2103	1	LANL	USE	S
per0308120a	1202056718	CWW	3/9/2010 9:46	959047	10-2103	1	LANL	USE	S
per0308121a	248162003	CWW	3/9/2010 9:55	959047	10-2103	1	LANL	USE	S
per0308122a	248162004	CWW	3/9/2010 10:04	959047	10-2103	1	LANL	USE	S
per0308123a	248168006	CWW	3/9/2010 10:13	959047	10-2107	1	LANL	USE	S
per0308124a	248169004	CWW	3/9/2010 10:22	959047	10-2108	1	LANL	USE	S
per0308125a	WCLCCV	CWW	3/9/2010 10:31			1		USE	C
per0308126a	IPB014	CWW	3/9/2010 10:40			1		USE	B
per0308127a	WCLCRI	CWW	3/9/2010 10:49			1		USE	C
per0308128a	248188001	CWW	3/9/2010 10:58	959047	10-2120	1	LANL	USE	S
per0308129a	248199001	CWW	3/9/2010 11:07	959047	10-2122-1	1	LANL	USE	S
per0308130a	248238001	CWW	3/9/2010 11:16	959047	10-2132-1	1	LANL	USE	S
per0308131a	248238002	CWW	3/9/2010 11:25	959047	10-2132-1	1	LANL	USE	S
per0308132a	248242001	CWW	3/9/2010 11:34	959047	10-2135-1	1	LANL	USE	S
per0308133a	248245001	CWW	3/9/2010 11:43	959047	10-2138	1	LANL	USE	S
per0308134a	248257001	CWW	3/9/2010 11:52	959047	10-2146-1	1	LANL	USE	S
per0308135a	248257002	CWW	3/9/2010 12:02	959047	10-2146-1	1	LANL	USE	S
per0308136a	248261001	CWW	3/9/2010 12:11	959047	10-2149	1	LANL	USE	S
per0308137a	WCLCCV	CWW	3/9/2010 12:20			1		USE	C
per0308138a	IPB015	CWW	3/9/2010 12:29			1		USE	B
per0308139a	WCLCRI	CWW	3/9/2010 12:38			1		USE	C

The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
 Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

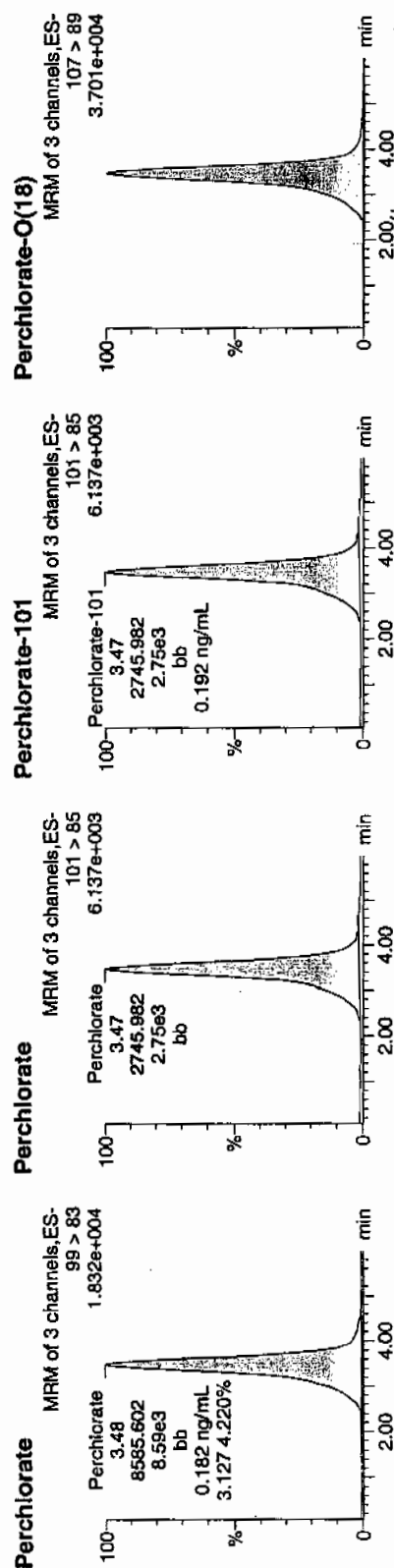
Name: per0308080a

Date: 09-Mar-2010

Time: 03:42:32

ID: 1202056712

Vial: 2:4,E



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	no/mL	%Rec	%Dev	S/N	Ion Ratio
1202056712	Perchlorate	99 > 83	3.48	8585.602	8585.602	bb			0.1825	91.24	-8.76	481.605	3.13
1202056712	Perchlorate-101	101 > 85	3.47	2745.982	2745.982	bb			0.1921	96.03	-3.97	713.591	
1202056712	Perchlorate-O(18)	107 > 89	3.47	17082.297	17092.297	bb			0.4377	87.54	-12.46	2059.9...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time  
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308081a

Date: 09-Mar-2010

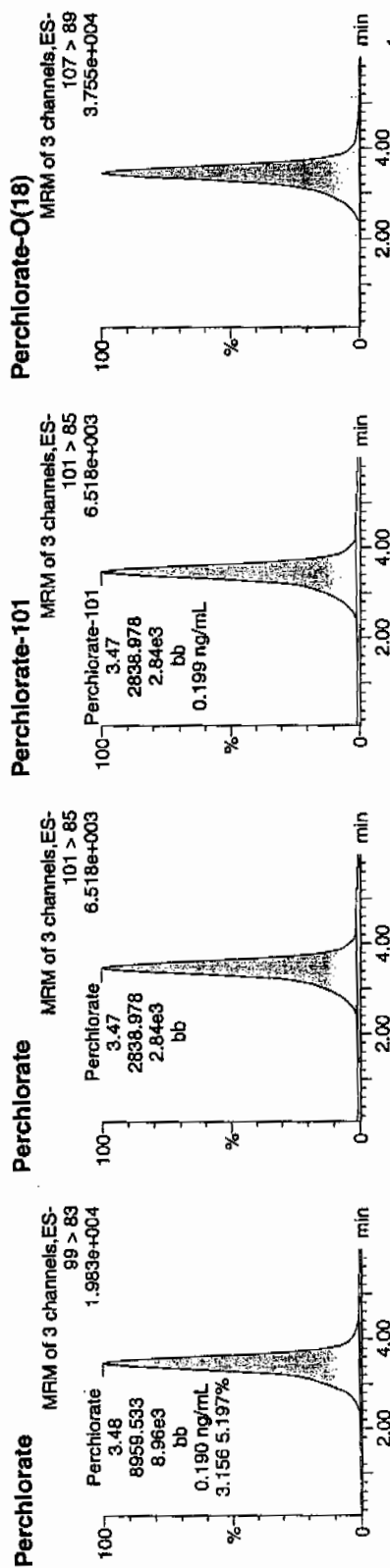
Time: 03:51:33

ID: 1202056713

Vial: 2:4,F

03-09-10

1202056713 | 1202056713



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202056713	Perchlorate	99 > 83	3.48	8959.533	8959.533	bb			0.1904	95.22	-4.78	665.323	3.16
1202056713	Perchlorate-101	101 > 85	3.47	2838.978	2838.978	bb			0.1986	99.29	-0.71	597.531	
1202056713	Perchlorate-O(18)	107 > 89	3.46	17463.715	17463.715	bb			0.4472	89.45	-10.55	1013.9...	

3EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

### 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.

# Metals Analysis

# Case Narrative



**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2075**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467
248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
1202056854	Method Blank (MB) ICP
1202056859	Laboratory Control Sample (LCS)

1202056856	248045001(RE36-10-7414L) Serial Dilution (SD)
1202056855	248045001(RE36-10-7414D) Sample Duplicate (DUP)
1202056857	248045001(RE36-10-7414S) Matrix Spike (MS)
1202056858	248045001(RE36-10-7414SD) Matrix Spike Duplicate (MSD)
1202056860	Method Blank (MB) <b>ICP-MS</b>
1202056865	Laboratory Control Sample (LCS)
1202056862	248045001(RE36-10-7414L) Serial Dilution (SD)
1202056861	248045001(RE36-10-7414D) Sample Duplicate (DUP)
1202056863	248045001(RE36-10-7414S) Matrix Spike (MS)
1202056864	248045001(RE36-10-7414SD) Matrix Spike Duplicate (MSD)
1202056161	Method Blank (MB) <b>CVAA</b>
1202056162	Laboratory Control Sample (LCS)
1202056165	248045001(RE36-10-7414L) Serial Dilution (SD)
1202056163	248045001(RE36-10-7414D) Sample Duplicate (DUP)
1202056164	248045001(RE36-10-7414S) Matrix Spike (MS)
1202056166	248045001(RE36-10-7414SD) Matrix Spike Duplicate (MSD)

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

#### **Method/Analysis Information**

<b>Analytical Batch:</b>	959105, 959107 and 958747
<b>Prep Batch :</b>	959104, 959106 and 958746
<b>Standard Operating Procedures:</b>	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
<b>Analytical Method:</b>	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
<b>Prep Method :</b>	SW846 3050B and SW846 7471A Prep

#### **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this

"Method/Analysis Information" section.

### **System Configuration**

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

### **Calibration Information**

#### **Instrument Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

#### **CRDL Requirements**

All CRDL standards met the advisory control limits with the exceptions of thallium 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 established acceptance criteria.

#### **Continuing Calibration Verification (CCV) Requirements**

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

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

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

The MBs analyzed with this SDG met the acceptance criteria.

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

The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

### **Quality Control (QC) Sample Statement**

The following sample was selected as the quality control (QC) sample for this SDG: 248045001 (RE36-10-7414).

### **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 calcium and copper, 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 calcium and selenium, as indicated by the "N" qualifiers.

### **MS/MSD Relative Percent Difference (RPD) Statement**

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

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

The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, calcium, copper, iron, lead, magnesium, manganese, potassium, vanadium, zinc, beryllium and nickel, as indicated by the "\*" qualifiers.

### **Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of magnesium, as indicated by the "E" qualifier.

## **Technical Information**

### **Holding Time Specifications**

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

### **Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. The samples 248045005 (RE36-10-7473), 248045008 (RE36-10-7468), 248045011 (RE36-10-7475), 248045015 (RE36-10-7467), 248045016 (RE36-10-7469) and 248045017 (RE36-10-7470) required dilutions for mercury in order to bring over range concentrations within the linear calibration range of the instrument.

### **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: 810768 and 816463. 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: 4/14/10

# Sample Data Summary

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045001

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7414

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3830000	ug/Kg	*	7560	22200	22200	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-36-0	Antimony	1110	ug/Kg	U	367	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-38-2	Arsenic	1.1	mg/kg	J	0.248	1.24	1.24	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-39-3	Barium	39500	ug/Kg		111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-41-7	Beryllium	0.613	mg/kg	*	0.0248	0.124	0.124	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-43-9	Cadmium	215	ug/Kg	J	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-70-2	Calcium	853000	ug/Kg	*N	8900	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-47-3	Chromium	9780	ug/Kg		167	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-48-4	Cobalt	1450	ug/Kg		167	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-50-8	Copper	18500	ug/Kg	*N	334	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-89-6	Iron	9200000	ug/Kg	*	8900	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-92-1	Lead	11900	ug/Kg	*	278	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-95-4	Magnesium	631000	ug/Kg	*E	9450	33400	33400	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-96-5	Manganese	240000	ug/Kg	*	222	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105
7439-97-6	Mercury	45.7	ug/kg		4.93	14.5	14.5	1	AV	JXL1	03/15/10 15:14	031510S1-4	958747
7440-02-0	Nickel	4.23	mg/kg	*	0.124	0.496	0.496	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-09-7	Potassium	1020000	ug/Kg	*	7120	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7782-49-2	Selenium	1.24	mg/kg	UN	0.62	1.24	1.24	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-22-4	Silver	295	ug/Kg	J	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-23-5	Sodium	332000	ug/Kg		7790	27800	27800	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-28-0	Thallium	0.190	mg/kg	J	0.0744	0.248	0.248	2	MS	PRB	04/12/10 01:28	100411-2	959107
7440-61-1	Uranium	0.648	mg/kg		0.0164	0.0496	0.0496	2	MS	PRB	04/12/10 14:15	100412-3	959107
7440-62-2	Vanadium	8870	ug/Kg	*	111	556	556	1	P	HSC	03/27/10 05:42	032610A-1	959105
7440-66-6	Zinc	56300	ug/Kg	*	367	1110	1110	1	P	HSC	03/27/10 05:42	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.525	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.57	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.511	g	50	mL	03/08/10	FGA



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045002

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7413

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	Df	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2800000	ug/Kg	*	8080	23800	23800	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-36-0	Antimony	1000	ug/Kg	J	392	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-38-2	Arsenic	1.11	mg/kg		0.221	1.11	1.11	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-39-3	Barium	44100	ug/Kg		119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-41-7	Beryllium	0.153	mg/kg	*	0.0221	0.111	0.111	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-43-9	Cadmium	436	ug/Kg	J	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-70-2	Calcium	1920000	ug/Kg	*N	9510	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-47-3	Chromium	57800	ug/Kg		178	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-48-4	Cobalt	3700	ug/Kg		178	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-50-8	Copper	88200	ug/Kg	*N	357	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-89-6	Iron	8320000	ug/Kg	*	9510	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-92-1	Lead	41600	ug/Kg	*	297	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-95-4	Magnesium	1010000	ug/Kg	*E	10100	35700	35700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-96-5	Manganese	165000	ug/Kg	*	238	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105
7439-97-6	Mercury	77.4	ug/kg		5.1	15	15	1	AV	JXL1	03/15/10 15:22	031510S1-4	958747
7440-02-0	Nickel	3.95	mg/kg	*	0.111	0.442	0.442	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-09-7	Potassium	784000	ug/Kg	*	7610	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7782-49-2	Selenium	1.11	mg/kg	UN	0.553	1.11	1.11	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-22-4	Silver	216	ug/Kg	J	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-23-5	Sodium	233000	ug/Kg		8320	29700	29700	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-28-0	Thallium	0.221	mg/kg	U	0.0663	0.221	0.221	2	MS	PRB	04/12/10 01:50	100411-2	959107
7440-61-1	Uranium	0.751	mg/kg		0.0146	0.0442	0.0442	2	MS	PRB	04/12/10 14:27	100412-3	959107
7440-62-2	Vanadium	16600	ug/Kg	*	119	594	594	1	P	HSC	03/27/10 06:17	032610A-1	959105
7440-66-6	Zinc	109000	ug/Kg	*	392	1190	1190	1	P	HSC	03/27/10 06:17	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.506	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.532	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.572	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045003

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7462

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4090000	ug/Kg	*	7110	20900	20900	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-36-0	Antimony	1050	ug/Kg	U	345	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-38-2	Arsenic	1.13	mg/kg		0.211	1.05	1.05	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-39-3	Barium	46000	ug/Kg		105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-41-7	Beryllium	0.557	mg/kg	*	0.0211	0.105	0.105	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-43-9	Cadmium	250	ug/Kg	J	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-70-2	Calcium	1490000	ug/Kg	*N	8370	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-47-3	Chromium	11000	ug/Kg		157	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-48-4	Cobalt	1800	ug/Kg		157	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-50-8	Copper	420000	ug/Kg	*N	314	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-89-6	Iron	8920000	ug/Kg	*	8370	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-92-1	Lead	35400	ug/Kg	*	262	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-95-4	Magnesium	738000	ug/Kg	*E	8890	31400	31400	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-96-5	Manganese	232000	ug/Kg	*	209	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105
7439-97-6	Mercury	42.2	ug/kg		4.4	13	13	1	AV	JXL1	03/15/10 15:24	031510S1-4	958747
7440-02-0	Nickel	4.35	mg/kg	*	0.105	0.422	0.422	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-09-7	Potassium	529000	ug/Kg	*	6700	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7782-49-2	Selenium	1.05	mg/kg	UN	0.527	1.05	1.05	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-22-4	Silver	237	ug/Kg	J	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-23-5	Sodium	304000	ug/Kg		7320	26200	26200	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-28-0	Thallium	0.0709	mg/kg	J	0.0633	0.211	0.211	2	MS	PRB	04/12/10 01:53	100411-2	959107
7440-61-1	Uranium	0.786	mg/kg		0.0139	0.0422	0.0422	2	MS	PRB	04/12/10 14:29	100412-3	959107
7440-62-2	Vanadium	11000	ug/Kg	*	105	523	523	1	P	HSC	03/27/10 06:39	032610A-1	959105
7440-66-6	Zinc	188000	ug/Kg	*	345	1050	1050	1	P	HSC	03/27/10 06:39	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.503	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.519	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.515	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045004

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7465

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2430000	ug/Kg	*	8100	23800	23800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-36-0	Antimony	1190	ug/Kg	U	393	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-38-2	Arsenic	0.933	mg/kg	J	0.242	1.21	1.21	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-39-3	Barium	39600	ug/Kg		119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-41-7	Beryllium	0.264	mg/kg	*	0.0242	0.121	0.121	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-43-9	Cadmium	411	ug/Kg	J	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-70-2	Calcium	1870000	ug/Kg	*N	9530	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-47-3	Chromium	14200	ug/Kg		179	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-48-4	Cobalt	3020	ug/Kg		179	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-50-8	Copper	37900	ug/Kg	*N	357	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-89-6	Iron	7280000	ug/Kg	*	9530	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-92-1	Lead	65000	ug/Kg	*	298	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-95-4	Magnesium	970000	ug/Kg	*E	10100	35700	35700	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-96-5	Manganese	168000	ug/Kg	*	238	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105
7439-97-6	Mercury	78.7	ug/kg		4.77	14	14	1	AV	JXL1	03/15/10 15:26	031510S1-4	958747
7440-02-0	Nickel	8.88	mg/kg	*	0.121	0.484	0.484	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-09-7	Potassium	1150000	ug/Kg	*	7620	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7782-49-2	Selenium	1.21	mg/kg	UN	0.605	1.21	1.21	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-22-4	Silver	177	ug/Kg	J	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-23-5	Sodium	324000	ug/Kg		8340	29800	29800	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-28-0	Thallium	0.242	mg/kg	U	0.0726	0.242	0.242	2	MS	PRB	04/12/10 01:56	100411-2	959107
7440-61-1	Uranium	2.35	mg/kg		0.016	0.0484	0.0484	2	MS	PRB	04/12/10 14:30	100412-3	959107
7440-62-2	Vanadium	12800	ug/Kg	*	119	596	596	1	P	HSC	03/27/10 06:46	032610A-1	959105
7440-66-6	Zinc	80800	ug/Kg	*	393	1190	1190	1	P	HSC	03/27/10 06:46	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.55	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.54	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.532	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045005

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7473

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4460000	ug/Kg	*	8610	25300	25300	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-36-0	Antimony	1270	ug/Kg	U	418	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-38-2	Arsenic	1.77	mg/kg		0.219	1.09	1.09	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-39-3	Barium	118000	ug/Kg		127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-41-7	Beryllium	0.647	mg/kg	*	0.0219	0.109	0.109	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-43-9	Cadmium	361	ug/Kg	J	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-70-2	Calcium	6260000	ug/Kg	*N	10100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-47-3	Chromium	15600	ug/Kg		190	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-48-4	Cobalt	1920	ug/Kg		190	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-50-8	Copper	12800	ug/Kg	*N	380	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-89-6	Iron	6550000	ug/Kg	*	10100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-92-1	Lead	19100	ug/Kg	*	316	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-95-4	Magnesium	1350000	ug/Kg	*E	10800	38000	38000	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-96-5	Manganese	505000	ug/Kg	*	253	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105
7439-97-6	Mercury	2320	ug/kg		48.9	144	144	10	AV	JXL1	03/15/10 16:06	031510S1-4	958747
7440-02-0	Nickel	5.53	mg/kg	*	0.109	0.438	0.438	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-09-7	Potassium	1410000	ug/Kg	*	8100	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7782-49-2	Selenium	1.09	mg/kg	UN	0.547	1.09	1.09	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-22-4	Silver	450	ug/Kg	J	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-23-5	Sodium	101000	ug/Kg		8860	31600	31600	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-28-0	Thallium	0.0783	mg/kg	J	0.0656	0.219	0.219	2	MS	PRB	04/12/10 01:59	100411-2	959107
7440-61-1	Uranium	1.8	mg/kg		0.0144	0.0438	0.0438	2	MS	PRB	04/12/10 14:32	100412-3	959107
7440-62-2	Vanadium	9710	ug/Kg	*	127	633	633	1	P	HSC	03/27/10 06:53	032610A-1	959105
7440-66-6	Zinc	47200	ug/Kg	*	418	1270	1270	1	P	HSC	03/27/10 06:53	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.546	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.517	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.598	g	50	mL	03/08/10	FGA

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045006

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7471

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1770000	ug/Kg	*	9590	28200	28200	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-36-0	Antimony	1430	ug/Kg		465	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-38-2	Arsenic	1.79	mg/kg		0.269	1.34	1.34	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-39-3	Barium	42600	ug/Kg		141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-41-7	Beryllium	0.330	mg/kg	*	0.0269	0.134	0.134	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-43-9	Cadmium	642	ug/Kg	J	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-70-2	Calcium	674000	ug/Kg	*N	11300	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-47-3	Chromium	99000	ug/Kg		212	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-48-4	Cobalt	3050	ug/Kg		212	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-50-8	Copper	33300	ug/Kg	*N	423	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-89-6	Iron	10500000	ug/Kg	*	11300	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-92-1	Lead	26700	ug/Kg	*	353	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-95-4	Magnesium	501000	ug/Kg	*E	12000	42300	42300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-96-5	Manganese	318000	ug/Kg	*	282	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105
7439-97-6	Mercury	421	ug/kg		5.32	15.7	15.7	1	AV	JXL1	03/15/10 15:32	031510S1-4	958747
7440-02-0	Nickel	4.06	mg/kg	*	0.134	0.538	0.538	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-09-7	Potassium	559000	ug/Kg	*	9030	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7782-49-2	Selenium	1.34	mg/kg	UN	0.672	1.34	1.34	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-22-4	Silver	163	ug/Kg	J	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-23-5	Sodium	208000	ug/Kg		9870	35300	35300	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-28-0	Thallium	0.269	mg/kg	U	0.0806	0.269	0.269	2	MS	PRB	04/12/10 02:02	100411-2	959107
7440-61-1	Uranium	0.757	mg/kg		0.0177	0.0538	0.0538	2	MS	PRB	04/12/10 14:34	100412-3	959107
7440-62-2	Vanadium	9940	ug/Kg	*	141	705	705	1	P	HSC	03/27/10 07:00	032610A-1	959105
7440-66-6	Zinc	96700	ug/Kg	*	465	1410	1410	1	P	HSC	03/27/10 07:00	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.546	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.505	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.53	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045007

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7472

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2550000	ug/Kg	*	8520	25000	25000	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-36-0	Antimony	1250	ug/Kg	U	413	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-38-2	Arsenic	0.753	mg/kg	J	0.22	1.1	1.1	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-39-3	Barium	32700	ug/Kg		125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-41-7	Beryllium	0.532	mg/kg	*	0.022	0.11	0.11	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-43-9	Cadmium	386	ug/Kg	J	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-70-2	Calcium	515000	ug/Kg	*N	10000	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-47-3	Chromium	5520	ug/Kg		188	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-48-4	Cobalt	888	ug/Kg		188	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-50-8	Copper	13700	ug/Kg	*N	376	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-89-6	Iron	7320000	ug/Kg	*	10000	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-92-1	Lead	10600	ug/Kg	*	313	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-95-4	Magnesium	467000	ug/Kg	*E	10600	37600	37600	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-96-5	Manganese	352000	ug/Kg	*	250	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105
7439-97-6	Mercury	111	ug/kg		4.83	14.2	14.2	1	AV	JXL1	03/15/10 15:34	031510S1-4	958747
7440-02-0	Nickel	3.18	mg/kg	*	0.11	0.439	0.439	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-09-7	Potassium	742000	ug/Kg	*	8020	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7782-49-2	Selenium	1.1	mg/kg	UN	0.549	1.1	1.1	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-22-4	Silver	416	ug/Kg	J	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-23-5	Sodium	203000	ug/Kg		8770	31300	31300	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-28-0	Thallium	0.220	mg/kg	U	0.0659	0.22	0.22	2	MS	PRB	04/12/10 02:05	100411-2	959107
7440-61-1	Uranium	0.508	mg/kg		0.0145	0.0439	0.0439	2	MS	PRB	04/12/10 14:35	100412-3	959107
7440-62-2	Vanadium	5020	ug/Kg	*	125	626	626	1	P	HSC	03/27/10 07:07	032610A-1	959105
7440-66-6	Zinc	50700	ug/Kg	*	413	1250	1250	1	P	HSC	03/27/10 07:07	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.541	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.511	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.583	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045008

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7468

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3870000	ug/Kg	*	8900	26200	26200	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-36-0	Antimony	1310	ug/Kg	U	432	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-38-2	Arsenic	1.33	mg/kg		0.266	1.33	1.33	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-39-3	Barium	54500	ug/Kg		131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-41-7	Beryllium	0.630	mg/kg	*	0.0266	0.133	0.133	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-43-9	Cadmium	895	ug/Kg		131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-70-2	Calcium	2740000	ug/Kg	*N	10500	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-47-3	Chromium	9450	ug/Kg		196	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-48-4	Cobalt	1730	ug/Kg		196	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-50-8	Copper	15100	ug/Kg	*N	393	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-89-6	Iron	6800000	ug/Kg	*	10500	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-92-1	Lead	53500	ug/Kg	*	327	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-95-4	Magnesium	1040000	ug/Kg	*E	11100	39300	39300	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-96-5	Manganese	234000	ug/Kg	*	262	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105
7439-97-6	Mercury	1750	ug/kg		51.5	152	152	10	AV	JXL1	03/15/10 16:08	031510S1-4	958747
7440-02-0	Nickel	9.31	mg/kg	*	0.133	0.532	0.532	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-09-7	Potassium	894000	ug/Kg	*	8380	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7782-49-2	Selenium	1.33	mg/kg	UN	0.665	1.33	1.33	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-22-4	Silver	269	ug/Kg	J	131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-23-5	Sodium	113000	ug/Kg		9160	32700	32700	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-28-0	Thallium	0.266	mg/kg	U	0.0798	0.266	0.266	2	MS	PRB	04/12/10 02:09	100411-2	959107
7440-61-1	Uranium	1.01	mg/kg		0.0176	0.0532	0.0532	2	MS	PRB	04/12/10 14:37	100412-3	959107
7440-62-2	Vanadium	8920	ug/Kg	*	131	655	655	1	P	HSC	03/27/10 07:14	032610A-1	959105
7440-66-6	Zinc	47500	ug/Kg	*	432	1310	1310	1	P	HSC	03/27/10 07:14	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.539	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.52	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.512	g	50	mL	03/08/10	FGA

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045009

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7464

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8170000	ug/Kg	*	6790	20000	20000	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-36-0	Antimony	998	ug/Kg	U	329	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-38-2	Arsenic	1.86	mg/kg		0.204	1.02	1.02	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-39-3	Barium	68100	ug/Kg		99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-41-7	Beryllium	0.960	mg/kg	*	0.0204	0.102	0.102	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-43-9	Cadmium	176	ug/Kg	J	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-70-2	Calcium	2190000	ug/Kg	*N	7980	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-47-3	Chromium	15600	ug/Kg		150	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-48-4	Cobalt	2030	ug/Kg		150	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-50-8	Copper	7110	ug/Kg	*N	299	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-89-6	Iron	11500000	ug/Kg	*	7980	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-92-1	Lead	11000	ug/Kg	*	249	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-95-4	Magnesium	1390000	ug/Kg	*E	8480	29900	29900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-96-5	Manganese	240000	ug/Kg	*	200	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105
7439-97-6	Mercury	42.2	ug/kg		3.83	11.3	11.3	1	AV	JXL1	03/15/10 15:37	031510S1-4	958747
7440-02-0	Nickel	7.53	mg/kg	*	0.102	0.408	0.408	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-09-7	Potassium	1060000	ug/Kg	*	6390	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7782-49-2	Selenium	1.02	mg/kg	UN	0.509	1.02	1.02	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-22-4	Silver	499	ug/Kg	U	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-23-5	Sodium	92100	ug/Kg		6990	24900	24900	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-28-0	Thallium	0.108	mg/kg	J	0.0611	0.204	0.204	2	MS	PRB	04/12/10 02:12	100411-2	959107
7440-61-1	Uranium	0.748	mg/kg		0.0134	0.0408	0.0408	2	MS	PRB	04/12/10 14:39	100412-3	959107
7440-62-2	Vanadium	15200	ug/Kg	*	99.8	499	499	1	P	HSC	03/27/10 07:21	032610A-1	959105
7440-66-6	Zinc	44300	ug/Kg	*	329	998	998	1	P	HSC	03/27/10 07:21	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.573	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.539	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.528	g	50	mL	03/08/10	FGA



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045010

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7463

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4810000	ug/Kg	*	6250	18400	18400	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-36-0	Antimony	919	ug/Kg	U	303	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-38-2	Arsenic	1.48	mg/kg		0.206	1.03	1.03	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-39-3	Barium	71100	ug/Kg		91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-41-7	Beryllium	0.737	mg/kg	*	0.0206	0.103	0.103	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-43-9	Cadmium	200	ug/Kg	J	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-70-2	Calcium	1960000	ug/Kg	*N	7350	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-47-3	Chromium	5370	ug/Kg		138	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-48-4	Cobalt	1780	ug/Kg		138	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-50-8	Copper	9860	ug/Kg	*N	276	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-89-6	Iron	9680000	ug/Kg	*	7350	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-92-1	Lead	20800	ug/Kg	*	230	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-95-4	Magnesium	972000	ug/Kg	*E	7810	27600	27600	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-96-5	Manganese	259000	ug/Kg	*	184	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105
7439-97-6	Mercury	41.5	ug/kg		4.4	12.9	12.9	1	AV	JXL1	03/15/10 15:39	031510S1-4	958747
7440-02-0	Nickel	6.42	mg/kg	*	0.103	0.411	0.411	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-09-7	Potassium	813000	ug/Kg	*	5880	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7782-49-2	Selenium	1.03	mg/kg	UN	0.514	1.03	1.03	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-22-4	Silver	174	ug/Kg	J	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-23-5	Sodium	109000	ug/Kg		6430	23000	23000	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-28-0	Thallium	0.0886	mg/kg	J	0.0617	0.206	0.206	2	MS	PRB	04/12/10 02:21	100411-2	959107
7440-61-1	Uranium	0.890	mg/kg		0.0136	0.0411	0.0411	2	MS	PRB	04/12/10 14:44	100412-3	959107
7440-62-2	Vanadium	11700	ug/Kg	*	91.9	459	459	1	P	HSC	03/27/10 07:28	032610A-1	959105
7440-66-6	Zinc	46400	ug/Kg	*	303	919	919	1	P	HSC	03/27/10 07:28	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.505	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.593	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.53	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045011

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7475

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3170000	ug/Kg	*	8850	26000	26000	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-36-0	Antimony	1300	ug/Kg	U	429	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-38-2	Arsenic	1.12	mg/kg	J	0.273	1.36	1.36	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-39-3	Barium	59800	ug/Kg		130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-41-7	Beryllium	0.670	mg/kg	*	0.0273	0.136	0.136	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-43-9	Cadmium	554	ug/Kg	J	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-70-2	Calcium	1190000	ug/Kg	*N	10400	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-47-3	Chromium	7550	ug/Kg		195	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-48-4	Cobalt	1970	ug/Kg		195	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-50-8	Copper	87400	ug/Kg	*N	390	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-89-6	Iron	7640000	ug/Kg	*	10400	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-92-1	Lead	39400	ug/Kg	*	325	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-95-4	Magnesium	732000	ug/Kg	*E	11100	39000	39000	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-96-5	Manganese	367000	ug/Kg	*	260	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105
7439-97-6	Mercury	862	ug/kg		11.1	32.6	32.6	2	AV	JXLI	03/15/10 16:39	031510S1-4	958747
7440-02-0	Nickel	5.83	mg/kg	*	0.136	0.545	0.545	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-09-7	Potassium	667000	ug/Kg	*	8330	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7782-49-2	Selenium	1.36	mg/kg	UN	0.682	1.36	1.36	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-22-4	Silver	370	ug/Kg	J	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-23-5	Sodium	560000	ug/Kg		9110	32500	32500	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-28-0	Thallium	0.273	mg/kg	U	0.0818	0.273	0.273	2	MS	PRB	04/12/10 02:24	100411-2	959107
7440-61-1	Uranium	1.12	mg/kg		0.018	0.0545	0.0545	2	MS	PRB	04/12/10 14:46	100412-3	959107
7440-62-2	Vanadium	8950	ug/Kg	*	130	651	651	1	P	HSC	03/27/10 07:50	032610A-1	959105
7440-66-6	Zinc	126000	ug/Kg	*	429	1300	1300	1	P	HSC	03/27/10 07:50	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.506	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.528	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.504	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045012

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7466

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2510000	ug/Kg	*	7640	22500	22500	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-36-0	Antimony	1120	ug/Kg	U	371	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-38-2	Arsenic	0.764	mg/kg	J	0.248	1.24	1.24	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-39-3	Barium	27800	ug/Kg		112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-41-7	Beryllium	0.351	mg/kg	*	0.0248	0.124	0.124	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-43-9	Cadmium	348	ug/Kg	J	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-70-2	Calcium	923000	ug/Kg	*N	8980	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-47-3	Chromium	9350	ug/Kg		168	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-48-4	Cobalt	1760	ug/Kg		168	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-50-8	Copper	76500	ug/Kg	*N	337	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-89-6	Iron	7100000	ug/Kg	*	8980	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-92-1	Lead	45300	ug/Kg	*	281	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-95-4	Magnesium	623000	ug/Kg	*E	9540	33700	33700	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-96-5	Manganese	164000	ug/Kg	*	225	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105
7439-97-6	Mercury	469	ug/kg		4.46	13.1	13.1	1	AV	JXL1	03/15/10 15:42	031510S1-4	958747
7440-02-0	Nickel	15.3	mg/kg	*	0.124	0.495	0.495	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-09-7	Potassium	745000	ug/Kg	*	7190	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7782-49-2	Selenium	1.24	mg/kg	UN	0.619	1.24	1.24	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-22-4	Silver	419	ug/Kg	J	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-23-5	Sodium	281000	ug/Kg		7860	28100	28100	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-28-0	Thallium	0.248	mg/kg	U	0.0743	0.248	0.248	2	MS	PRB	04/12/10 02:27	100411-2	959107
7440-61-1	Uranium	0.934	mg/kg		0.0163	0.0495	0.0495	2	MS	PRB	04/12/10 14:47	100412-3	959107
7440-62-2	Vanadium	6970	ug/Kg	*	112	561	561	1	P	HSC	03/27/10 07:57	032610A-1	959105
7440-66-6	Zinc	69400	ug/Kg	*	371	1120	1120	1	P	HSC	03/27/10 07:57	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.575	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.56	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.508	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045013

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7476

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4640000	ug/Kg	*	8060	23700	23700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-36-0	Antimony	1190	ug/Kg	U	391	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-38-2	Arsenic	1.13	mg/kg	J	0.238	1.19	1.19	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-39-3	Barium	44000	ug/Kg		119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-41-7	Beryllium	0.901	mg/kg	*	0.0238	0.119	0.119	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-43-9	Cadmium	159	ug/Kg	J	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-70-2	Calcium	1040000	ug/Kg	*N	9490	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-47-3	Chromium	6460	ug/Kg		178	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-48-4	Cobalt	1030	ug/Kg		178	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-50-8	Copper	7560	ug/Kg	*N	356	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-89-6	Iron	8800000	ug/Kg	*	9490	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-92-1	Lead	6470	ug/Kg	*	297	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-95-4	Magnesium	771000	ug/Kg	*E	10100	35600	35600	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-96-5	Manganese	369000	ug/Kg	*	237	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105
7439-97-6	Mercury	146	ug/kg		4.58	13.5	13.5	1	AV	JXL1	03/15/10 15:44	031510S1-4	958747
7440-02-0	Nickel	5.01	mg/kg	*	0.119	0.475	0.475	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-09-7	Potassium	487000	ug/Kg	*	7590	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7782-49-2	Selenium	1.19	mg/kg	UN	0.594	1.19	1.19	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-22-4	Silver	197	ug/Kg	J	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-23-5	Sodium	574000	ug/Kg		8300	29700	29700	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-28-0	Thallium	0.238	mg/kg	U	0.0713	0.238	0.238	2	MS	PRB	04/12/10 02:30	100411-2	959107
7440-61-1	Uranium	0.517	mg/kg		0.0157	0.0475	0.0475	2	MS	PRB	04/12/10 14:49	100412-3	959107
7440-62-2	Vanadium	7490	ug/Kg	*	119	593	593	1	P	HSC	03/27/10 08:04	032610A-1	959105
7440-66-6	Zinc	51800	ug/Kg	*	391	1190	1190	1	P	HSC	03/27/10 08:04	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.537	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.508	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.507	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045014

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7461

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2210000	ug/Kg	*	7240	21300	21300	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-36-0	Antimony	1060	ug/Kg	U	351	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-38-2	Arsenic	0.937	mg/kg	J	0.22	1.1	1.1	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-39-3	Barium	35800	ug/Kg		106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-41-7	Beryllium	0.226	mg/kg	*	0.022	0.11	0.11	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-43-9	Cadmium	239	ug/Kg	J	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-70-2	Calcium	1410000	ug/Kg	*N	8520	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-47-3	Chromium	6360	ug/Kg		160	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-48-4	Cobalt	1850	ug/Kg		160	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-50-8	Copper	13900	ug/Kg	*N	319	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-89-6	Iron	6290000	ug/Kg	*	8520	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-92-1	Lead	13000	ug/Kg	*	266	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-95-4	Magnesium	1120000	ug/Kg	*E	9050	31900	31900	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-96-5	Manganese	111000	ug/Kg	*	213	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105
7439-97-6	Mercury	15.2	ug/kg		4.27	12.5	12.5	1	AV	JXLI	03/15/10 15:46	031510S1-4	958747
7440-02-0	Nickel	6.36	mg/kg	*	0.11	0.44	0.44	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-09-7	Potassium	522000	ug/Kg	*	6810	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7782-49-2	Selenium	1.1	mg/kg	UN	0.55	1.1	1.1	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-22-4	Silver	126	ug/Kg	J	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-23-5	Sodium	91500	ug/Kg		7450	26600	26600	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-28-0	Thallium	0.220	mg/kg	U	0.066	0.22	0.22	2	MS	PRB	04/12/10 02:33	100411-2	959107
7440-61-1	Uranium	0.816	mg/kg		0.0145	0.044	0.044	2	MS	PRB	04/12/10 14:51	100412-3	959107
7440-62-2	Vanadium	11300	ug/Kg	*	106	532	532	1	P	HSC	03/27/10 08:11	032610A-1	959105
7440-66-6	Zinc	40200	ug/Kg	*	351	1060	1060	1	P	HSC	03/27/10 08:11	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.548	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.538	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.521	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045015

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7467

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5330000	ug/Kg	*	7800	23000	23000	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-36-0	Antimony	1150	ug/Kg	U	379	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-38-2	Arsenic	1.53	mg/kg		0.214	1.07	1.07	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-39-3	Barium	68100	ug/Kg		115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-41-7	Beryllium	0.451	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-43-9	Cadmium	1230	ug/Kg		115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-70-2	Calcium	4780000	ug/Kg	*N	9180	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-47-3	Chromium	10000	ug/Kg		172	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-48-4	Cobalt	2160	ug/Kg		172	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-50-8	Copper	20900	ug/Kg	*N	344	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-89-6	Iron	8560000	ug/Kg	*	9180	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-92-1	Lead	59700	ug/Kg	*	287	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-95-4	Magnesium	1250000	ug/Kg	*E	9760	34400	34400	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-96-5	Manganese	248000	ug/Kg	*	230	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105
7439-97-6	Mercury	1680	ug/kg		43.1	127	127	10	AV	JXL1	03/15/10 16:10	031510S1-4	958747
7440-02-0	Nickel	6.68	mg/kg	*	0.107	0.429	0.429	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-09-7	Potassium	1290000	ug/Kg	*	7350	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7782-49-2	Selenium	1.07	mg/kg	UN	0.536	1.07	1.07	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-22-4	Silver	319	ug/Kg	J	115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-23-5	Sodium	97100	ug/Kg		8030	28700	28700	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-28-0	Thallium	0.214	mg/kg	U	0.0643	0.214	0.214	2	MS	PRB	04/12/10 02:37	100411-2	959107
7440-61-1	Uranium	0.951	mg/kg		0.0142	0.0429	0.0429	2	MS	PRB	04/12/10 14:52	100412-3	959107
7440-62-2	Vanadium	12600	ug/Kg	*	115	574	574	1	P	HSC	03/27/10 08:18	032610A-1	959105
7440-66-6	Zinc	59700	ug/Kg	*	379	1150	1150	1	P	HSC	03/27/10 08:18	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.569	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.524	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.561	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045016

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7469

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7450000	ug/Kg	*	7430	21900	21900	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-36-0	Antimony	1090	ug/Kg	U	361	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-38-2	Arsenic	1.71	mg/kg		0.226	1.13	1.13	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-39-3	Barium	75900	ug/Kg		109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-41-7	Beryllium	0.863	mg/kg	*	0.0226	0.113	0.113	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-43-9	Cadmium	376	ug/Kg	J	109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-70-2	Calcium	3780000	ug/Kg	*N	8740	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-47-3	Chromium	7560	ug/Kg		164	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-48-4	Cobalt	2590	ug/Kg		164	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-50-8	Copper	33500	ug/Kg	*N	328	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-89-6	Iron	10300000	ug/Kg	*	8740	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-92-1	Lead	75700	ug/Kg	*	273	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-95-4	Magnesium	1530000	ug/Kg	*E	9290	32800	32800	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-96-5	Manganese	344000	ug/Kg	*	219	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105
7439-97-6	Mercury	25000	ug/kg		464	1370	1370	100	AV	JXL1	03/15/10 16:11	031510S1-4	958747
7440-02-0	Nickel	12.2	mg/kg	*	0.113	0.452	0.452	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-09-7	Potassium	1360000	ug/Kg	*	6990	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7782-49-2	Selenium	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-22-4	Silver	1500	ug/Kg		109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-23-5	Sodium	254000	ug/Kg		7650	27300	27300	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-28-0	Thallium	0.0831	mg/kg	J	0.0678	0.226	0.226	2	MS	PRB	04/12/10 02:40	100411-2	959107
7440-61-1	Uranium	1.99	mg/kg		0.0149	0.0452	0.0452	2	MS	PRB	04/12/10 14:54	100412-3	959107
7440-62-2	Vanadium	13200	ug/Kg	*	109	546	546	1	P	HSC	03/27/10 08:25	032610A-1	959105
7440-66-6	Zinc	70600	ug/Kg	*	361	1090	1090	1	P	HSC	03/27/10 08:25	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.502	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.523	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.506	g	50	mL	03/08/10	FGA

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045017

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7470

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7120000	ug/Kg	*	7410	21800	21800	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-36-0	Antimony	1090	ug/Kg	U	359	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-38-2	Arsenic	1.86	mg/kg		0.232	1.16	1.16	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-39-3	Barium	68000	ug/Kg		109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-41-7	Beryllium	1.07	mg/kg	*	0.0232	0.116	0.116	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-43-9	Cadmium	237	ug/Kg	J	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-70-2	Calcium	2680000	ug/Kg	*N	8710	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-47-3	Chromium	7270	ug/Kg		163	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-48-4	Cobalt	3610	ug/Kg		163	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-50-8	Copper	16100	ug/Kg	*N	327	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-89-6	Iron	11300000	ug/Kg	*	8710	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-92-1	Lead	23200	ug/Kg	*	272	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-95-4	Magnesium	1480000	ug/Kg	*E	9260	32700	32700	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-96-5	Manganese	357000	ug/Kg	*	218	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105
7439-97-6	Mercury	22000	ug/kg		430	1260	1260	100	AV	JXL1	03/15/10 16:13	031510S1-4	958747
7440-02-0	Nickel	7.14	mg/kg	*	0.116	0.464	0.464	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-09-7	Potassium	1180000	ug/Kg	*	6970	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7782-49-2	Selenium	1.16	mg/kg	UN	0.58	1.16	1.16	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-22-4	Silver	263	ug/Kg	J	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-23-5	Sodium	177000	ug/Kg		7630	27200	27200	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-28-0	Thallium	0.0954	mg/kg	J	0.0697	0.232	0.232	2	MS	PRB	04/12/10 02:43	100411-2	959107
7440-61-1	Uranium	1.31	mg/kg		0.0153	0.0464	0.0464	2	MS	PRB	04/12/10 14:56	100412-3	959107
7440-62-2	Vanadium	14300	ug/Kg	*	109	545	545	1	P	HSC	03/27/10 08:32	032610A-1	959105
7440-66-6	Zinc	59600	ug/Kg	*	359	1090	1090	1	P	HSC	03/27/10 08:32	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.554	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.536	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.503	g	50	mL	03/08/10	FGA



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248045018

BASIS: Dry Weight

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7515

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1890000	ug/Kg	*	7790	22900	22900	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-36-0	Antimony	1150	ug/Kg	U	378	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-38-2	Arsenic	1.02	mg/kg	J	0.233	1.17	1.17	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-39-3	Barium	26300	ug/Kg		115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-41-7	Beryllium	0.220	mg/kg	*	0.0233	0.117	0.117	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-43-9	Cadmium	397	ug/Kg	J	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-70-2	Calcium	2190000	ug/Kg	*N	9170	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-47-3	Chromium	10600	ug/Kg		172	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-48-4	Cobalt	2740	ug/Kg		172	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-50-8	Copper	96600	ug/Kg	*N	344	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-89-6	Iron	10000000	ug/Kg	*	9170	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-92-1	Lead	79000	ug/Kg	*	286	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-95-4	Magnesium	863000	ug/Kg	*E	9740	34400	34400	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-96-5	Manganese	156000	ug/Kg	*	229	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105
7439-97-6	Mercury	120	ug/kg		5.15	15.2	15.2	1	AV	JXL1	03/15/10 15:56	031510S1-4	958747
7440-02-0	Nickel	8.19	mg/kg	*	0.117	0.467	0.467	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-09-7	Potassium	963000	ug/Kg	*	7330	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7782-49-2	Selenium	1.17	mg/kg	UN	0.583	1.17	1.17	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-22-4	Silver	175	ug/Kg	J	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-23-5	Sodium	279000	ug/Kg		8020	28600	28600	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-28-0	Thallium	0.233	mg/kg	U	0.07	0.233	0.233	2	MS	PRB	04/12/10 02:46	100411-2	959107
7440-61-1	Uranium	1.86	mg/kg		0.0154	0.0467	0.0467	2	MS	PRB	04/12/10 14:57	100412-3	959107
7440-62-2	Vanadium	7120	ug/Kg	*	115	573	573	1	P	HSC	03/27/10 08:39	032610A-1	959105
7440-66-6	Zinc	70500	ug/Kg	*	378	1150	1150	1	P	HSC	03/27/10 08:39	032610A-1	959105

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958747	958746	SW846 7471A Prep	0.5	g	30	mL	03/12/10	TXB3
959105	959104	SW846 3050B	0.551	g	50	mL	03/08/10	FGA
959107	959106	SW846 3050B	0.541	g	50	mL	03/08/10	FGA

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	5.18	ug/L	5	ug/L	103.6	90.0 – 110.0	AV	15-MAR-10 09:15	031510S1-4
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Antimony	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Cadmium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Lead	500	ug/L	500	ug/L	100	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Potassium	2490	ug/L	2500	ug/L	99.7	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Silver	254	ug/L	250	ug/L	101.8	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	26-MAR-10 19:33	032610A-1
	Arsenic	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	12-APR-10 01:00	100411-2
	Beryllium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	12-APR-10 01:00	100411-2
	Nickel	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	12-APR-10 01:00	100411-2
	Selenium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	12-APR-10 01:00	100411-2
	Thallium	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	12-APR-10 01:00	100411-2
	Uranium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	12-APR-10 13:11	100412-3
CCV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	15-MAR-10 09:20	031510S1-4
	Aluminum	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Chromium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Copper	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Iron	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Magnesium	4940	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Potassium	4580	ug/L	5000	ug/L	91.6	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Silver	505	ug/L	500	ug/L	101	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Arsenic	52	ug/L	50	ug/L	104.1	90.0 - 110.0	MS	12-APR-10 01:16	100411-2
	Beryllium	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	12-APR-10 01:16	100411-2
	Nickel	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	12-APR-10 01:16	100411-2
	Selenium	52.2	ug/L	50	ug/L	104.4	90.0 - 110.0	MS	12-APR-10 01:16	100411-2
	Thallium	53.7	ug/L	50	ug/L	107.5	90.0 - 110.0	MS	12-APR-10 01:16	100411-2
	Uranium	50	ug/L	50	ug/L	100	90.0 - 110.0	MS	12-APR-10 13:20	100412-3
CCV02										
	Mercury	5.15	ug/L	5	ug/L	102.9	80.0 - 120.0	AV	15-MAR-10 09:40	031510S1-4
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	26-MAR-10 20:43	032610A-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Potassium	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Sodium	10300	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Zinc	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Arsenic	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	12-APR-10 01:44	100411-2
	Beryllium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	12-APR-10 01:44	100411-2
	Nickel	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	12-APR-10 01:44	100411-2
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	12-APR-10 01:44	100411-2
	Thallium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	12-APR-10 01:44	100411-2
	Uranium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	12-APR-10 13:36	100412-3
CCV03	Mercury	5.23	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	15-MAR-10 10:00	031510S1-4
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Antimony	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Cadmium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Chromium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Cobalt	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Iron	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Silver	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	10500	ug/L	10000	ug/L	104.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Zinc	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Arsenic	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	12-APR-10 02:15	100411-2
	Beryllium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	12-APR-10 02:15	100411-2
	Nickel	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	12-APR-10 02:15	100411-2
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	12-APR-10 02:15	100411-2
	Thallium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	12-APR-10 02:15	100411-2
	Uranium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	12-APR-10 13:52	100412-3
CCV04										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 – 120.0	AV	15-MAR-10 10:20	031510S1-4
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Antimony	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Cobalt	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	26-MAR-10 23:02	032610A-1
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	12-APR-10 02:49	100411-2
	Beryllium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	12-APR-10 02:49	100411-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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>
	Nickel	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	12-APR-10 02:49	100411-2
	Selenium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	12-APR-10 02:49	100411-2
	Thallium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	12-APR-10 02:49	100411-2
	Uranium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	12-APR-10 14:09	100412-3
CCV05										
	Mercury	5.26	ug/L	5	ug/L	105.2	80.0 – 120.0	AV	15-MAR-10 10:40	031510S1-4
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Antimony	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Potassium	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Sodium	9300	ug/L	10000	ug/L	93	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Vanadium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Uranium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	12-APR-10 14:24	100412-3
CCV06										
	Mercury	5.3	ug/L	5	ug/L	106.1	80.0 – 120.0	AV	15-MAR-10 11:00	031510S1-4
	Aluminum	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Antimony	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Cadmium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV07	Calcium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Lead	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Potassium	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Silver	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	27-MAR-10 01:14	032610A-1
	Uranium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	12-APR-10 14:40	100412-3
	Mercury	5.13	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	15-MAR-10 11:20	031510S1-4
CCV07	Aluminum	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Antimony	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Cadmium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Chromium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Manganese	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Potassium	4650	ug/L	5000	ug/L	93	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1



**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	9140	ug/L	10000	ug/L	91.4	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	27-MAR-10 02:30	032610A-1
	Uranium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	12-APR-10 14:59	100412-3
CCV08										
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	15-MAR-10 11:40	031510S1-4
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Lead	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Potassium	4680	ug/L	5000	ug/L	93.6	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Sodium	9280	ug/L	10000	ug/L	92.8	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
	Zinc	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 03:55	032610A-1
CCV09										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	15-MAR-10 12:01	031510S1-4
	Aluminum	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Calcium	5300	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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>
	Chromium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Copper	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Magnesium	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Potassium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Sodium	9470	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
	Zinc	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	27-MAR-10 05:13	032610A-1
CCV10	Mercury	5.36	ug/L	5	ug/L	107.2	80.0 – 120.0	AV	15-MAR-10 12:21	031510S1-4
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Antimony	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Barium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Calcium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Chromium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Cobalt	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Copper	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Potassium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Sodium	9200	ug/L	10000	ug/L	92	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Vanadium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV11	Zinc	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	27-MAR-10 06:25	032610A-1
	Mercury	5.34	ug/L	5	ug/L	106.8	80.0 – 120.0	AV	15-MAR-10 12:41	031510S1-4
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Antimony	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Chromium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Lead	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Sodium	9170	ug/L	10000	ug/L	91.7	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	27-MAR-10 07:35	032610A-1
CCV12	Mercury	-.04	ug/L	5	ug/L	-.8	80.0 – 120.0	AV	15-MAR-10 13:02	031510S1-4
	Aluminum	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Cadmium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Calcium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Chromium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<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>
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Potassium	4760	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Silver	510	ug/L	500	ug/L	102	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	27-MAR-10 08:46	032610A-1
CCV13										
	Mercury	5.34	ug/L	5	ug/L	106.8	80.0 – 120.0	AV	15-MAR-10 13:21	031510S1-4
CCV14										
	Mercury	5.36	ug/L	5	ug/L	107.2	80.0 – 120.0	AV	15-MAR-10 13:42	031510S1-4
CCV15										
	Mercury	5.38	ug/L	5	ug/L	107.6	80.0 – 120.0	AV	15-MAR-10 14:02	031510S1-4
CCV16										
	Mercury	5.37	ug/L	5	ug/L	107.5	80.0 – 120.0	AV	15-MAR-10 14:16	031510S1-4
CCV17										
	Mercury	2.2	ug/L	5	ug/L	44.1	80.0 – 120.0	AV	15-MAR-10 14:40	031510S1-4
CCV18										
	Mercury	-.05	ug/L	5	ug/L	-.9	80.0 – 120.0	AV	15-MAR-10 15:00	031510S1-4
CCV19										
	Mercury	5.47	ug/L	5	ug/L	109.3	80.0 – 120.0	AV	15-MAR-10 15:07	031510S1-4
CCV20										
	Mercury	5.43	ug/L	5	ug/L	108.6	80.0 – 120.0	AV	15-MAR-10 15:27	031510S1-4
CCV21										
	Mercury	5.37	ug/L	5	ug/L	107.3	80.0 – 120.0	AV	15-MAR-10 15:47	031510S1-4
CCV22										
	Mercury	5.54	ug/L	5	ug/L	110.8	80.0 – 120.0	AV	15-MAR-10 15:57	031510S1-4

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

---

<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>
CCV23	Mercury	5.41	ug/L	5	ug/L	108.2	80.0 – 120.0	AV	15-MAR-10 16:15	031510S1-4
CCV24	Mercury	5.13	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	15-MAR-10 16:41	031510S1-4

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

<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	.169	ug/L	.2	ug/L	84.5	70.0 – 130.0	AV	15-MAR-10 09:18	031510S1-4
	Nickel	2.36	ug/L	2	ug/L	117.8	70.0 – 130.0	MS	12-APR-10 01:07	100411-2
	Thallium	1.31	ug/L	1	ug/L	130.6	70.0 – 130.0	MS	12-APR-10 01:07	100411-2
	Arsenic	6	ug/L	5	ug/L	120	70.0 – 130.0	MS	12-APR-10 01:07	100411-2
	Beryllium	.581	ug/L	.5	ug/L	116.2	70.0 – 130.0	MS	12-APR-10 01:07	100411-2
	Selenium	5.88	ug/L	5	ug/L	117.6	70.0 – 130.0	MS	12-APR-10 01:07	100411-2
	Uranium	.22	ug/L	.2	ug/L	110	70.0 – 130.0	MS	12-APR-10 13:15	100412-3
PQL01										
	Aluminum	207	ug/L	200	ug/L	103.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Iron	78.1	ug/L	100	ug/L	78.1	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Lead	12.2	ug/L	10	ug/L	122.1	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Magnesium	223	ug/L	300	ug/L	74.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Manganese	10.5	ug/L	10	ug/L	105.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Potassium	103	ug/L	150	ug/L	68.6	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Silver	4.9	ug/L	5	ug/L	98	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Sodium	293	ug/L	300	ug/L	97.5	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Antimony	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Barium	5.06	ug/L	5	ug/L	101.1	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Cadmium	5.34	ug/L	5	ug/L	106.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Chromium	4.99	ug/L	5	ug/L	99.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Cobalt	5.03	ug/L	5	ug/L	100.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Copper	9.16	ug/L	10	ug/L	91.6	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Vanadium	5.74	ug/L	5	ug/L	114.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Zinc	9.68	ug/L	10	ug/L	96.8	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Calcium	189	ug/L	200	ug/L	94.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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>
<b>ICB01</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 09:16	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-MAR-10 19:40	032610A-1
	Antimony	4.16	+/-10	J	3.3	10.0	SOL	P	26-MAR-10 19:40	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 19:40	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	26-MAR-10 19:40	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 19:40	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-MAR-10 19:40	032610A-1
	Magnesium	-91.83	+/-300	J	85.0	300	SOL	P	26-MAR-10 19:40	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-MAR-10 19:40	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-MAR-10 19:40	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	26-MAR-10 19:40	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 19:40	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 19:40	032610A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 01:03	100411-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 01:03	100411-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 01:03	100411-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 01:03	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	12-APR-10 01:03	100411-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 13:13	100412-3
<b>CCB01</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 09:21	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-MAR-10 20:28	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 20:28	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:28	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:28	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 20:28	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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	26-MAR-10 20:28	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 20:28	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	26-MAR-10 20:28	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 20:28	032610A-1
	Lead	2.74	+/-10	J	2.5	10.0	SOL	P	26-MAR-10 20:28	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-MAR-10 20:28	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-MAR-10 20:28	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-MAR-10 20:28	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:28	032610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	26-MAR-10 20:28	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:28	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 20:28	032610A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 01:19	100411-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 01:19	100411-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 01:19	100411-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 01:19	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	12-APR-10 01:19	100411-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 13:21	100412-3
<b>CCB02</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 09:41	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-MAR-10 20:50	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 20:50	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 20:50	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	26-MAR-10 20:50	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 20:50	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-MAR-10 20:50	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-MAR-10 20:50	032610A-1

SW846



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/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	26-MAR-10 20:50	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-MAR-10 20:50	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	26-MAR-10 20:50	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 20:50	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 20:50	032610A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 01:47	100411-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 01:47	100411-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 01:47	100411-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 01:47	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	12-APR-10 01:47	100411-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 13:37	100412-3
<b>CCB03</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 10:01	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-MAR-10 22:06	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 22:06	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 22:06	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	26-MAR-10 22:06	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 22:06	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-MAR-10 22:06	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-MAR-10 22:06	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-MAR-10 22:06	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-MAR-10 22:06	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	26-MAR-10 22:06	032610A-1
	Vanadium	1.11	+/-5	J	1.0	5.0	SOL	P	26-MAR-10 22:06	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 22:06	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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	12-APR-10 02:18	100411-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 02:18	100411-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 02:18	100411-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 02:18	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	12-APR-10 02:18	100411-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 13:54	100412-3
<b>CCB04</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 10:22	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-MAR-10 23:09	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 23:09	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 23:09	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	26-MAR-10 23:09	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-MAR-10 23:09	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-MAR-10 23:09	032610A-1
	Magnesium	-89.02	+/-300	J	85.0	300	SOL	P	26-MAR-10 23:09	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-MAR-10 23:09	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-MAR-10 23:09	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Sodium	-72.65	+/-250	J	70.0	250	SOL	P	26-MAR-10 23:09	032610A-1
	Vanadium	1.04	+/-5	J	1.0	5.0	SOL	P	26-MAR-10 23:09	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-MAR-10 23:09	032610A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 02:52	100411-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 02:52	100411-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 02:52	100411-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 02:52	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	12-APR-10 02:52	100411-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 14:10	100412-3

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/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>
<b>CCB05</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 10:42	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 00:11	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 00:11	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 00:11	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 00:11	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 00:11	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 00:11	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-MAR-10 00:11	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 00:11	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-MAR-10 00:11	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	27-MAR-10 00:11	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 00:11	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 00:11	032610A-1
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 14:25	100412-3
<b>CCB06</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 11:02	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 01:21	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 01:21	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 01:21	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 01:21	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 01:21	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 01:21	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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>
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-MAR-10 01:21	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 01:21	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-MAR-10 01:21	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Sodium	-87.14	+/-250	J	70.0	250	SOL	P	27-MAR-10 01:21	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 01:21	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 01:21	032610A-1
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 14:42	100412-3
<b>CCB07</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 11:22	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 02:37	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 02:37	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 02:37	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 02:37	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 02:37	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 02:37	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-MAR-10 02:37	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 02:37	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-MAR-10 02:37	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Sodium	-97.42	+/-250	J	70.0	250	SOL	P	27-MAR-10 02:37	032610A-1
	Vanadium	1.3	+/-5	J	1.0	5.0	SOL	P	27-MAR-10 02:37	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 02:37	032610A-1
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 15:01	100412-3
<b>CCB08</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 11:42	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 04:02	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/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>
	Antimony	-5.41	+/-10	J	3.3	10.0	SOL	P	27-MAR-10 04:02	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 04:02	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 04:02	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 04:02	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 04:02	032610A-1
	Magnesium	-119.93	+/-300	J	85.0	300	SOL	P	27-MAR-10 04:02	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 04:02	032610A-1
	Potassium	-91.41	+/-250	J	64.0	250	SOL	P	27-MAR-10 04:02	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Sodium	-92.3	+/-250	J	70.0	250	SOL	P	27-MAR-10 04:02	032610A-1
	Vanadium	1.17	+/-5	J	1.0	5.0	SOL	P	27-MAR-10 04:02	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 04:02	032610A-1
<b>CCB09</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 12:02	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 05:20	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 05:20	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 05:20	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 05:20	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 05:20	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 05:20	032610A-1
	Magnesium	-91.04	+/-300	J	85.0	300	SOL	P	27-MAR-10 05:20	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 05:20	032610A-1
	Potassium	-97.29	+/-250	J	64.0	250	SOL	P	27-MAR-10 05:20	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Sodium	-100.12	+/-250	J	70.0	250	SOL	P	27-MAR-10 05:20	032610A-1
	Vanadium	1.65	+/-5	J	1.0	5.0	SOL	P	27-MAR-10 05:20	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 05:20	032610A-1
<b>CCB10</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 12:23	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 06:32	032610A-1
	Antimony	-3.35	+/-10	J	3.3	10.0	SOL	P	27-MAR-10 06:32	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 06:32	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 06:32	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 06:32	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 06:32	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-MAR-10 06:32	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 06:32	032610A-1
	Potassium	-65.34	+/-250	J	64.0	250	SOL	P	27-MAR-10 06:32	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Sodium	-125.57	+/-250	J	70.0	250	SOL	P	27-MAR-10 06:32	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 06:32	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 06:32	032610A-1
<b>CCB11</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 12:43	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 07:42	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 07:42	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 07:42	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 07:42	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 07:42	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 07:42	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 07:42	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 07:42	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 07:42	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 07:42	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-MAR-10 07:42	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 07:42	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-MAR-10 07:42	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 07:42	032610A-1
	Sodium	-156.86	+/-250	J	70.0	250	SOL	P	27-MAR-10 07:42	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 07:42	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 07:42	032610A-1
<b>CCB12</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	15-MAR-10 13:03	031510S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-MAR-10 08:53	032610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 08:53	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 08:53	032610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-MAR-10 08:53	032610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-MAR-10 08:53	032610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-MAR-10 08:53	032610A-1
	Magnesium	-118.54	+/-300	J	85.0	300	SOL	P	27-MAR-10 08:53	032610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-MAR-10 08:53	032610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-MAR-10 08:53	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Sodium	-186.14	+/-250	J	70.0	250	SOL	P	27-MAR-10 08:53	032610A-1
	Vanadium	1.04	+/-5	J	1.0	5.0	SOL	P	27-MAR-10 08:53	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-MAR-10 08:53	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075

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>
CCB13	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 13:23	031510S1-4
CCB14	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 13:43	031510S1-4
CCB15	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 14:04	031510S1-4
CCB16	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 14:17	031510S1-4
CCB17	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 14:42	031510S1-4
CCB18	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 15:02	031510S1-4
CCB19	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 15:09	031510S1-4
CCB20	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 15:29	031510S1-4
CCB21	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 15:49	031510S1-4
CCB22	Mercury	0.096	+/- .2	J	0.068	0.2	SOL	AV	15-MAR-10 15:59	031510S1-4
CCB23	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 16:16	031510S1-4
CCB24	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	15-MAR-10 16:43	031510S1-4



**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-2075  
**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>
1202056161	Mercury	4.02	ug/kg	+/-11.8	U	AV	4.02	11.8
1202056854	Aluminum	6500	ug/Kg	+/-19100	U	P	6500	19100
	Antimony	-455	ug/Kg	+/-956	J	P	315	956
	Barium	95.6	ug/Kg	+/-478	U	P	95.6	478
	Calcium	7650	ug/Kg	+/-23900	U	P	7650	23900
	Cobalt	143	ug/Kg	+/-478	U	P	143	478
	Iron	7650	ug/Kg	+/-23900	U	P	7650	23900
	Magnesium	8130	ug/Kg	+/-28700	U	P	8130	28700
	Potassium	-7390	ug/Kg	+/-23900	J	P	6120	23900
	Zinc	315	ug/Kg	+/-956	U	P	315	956
	Vanadium	167	ug/Kg	+/-478	J	P	95.6	478
	Sodium	6690	ug/Kg	+/-23900	U	P	6690	23900
	Silver	95.6	ug/Kg	+/-478	U	P	95.6	478
	Manganese	191	ug/Kg	+/-956	U	P	191	956
	Lead	239	ug/Kg	+/-956	U	P	239	956
	Copper	287	ug/Kg	+/-956	U	P	287	956
	Chromium	143	ug/Kg	+/-478	U	P	143	478
	Cadmium	95.6	ug/Kg	+/-478	U	P	95.6	478
1202056860	Thallium	0.0583	mg/kg	+/-0.194	U	MS	0.0583	0.194
	Uranium	0.013	mg/kg	+/-0.0388	J	MS	0.0128	0.0388
	Arsenic	0.194	mg/kg	+/-0.971	U	MS	0.194	0.971
	Beryllium	0.0194	mg/kg	+/-0.0971	U	MS	0.0194	0.0971
	Nickel	0.0971	mg/kg	+/-0.388	U	MS	0.0971	0.388
	Selenium	0.485	mg/kg	+/-0.971	U	MS	0.485	0.971

## METALS

-4-

## Interference Check Sample

SDG No: 10-2075

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<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>
<b>ICSA01</b>									
	Aluminum	516000	ug/L	500000	ug/L	103	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Antimony	-1.23	ug/L					26-MAR-10 19:54	032610A-1
	Barium	0.49	ug/L					26-MAR-10 19:54	032610A-1
	Cadmium	1.77	ug/L					26-MAR-10 19:54	032610A-1
	Calcium	473000	ug/L	500000	ug/L	94.5	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Chromium	-1.5	ug/L					26-MAR-10 19:54	032610A-1
	Cobalt	-0.992	ug/L					26-MAR-10 19:54	032610A-1
	Copper	1.32	ug/L					26-MAR-10 19:54	032610A-1
	Iron	182000	ug/L	200000	ug/L	90.8	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Lead	-8.58	ug/L					26-MAR-10 19:54	032610A-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Manganese	-2.29	ug/L					26-MAR-10 19:54	032610A-1
	Potassium	-214.0	ug/L					26-MAR-10 19:54	032610A-1
	Silver	-1.58	ug/L					26-MAR-10 19:54	032610A-1
	Sodium	78.8	ug/L					26-MAR-10 19:54	032610A-1
	Vanadium	0.309	ug/L					26-MAR-10 19:54	032610A-1
	Zinc	-0.241	ug/L					26-MAR-10 19:54	032610A-1
<b>ICSAB01</b>									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Antimony	550	ug/L	500	ug/L	110	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Barium	487	ug/L	500	ug/L	97.3	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Cadmium	461	ug/L	500	ug/L	92.2	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Calcium	468000	ug/L	500000	ug/L	93.6	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Chromium	481	ug/L	500	ug/L	96.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Cobalt	446	ug/L	500	ug/L	89.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Copper	548	ug/L	500	ug/L	110	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Iron	179000	ug/L	200000	ug/L	89.5	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Lead	450	ug/L	500	ug/L	90	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Magnesium	477000	ug/L	500000	ug/L	95.4	80.0 – 120.0	26-MAR-10 20:01	032610A-1

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075

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	475	ug/L	500	ug/L	94.9	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Potassium	4830	ug/L	5000	ug/L	96.5	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Sodium	5110	ug/L	5000	ug/L	102	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Vanadium	508	ug/L	500	ug/L	102	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Zinc	491	ug/L	500	ug/L	98.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075

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>
<b>ICSA01</b>									
	Arsenic	-0.165	ug/L					12-APR-10 01:10	100411-2
	Beryllium	0.123	ug/L					12-APR-10 01:10	100411-2
	Nickel	3.21	ug/L					12-APR-10 01:10	100411-2
	Selenium	-1.32	ug/L					12-APR-10 01:10	100411-2
	Thallium	0.019	ug/L					12-APR-10 01:10	100411-2
<b>ICSAB01</b>									
	Arsenic	19.9	ug/L	20	ug/L	99.3	80.0 - 120.0	12-APR-10 01:13	100411-2
	Beryllium	19.3	ug/L	20	ug/L	96.2	80.0 - 120.0	12-APR-10 01:13	100411-2
	Nickel	22.9	ug/L	23.31	ug/L	98	80.0 - 120.0	12-APR-10 01:13	100411-2
	Selenium	18.4	ug/L	20	ug/L	92.2	80.0 - 120.0	12-APR-10 01:13	100411-2
	Thallium	20.1	ug/L	20	ug/L	100	80.0 - 120.0	12-APR-10 01:13	100411-2

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075

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	Uranium	0.004	ug/L					12-APR-10 13:16	100412-3
ICSAB01	Uranium	21.1	ug/L	20	ug/L	105	80.0 - 120.0	12-APR-10 13:18	100412-3

## METALS

-5a-

## Matrix Spike Summary

**SDG NO.** 10-2075 **Client ID** RE36-10-7414S**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 79**Sample ID:** 248045001 **Spike ID:** 1202056164

<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	213		45.7		150	112		AV

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-2075 Client ID RE36-10-7414SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 248045001 Spike ID: 1202056166

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	206		45.7		136	118		AV

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2075 Client ID RE36-10-7414S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 248045001 Spike ID: 1202056857

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Magnesium	ug/Kg	75-125	1260000		631000		617000	102		P
Manganese	ug/Kg	75-125	305000		240000		61700	105		P
Potassium	ug/Kg	75-125	1490000		1020000		617000	76		P
Silver	ug/Kg	75-125	59400		295	J	61700	95.8		P
Sodium	ug/Kg	75-125	887000		332000		617000	90		P
Vanadium	ug/Kg	75-125	66000		8870		61700	92.7		P
Zinc	ug/Kg	75-125	128000		56300		61700	115		P
Aluminum	ug/Kg		5500000		3830000		617000	271	N/A	P
Antimony	ug/Kg	75-125	56400		367	U	61700	91.4		P
Barium	ug/Kg	75-125	91500		39500		61700	84.3		P
Cadmium	ug/Kg	75-125	57700		215	J	61700	93.2		P
Calcium	ug/Kg	75-125	1280000		853000		617000	69.1	N	P
Chromium	ug/Kg	75-125	69100		9780		61700	96.1		P
Cobalt	ug/Kg	75-125	58500		1450		61700	92.4		P
Copper	ug/Kg	75-125	96600		18500		61700	127	N	P
Iron	ug/Kg		8240000		9200000		617000	-156	N/A	P
Lead	ug/Kg	75-125	75700		11900		61700	103		P



## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-2075 Client ID RE36-10-7414SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 248045001 Spike ID: 1202056858

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		5430000		3830000		628000	254	N/A	P
Antimony	ug/Kg	75-125	57900		367	U	62800	92.2		P
Barium	ug/Kg	75-125	91100		39500		62800	82.3		P
Cadmium	ug/Kg	75-125	58800		215	J	62800	93.4		P
Calcium	ug/Kg	75-125	1320000		853000		628000	74	N	P
Chromium	ug/Kg	75-125	69400		9780		62800	94.9		P
Cobalt	ug/Kg	75-125	59800		1450		62800	93		P
Copper	ug/Kg	75-125	93200		18500		62800	119		P
Iron	ug/Kg		8850000		9200000		628000	-55.9	N/A	P
Lead	ug/Kg	75-125	76500		11900		62800	103		P
Magnesium	ug/Kg	75-125	1270000		631000		628000	102		P
Manganese	ug/Kg	75-125	296000		240000		62800	90		P
Potassium	ug/Kg	75-125	1520000		1020000		628000	79.1		P
Silver	ug/Kg	75-125	60000		295	J	62800	95.1		P
Sodium	ug/Kg	75-125	965000		332000		628000	101		P
Vanadium	ug/Kg	75-125	67000		8870		62800	92.7		P
Zinc	ug/Kg	75-125	123000		56300		62800	106		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2075 Client ID RE36-10-7414S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 248045001 Spike ID: 1202056863

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.38		1.1	J	8.51	97.3		MS
Beryllium	mg/kg	75-125	5.99		0.613		5.32	101		MS
Nickel	mg/kg	75-125	9.05		4.23		5.32	90.5		MS
Selenium	mg/kg	75-125	2.09		0.62	U	2.13	87.8		MS
Thallium	mg/kg	75-125	10.1		0.19	J	10.6	93.4		MS
Uranium	mg/kg	75-125	5.11		0.648		5.32	83.9		MS

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-2075 Client ID RE36-10-7414SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 248045001 Spike ID: 1202056864

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.94		1.1	J	9.94	88.9		MS
Beryllium	mg/kg	75-125	6.47		0.613		6.22	94.2		MS
Nickel	mg/kg	75-125	10.1		4.23		6.22	94.9		MS
Selenium	mg/kg	75-125	2.05		0.62	U	2.49	73.8	N	MS
Thallium	mg/kg	75-125	11.7		0.19	J	12.4	92.7		MS
Uranium	mg/kg	75-125	5.76		0.648		6.22	82.2		MS

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414D

Sample ID: 248045001

Duplicate ID: 1202056163

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-14.5	45.7		43.8		4.35		AV

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414SD

Sample ID: 1202056164

Duplicate ID: 1202056166

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	213		206		3.15		AV

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414D

Sample ID: 248045001

Duplicate ID: 1202056855

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	3830000		2540000		40.4	*	P
Antimony	ug/Kg		367 U		393 U				P
Barium	ug/Kg	+/-20%	39500		36000		9.19		P
Cadmium	ug/Kg	+/-596	215 J		403 J		60.9		P
Calcium	ug/Kg	+/-20%	853000		607000		33.6	*	P
Chromium	ug/Kg	+/-20%	9780		11400		15		P
Cobalt	ug/Kg	+/-596	1450		1170		21.5		P
Copper	ug/Kg	+/-20%	18500		23400		23.5	*	P
Iron	ug/Kg	+/-20%	9200000		7510000		20.3	*	P
Lead	ug/Kg	+/-20%	11900		16200		30.4	*	P
Magnesium	ug/Kg	+/-20%	631000		439000		35.9	*	P
Manganese	ug/Kg	+/-20%	240000		319000		28.5	*	P
Potassium	ug/Kg	+/-20%	1020000		723000		34.2	*	P
Silver	ug/Kg		295 J		119 U		200		P
Sodium	ug/Kg	+/-20%	332000		288000		14.1		P
Vanadium	ug/Kg	+/-20%	8870		6360		33	*	P
Zinc	ug/Kg	+/-20%	56300		71900		24.2	*	P

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414SD

Sample ID: 1202056857

Duplicate ID: 1202056858

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	5500000		5430000		1.35		P
Antimony	ug/Kg	+/-20	56400		57900		2.64		P
Barium	ug/Kg	+/-20	91500		91100		.35		P
Cadmium	ug/Kg	+/-20	57700		58800		1.94		P
Calcium	ug/Kg	+/-20	1280000		1320000		2.93		P
Chromium	ug/Kg	+/-20	69100		69400		.452		P
Cobalt	ug/Kg	+/-20	58500		59800		2.32		P
Copper	ug/Kg	+/-20	96600		93200		3.57		P
Iron	ug/Kg	+/-20	8240000		8850000		7.13		P
Lead	ug/Kg	+/-20	75700		76500		1.08		P
Magnesium	ug/Kg	+/-20	1260000		1270000		.942		P
Manganese	ug/Kg	+/-20	305000		296000		2.84		P
Potassium	ug/Kg	+/-20	1490000		1520000		1.85		P
Silver	ug/Kg	+/-20	59400		60000		1		P
Sodium	ug/Kg	+/-20	887000		965000		8.45		P
Vanadium	ug/Kg	+/-20	66000		67000		1.54		P
Zinc	ug/Kg	+/-20	128000		123000		3.66		P

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414D

Sample ID: 248045001

Duplicate ID: 1202056861

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.24	1.1 J		1.36		21.1		MS
Beryllium	mg/kg	+/-1.24	0.613		0.85		32.3	*	MS
Nickel	mg/kg	+/-20%	4.23		6.62		44	*	MS
Selenium	mg/kg		0.62 U		0.619 U				MS
Thallium	mg/kg	+/-248	0.19 J		0.109 J		54.2		MS
Uranium	mg/kg	+/-20%	0.648		0.674		3.89		MS



**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7414SD

Sample ID: 1202056863

Duplicate ID: 1202056864

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	9.38		9.94		5.81		MS
Beryllium	mg/kg	+/-20	5.99		6.47		7.64		MS
Nickel	mg/kg	+/-20	9.05		10.1		11.3		MS
Selenium	mg/kg	+/-20	2.09		2.05		1.62		MS
Thallium	mg/kg	+/-20	10.1		11.7		14.6		MS
Uranium	mg/kg	+/-20	5.11		5.76		11.9		MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2075

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>
1202056162	Mercury	ug/kg	5150	5170		100	71.6-128.3	AV

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2075

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>
1202056859								
	Zinc	ug/Kg	594000	557000		93.8	80-121	P
	Aluminum	ug/Kg	10500000	8900000		84.8	56-144	P
	Antimony	ug/Kg	173000	112000		64.7	71-130	P
	Barium	ug/Kg	198000	179000		90.6	80-120	P
	Cadmium	ug/Kg	60700	55400		91.2	81-120	P
	Calcium	ug/Kg	9870000	9410000		95.3	83-117	P
	Chromium	ug/Kg	236000	225000		95.3	80-120	P
	Cobalt	ug/Kg	91200	85000		93.2	81-120	P
	Copper	ug/Kg	174000	177000		102	81-118	P
	Iron	ug/Kg	18000000	16700000		93	51-149	P
	Lead	ug/Kg	86000	76000		88.4	79-121	P
	Magnesium	ug/Kg	4000000	3620000		90.4	79-122	P
	Manganese	ug/Kg	558000	507000		90.8	81-119	P
	Potassium	ug/Kg	4300000	3630000		84.4	74-127	P
	Silver	ug/Kg	30100	29000		96.2	66-134	P
	Sodium	ug/Kg	1020000	924000		90.6	74-127	P
	Vanadium	ug/Kg	115000	115000		100	79-121	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2075

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>
1202056865	Arsenic	mg/kg	104	115		110	78-123	MS
	Beryllium	mg/kg	77.6	82.8		107	84-116	MS
	Nickel	mg/kg	134	157		117	78-123	MS
	Selenium	mg/kg	286	303		106	77-123	MS
	Thallium	mg/kg	121	133		110	78-122	MS
	Uranium	mg/kg	2.13	2.39		112	73-127	MS

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2075

Client ID: RE36-10-7414L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 248045001

Serial Dilution ID: 1202056165

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.631		.34	U	100			AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2075 Client ID RE36-10-7414L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248045001 Serial Dilution ID: 1202056856

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	34500		33100		4.06		10	P
Antimony	3.3	U	16.5	U				P
Barium	355		353		.563		10	P
Cadmium	1.93	J	5	U	100			P
Calcium	7670		7450		2.87		10	P
Chromium	87.9		87.5		.455		10	P
Cobalt	13.1		15.5	J	17.9			P
Copper	166		150		9.94		10	P
Iron	82700		81500		1.45		10	P
Lead	107		109		1.87			P
Magnesium	5670		4930		13.1	E	10	P
Manganese	2150		2230		3.72		10	P
Potassium	9180		8500		7.41		10	P
Silver	2.65	J	5.8	J	119			P
Sodium	2980		2280		23.7			P
Vanadium	79.8		83.5		4.64		10	P
Zinc	507		496		2.27		10	P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2075 Client ID: RE36-10-7414L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248045001 Serial Dilution ID: 1202056862

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.44	J	5	U	100			MS
Beryllium	2.47		2.8		13.4			MS
Nickel	17.1		17.6		2.63			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.766	J	1.95	J	155			MS
Uranium	2.61		3.01		15.3			MS

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-2075

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	959104						
1202056854	MB for batch 959104	MB	S	08-MAR-10	.523g	50mL	
1202056859	LCS for batch 959104	LCS	S	08-MAR-10	.537g	50mL	
1202056857	RE36-10-7414S	MS	S	08-MAR-10	.514g	50mL	
1202056858	RE36-10-7414SD	MSD	S	08-MAR-10	.505g	50mL	
1202056855	RE36-10-7414D	DUP	S	08-MAR-10	.532g	50mL	
248045001	RE36-10-7414	SAMPLE	S	08-MAR-10	.57g	50mL	
248045002	RE36-10-7413	SAMPLE	S	08-MAR-10	.532g	50mL	
248045003	RE36-10-7462	SAMPLE	S	08-MAR-10	.519g	50mL	
248045004	RE36-10-7465	SAMPLE	S	08-MAR-10	.54g	50mL	
248045005	RE36-10-7473	SAMPLE	S	08-MAR-10	.517g	50mL	
248045006	RE36-10-7471	SAMPLE	S	08-MAR-10	.505g	50mL	
248045007	RE36-10-7472	SAMPLE	S	08-MAR-10	.511g	50mL	
248045008	RE36-10-7468	SAMPLE	S	08-MAR-10	.52g	50mL	
248045009	RE36-10-7464	SAMPLE	S	08-MAR-10	.539g	50mL	
248045010	RE36-10-7463	SAMPLE	S	08-MAR-10	.593g	50mL	
248045011	RE36-10-7475	SAMPLE	S	08-MAR-10	.528g	50mL	
248045012	RE36-10-7466	SAMPLE	S	08-MAR-10	.56g	50mL	
248045013	RE36-10-7476	SAMPLE	S	08-MAR-10	.508g	50mL	
248045014	RE36-10-7461	SAMPLE	S	08-MAR-10	.538g	50mL	

SW846



---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-2075

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>
248045015	RE36-10-7467	SAMPLE	S	08-MAR-10	.524g	50mL	
248045016	RE36-10-7469	SAMPLE	S	08-MAR-10	.523g	50mL	
248045017	RE36-10-7470	SAMPLE	S	08-MAR-10	.536g	50mL	
248045018	RE36-10-7515	SAMPLE	S	08-MAR-10	.551g	50mL	

---

SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-2075

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 959106							
1202056860	MB for batch 959106	MB	S	08-MAR-10	.515g	50mL	
1202056865	LCS for batch 959106	LCS	S	08-MAR-10	.534g	50mL	
1202056863	RE36-10-7414S	MS	S	08-MAR-10	.596g	50mL	
1202056864	RE36-10-7414SD	MSD	S	08-MAR-10	.51g	50mL	
1202056861	RE36-10-7414D	DUP	S	08-MAR-10	.512g	50mL	
248045001	RE36-10-7414	SAMPLE	S	08-MAR-10	.511g	50mL	
248045002	RE36-10-7413	SAMPLE	S	08-MAR-10	.572g	50mL	
248045003	RE36-10-7462	SAMPLE	S	08-MAR-10	.515g	50mL	
248045004	RE36-10-7465	SAMPLE	S	08-MAR-10	.532g	50mL	
248045005	RE36-10-7473	SAMPLE	S	08-MAR-10	.598g	50mL	
248045006	RE36-10-7471	SAMPLE	S	08-MAR-10	.53g	50mL	
248045007	RE36-10-7472	SAMPLE	S	08-MAR-10	.583g	50mL	
248045008	RE36-10-7468	SAMPLE	S	08-MAR-10	.512g	50mL	
248045009	RE36-10-7464	SAMPLE	S	08-MAR-10	.528g	50mL	
248045010	RE36-10-7463	SAMPLE	S	08-MAR-10	.53g	50mL	
248045011	RE36-10-7475	SAMPLE	S	08-MAR-10	.504g	50mL	
248045012	RE36-10-7466	SAMPLE	S	08-MAR-10	.508g	50mL	
248045013	RE36-10-7476	SAMPLE	S	08-MAR-10	.507g	50mL	
248045014	RE36-10-7461	SAMPLE	S	08-MAR-10	.521g	50mL	

SW846

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-2075

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>
248045015	RE36-10-7467	SAMPLE	S	08-MAR-10	.561g	50mL	
248045016	RE36-10-7469	SAMPLE	S	08-MAR-10	.506g	50mL	
248045017	RE36-10-7470	SAMPLE	S	08-MAR-10	.503g	50mL	
248045018	RE36-10-7515	SAMPLE	S	08-MAR-10	.541g	50mL	

---

SW846

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-2075

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	958746						
1202056161	MB for batch 958746	MB	S	12-MAR-10	.508g	30mL	
1202056162	LCS for batch 958746	LCS	S	12-MAR-10	.207g	30mL	
1202056164	RE36-10-7414S	MS	S	12-MAR-10	.508g	30mL	
1202056166	RE36-10-7414SD	MSD	S	12-MAR-10	.558g	30mL	
1202056163	RE36-10-7414D	DUP	S	12-MAR-10	.524g	30mL	
248045001	RE36-10-7414	SAMPLE	S	12-MAR-10	.525g	30mL	
248045002	RE36-10-7413	SAMPLE	S	12-MAR-10	.506g	30mL	
248045003	RE36-10-7462	SAMPLE	S	12-MAR-10	.503g	30mL	
248045004	RE36-10-7465	SAMPLE	S	12-MAR-10	.55g	30mL	
248045005	RE36-10-7473	SAMPLE	S	12-MAR-10	.546g	30mL	
248045006	RE36-10-7471	SAMPLE	S	12-MAR-10	.546g	30mL	
248045007	RE36-10-7472	SAMPLE	S	12-MAR-10	.541g	30mL	
248045008	RE36-10-7468	SAMPLE	S	12-MAR-10	.539g	30mL	
248045009	RE36-10-7464	SAMPLE	S	12-MAR-10	.573g	30mL	
248045010	RE36-10-7463	SAMPLE	S	12-MAR-10	.505g	30mL	
248045011	RE36-10-7475	SAMPLE	S	12-MAR-10	.506g	30mL	
248045012	RE36-10-7466	SAMPLE	S	12-MAR-10	.575g	30mL	
248045013	RE36-10-7476	SAMPLE	S	12-MAR-10	.537g	30mL	
248045014	RE36-10-7461	SAMPLE	S	12-MAR-10	.548g	30mL	

SW846

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-2075

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>
248045015	RE36-10-7467	SAMPLE	S	12-MAR-10	.569g	30mL	
248045016	RE36-10-7469	SAMPLE	S	12-MAR-10	.502g	30mL	
248045017	RE36-10-7470	SAMPLE	S	12-MAR-10	.554g	30mL	
248045018	RE36-10-7515	SAMPLE	S	12-MAR-10	.5g	30mL	

---

SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 12-APR-10

End Date: 12-APR-10

Client Sdg: 10-2075

Method: MS

Data File: 100411-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:51:00			X		X											X	X			X				
S10	1	00:54:00			X		X											X	X			X				
S100	1	00:57:00			X		X											X	X			X				
ICV01	1	01:00:00			X		X											X	X			X				
ICB01	1	01:03:00			X		X											X	X			X				
CRDL01	1	01:07:00			X		X											X	X			X				
ICSA01	1	01:10:00			X		X											X	X			X				
ICSAB01	1	01:13:00			X		X											X	X			X				
CCV01	1	01:16:00			X		X											X	X			X				
CCB01	1	01:19:00			X		X											X	X			X				
1202056860	2	01:22:00			X		X											X	X			X				
1202056865	40	01:25:00			X		X											X	X			X				
248045001	2	01:28:00			X		X											X	X			X				
1202056861	2	01:31:00			X		X											X	X			X				
1202056863	2	01:34:00			X		X											X	X			X				
1202056864	2	01:37:00			X		X											X	X			X				
1202056862	10	01:41:00			X		X											X	X			X				
CCV02	1	01:44:00			X		X											X	X			X				
CCB02	1	01:47:00			X		X											X	X			X				
248045002	2	01:50:00			X		X											X	X			X				
248045003	2	01:53:00			X		X											X	X			X				
248045004	2	01:56:00			X		X											X	X			X				
248045005	2	01:59:00			X		X											X	X			X				
248045006	2	02:02:00			X		X											X	X			X				
248045007	2	02:05:00			X		X											X	X			X				
248045008	2	02:09:00			X		X											X	X			X				
248045009	2	02:12:00			X		X											X	X			X				
CCV03	1	02:15:00			X		X											X	X			X				
CCB03	1	02:18:00			X		X											X	X			X				
248045010	2	02:21:00			X		X											X	X			X				
248045011	2	02:24:00			X		X											X	X			X				
248045012	2	02:27:00			X		X											X	X			X				
248045013	2	02:30:00			X		X											X	X			X				
248045014	2	02:33:00			X		X											X	X			X				
248045015	2	02:37:00			X		X											X	X			X				
248045016	2	02:40:00			X		X											X	X			X				
248045017	2	02:43:00			X		X											X	X			X				
248045018	2	02:46:00			X		X											X	X			X				
CCV04	1	02:49:00			X		X											X	X			X				
CCB04	1	02:52:00			X		X											X	X			X				

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 12-APR-10

End Date: 12-APR-10

Client Sdg: 10-2075

Method MS

Data File: 100412-3

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	13:07:00																						X		
S10	1	13:08:00																						X		
S100	1	13:10:00																						X		
ICV01	1	13:11:00																						X		
ICB01	1	13:13:00																						X		
CRDL01	1	13:15:00																						X		
ICSA01	1	13:16:00																						X		
ICSAB01	1	13:18:00																						X		
CCV01	1	13:20:00																						X		
CCB01	1	13:21:00																						X		
ZZZZZZ	2	13:23:00																								
ZZZZZZ	40	13:25:00																								
ZZZZZZ	2	13:27:00																								
ZZZZZZ	2	13:29:00																								
ZZZZZZ	2	13:31:00																								
ZZZZZZ	2	13:32:00																								
ZZZZZZ	10	13:34:00																								
CCV02	1	13:36:00																						X		
CCB02	1	13:37:00																						X		
ZZZZZZ	2	13:39:00																								
ZZZZZZ	2	13:41:00																								
ZZZZZZ	2	13:42:00																								
ZZZZZZ	2	13:44:00																								
ZZZZZZ	2	13:46:00																								
ZZZZZZ	2	13:47:00																								
ZZZZZZ	2	13:49:00																								
ZZZZZZ	2	13:50:00																								
CCV03	1	13:52:00																						X		
CCB03	1	13:54:00																						X		
ZZZZZZ	2	13:55:00																								
ZZZZZZ	2	13:57:00																								
ZZZZZZ	2	13:59:00																								
ZZZZZZ	2	14:00:00																								
ZZZZZZ	2	14:02:00																								
ZZZZZZ	2	14:04:00																								
ZZZZZZ	2	14:05:00																								
ZZZZZZ	2	14:07:00																								
CCV04	1	14:09:00																						X		
CCB04	1	14:10:00																						X		
1202056860	2	14:12:00																						X		

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]



**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 26-MAR-10

End Date: 27-MAR-10

Client Sdg: 10-2075

Method P

Data File: 032610A-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	18:59:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	19:07:00		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	19:14:00	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	19:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	19:27:00	X						X				X		X							X				
ICV01	1	19:33:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	19:40:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	19:47:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	19:54:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	20:01:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	20:08:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	20:15:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	20:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	20:28:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	20:36:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	20:43:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	20:50:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:57:00																								
ZZZZZZ	1	21:04:00																								
ZZZZZZ	1	21:11:00																								
ZZZZZZ	1	21:18:00																								
ZZZZZZ	1	21:25:00																								
ZZZZZZ	5	21:32:00																								
ZZZZZZ	1	21:38:00																								
ZZZZZZ	1	21:45:00																								
ZZZZZZ	1	21:52:00																								
CCV03	1	21:59:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	22:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:13:00																								
ZZZZZZ	1	22:20:00																								
ZZZZZZ	1	22:27:00																								
ZZZZZZ	1	22:34:00																								
ZZZZZZ	1	22:41:00																								
ZZZZZZ	1	22:48:00																								
ZZZZZZ	1	22:55:00																								
CCV04	1	23:02:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	23:09:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:16:00																								
ZZZZZZ	1	23:23:00																								
ZZZZZZ	1	23:30:00																								

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]

**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	04:17:00																								
ZZZZZZ	1	04:24:00																								
ZZZZZZ	1	04:31:00																								
ZZZZZZ	1	04:38:00																								
ZZZZZZ	1	04:45:00																								
ZZZZZZ	1	04:52:00																								
ZZZZZZ	1	04:59:00																								
ZZZZZZ	1	05:06:00																								
CCV09	1	05:13:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	05:20:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056854	1	05:28:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056859	1	05:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045001	1	05:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056855	1	05:49:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056857	1	05:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056858	1	06:03:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202056856	5	06:10:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045002	1	06:17:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV10	1	06:25:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	06:32:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045003	1	06:39:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045004	1	06:46:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045005	1	06:53:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045006	1	07:00:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045007	1	07:07:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045008	1	07:14:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045009	1	07:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045010	1	07:28:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV11	1	07:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	07:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045011	1	07:50:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045012	1	07:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045013	1	08:04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045014	1	08:11:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045015	1	08:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045016	1	08:25:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045017	1	08:32:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248045018	1	08:39:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV12	1	08:46:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	08:53:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** HG3**Start Date:** 15-MAR-10**Client Sdg:** 10-2075**Method:** AV**Data File:** 031510S1-4**End Date:** 15-MAR-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05:00															X									
S0.2	1	09:06:00															X									
S0.5	1	09:08:00															X									
S2.0	1	09:10:00															X									
S5.0	1	09:11:00															X									
S10.0	1	09:13:00															X									
ICV01	1	09:15:00															X									
ICB01	1	09:16:00															X									
CRDL01	1	09:18:00															X									
CCV01	1	09:20:00															X									
CCB01	1	09:21:00															X									
ZZZZZZ	1	09:23:00																								
ZZZZZZ	10	09:25:00																								
ZZZZZZ	1	09:26:00																								
ZZZZZZ	1	09:28:00																								
ZZZZZZ	1	09:30:00																								
ZZZZZZ	1	09:31:00																								
ZZZZZZ	5	09:33:00																								
ZZZZZZ	1	09:35:00																								
ZZZZZZ	1	09:36:00																								
ZZZZZZ	1	09:38:00																								
CCV02	1	09:40:00															X									
CCB02	1	09:41:00															X									
ZZZZZZ	1	09:43:00																								
ZZZZZZ	1	09:45:00																								
ZZZZZZ	1	09:46:00																								
ZZZZZZ	1	09:48:00																								
ZZZZZZ	1	09:50:00																								
ZZZZZZ	1	09:51:00																								
ZZZZZZ	1	09:53:00																								
ZZZZZZ	1	09:55:00																								
ZZZZZZ	1	09:56:00																								
ZZZZZZ	1	09:58:00																								
CCV03	1	10:00:00															X									
CCB03	1	10:01:00															X									
ZZZZZZ	1	10:03:00																								
ZZZZZZ	1	10:05:00																								
ZZZZZZ	1	10:06:00																								
ZZZZZZ	1	10:08:00																								
ZZZZZZ	1	10:10:00																								

**SW846**

**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	11:19:00																								
CCV07	1	11:20:00															X									
CCB07	1	11:22:00															X									
ZZZZZZ	1	11:24:00																								
ZZZZZZ	1	11:25:00																								
ZZZZZZ	1	11:27:00																								
ZZZZZZ	1	11:29:00																								
ZZZZZZ	1	11:30:00																								
ZZZZZZ	1	11:32:00																								
ZZZZZZ	10	11:34:00																								
ZZZZZZ	1	11:35:00																								
ZZZZZZ	1	11:37:00																								
ZZZZZZ	1	11:39:00																								
CCV08	1	11:40:00															X									
CCB08	1	11:42:00															X									
ZZZZZZ	1	11:44:00																								
ZZZZZZ	5	11:46:00																								
ZZZZZZ	1	11:47:00																								
ZZZZZZ	1	11:49:00																								
ZZZZZZ	1	11:51:00																								
ZZZZZZ	1	11:52:00																								
ZZZZZZ	1	11:54:00																								
ZZZZZZ	1	11:56:00																								
ZZZZZZ	1	11:57:00																								
ZZZZZZ	1	11:59:00																								
CCV09	1	12:01:00															X									
CCB09	1	12:02:00															X									
ZZZZZZ	1	12:04:00																								
ZZZZZZ	1	12:06:00																								
ZZZZZZ	1	12:07:00																								
ZZZZZZ	1	12:09:00																								
ZZZZZZ	1	12:11:00																								
ZZZZZZ	1	12:13:00																								
ZZZZZZ	1	12:14:00																								
ZZZZZZ	10	12:16:00																								
ZZZZZZ	1	12:18:00																								
ZZZZZZ	1	12:19:00																								
CCV10	1	12:21:00															X									
CCB10	1	12:23:00															X									
ZZZZZZ	1	12:24:00																								

SW846

**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	10	13:36:00																								
ZZZZZZ	1	13:38:00																								
ZZZZZZ	1	13:40:00																								
CCV14	1	13:42:00															X									
CCB14	1	13:43:00															X									
ZZZZZZ	1	13:45:00																								
ZZZZZZ	1	13:47:00																								
ZZZZZZ	5	13:48:00																								
ZZZZZZ	1	13:50:00																								
ZZZZZZ	1	13:52:00																								
ZZZZZZ	1	13:53:00																								
ZZZZZZ	1	13:55:00																								
ZZZZZZ	1	13:57:00																								
ZZZZZZ	1	13:59:00																								
ZZZZZZ	1	14:00:00																								
CCV15	1	14:02:00															X									
CCB15	1	14:04:00															X									
ZZZZZZ	1	14:05:00																								
ZZZZZZ	1	14:07:00																								
ZZZZZZ	1	14:09:00																								
ZZZZZZ	1	14:11:00																								
ZZZZZZ	1	14:12:00																								
ZZZZZZ	1	14:14:00																								
CCV16	1	14:16:00															X									
CCB16	1	14:17:00															X									
ZZZZZZ	1	14:23:00																								
ZZZZZZ	10	14:25:00																								
ZZZZZZ	1	14:26:00																								
ZZZZZZ	1	14:28:00																								
ZZZZZZ	1	14:30:00																								
ZZZZZZ	1	14:31:00																								
ZZZZZZ	5	14:33:00																								
ZZZZZZ	1	14:35:00																								
ZZZZZZ	1	14:37:00																								
ZZZZZZ	1	14:38:00																								
CCV17	1	14:40:00															X									
CCB17	1	14:42:00															X									
ZZZZZZ	1	14:43:00																								
ZZZZZZ	1	14:45:00																								
ZZZZZZ	1	14:47:00																								



SW846

**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
CCB22	1	15:59:00															X									
248045005	10	16:06:00															X									
248045008	10	16:08:00															X									
248045015	10	16:10:00															X									
248045016	100	16:11:00															X									
248045017	100	16:13:00															X									
CCV23	1	16:15:00															X									
CCB23	1	16:16:00															X									
ZZZZZZ	2	16:37:00																								
248045011	2	16:39:00															X									
CCV24	1	16:41:00															X									
CCB24	1	16:43:00															X									

# Standards

**METALS**  
**-10-**  
**Instrument Detection Limits**

SDG NO. 10-2075

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. 10-2075

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

---

		<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY	<u>Analyte</u>			
SOLID	Mercury		0.068	.2

**METALS**  
**-10-**  
**Instrument Detection Limits**

SDG NO. 10-2075

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</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: GEL

GEL Job No: 10-2075

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-2075**

Contract: LANL01004

Instrument: OPTIMA3

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	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273



**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-2075**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-2075**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2075

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>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2075

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
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
Aluminum	20	500000	ug/L	01-FEB-10

# Raw Data

Result data set is currently being used or cannot be accessed.

The result data set you are trying to access (041210A) is currently being used by another user or program, or the database library file cannot be accessed.

> If the database library is on a network drive, check the connection to that drive. If the connection was lost, reestablish the connection, then select the data set again from the Manual or Automated Control window.

> Wait until the data set is no longer being used. If you are sure that the data set is not being used by another user or program, it is possible that a program using the data set terminated unexpectedly and did not unlock the data set. In that case, use the Remove Locks... command in the Data Manager File menu to fix the problem.

[9012]



=====  
Analysis Begun

Start Time: 3/26/2010 18:59:42

Plasma On Time: 3/26/2010 18:41:22

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032610.sif

Batch ID:

Results Data Set: 032610A

Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/26/2010 18:59:42

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	3784.2	3784.2	99.9 %	19:01:55
1	Y RADIAL	4053.5	4053.5	99.28 %	19:01:35
1	Al 396.153Radial†	-70.1	-70.1	[0.00] ug/L	19:01:55
1	Ca 317.933Radial†	24.1	24.2	[0.00] ug/L	19:01:55
1	Fe 238.204 Radial†	9.9	9.9	[0.00] ug/L	19:01:55
1	K 766.490 Radial†	2442.9	2445.3	[0.00] ug/L	19:01:35
1	Mg 279.077 IEC†	1.9	1.9	[0.00] ug/L	19:01:55
1	Na 589.592 Radial†	-395.5	-395.9	[0.00] ug/L	19:01:35
1	Sr 421.552†	43.7	43.7	[0.00] ug/L	19:01:35
1	Sc 361.383	721339.3	721339.3	98.435 %	19:02:52
1	Y 371.029	594849.4	594849.4	98.416 %	19:02:52
1	Ag 328.068†	159.0	161.6	[0.00] ug/L	19:02:52
1	As 188.979†	-18.6	-18.9	[0.00] ug/L	19:03:12
1	B 249.677†	-326.1	-331.3	[0.00] ug/L	19:03:12
1	Ba 233.527†	-2.4	-2.4	[0.00] ug/L	19:03:12
1	Be 313.107†	-3890.2	-3952.0	[0.00] ug/L	19:02:52
1	Cd 226.502†	-169.3	-172.0	[0.00] ug/L	19:03:12
1	Co 228.616†	-48.1	-48.9	[0.00] ug/L	19:03:12
1	Cr 267.716†	94.7	96.2	[0.00] ug/L	19:03:12
1	Cu 324.752†	5666.7	5756.8	[0.00] ug/L	19:02:52
1	Mn 257.610†	429.7	436.5	[0.00] ug/L	19:03:12
1	Mo 202.031†	13.9	14.1	[0.00] ug/L	19:03:12
1	Ni 231.604†	89.7	91.1	[0.00] ug/L	19:03:12
1	P 214.914†	196.9	200.1	[0.00] ug/L	19:03:12
1	Pb 220.353†	-52.9	-53.7	[0.00] ug/L	19:03:12
1	S 181.975 Axial†	27.1	27.5	[0.00] ug/L	19:03:12
1	Sb 206.836†	25.3	25.7	[0.00] ug/L	19:03:12
1	Se 196.026†	-25.0	-25.4	[0.00] ug/L	19:03:12
1	Si 251.611†	450.1	457.2	[0.00] ug/L	19:03:12
1	Sn 189.927†	15.5	15.7	[0.00] ug/L	19:03:12
1	Ti 334.940†	-1040.4	-1056.9	[0.00] ug/L	19:02:52
1	Tl 190.801†	-19.9	-20.2	[0.00] ug/L	19:03:12
1	U 409.014†	-1712.7	-1740.0	[0.00] ug/L	19:02:52
1	V 292.402†	-1338.4	-1359.7	[0.00] ug/L	19:02:52
1	Zn 213.857†	662.4	672.9	[0.00] ug/L	19:03:12
1	SiO2†	463.9	471.2	[0.00] ug/L	19:04:23
2	Sc Radial	3854.2	3854.2	102 %	19:02:20
2	Y RADIAL	4161.4	4161.4	101.9 %	19:02:00
2	Al 396.153Radial†	-73.3	-72.1	[0.00] ug/L	19:02:20
2	Ca 317.933Radial†	23.5	23.1	[0.00] ug/L	19:02:20
2	Fe 238.204 Radial†	9.3	9.1	[0.00] ug/L	19:02:20
2	K 766.490 Radial†	2503.4	2460.4	[0.00] ug/L	19:02:00
2	Mg 279.077 IEC†	3.2	3.2	[0.00] ug/L	19:02:20
2	Na 589.592 Radial†	-388.6	-381.9	[0.00] ug/L	19:02:00
2	Sr 421.552†	48.8	47.9	[0.00] ug/L	19:02:00
2	Sc 361.383	725301.9	725301.9	98.976 %	19:03:17
2	Y 371.029	598502.2	598502.2	99.020 %	19:03:17

2	Ag 328.068†	161.0	162.6	[0.00]	ug/L	19:03:17
2	As 188.979†	-23.0	-23.3	[0.00]	ug/L	19:03:37
2	B 249.677†	-356.6	-360.3	[0.00]	ug/L	19:03:37
2	Ba 233.527†	9.0	9.1	[0.00]	ug/L	19:03:37
2	Be 313.107†	-3901.0	-3941.3	[0.00]	ug/L	19:03:17
2	Cd 226.502†	-171.1	-172.9	[0.00]	ug/L	19:03:37
2	Co 228.616†	-47.4	-47.9	[0.00]	ug/L	19:03:37
2	Cr 267.716†	104.0	105.1	[0.00]	ug/L	19:03:37
2	Cu 324.752†	5597.9	5655.8	[0.00]	ug/L	19:03:17
2	Mn 257.610†	428.5	432.9	[0.00]	ug/L	19:03:37
2	Mo 202.031†	13.7	13.8	[0.00]	ug/L	19:03:37
2	Ni 231.604†	82.8	83.7	[0.00]	ug/L	19:03:37
2	P 214.914†	182.2	184.1	[0.00]	ug/L	19:03:37
2	Pb 220.353†	-46.7	-47.2	[0.00]	ug/L	19:03:37
2	S 181.975 Axial†	26.8	27.1	[0.00]	ug/L	19:03:37
2	Sb 206.836†	30.4	30.7	[0.00]	ug/L	19:03:37
2	Se 196.026†	-21.2	-21.5	[0.00]	ug/L	19:03:37
2	Si 251.611†	445.1	449.7	[0.00]	ug/L	19:03:37
2	Sn 189.927†	12.8	13.0	[0.00]	ug/L	19:03:37
2	Ti 334.940†	-1032.1	-1042.8	[0.00]	ug/L	19:03:17
2	Tl 190.801†	-27.5	-27.8	[0.00]	ug/L	19:03:37
2	U 409.014†	-1939.5	-1959.6	[0.00]	ug/L	19:03:17
2	V 292.402†	-1464.5	-1479.7	[0.00]	ug/L	19:03:17
2	Zn 213.857†	650.3	657.0	[0.00]	ug/L	19:03:37
2	SiO2†	474.2	479.1	[0.00]	ug/L	19:04:43
3	Sc Radial	3725.7	3725.7	98.4	%	19:02:45
3	Y RADIAL	4033.3	4033.3	98.79	%	19:02:25
3	Al 396.153Radial†	-75.1	-76.4	[0.00]	ug/L	19:02:45
3	Ca 317.933Radial†	18.2	18.5	[0.00]	ug/L	19:02:45
3	Fe 238.204 Radial†	6.2	6.3	[0.00]	ug/L	19:02:45
3	K 766.490 Radial†	2488.2	2529.8	[0.00]	ug/L	19:02:25
3	Mg 279.077 IEC†	3.3	3.4	[0.00]	ug/L	19:02:45
3	Na 589.592 Radial†	-374.8	-381.1	[0.00]	ug/L	19:02:25
3	Sr 421.552†	25.7	26.1	[0.00]	ug/L	19:02:25
3	Sc 361.383	751775.1	751775.1	102.59	%	19:03:42
3	Y 371.029	619924.0	619924.0	102.56	%	19:03:42
3	Ag 328.068†	135.7	132.3	[0.00]	ug/L	19:03:42
3	As 188.979†	-25.3	-24.7	[0.00]	ug/L	19:04:02
3	B 249.677†	-321.4	-313.3	[0.00]	ug/L	19:04:02
3	Ba 233.527†	1.0	1.0	[0.00]	ug/L	19:04:02
3	Be 313.107†	-3879.4	-3781.5	[0.00]	ug/L	19:03:42
3	Cd 226.502†	-173.0	-168.6	[0.00]	ug/L	19:04:02
3	Co 228.616†	-44.5	-43.3	[0.00]	ug/L	19:04:02
3	Cr 267.716†	86.1	83.9	[0.00]	ug/L	19:04:02
3	Cu 324.752†	5886.8	5738.3	[0.00]	ug/L	19:03:42
3	Mn 257.610†	417.7	407.2	[0.00]	ug/L	19:04:02
3	Mo 202.031†	22.9	22.4	[0.00]	ug/L	19:04:02
3	Ni 231.604†	74.7	72.8	[0.00]	ug/L	19:04:02
3	P 214.914†	185.9	181.2	[0.00]	ug/L	19:04:02
3	Pb 220.353†	-47.5	-46.3	[0.00]	ug/L	19:04:02
3	S 181.975 Axial†	27.4	26.7	[0.00]	ug/L	19:04:02
3	Sb 206.836†	21.0	20.5	[0.00]	ug/L	19:04:02
3	Se 196.026†	-18.8	-18.4	[0.00]	ug/L	19:04:02
3	Si 251.611†	472.1	460.2	[0.00]	ug/L	19:04:02
3	Sn 189.927†	12.6	12.3	[0.00]	ug/L	19:04:02
3	Ti 334.940†	-1060.0	-1033.2	[0.00]	ug/L	19:03:42
3	Tl 190.801†	-19.3	-18.8	[0.00]	ug/L	19:04:02
3	U 409.014†	-1849.2	-1802.5	[0.00]	ug/L	19:03:42
3	V 292.402†	-1336.1	-1302.4	[0.00]	ug/L	19:03:42
3	Zn 213.857†	666.3	649.5	[0.00]	ug/L	19:04:02
3	SiO2†	453.1	441.6	[0.00]	ug/L	19:05:03

-----  
Mean Data: S0

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	732805.4	16547.26	2.26%	100.000	%
Sc Radial	3788.0	64.32	1.70%	100	%
Y 371.029	604425.2	13546.07	2.24%	100.00	%
Y RADIAL	4082.7	68.88	1.69%	100.0	%
Ag 328.068†	152.2	17.20	11.30%	[0.00]	ug/L

Al 396.153Radial†	-72.9	3.20	4.39%	[0.00]	ug/L
As 188.979†	-22.3	3.01	13.48%	[0.00]	ug/L
B 249.677†	-335.0	23.71	7.08%	[0.00]	ug/L
Ba 233.527†	2.6	5.93	232.05%	[0.00]	ug/L
Be 313.107†	-3891.6	95.53	2.45%	[0.00]	ug/L
Ca 317.933Radial†	21.9	3.04	13.88%	[0.00]	ug/L
Cd 226.502†	-171.2	2.26	1.32%	[0.00]	ug/L
Co 228.616†	-46.7	2.96	6.33%	[0.00]	ug/L
Cr 267.716†	95.1	10.62	11.17%	[0.00]	ug/L
Cu 324.752†	5717.0	53.75	0.94%	[0.00]	ug/L
Fe 238.204 Radial†	8.5	1.89	22.38%	[0.00]	ug/L
K 766.490 Radial†	2478.5	45.07	1.82%	[0.00]	ug/L
Mg 279.077 IEC†	2.8	0.81	28.97%	[0.00]	ug/L
Mn 257.610†	425.5	15.99	3.76%	[0.00]	ug/L
Mo 202.031†	16.7	4.86	29.00%	[0.00]	ug/L
Na 589.592 Radial†	-386.3	8.34	2.16%	[0.00]	ug/L
Ni 231.604†	82.6	9.20	11.14%	[0.00]	ug/L
P 214.914†	188.5	10.17	5.40%	[0.00]	ug/L
Pb 220.353†	-49.1	4.05	8.25%	[0.00]	ug/L
S 181.975 Axial†	27.1	0.40	1.47%	[0.00]	ug/L
Sb 206.836†	25.6	5.12	19.98%	[0.00]	ug/L
Se 196.026†	-21.7	3.51	16.18%	[0.00]	ug/L
Si 251.611†	455.7	5.39	1.18%	[0.00]	ug/L
Sn 189.927†	13.6	1.81	13.25%	[0.00]	ug/L
Sr 421.552†	39.3	11.56	29.43%	[0.00]	ug/L
Ti 334.940†	-1044.3	11.92	1.14%	[0.00]	ug/L
Tl 190.801†	-22.3	4.86	21.84%	[0.00]	ug/L
U 409.014†	-1834.0	113.13	6.17%	[0.00]	ug/L
V 292.402†	-1380.6	90.48	6.55%	[0.00]	ug/L
Zn 213.857†	659.8	11.94	1.81%	[0.00]	ug/L
SiO2†	464.0	19.75	4.26%	[0.00]	ug/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 3/26/2010 19:07:13  
 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	3959.8	3959.8	105 %	19:09:25
1	Y RADIAL	4241.6	4241.6	103.9 %	19:09:25
1	K 766.490 Radial†	6985.1	4203.4	[1000] ug/L	19:09:05
1	Sr 421.552†	10622.4	10122.3	[100] ug/L	19:09:25
1	Sc 361.383	756854.1	756854.1	103.28 %	19:10:22
1	Y 371.029	624292.2	624292.2	103.29 %	19:10:22
1	Ag 328.068†	18964.0	18209.2	[100] ug/L	19:10:22
1	As 188.979†	155.5	172.8	[100] ug/L	19:10:42
1	B 249.677†	3142.4	3377.5	[100] ug/L	19:10:22
1	Ba 233.527†	10249.5	9921.2	[100] ug/L	19:10:22
1	Be 313.107†	225796.6	222513.6	[100] ug/L	19:10:22
1	Cd 226.502†	6385.3	6353.5	[100] ug/L	19:10:42
1	Co 228.616†	3781.5	3708.1	[100] ug/L	19:10:42
1	Cr 267.716†	7089.6	6769.3	[100] ug/L	19:10:22
1	Cu 324.752†	35323.9	28484.5	[100] ug/L	19:10:22
1	Mn 257.610†	74848.6	72044.8	[100] ug/L	19:10:22
1	Mo 202.031†	1079.6	1028.5	[100] ug/L	19:10:42
1	Ni 231.604†	3108.5	2927.1	[100] ug/L	19:10:42
1	P 214.914†	861.6	645.7	[500] ug/L	19:10:42
1	Pb 220.353†	587.6	618.0	[100] ug/L	19:10:42
1	S 181.975 Axial†	136.4	104.9	[200] ug/L	19:10:42
1	Sb 206.836†	269.0	234.9	[100] ug/L	19:10:42
1	Se 196.026†	103.2	121.6	[100] ug/L	19:10:42
1	Si 251.611†	13311.5	12432.8	[500] ug/L	19:10:22
1	Sn 189.927†	435.9	408.4	[100] ug/L	19:10:42
1	Ti 334.940†	54432.5	53747.3	[100] ug/L	19:10:22
1	Tl 190.801†	220.1	235.4	[100] ug/L	19:10:42
1	U 409.014†	1346.1	3137.3	[100] ug/L	19:10:22
1	V 292.402†	10429.2	11478.4	[100] ug/L	19:10:22
1	Zn 213.857†	8780.6	7841.8	[100] ug/L	19:10:22
1	SiO2†	13483.6	12591.1	[1069.5] ug/L	19:11:39
2	Sc Radial	3905.9	3905.9	103 %	19:09:51
2	Y RADIAL	4193.6	4193.6	102.7 %	19:09:51
2	K 766.490 Radial†	7477.5	4773.4	[1000] ug/L	19:09:31
2	Sr 421.552†	10707.1	10344.8	[100] ug/L	19:09:51
2	Sc 361.383	814135.1	814135.1	111.10 %	19:10:48
2	Y 371.029	670029.6	670029.6	110.85 %	19:10:48
2	Ag 328.068†	20316.1	18134.4	[100] ug/L	19:10:48
2	As 188.979†	159.4	165.8	[100] ug/L	19:11:08
2	B 249.677†	3415.9	3409.6	[100] ug/L	19:10:48
2	Ba 233.527†	11008.6	9906.3	[100] ug/L	19:10:48
2	Be 313.107†	241618.2	221372.9	[100] ug/L	19:10:48
2	Cd 226.502†	6350.0	5886.8	[100] ug/L	19:11:08
2	Co 228.616†	3753.8	3425.6	[100] ug/L	19:11:08
2	Cr 267.716†	7587.4	6734.4	[100] ug/L	19:10:48
2	Cu 324.752†	37932.7	28426.3	[100] ug/L	19:10:48
2	Mn 257.610†	80125.1	71695.3	[100] ug/L	19:10:48
2	Mo 202.031†	1077.1	952.8	[100] ug/L	19:11:08
2	Ni 231.604†	3069.3	2680.1	[100] ug/L	19:11:08
2	P 214.914†	861.5	587.0	[500] ug/L	19:11:08
2	Pb 220.353†	582.8	573.7	[100] ug/L	19:11:08
2	S 181.975 Axial†	138.7	97.7	[200] ug/L	19:11:08
2	Sb 206.836†	268.9	216.4	[100] ug/L	19:11:08
2	Se 196.026†	99.3	111.1	[100] ug/L	19:11:08
2	Si 251.611†	14272.2	12390.8	[500] ug/L	19:10:48
2	Sn 189.927†	424.6	368.6	[100] ug/L	19:11:08
2	Ti 334.940†	58617.3	53806.0	[100] ug/L	19:10:48
2	Tl 190.801†	228.9	228.3	[100] ug/L	19:11:08
2	U 409.014†	1537.3	3217.8	[100] ug/L	19:10:48

2	V 292.402†	11218.7	11478.6	[100]	ug/L	19:10:48
2	Zn 213.857†	9334.9	7742.5	[100]	ug/L	19:10:48
2	SiO2†	13297.4	11505.1	[1069.5]	ug/L	19:11:44
3	Sc Radial	3922.9	3922.9	104	%	19:10:16
3	Y RADIAL	4216.4	4216.4	103.3	%	19:10:16
3	K 766.490 Radial†	7297.7	4568.2	[1000]	ug/L	19:09:56
3	Sr 421.552†	10808.0	10397.0	[100]	ug/L	19:10:16
3	Sc 361.383	755634.2	755634.2	103.12	%	19:11:14
3	Y 371.029	622938.6	622938.6	103.06	%	19:11:14
3	Ag 328.068†	18941.2	18216.8	[100]	ug/L	19:11:14
3	As 188.979†	154.6	172.2	[100]	ug/L	19:11:34
3	B 249.677†	3102.5	3343.8	[100]	ug/L	19:11:14
3	Ba 233.527†	10272.6	9959.7	[100]	ug/L	19:11:14
3	Be 313.107†	225553.0	222630.4	[100]	ug/L	19:11:14
3	Cd 226.502†	6336.8	6316.5	[100]	ug/L	19:11:34
3	Co 228.616†	3751.6	3684.9	[100]	ug/L	19:11:34
3	Cr 267.716†	7145.2	6834.3	[100]	ug/L	19:11:14
3	Cu 324.752†	35269.0	28486.5	[100]	ug/L	19:11:14
3	Mn 257.610†	74830.8	72144.5	[100]	ug/L	19:11:14
3	Mo 202.031†	1073.7	1024.5	[100]	ug/L	19:11:34
3	Ni 231.604†	3093.7	2917.7	[100]	ug/L	19:11:34
3	P 214.914†	855.9	641.6	[500]	ug/L	19:11:34
3	Pb 220.353†	575.1	606.8	[100]	ug/L	19:11:34
3	S 181.975 Axial†	144.4	112.9	[200]	ug/L	19:11:34
3	Sb 206.836†	264.5	230.9	[100]	ug/L	19:11:34
3	Se 196.026†	91.1	110.1	[100]	ug/L	19:11:34
3	Si 251.611†	13300.0	12442.4	[500]	ug/L	19:11:14
3	Sn 189.927†	428.0	401.4	[100]	ug/L	19:11:34
3	Ti 334.940†	54429.7	53829.6	[100]	ug/L	19:11:14
3	Tl 190.801†	224.8	240.3	[100]	ug/L	19:11:34
3	U 409.014†	1480.9	3270.1	[100]	ug/L	19:11:14
3	V 292.402†	10394.2	11460.8	[100]	ug/L	19:11:14
3	Zn 213.857†	8781.8	7856.6	[100]	ug/L	19:11:14
3	SiO2†	13472.0	12601.0	[1069.5]	ug/L	19:11:49

-----  
Mean Data: S0.1

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	775541.2	33428.90	4.31%	105.83	%
Sc Radial	3929.5	27.59	0.70%	104	%
Y 371.029	639086.8	26805.79	4.19%	105.73	%
Y RADIAL	4217.2	23.97	0.57%	103.3	%
Ag 328.068†	18186.8	45.56	0.25%	[100]	ug/L
As 188.979†	170.3	3.91	2.29%	[100]	ug/L
B 249.677†	3377.0	32.91	0.97%	[100]	ug/L
Ba 233.527†	9929.1	27.53	0.28%	[100]	ug/L
Be 313.107†	222172.3	694.77	0.31%	[100]	ug/L
Cd 226.502†	6185.6	259.46	4.19%	[100]	ug/L
Co 228.616†	3606.2	156.85	4.35%	[100]	ug/L
Cr 267.716†	6779.3	50.69	0.75%	[100]	ug/L
Cu 324.752†	28465.8	34.17	0.12%	[100]	ug/L
K 766.490 Radial†	4515.0	288.69	6.39%	[1000]	ug/L
Mn 257.610†	71961.6	235.88	0.33%	[100]	ug/L
Mo 202.031†	1001.9	42.63	4.26%	[100]	ug/L
Ni 231.604†	2841.7	139.96	4.93%	[100]	ug/L
P 214.914†	624.8	32.75	5.24%	[500]	ug/L
Pb 220.353†	599.5	23.04	3.84%	[100]	ug/L
S 181.975 Axial†	105.2	7.59	7.22%	[200]	ug/L
Sb 206.836†	227.4	9.72	4.28%	[100]	ug/L
Se 196.026†	114.3	6.40	5.61%	[100]	ug/L
Si 251.611†	12422.0	27.47	0.22%	[500]	ug/L
Sn 189.927†	392.8	21.28	5.42%	[100]	ug/L
Sr 421.552†	10288.0	145.93	1.42%	[100]	ug/L
Ti 334.940†	53794.3	42.39	0.08%	[100]	ug/L
Tl 190.801†	234.6	6.04	2.57%	[100]	ug/L
U 409.014†	3208.4	66.91	2.09%	[100]	ug/L
V 292.402†	11472.6	10.23	0.09%	[100]	ug/L
Zn 213.857†	7813.6	62.05	0.79%	[100]	ug/L
SiO2†	12232.4	629.92	5.15%	[1069.5]	ug/L

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 3/26/2010 19:14:00  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3948.4	3948.4	104 %		19:16:12
1	Y RADIAL	4473.3	4473.3	109.6 %		19:15:52
1	Al 396.153Radial†	4578.3	4465.2	[5000]	ug/L	19:15:52
1	Ca 317.933Radial†	2438.3	2317.4	[5000]	ug/L	19:16:12
1	K 766.490 Radial†	26802.6	23235.5	[5000]	ug/L	19:15:52
1	Mg 279.077 IEC†	119.1	111.5	[5000]	ug/L	19:16:12
1	Sr 421.552†	59246.6	56801.0	[500]	ug/L	19:15:52
1	Sc 361.383	781698.4	781698.4	106.67 %		19:17:10
1	Y 371.029	639119.4	639119.4	105.74 %		19:17:10
1	Ag 328.068†	96625.6	90429.8	[500]	ug/L	19:17:15
1	As 188.979†	867.1	835.2	[500]	ug/L	19:17:35
1	B 249.677†	17582.0	16817.3	[500]	ug/L	19:17:15
1	Ba 233.527†	51877.6	48630.2	[500]	ug/L	19:17:15
1	Be 313.107†	1151343.1	1083221.5	[500]	ug/L	19:17:10
1	Cd 226.502†	33338.3	31424.2	[500]	ug/L	19:17:15
1	Co 228.616†	19217.2	18061.9	[500]	ug/L	19:17:15
1	Cr 267.716†	35556.5	33237.5	[500]	ug/L	19:17:15
1	Cu 324.752†	157545.2	141974.3	[500]	ug/L	19:17:15
1	Mn 257.610†	368217.3	344760.8	[500]	ug/L	19:17:10
1	Mo 202.031†	5413.8	5058.5	[500]	ug/L	19:17:35
1	Ni 231.604†	15495.1	14443.3	[500]	ug/L	19:17:15
1	P 214.914†	3545.1	3134.9	[2500]	ug/L	19:17:35
1	Pb 220.353†	3084.6	2940.7	[500]	ug/L	19:17:35
1	S 181.975 Axial†	590.8	526.7	[1000]	ug/L	19:17:35
1	Sb 206.836†	1196.0	1095.6	[500]	ug/L	19:17:35
1	Se 196.026†	580.7	566.1	[500]	ug/L	19:17:35
1	Si 251.611†	66672.6	62046.7	[2500]	ug/L	19:17:15
1	Sn 189.927†	2159.6	2010.9	[500]	ug/L	19:17:35
1	Ti 334.940†	280353.8	263862.8	[500]	ug/L	19:17:15
1	Tl 190.801†	1235.2	1180.2	[500]	ug/L	19:17:35
1	U 409.014†	14321.3	15259.6	[500]	ug/L	19:17:15
1	V 292.402†	58928.3	56623.1	[500]	ug/L	19:17:15
1	Zn 213.857†	41570.1	38310.2	[500]	ug/L	19:17:15
1	SiO2†	65661.9	61090.9	[5347.5]	ug/L	19:18:42
2	Sc Radial	3835.3	3835.3	101 %		19:16:37
2	Y RADIAL	4488.0	4488.0	109.9 %		19:16:17
2	Al 396.153Radial†	4606.4	4622.5	[5000]	ug/L	19:16:17
2	Ca 317.933Radial†	2403.3	2351.7	[5000]	ug/L	19:16:37
2	K 766.490 Radial†	26935.2	24124.4	[5000]	ug/L	19:16:17
2	Mg 279.077 IEC†	113.3	109.1	[5000]	ug/L	19:16:37
2	Sr 421.552†	59628.1	58853.4	[500]	ug/L	19:16:17
2	Sc 361.383	786326.1	786326.1	107.30 %		19:17:41
2	Y 371.029	642760.6	642760.6	106.34 %		19:17:41
2	Ag 328.068†	94729.6	88129.7	[500]	ug/L	19:17:46
2	As 188.979†	848.5	813.1	[500]	ug/L	19:18:06
2	B 249.677†	17147.9	16315.8	[500]	ug/L	19:17:46
2	Ba 233.527†	51040.3	47563.8	[500]	ug/L	19:17:46
2	Be 313.107†	1143791.7	1069832.0	[500]	ug/L	19:17:41
2	Cd 226.502†	32820.7	30757.9	[500]	ug/L	19:17:46
2	Co 228.616†	18895.8	17656.4	[500]	ug/L	19:17:46
2	Cr 267.716†	35003.7	32526.2	[500]	ug/L	19:17:46
2	Cu 324.752†	153934.8	137740.4	[500]	ug/L	19:17:46
2	Mn 257.610†	366678.5	341295.3	[500]	ug/L	19:17:41
2	Mo 202.031†	5277.5	4901.5	[500]	ug/L	19:18:06
2	Ni 231.604†	15251.5	14130.9	[500]	ug/L	19:17:46
2	P 214.914†	3437.5	3015.1	[2500]	ug/L	19:18:06
2	Pb 220.353†	2992.8	2838.2	[500]	ug/L	19:18:06
2	S 181.975 Axial†	568.9	503.1	[1000]	ug/L	19:18:06
2	Sb 206.836†	1154.2	1050.0	[500]	ug/L	19:18:06

2	Se 196.026†	564.9	548.2	[500]	ug/L	19:18:06
2	Si 251.611†	65277.6	60378.8	[2500]	ug/L	19:17:46
2	Sn 189.927†	2102.9	1946.1	[500]	ug/L	19:18:06
2	Ti 334.940†	275136.8	257454.1	[500]	ug/L	19:17:46
2	Tl 190.801†	1193.5	1134.5	[500]	ug/L	19:18:06
2	U 409.014†	14009.1	14889.6	[500]	ug/L	19:17:46
2	V 292.402†	57814.2	55259.7	[500]	ug/L	19:17:46
2	Zn 213.857†	40881.2	37438.9	[500]	ug/L	19:17:46
2	SiO2†	65430.8	60513.4	[5347.5]	ug/L	19:18:47
3	Sc Radial	4051.5	4051.5	107	%	19:17:02
3	Y RADIAL	4186.1	4186.1	102.5	%	19:16:42
3	Al 396.153Radial†	4337.1	4127.9	[5000]	ug/L	19:16:42
3	Ca 317.933Radial†	2495.3	2311.1	[5000]	ug/L	19:17:02
3	K 766.490 Radial†	25579.1	21436.8	[5000]	ug/L	19:16:42
3	Mg 279.077 IEC†	119.3	108.7	[5000]	ug/L	19:17:02
3	Sr 421.552†	56174.4	52481.3	[500]	ug/L	19:16:42
3	Sc 361.383	771590.3	771590.3	105.29	%	19:18:12
3	Y 371.029	630724.8	630724.8	104.35	%	19:18:12
3	Ag 328.068†	95758.7	90793.1	[500]	ug/L	19:18:17
3	As 188.979†	864.5	843.4	[500]	ug/L	19:18:37
3	B 249.677†	17437.8	16896.3	[500]	ug/L	19:18:17
3	Ba 233.527†	51567.4	48972.7	[500]	ug/L	19:18:17
3	Be 313.107†	1126364.4	1073637.9	[500]	ug/L	19:18:12
3	Cd 226.502†	33229.2	31730.1	[500]	ug/L	19:18:17
3	Co 228.616†	19142.4	18226.9	[500]	ug/L	19:18:17
3	Cr 267.716†	35441.3	33564.7	[500]	ug/L	19:18:17
3	Cu 324.752†	155403.6	141875.1	[500]	ug/L	19:18:17
3	Mn 257.610†	361764.6	343154.6	[500]	ug/L	19:18:12
3	Mo 202.031†	5383.7	5096.3	[500]	ug/L	19:18:37
3	Ni 231.604†	15420.0	14562.4	[500]	ug/L	19:18:17
3	P 214.914†	3497.5	3133.3	[2500]	ug/L	19:18:37
3	Pb 220.353†	3078.8	2973.1	[500]	ug/L	19:18:37
3	S 181.975 Axial†	583.1	526.7	[1000]	ug/L	19:18:37
3	Sb 206.836†	1189.8	1104.4	[500]	ug/L	19:18:37
3	Se 196.026†	574.0	566.9	[500]	ug/L	19:18:37
3	Si 251.611†	66026.9	62252.3	[2500]	ug/L	19:18:17
3	Sn 189.927†	2133.1	2012.3	[500]	ug/L	19:18:37
3	Ti 334.940†	277776.5	264858.0	[500]	ug/L	19:18:17
3	Tl 190.801†	1232.6	1192.9	[500]	ug/L	19:18:37
3	U 409.014†	14075.7	15202.2	[500]	ug/L	19:18:17
3	V 292.402†	58452.7	56895.1	[500]	ug/L	19:18:17
3	Zn 213.857†	41375.3	38635.7	[500]	ug/L	19:18:17
3	SiO2†	64447.8	60744.3	[5347.5]	ug/L	19:18:52

-----  
Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	779871.6	7535.81	0.97%	106.42 %
Sc Radial	3945.1	108.15	2.74%	104 %
Y 371.029	637534.9	6172.35	0.97%	105.48 %
Y RADIAL	4382.5	170.20	3.88%	107.3 %
Ag 328.068†	89784.2	1444.31	1.61%	[500] ug/L
Al 396.153Radial†	4405.2	252.71	5.74%	[5000] ug/L
As 188.979†	830.5	15.67	1.89%	[500] ug/L
B 249.677†	16676.4	314.85	1.89%	[500] ug/L
Ba 233.527†	48388.9	734.83	1.52%	[500] ug/L
Be 313.107†	1075563.8	6899.37	0.64%	[500] ug/L
Ca 317.933Radial†	2326.7	21.88	0.94%	[5000] ug/L
Cd 226.502†	31304.1	497.07	1.59%	[500] ug/L
Co 228.616†	17981.7	293.60	1.63%	[500] ug/L
Cr 267.716†	33109.5	531.00	1.60%	[500] ug/L
Cu 324.752†	140529.9	2416.31	1.72%	[500] ug/L
K 766.490 Radial†	22932.2	1369.23	5.97%	[5000] ug/L
Mg 279.077 IEC†	109.8	1.50	1.36%	[5000] ug/L
Mn 257.610†	343070.2	1734.31	0.51%	[500] ug/L
Mo 202.031†	5018.8	103.27	2.06%	[500] ug/L
Ni 231.604†	14378.9	222.84	1.55%	[500] ug/L
P 214.914†	3094.4	68.72	2.22%	[2500] ug/L
Pb 220.353†	2917.3	70.43	2.41%	[500] ug/L
S 181.975 Axial†	518.8	13.67	2.63%	[1000] ug/L

Sb 206.836†	1083.3	29.17	2.69%	[500]	ug/L
Se 196.026†	560.4	10.58	1.89%	[500]	ug/L
Si 251.611†	61559.3	1027.47	1.67%	[2500]	ug/L
Sn 189.927†	1989.8	37.81	1.90%	[500]	ug/L
Sr 421.552†	56045.2	3252.57	5.80%	[500]	ug/L
Ti 334.940†	262058.3	4018.28	1.53%	[500]	ug/L
Tl 190.801†	1169.2	30.71	2.63%	[500]	ug/L
U 409.014†	15117.1	199.09	1.32%	[500]	ug/L
V 292.402†	56259.3	876.32	1.56%	[500]	ug/L
Zn 213.857†	38128.3	618.81	1.62%	[500]	ug/L
SiO2†	60782.9	290.70	0.48%	[5347.5]	ug/L



Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 3/26/2010 19:21:03  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	3955.0	3955.0	104 %		19:23:16
1	Y RADIAL	4374.2	4374.2	107.1 %		19:22:56
1	Al 396.153Radial†	9148.9	8835.5	[10000] ug/L		19:22:56
1	Ca 317.933Radial†	5037.5	4802.9	[10000] ug/L		19:22:56
1	Fe 238.204 Radial†	828.0	784.6	[10000] ug/L		19:23:16
1	K 766.490 Radial†	50617.6	46002.0	[10000] ug/L		19:22:56
1	Mg 279.077 IEC†	236.8	224.0	[10000] ug/L		19:23:16
1	Na 589.592 Radial†	26401.8	25673.4	[10000] ug/L		19:22:56
1	Sr 421.552†	116616.4	111653.7	[1000] ug/L		19:22:56
1	Sc 361.383	788649.0	788649.0	107.62 %		19:24:15
1	Y 371.029	642971.8	642971.8	106.38 %		19:24:15
1	Ag 328.068†	189873.5	176276.6	[1000] ug/L		19:24:15
1	As 188.979†	1735.0	1634.5	[1000] ug/L		19:24:35
1	B 249.677†	35641.4	33452.7	[1000] ug/L		19:24:15
1	Ba 233.527†	103471.2	96141.9	[1000] ug/L		19:24:15
1	Be 313.107†	2323674.4	2163028.6	[1000] ug/L		19:24:15
1	Cd 226.502†	66598.6	62054.0	[1000] ug/L		19:24:15
1	Co 228.616†	37076.5	34497.9	[1000] ug/L		19:24:35
1	Cr 267.716†	70935.3	65817.3	[1000] ug/L		19:24:15
1	Cu 324.752†	309969.2	282303.6	[1000] ug/L		19:24:15
1	Mn 257.610†	745768.0	692535.3	[1000] ug/L		19:24:15
1	Mo 202.031†	10628.6	9859.3	[1000] ug/L		19:24:35
1	Ni 231.604†	29803.5	27610.6	[1000] ug/L		19:24:35
1	P 214.914†	6850.3	6176.8	[5000] ug/L		19:24:35
1	Pb 220.353†	6159.9	5772.8	[1000] ug/L		19:24:35
1	S 181.975 Axial†	1135.5	1028.0	[2000] ug/L		19:24:35
1	Sb 206.836†	2344.7	2153.0	[1000] ug/L		19:24:35
1	Se 196.026†	1177.2	1115.6	[1000] ug/L		19:24:35
1	Si 251.611†	131489.5	121723.1	[5000] ug/L		19:24:15
1	Sn 189.927†	4253.6	3938.8	[1000] ug/L		19:24:35
1	Ti 334.940†	566898.7	527801.4	[1000] ug/L		19:24:15
1	Tl 190.801†	2458.6	2306.7	[1000] ug/L		19:24:35
1	U 409.014†	29575.9	29315.7	[1000] ug/L		19:24:15
1	V 292.402†	119191.8	112132.6	[1000] ug/L		19:24:15
1	Zn 213.857†	81832.1	75377.8	[1000] ug/L		19:24:15
1	SiO2†	133295.9	123393.4	[10695] ug/L		19:25:35
2	Sc Radial	3878.7	3878.7	102 %		19:23:41
2	Y RADIAL	4329.4	4329.4	106.0 %		19:23:21
2	Al 396.153Radial†	8987.2	8850.1	[10000] ug/L		19:23:21
2	Ca 317.933Radial†	4948.9	4811.4	[10000] ug/L		19:23:21
2	Fe 238.204 Radial†	806.9	779.6	[10000] ug/L		19:23:41
2	K 766.490 Radial†	49756.6	46115.4	[10000] ug/L		19:23:21
2	Mg 279.077 IEC†	232.8	224.5	[10000] ug/L		19:23:41
2	Na 589.592 Radial†	25916.6	25697.3	[10000] ug/L		19:23:21
2	Sr 421.552†	114776.7	112055.3	[1000] ug/L		19:23:21
2	Sc 361.383	811253.9	811253.9	110.71 %		19:24:43
2	Y 371.029	662399.3	662399.3	109.59 %		19:24:43
2	Ag 328.068†	191244.3	172598.8	[1000] ug/L		19:24:43
2	As 188.979†	1788.2	1637.5	[1000] ug/L		19:25:03
2	B 249.677†	35985.2	32840.4	[1000] ug/L		19:24:43
2	Ba 233.527†	103577.6	93559.1	[1000] ug/L		19:24:43
2	Be 313.107†	2330506.2	2109037.1	[1000] ug/L		19:24:43
2	Cd 226.502†	66612.7	60342.4	[1000] ug/L		19:24:43
2	Co 228.616†	37786.9	34179.6	[1000] ug/L		19:25:03
2	Cr 267.716†	71014.7	64052.5	[1000] ug/L		19:24:43
2	Cu 324.752†	312414.9	276487.3	[1000] ug/L		19:24:43
2	Mn 257.610†	746740.7	674105.1	[1000] ug/L		19:24:43
2	Mo 202.031†	10859.4	9792.5	[1000] ug/L		19:25:03
2	Ni 231.604†	30450.1	27423.0	[1000] ug/L		19:25:03

2	P 214.914†	7015.1	6148.3	[5000]	ug/L	19:25:03
2	Pb 220.353†	6259.2	5703.0	[1000]	ug/L	19:25:03
2	S 181.975 Axial†	1155.7	1016.8	[2000]	ug/L	19:25:03
2	Sb 206.836†	2399.3	2141.7	[1000]	ug/L	19:25:03
2	Se 196.026†	1190.2	1096.8	[1000]	ug/L	19:25:03
2	Si 251.611†	132116.6	118885.1	[5000]	ug/L	19:24:43
2	Sn 189.927†	4337.4	3904.4	[1000]	ug/L	19:25:03
2	Ti 334.940†	568983.2	515006.7	[1000]	ug/L	19:24:43
2	Tl 190.801†	2523.1	2301.4	[1000]	ug/L	19:25:03
2	U 409.014†	29905.1	28847.3	[1000]	ug/L	19:24:43
2	V 292.402†	119702.7	109508.0	[1000]	ug/L	19:24:43
2	Zn 213.857†	81983.0	73395.4	[1000]	ug/L	19:24:43
2	SiO2†	133895.3	120483.6	[10695]	ug/L	19:25:41
3	Sc Radial	4024.5	4024.5	106	%	19:24:06
3	Y RADIAL	4241.4	4241.4	103.9	%	19:23:46
3	Al 396.153Radial†	8810.2	8365.4	[10000]	ug/L	19:23:46
3	Ca 317.933Radial†	4817.4	4512.4	[10000]	ug/L	19:23:46
3	Fe 238.204 Radial†	835.2	777.6	[10000]	ug/L	19:24:06
3	K 766.490 Radial†	48679.5	43340.5	[10000]	ug/L	19:23:46
3	Mg 279.077 IEC†	238.3	221.5	[10000]	ug/L	19:24:06
3	Na 589.592 Radial†	25357.2	24253.5	[10000]	ug/L	19:23:46
3	Sr 421.552†	112127.8	105499.8	[1000]	ug/L	19:23:46
3	Sc 361.383	790958.8	790958.8	107.94	%	19:25:10
3	Y 371.029	644933.1	644933.1	106.70	%	19:25:10
3	Ag 328.068†	189465.7	175383.6	[1000]	ug/L	19:25:10
3	As 188.979†	1764.6	1657.2	[1000]	ug/L	19:25:30
3	B 249.677†	35545.1	33266.7	[1000]	ug/L	19:25:10
3	Ba 233.527†	102961.5	95389.0	[1000]	ug/L	19:25:10
3	Be 313.107†	2310240.7	2144277.3	[1000]	ug/L	19:25:10
3	Cd 226.502†	66121.3	61431.0	[1000]	ug/L	19:25:10
3	Co 228.616†	37525.9	34813.6	[1000]	ug/L	19:25:30
3	Cr 267.716†	70613.5	65326.8	[1000]	ug/L	19:25:10
3	Cu 324.752†	309232.9	280780.4	[1000]	ug/L	19:25:10
3	Mn 257.610†	741998.2	687019.0	[1000]	ug/L	19:25:10
3	Mo 202.031†	10760.1	9952.2	[1000]	ug/L	19:25:30
3	Ni 231.604†	30205.1	27901.7	[1000]	ug/L	19:25:30
3	P 214.914†	6925.6	6228.0	[5000]	ug/L	19:25:30
3	Pb 220.353†	6230.0	5821.0	[1000]	ug/L	19:25:30
3	S 181.975 Axial†	1144.4	1033.2	[2000]	ug/L	19:25:30
3	Sb 206.836†	2362.0	2162.7	[1000]	ug/L	19:25:30
3	Se 196.026†	1178.7	1113.8	[1000]	ug/L	19:25:30
3	Si 251.611†	130889.9	120810.8	[5000]	ug/L	19:25:10
3	Sn 189.927†	4293.4	3964.1	[1000]	ug/L	19:25:30
3	Ti 334.940†	565084.2	524582.1	[1000]	ug/L	19:25:10
3	Tl 190.801†	2494.4	2333.3	[1000]	ug/L	19:25:30
3	U 409.014†	29710.6	29360.2	[1000]	ug/L	19:25:10
3	V 292.402†	118908.3	111546.4	[1000]	ug/L	19:25:10
3	Zn 213.857†	81419.1	74773.1	[1000]	ug/L	19:25:10
3	SiO2†	130682.4	120610.3	[10695]	ug/L	19:25:46

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	796953.9	12437.93	1.56%	108.75 %
Sc Radial	3952.7	72.95	1.85%	104 %
Y 371.029	650101.4	10695.35	1.65%	107.56 %
Y RADIAL	4315.0	67.56	1.57%	105.7 %
Ag 328.068†	174753.0	1918.27	1.10%	[1000] ug/L
Al 396.153Radial†	8683.7	275.73	3.18%	[10000] ug/L
As 188.979†	1643.1	12.33	0.75%	[1000] ug/L
B 249.677†	33186.6	313.91	0.95%	[1000] ug/L
Ba 233.527†	95030.0	1328.31	1.40%	[1000] ug/L
Be 313.107†	2138781.0	27412.18	1.28%	[1000] ug/L
Ca 317.933Radial†	4708.9	170.20	3.61%	[10000] ug/L
Cd 226.502†	61275.8	866.28	1.41%	[1000] ug/L
Co 228.616†	34497.0	317.01	0.92%	[1000] ug/L
Cr 267.716†	65065.5	910.98	1.40%	[1000] ug/L
Cu 324.752†	279857.1	3016.05	1.08%	[1000] ug/L
Fe 238.204 Radial†	780.6	3.57	0.46%	[10000] ug/L
K 766.490 Radial†	45152.6	1570.37	3.48%	[10000] ug/L

Mg 279.077 IEC†	223.3	1.60	0.72%	[10000]	ug/L
Mn 257.610†	684553.1	9459.30	1.38%	[1000]	ug/L
Mo 202.031†	9868.0	80.22	0.81%	[1000]	ug/L
Na 589.592 Radial†	25208.1	826.79	3.28%	[10000]	ug/L
Ni 231.604†	27645.1	241.24	0.87%	[1000]	ug/L
P 214.914†	6184.3	40.40	0.65%	[5000]	ug/L
Pb 220.353†	5765.6	59.35	1.03%	[1000]	ug/L
S 181.975 Axial†	1026.0	8.35	0.81%	[2000]	ug/L
Sb 206.836†	2152.5	10.52	0.49%	[1000]	ug/L
Se 196.026†	1108.7	10.36	0.93%	[1000]	ug/L
Si 251.611†	120473.0	1448.82	1.20%	[5000]	ug/L
Sn 189.927†	3935.7	29.98	0.76%	[1000]	ug/L
Sr 421.552†	109736.3	3674.39	3.35%	[1000]	ug/L
Ti 334.940†	522463.4	6655.29	1.27%	[1000]	ug/L
Tl 190.801†	2313.8	17.09	0.74%	[1000]	ug/L
U 409.014†	29174.4	284.16	0.97%	[1000]	ug/L
V 292.402†	111062.3	1377.61	1.24%	[1000]	ug/L
Zn 213.857†	74515.5	1016.01	1.36%	[1000]	ug/L
SiO2†	121495.8	1644.61	1.35%	[10695]	ug/L

Sequence No.: 5  
 Sample ID: S10  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 3/26/2010 19:27:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	3938.3	3938.3	104 %	19:30:11
1	Y RADIAL	4177.9	4177.9	102.3 %	19:30:11
1	Al 396.153Radial†	42877.7	41314.1	[50000] ug/L	19:29:51
1	Ca 317.933Radial†	22928.2	22031.2	[50000] ug/L	19:29:51
1	Fe 238.204 Radial†	1584.7	1515.7	[20000] ug/L	19:30:11
1	Mg 279.077 IEC†	1111.0	1065.8	[50000] ug/L	19:30:11
1	Na 589.592 Radial†	50332.9	48798.1	[20000] ug/L	19:29:51
1	Sc 361.383	806458.8	806458.8	110.05 %	19:31:08
1	Y 371.029	655971.9	655971.9	108.53 %	19:31:08
2	Sc Radial	4056.8	4056.8	107 %	19:30:36
2	Y RADIAL	4313.9	4313.9	105.7 %	19:30:36
2	Al 396.153Radial†	44903.6	42001.6	[50000] ug/L	19:30:16
2	Ca 317.933Radial†	23838.7	22237.5	[50000] ug/L	19:30:16
2	Fe 238.204 Radial†	1615.7	1500.2	[20000] ug/L	19:30:36
2	Mg 279.077 IEC†	1132.2	1054.4	[50000] ug/L	19:30:36
2	Na 589.592 Radial†	52742.1	49634.3	[20000] ug/L	19:30:16
2	Sc 361.383	783540.7	783540.7	106.92 %	19:31:14
2	Y 371.029	637635.1	637635.1	105.49 %	19:31:14
3	Sc Radial	4193.9	4193.9	111 %	19:31:01
3	Y RADIAL	4446.3	4446.3	108.9 %	19:31:01
3	Al 396.153Radial†	46987.9	42513.4	[50000] ug/L	19:30:41
3	Ca 317.933Radial†	24944.3	22508.3	[50000] ug/L	19:30:41
3	Fe 238.204 Radial†	1655.3	1486.6	[20000] ug/L	19:31:01
3	Mg 279.077 IEC†	1157.9	1043.1	[50000] ug/L	19:31:01
3	Na 589.592 Radial†	55220.2	50262.5	[20000] ug/L	19:30:41
3	Sc 361.383	820097.6	820097.6	111.91 %	19:31:19
3	Y 371.029	667753.4	667753.4	110.48 %	19:31:19

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	803365.7	18473.66	2.30%	109.63 %
Sc Radial	4063.0	127.89	3.15%	107 %
Y 371.029	653786.8	15177.60	2.32%	108.17 %
Y RADIAL	4312.7	134.23	3.11%	105.6 %
Al 396.153Radial†	41943.0	601.82	1.43%	[50000] ug/L
Ca 317.933Radial†	22259.0	239.29	1.08%	[50000] ug/L
Fe 238.204 Radial†	1500.8	14.56	0.97%	[20000] ug/L
Mg 279.077 IEC†	1054.4	11.38	1.08%	[50000] ug/L
Na 589.592 Radial†	49565.0	734.65	1.48%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	175.8	0.00000	0.999936	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8404	0.00000	0.999966	
As 188.979	3	Lin Thru 0	0.0	1.647	0.00000	0.999986	
B 249.677	3	Lin Thru 0	0.0	33.22	0.00000	0.999997	
Ba 233.527	3	Lin Thru 0	0.0	95.41	0.00000	0.999967	
Be 313.107	3	Lin Thru 0	0.0	2142	0.00000	0.999992	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4464	0.00000	0.999931	
Cd 226.502	3	Lin Thru 0	0.0	61.54	0.00000	0.999963	
Co 228.616	3	Lin Thru 0	0.0	34.80	0.00000	0.999854	
Cr 267.716	3	Lin Thru 0	0.0	65.32	0.00000	0.999969	
Cu 324.752	3	Lin Thru 0	0.0	280.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0756	0.00000	0.999873	
K 766.490 Radial	3	Lin Thru 0	0.0	4.529	0.00000	0.999980	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0211	0.00000	0.999929
Mn 257.610	3	Lin Thru 0	0.0	685.1	0.00000	0.999989
Mo 202.031	3	Lin Thru 0	0.0	9.903	0.00000	0.999976
Na 589.592 Radia	2	Lin Thru 0	0.0	2.487	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	27.87	0.00000	0.999872
P 214.914	3	Lin Thru 0	0.0	1.237	0.00000	1.000000
Pb 220.353	3	Lin Thru 0	0.0	5.781	0.00000	0.999983
S 181.975 Axial	3	Lin Thru 0	0.0	0.5143	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	2.156	0.00000	0.999985
Se 196.026	3	Lin Thru 0	0.0	1.111	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	24.21	0.00000	0.999959
Sn 189.927	3	Lin Thru 0	0.0	3.944	0.00000	0.999990
Sr 421.552	3	Lin Thru 0	0.0	110.1	0.00000	0.999946
Ti 334.940	3	Lin Thru 0	0.0	522.9	0.00000	0.999996
Tl 190.801	3	Lin Thru 0	0.0	2.319	0.00000	0.999991
U 409.014	3	Lin Thru 0	0.0	29.41	0.00000	0.999864
V 292.402	3	Lin Thru 0	0.0	111.4	0.00000	0.999983
Zn 213.857	3	Lin Thru 0	0.0	74.89	0.00000	0.999950
SiO2	3	Lin Thru 0	0.0	11.36	0.00000	1.000000

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/26/2010 19:33:31

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	3973.6	3973.6	105 %		19:35:44
1	Y RADIAL	4374.9	4374.9	107.2 %		19:35:24
1	Al 396.153Radial†	4544.1	4404.8	5216.3 ug/L	5216.3 ppb	19:35:24
1	Ca 317.933Radial†	2435.7	2300.0	5152.9 ug/L	5152.9 ppb	19:35:44
1	Fe 238.204 Radial†	411.0	383.3	5082.9 ug/L	5082.9 ppb	19:35:44
1	K 766.490 Radial†	14325.2	11177.7	2464.3 ug/L	2464.3 ppb	19:35:24
1	Mg 279.077 IEC†	116.0	107.8	5096.9 ug/L	5096.9 ppb	19:35:44
1	Na 589.592 Radial†	5942.0	6050.8	2433.2 ug/L	2433.2 ppb	19:35:24
1	Sr 421.552†	59592.9	56770.4	515.36 ug/L	515.36 ppb	19:35:24
1	Sc 361.383	825011.1	825011.1	112.58 %		19:36:42
1	Y 371.029	675512.4	675512.4	111.76 %		19:36:42
1	Ag 328.068†	49901.4	44172.1	254.42 ug/L	254.42 ppb	19:36:42
1	As 188.979†	858.5	784.8	480.64 ug/L	480.64 ppb	19:37:02
1	B 249.677†	19365.4	17536.1	525.51 ug/L	525.51 ppb	19:36:42
1	Ba 233.527†	54806.5	48678.6	511.45 ug/L	511.45 ppb	19:36:42
1	Be 313.107†	613354.3	548695.6	257.28 ug/L	257.28 ppb	19:36:42
1	Cd 226.502†	34390.2	30717.8	499.00 ug/L	499.00 ppb	19:36:42
1	Co 228.616†	20261.9	18044.1	518.64 ug/L	518.64 ppb	19:36:42
1	Cr 267.716†	36066.8	31940.8	490.06 ug/L	490.06 ppb	19:36:42
1	Cu 324.752†	167869.2	143390.7	511.86 ug/L	511.86 ppb	19:36:42
1	Mn 257.610†	387078.6	343392.0	501.49 ug/L	501.49 ppb	19:36:42
1	Mo 202.031†	5792.7	5128.5	518.34 ug/L	518.34 ppb	19:37:02
1	Ni 231.604†	15687.2	13851.4	496.65 ug/L	496.65 ppb	19:36:42
1	P 214.914†	3679.2	3079.5	2389.6 ug/L	2389.6 ppb	19:37:02
1	Pb 220.353†	3163.9	2859.4	496.11 ug/L	496.11 ppb	19:37:02
1	S 181.975 Axial†	1431.8	1244.7	2419.4 ug/L	2419.4 ppb	19:37:02
1	Sb 206.836†	1222.6	1060.3	510.41 ug/L	510.41 ppb	19:37:02
1	Se 196.026†	3195.4	2860.0	2589.8 ug/L	2589.8 ppb	19:37:02
1	Si 251.611†	133234.6	117888.1	4863.9 ug/L	4863.9 ppb	19:36:42
1	Sn 189.927†	2315.7	2043.3	518.65 ug/L	518.65 ppb	19:37:02
1	Ti 334.940†	285385.8	254534.6	486.64 ug/L	486.64 ppb	19:36:42
1	Tl 190.801†	1295.4	1172.9	509.02 ug/L	509.02 ppb	19:37:02
1	U 409.014†	14305.4	14540.6	492.77 ug/L	492.77 ppb	19:36:42
1	V 292.402†	60742.6	55334.4	503.73 ug/L	503.73 ppb	19:36:42
1	Zn 213.857†	42609.5	37187.5	491.95 ug/L	491.95 ppb	19:36:42
1	SiO2†	129353.1	114432.2	10057 ug/L	10057 ppb	19:37:59
2	Sc Radial	3911.1	3911.1	103 %		19:36:09
2	Y RADIAL	4216.6	4216.6	103.3 %		19:35:49
2	Al 396.153Radial†	4527.6	4458.0	5279.7 ug/L	5279.7 ppb	19:35:49
2	Ca 317.933Radial†	2459.7	2360.4	5288.2 ug/L	5288.2 ppb	19:36:09
2	Fe 238.204 Radial†	416.3	394.8	5234.1 ug/L	5234.1 ppb	19:36:09
2	K 766.490 Radial†	14345.3	11415.4	2516.8 ug/L	2516.8 ppb	19:35:49
2	Mg 279.077 IEC†	114.8	108.4	5127.5 ug/L	5127.5 ppb	19:36:09
2	Na 589.592 Radial†	5947.0	6146.2	2471.6 ug/L	2471.6 ppb	19:35:49
2	Sr 421.552†	59681.0	57763.8	524.38 ug/L	524.38 ppb	19:35:49
2	Sc 361.383	821861.3	821861.3	112.15 %		19:37:08
2	Y 371.029	673287.5	673287.5	111.39 %		19:37:08
2	Ag 328.068†	49372.1	43870.1	252.73 ug/L	252.73 ppb	19:37:08
2	As 188.979†	851.5	781.5	478.64 ug/L	478.64 ppb	19:37:28
2	B 249.677†	19305.3	17548.4	525.86 ug/L	525.86 ppb	19:37:08
2	Ba 233.527†	54305.2	48418.2	508.72 ug/L	508.72 ppb	19:37:08
2	Be 313.107†	609197.2	547076.9	256.52 ug/L	256.52 ppb	19:37:08
2	Cd 226.502†	34222.2	30685.1	498.45 ug/L	498.45 ppb	19:37:08
2	Co 228.616†	20099.6	17968.4	516.46 ug/L	516.46 ppb	19:37:08
2	Cr 267.716†	35787.3	31814.3	488.14 ug/L	488.14 ppb	19:37:08
2	Cu 324.752†	166074.9	142362.2	508.20 ug/L	508.20 ppb	19:37:08
2	Mn 257.610†	384018.4	341981.1	499.44 ug/L	499.44 ppb	19:37:08
2	Mo 202.031†	5726.0	5088.8	514.34 ug/L	514.34 ppb	19:37:28
2	Ni 231.604†	15566.2	13796.9	494.70 ug/L	494.70 ppb	19:37:08

2	P 214.914†	3654.1	3069.7	2382.3 ug/L	2382.3 ppb	19:37:28
2	Pb 220.353†	3125.5	2835.9	492.03 ug/L	492.03 ppb	19:37:28
2	S 181.975 Axial†	1414.8	1234.4	2399.4 ug/L	2399.4 ppb	19:37:28
2	Sb 206.836†	1213.5	1056.4	508.46 ug/L	508.46 ppb	19:37:28
2	Se 196.026†	3148.0	2828.6	2562.0 ug/L	2562.0 ppb	19:37:28
2	Si 251.611†	132002.5	117243.1	4837.3 ug/L	4837.3 ppb	19:37:08
2	Sn 189.927†	2291.0	2029.1	515.07 ug/L	515.07 ppb	19:37:28
2	Ti 334.940†	282841.1	253237.1	484.18 ug/L	484.18 ppb	19:37:08
2	Tl 190.801†	1293.0	1175.1	509.96 ug/L	509.96 ppb	19:37:28
2	U 409.014†	14112.4	14417.2	488.57 ug/L	488.57 ppb	19:37:08
2	V 292.402†	60160.1	55021.8	500.84 ug/L	500.84 ppb	19:37:08
2	Zn 213.857†	42424.3	37167.4	491.67 ug/L	491.67 ppb	19:37:08
2	SiO2†	130268.1	115688.5	10168 ug/L	10168 ppb	19:38:05
3	Sc Radial	4071.3	4071.3	107 %		19:36:34
3	Y RADIAL	4522.7	4522.7	110.8 %		19:36:14
3	Al 396.153Radial†	4746.4	4489.0	5315.8 ug/L	5315.8 ppb	19:36:14
3	Ca 317.933Radial†	2511.3	2314.7	5185.8 ug/L	5185.8 ppb	19:36:34
3	Fe 238.204 Radial†	421.0	383.3	5082.5 ug/L	5082.5 ppb	19:36:34
3	K 766.490 Radial†	14823.7	11313.9	2494.4 ug/L	2494.4 ppb	19:36:14
3	Mg 279.077 IEC†	118.3	107.2	5072.3 ug/L	5072.3 ppb	19:36:34
3	Na 589.592 Radial†	6222.2	6175.6	2483.4 ug/L	2483.4 ppb	19:36:14
3	Sr 421.552†	62877.9	58464.1	530.73 ug/L	530.73 ppb	19:36:14
3	Sc 361.383	797166.9	797166.9	108.78 %		19:37:34
3	Y 371.029	652378.0	652378.0	107.93 %		19:37:34
3	Ag 328.068†	48523.9	44454.0	256.04 ug/L	256.04 ppb	19:37:34
3	As 188.979†	856.9	810.0	495.92 ug/L	495.92 ppb	19:37:54
3	B 249.677†	18855.4	17668.1	529.46 ug/L	529.46 ppb	19:37:34
3	Ba 233.527†	53730.8	49390.2	518.92 ug/L	518.92 ppb	19:37:34
3	Be 313.107†	599026.3	554553.9	260.02 ug/L	260.02 ppb	19:37:34
3	Cd 226.502†	33700.9	31151.1	506.05 ug/L	506.05 ppb	19:37:34
3	Co 228.616†	19829.5	18275.2	525.31 ug/L	525.31 ppb	19:37:34
3	Cr 267.716†	35327.8	32380.5	496.80 ug/L	496.80 ppb	19:37:34
3	Cu 324.752†	162764.5	143906.3	513.70 ug/L	513.70 ppb	19:37:34
3	Mn 257.610†	378740.8	347736.6	507.83 ug/L	507.83 ppb	19:37:34
3	Mo 202.031†	5755.5	5274.1	533.04 ug/L	533.04 ppb	19:37:54
3	Ni 231.604†	15352.8	14030.7	503.08 ug/L	503.08 ppb	19:37:34
3	P 214.914†	3670.1	3185.3	2474.9 ug/L	2474.9 ppb	19:37:54
3	Pb 220.353†	3150.8	2945.5	511.07 ug/L	511.07 ppb	19:37:54
3	S 181.975 Axial†	1426.2	1283.9	2495.7 ug/L	2495.7 ppb	19:37:54
3	Sb 206.836†	1221.0	1096.8	527.88 ug/L	527.88 ppb	19:37:54
3	Se 196.026†	3157.9	2924.7	2648.1 ug/L	2648.1 ppb	19:37:54
3	Si 251.611†	129617.4	118696.7	4897.1 ug/L	4897.1 ppb	19:37:34
3	Sn 189.927†	2304.3	2104.6	534.21 ug/L	534.21 ppb	19:37:54
3	Ti 334.940†	278284.1	256860.4	491.10 ug/L	491.10 ppb	19:37:34
3	Tl 190.801†	1292.4	1210.4	525.20 ug/L	525.20 ppb	19:37:54
3	U 409.014†	13757.7	14480.9	490.73 ug/L	490.73 ppb	19:37:34
3	V 292.402†	59212.0	55811.9	508.22 ug/L	508.22 ppb	19:37:34
3	Zn 213.857†	41818.6	37782.4	499.85 ug/L	499.85 ppb	19:37:34
3	SiO2†	127687.2	116914.0	10275 ug/L	10275 ppb	19:38:10

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814679.8	111.17 %	2.081			1.87%
Sc Radial	3985.3	105 %	2.1			2.03%
Y 371.029	667059.3	110.36 %	2.112			1.91%
Y RADIAL	4371.4	107.1 %	3.75			3.50%
Ag 328.068†	44165.4	254.40 ug/L	1.652	254.40 ppb	1.652	0.65%
QC value within limits for Ag 328.068 Recovery = 101.76%						
Al 396.153Radial†	4450.6	5270.6 ug/L	50.40	5270.6 ppb	50.40	0.96%
QC value within limits for Al 396.153Radial Recovery = 105.41%						
As 188.979†	792.1	485.07 ug/L	9.449	485.07 ppb	9.449	1.95%
QC value within limits for As 188.979 Recovery = 97.01%						
B 249.677†	17584.2	526.94 ug/L	2.188	526.94 ppb	2.188	0.42%
QC value within limits for B 249.677 Recovery = 105.39%						
Ba 233.527†	48829.0	513.03 ug/L	5.279	513.03 ppb	5.279	1.03%
QC value within limits for Ba 233.527 Recovery = 102.61%						
Be 313.107†	550108.8	257.94 ug/L	1.844	257.94 ppb	1.844	0.72%
QC value within limits for Be 313.107 Recovery = 103.18%						
Ca 317.933Radial†	2325.0	5209.0 ug/L	70.58	5209.0 ppb	70.58	1.35%

QC value within limits for Ca 317.933 Radial Recovery = 104.18%							
Cd 226.502†	30851.3	501.17 ug/L	4.234	501.17 ppb	4.234	0.84%	
QC value within limits for Cd 226.502 Recovery = 100.23%							
Co 228.616†	18095.9	520.14 ug/L	4.610	520.14 ppb	4.610	0.89%	
QC value within limits for Co 228.616 Recovery = 104.03%							
Cr 267.716†	32045.2	491.67 ug/L	4.548	491.67 ppb	4.548	0.92%	
QC value within limits for Cr 267.716 Recovery = 98.33%							
Cu 324.752†	143219.8	511.25 ug/L	2.801	511.25 ppb	2.801	0.55%	
QC value within limits for Cu 324.752 Recovery = 102.25%							
Fe 238.204 Radial†	387.1	5133.2 ug/L	87.42	5133.2 ppb	87.42	1.70%	
QC value within limits for Fe 238.204 Radial Recovery = 102.66%							
K 766.490 Radial†	11302.3	2491.8 ug/L	26.31	2491.8 ppb	26.31	1.06%	
QC value within limits for K 766.490 Radial Recovery = 99.67%							
Mg 279.077 IEC†	107.8	5098.9 ug/L	27.65	5098.9 ppb	27.65	0.54%	
QC value within limits for Mg 279.077 IEC Recovery = 101.98%							
Mn 257.610†	344369.9	502.92 ug/L	4.373	502.92 ppb	4.373	0.87%	
QC value within limits for Mn 257.610 Recovery = 100.58%							
Mo 202.031†	5163.8	521.90 ug/L	9.847	521.90 ppb	9.847	1.89%	
QC value within limits for Mo 202.031 Recovery = 104.38%							
Na 589.592 Radial†	6124.2	2462.7 ug/L	26.23	2462.7 ppb	26.23	1.07%	
QC value within limits for Na 589.592 Radial Recovery = 98.51%							
Ni 231.604†	13893.0	498.14 ug/L	4.387	498.14 ppb	4.387	0.88%	
QC value within limits for Ni 231.604 Recovery = 99.63%							
P 214.914†	3111.5	2415.6 ug/L	51.51	2415.6 ppb	51.51	2.13%	
QC value within limits for P 214.914 Recovery = 96.62%							
Pb 220.353†	2880.3	499.74 ug/L	10.022	499.74 ppb	10.022	2.01%	
QC value within limits for Pb 220.353 Recovery = 99.95%							
S 181.975 Axial†	1254.3	2438.1 ug/L	50.83	2438.1 ppb	50.83	2.08%	
QC value within limits for S 181.975 Axial Recovery = 97.53%							
Sb 206.836†	1071.2	515.58 ug/L	10.692	515.58 ppb	10.692	2.07%	
QC value within limits for Sb 206.836 Recovery = 103.12%							
Se 196.026†	2871.1	2600.0 ug/L	43.95	2600.0 ppb	43.95	1.69%	
QC value within limits for Se 196.026 Recovery = 104.00%							
Si 251.611†	117942.6	4866.1 ug/L	29.97	4866.1 ppb	29.97	0.62%	
QC value within limits for Si 251.611 Recovery = 97.32%							
Sn 189.927†	2059.0	522.64 ug/L	10.176	522.64 ppb	10.176	1.95%	
QC value within limits for Sn 189.927 Recovery = 104.53%							
Sr 421.552†	57666.1	523.49 ug/L	7.726	523.49 ppb	7.726	1.48%	
QC value within limits for Sr 421.552 Recovery = 104.70%							
Ti 334.940†	254877.4	487.31 ug/L	3.505	487.31 ppb	3.505	0.72%	
QC value within limits for Ti 334.940 Recovery = 97.46%							
Tl 190.801†	1186.1	514.73 ug/L	9.081	514.73 ppb	9.081	1.76%	
QC value within limits for Tl 190.801 Recovery = 102.95%							
U 409.014†	14479.6	490.69 ug/L	2.104	490.69 ppb	2.104	0.43%	
QC value within limits for U 409.014 Recovery = 98.14%							
V 292.402†	55389.4	504.27 ug/L	3.715	504.27 ppb	3.715	0.74%	
QC value within limits for V 292.402 Recovery = 100.85%							
Zn 213.857†	37379.1	494.49 ug/L	4.643	494.49 ppb	4.643	0.94%	
QC value within limits for Zn 213.857 Recovery = 98.90%							
SiO2†	115678.2	10167 ug/L	109.0	10167 ppb	109.0	1.07%	
QC value within limits for SiO2 Recovery = 95.06%							
All analyte(s) passed QC.							



Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/26/2010 19:40:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc.	Analysis Time
1	Sc Radial	3965.5	3965.5	105 %			19:42:33
1	Y RADIAL	4370.5	4370.5	107.0 %			19:42:13
1	Al 396.153Radial†	-67.9	8.0	9.4766 ug/L	9.4766 ppb		19:42:33
1	Ca 317.933Radial†	25.1	2.1	4.6363 ug/L	4.6363 ppb		19:42:33
1	Fe 238.204 Radial†	6.5	-2.2	-29.551 ug/L	-29.551 ppb		19:42:33
1	K 766.490 Radial†	2442.8	-145.1	-32.029 ug/L	-32.029 ppb		19:42:13
1	Mg 279.077 IEC†	1.6	-1.3	-60.627 ug/L	-60.627 ppb		19:42:33
1	Na 589.592 Radial†	-425.4	-20.0	-8.0429 ug/L	-8.0429 ppb		19:42:13
1	Sr 421.552†	56.9	15.1	0.1371 ug/L	0.1371 ppb		19:42:13
1	Sc 361.383	756477.5	756477.5	103.23 %			19:43:30
1	Y 371.029	624575.8	624575.8	103.33 %			19:43:30
1	Ag 328.068†	134.9	-21.5	-0.1369 ug/L	-0.1369 ppb		19:43:30
1	As 188.979†	-26.4	-3.3	-1.9908 ug/L	-1.9908 ppb		19:43:50
1	B 249.677†	-56.6	280.1	8.4363 ug/L	8.4363 ppb		19:43:50
1	Ba 233.527†	0.9	-1.7	-0.0197 ug/L	-0.0197 ppb		19:43:50
1	Be 313.107†	-3988.6	27.8	0.0125 ug/L	0.0125 ppb		19:43:30
1	Cd 226.502†	-158.1	18.0	0.2973 ug/L	0.2973 ppb		19:43:50
1	Co 228.616†	-52.7	-4.3	-0.1229 ug/L	-0.1229 ppb		19:43:50
1	Cr 267.716†	109.2	10.7	0.1580 ug/L	0.1580 ppb		19:43:50
1	Cu 324.752†	5686.9	-208.0	-0.7468 ug/L	-0.7468 ppb		19:43:30
1	Mn 257.610†	402.1	-36.0	-0.0530 ug/L	-0.0530 ppb		19:43:50
1	Mo 202.031†	20.4	3.0	0.3006 ug/L	0.3006 ppb		19:43:50
1	Ni 231.604†	91.3	5.9	0.2125 ug/L	0.2125 ppb		19:43:50
1	P 214.914†	197.0	2.4	2.0975 ug/L	2.0975 ppb		19:43:50
1	Pb 220.353†	-41.0	9.3	1.6229 ug/L	1.6229 ppb		19:43:50
1	S 181.975 Axial†	31.7	3.6	6.9323 ug/L	6.9323 ppb		19:43:50
1	Sb 206.836†	35.4	8.7	4.0263 ug/L	4.0263 ppb		19:43:50
1	Se 196.026†	-21.9	0.6	0.4293 ug/L	0.4293 ppb		19:43:50
1	Si 251.611†	437.2	-32.2	-1.3338 ug/L	-1.3338 ppb		19:43:50
1	Sn 189.927†	15.8	1.7	0.4329 ug/L	0.4329 ppb		19:43:50
1	Ti 334.940†	-1198.1	-116.3	-0.2191 ug/L	-0.2191 ppb		19:43:30
1	Tl 190.801†	-17.9	5.0	2.1432 ug/L	2.1432 ppb		19:43:50
1	U 409.014†	-1740.3	148.2	5.0409 ug/L	5.0409 ppb		19:43:30
1	V 292.402†	-1465.2	-38.7	-0.3305 ug/L	-0.3305 ppb		19:43:30
1	Zn 213.857†	587.1	-91.1	-1.2118 ug/L	-1.2118 ppb		19:43:50
1	SiO2†	442.6	-35.2	-3.1097 ug/L	-3.1097 ppb		19:45:01
2	Sc Radial	4016.8	4016.8	106 %			19:42:58
2	Y RADIAL	4487.7	4487.7	109.9 %			19:42:38
2	Al 396.153Radial†	-70.5	6.4	7.5366 ug/L	7.5366 ppb		19:42:58
2	Ca 317.933Radial†	20.5	-2.6	-5.8274 ug/L	-5.8274 ppb		19:42:58
2	Fe 238.204 Radial†	7.2	-1.7	-22.273 ug/L	-22.273 ppb		19:42:58
2	K 766.490 Radial†	2550.1	-73.7	-16.267 ug/L	-16.267 ppb		19:42:38
2	Mg 279.077 IEC†	0.6	-2.2	-105.42 ug/L	-105.42 ppb		19:42:58
2	Na 589.592 Radial†	-470.9	-57.7	-23.209 ug/L	-23.209 ppb		19:42:38
2	Sr 421.552†	42.9	1.2	0.0106 ug/L	0.0106 ppb		19:42:38
2	Sc 361.383	778672.5	778672.5	106.26 %			19:43:55
2	Y 371.029	642382.4	642382.4	106.28 %			19:43:55
2	Ag 328.068†	184.0	21.0	0.1133 ug/L	0.1133 ppb		19:43:55
2	As 188.979†	-27.1	-3.3	-1.9809 ug/L	-1.9809 ppb		19:44:15
2	B 249.677†	-83.9	256.0	7.7095 ug/L	7.7095 ppb		19:44:15
2	Ba 233.527†	-3.3	-5.7	-0.0591 ug/L	-0.0591 ppb		19:44:15
2	Be 313.107†	-3921.3	201.3	0.0942 ug/L	0.0942 ppb		19:43:55
2	Cd 226.502†	-162.2	18.5	0.3026 ug/L	0.3026 ppb		19:44:15
2	Co 228.616†	-56.2	-6.2	-0.1755 ug/L	-0.1755 ppb		19:44:15
2	Cr 267.716†	120.8	18.6	0.2822 ug/L	0.2822 ppb		19:44:15
2	Cu 324.752†	5733.0	-321.6	-1.1501 ug/L	-1.1501 ppb		19:43:55
2	Mn 257.610†	440.2	-11.3	-0.0144 ug/L	-0.0144 ppb		19:44:15
2	Mo 202.031†	25.9	7.6	0.7656 ug/L	0.7656 ppb		19:44:15
2	Ni 231.604†	83.4	-4.1	-0.1471 ug/L	-0.1471 ppb		19:44:15

2	P 214.914†	191.1	-8.6	-6.7258 ug/L	-6.7258 ppb	19:44:15
2	Pb 220.353†	-38.1	13.2	2.2959 ug/L	2.2959 ppb	19:44:15
2	S 181.975 Axial†	25.4	-3.2	-6.2299 ug/L	-6.2299 ppb	19:44:15
2	Sb 206.836†	35.9	8.1	3.7833 ug/L	3.7833 ppb	19:44:15
2	Se 196.026†	-18.1	4.7	4.1616 ug/L	4.1616 ppb	19:44:15
2	Si 251.611†	443.2	-38.6	-1.6057 ug/L	-1.6057 ppb	19:44:15
2	Sn 189.927†	13.5	-0.9	-0.2288 ug/L	-0.2288 ppb	19:44:15
2	Ti 334.940†	-1055.6	50.9	0.1044 ug/L	0.1044 ppb	19:43:55
2	Tl 190.801†	-23.0	0.6	0.2543 ug/L	0.2543 ppb	19:44:15
2	U 409.014†	-1905.2	41.0	1.3965 ug/L	1.3965 ppb	19:43:55
2	V 292.402†	-1415.6	48.4	0.4488 ug/L	0.4488 ppb	19:43:55
2	Zn 213.857†	592.9	-101.9	-1.3542 ug/L	-1.3542 ppb	19:44:15
2	SiO2†	468.3	-23.3	-2.0696 ug/L	-2.0696 ppb	19:45:21
3	Sc Radial	4018.5	4018.5	106 %		19:43:23
3	Y RADIAL	4510.6	4510.6	110.5 %		19:43:03
3	Al 396.153Radial†	-62.6	13.8	16.490 ug/L	16.490 ppb	19:43:23
3	Ca 317.933Radial†	25.3	1.9	4.3431 ug/L	4.3431 ppb	19:43:23
3	Fe 238.204 Radial†	8.1	-0.9	-11.481 ug/L	-11.481 ppb	19:43:23
3	K 766.490 Radial†	2374.0	-240.7	-53.145 ug/L	-53.145 ppb	19:43:03
3	Mg 279.077 IEC†	0.5	-2.3	-109.45 ug/L	-109.45 ppb	19:43:23
3	Na 589.592 Radial†	-397.8	11.3	4.5491 ug/L	4.5491 ppb	19:43:03
3	Sr 421.552†	25.9	-14.8	-0.1348 ug/L	-0.1348 ppb	19:43:03
3	Sc 361.383	761609.4	761609.4	103.93 %		19:44:20
3	Y 371.029	627824.5	627824.5	103.87 %		19:44:20
3	Ag 328.068†	124.1	-32.8	-0.1927 ug/L	-0.1927 ppb	19:44:20
3	As 188.979†	-19.8	3.2	1.9539 ug/L	1.9539 ppb	19:44:40
3	B 249.677†	-92.3	246.2	7.4131 ug/L	7.4131 ppb	19:44:40
3	Ba 233.527†	5.9	3.1	0.0336 ug/L	0.0336 ppb	19:44:40
3	Be 313.107†	-3989.6	52.9	0.0246 ug/L	0.0246 ppb	19:44:20
3	Cd 226.502†	-165.0	12.4	0.2039 ug/L	0.2039 ppb	19:44:40
3	Co 228.616†	-58.7	-9.8	-0.2822 ug/L	-0.2822 ppb	19:44:40
3	Cr 267.716†	119.3	19.7	0.2994 ug/L	0.2994 ppb	19:44:40
3	Cu 324.752†	5739.9	-194.2	-0.6969 ug/L	-0.6969 ppb	19:44:20
3	Mn 257.610†	437.9	-4.2	-0.0028 ug/L	-0.0028 ppb	19:44:40
3	Mo 202.031†	11.1	-6.0	-0.6104 ug/L	-0.6104 ppb	19:44:40
3	Ni 231.604†	63.5	-21.4	-0.7689 ug/L	-0.7689 ppb	19:44:40
3	P 214.914†	195.6	-0.3	-0.0948 ug/L	-0.0948 ppb	19:44:40
3	Pb 220.353†	-58.7	-7.4	-1.2740 ug/L	-1.2740 ppb	19:44:40
3	S 181.975 Axial†	26.8	-1.4	-2.6422 ug/L	-2.6422 ppb	19:44:40
3	Sb 206.836†	37.1	10.1	4.6599 ug/L	4.6599 ppb	19:44:40
3	Se 196.026†	-16.7	5.6	5.0269 ug/L	5.0269 ppb	19:44:40
3	Si 251.611†	420.2	-51.4	-2.1163 ug/L	-2.1163 ppb	19:44:40
3	Sn 189.927†	8.1	-5.8	-1.4781 ug/L	-1.4781 ppb	19:44:40
3	Ti 334.940†	-1101.9	-15.9	-0.0236 ug/L	-0.0236 ppb	19:44:20
3	Tl 190.801†	-30.8	-7.4	-3.1904 ug/L	-3.1904 ppb	19:44:40
3	U 409.014†	-1727.5	171.8	5.8441 ug/L	5.8441 ppb	19:44:20
3	V 292.402†	-1370.4	62.0	0.5586 ug/L	0.5586 ppb	19:44:20
3	Zn 213.857†	577.4	-104.2	-1.3841 ug/L	-1.3841 ppb	19:44:40
3	SiO2†	442.8	-37.9	-3.3182 ug/L	-3.3182 ppb	19:45:41

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	765586.5	104.47 %	1.586			1.52%
Sc Radial	4000.3	106 %	0.8			0.75%
Y 371.029	631594.2	104.50 %	1.569			1.50%
Y RADIAL	4456.3	109.1 %	1.84			1.69%
Ag 328.068†	-11.1	-0.0721 ug/L	0.16295	-0.0721 ppb	0.16295	225.98%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.4	11.168 ug/L	4.7100	11.168 ppb	4.7100	42.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.1	-0.6726 ug/L	2.27466	-0.6726 ppb	2.27466	338.18%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	260.8	7.8530 ug/L	0.52647	7.8530 ppb	0.52647	6.70%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-1.4	-0.0151 ug/L	0.04648	-0.0151 ppb	0.04648	308.62%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	94.0	0.0438 ug/L	0.04410	0.0438 ppb	0.04410	100.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.5	1.0507 ug/L	5.95840	1.0507 ppb	5.95840	567.11%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	16.3	0.2679 ug/L	0.05553	0.2679 ppb	0.05553	20.72%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-6.8	-0.1935 ug/L	0.08119	-0.1935 ppb	0.08119	41.95%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	16.3	0.2465 ug/L	0.07718	0.2465 ppb	0.07718	31.31%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-241.3	-0.8646 ug/L	0.24854	-0.8646 ppb	0.24854	28.75%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.6	-21.101 ug/L	9.0918	-21.101 ppb	9.0918	43.09%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-153.2	-33.813 ug/L	18.5033	-33.813 ppb	18.5033	54.72%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.9	-91.832 ug/L	27.0991	-91.832 ppb	27.0991	29.51%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-17.2	-0.0234 ug/L	0.02633	-0.0234 ppb	0.02633	112.58%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.5	0.1519 ug/L	0.69996	0.1519 ppb	0.69996	460.80%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-22.1	-8.9009 ug/L	13.89892	-8.9009 ppb	13.89892	156.15%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-6.5	-0.2345 ug/L	0.49650	-0.2345 ppb	0.49650	211.76%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.2	-1.5743 ug/L	4.59395	-1.5743 ppb	4.59395	291.80%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	5.1	0.8816 ug/L	1.89688	0.8816 ppb	1.89688	215.17%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.3	-0.6466 ug/L	6.80421	-0.6466 ppb	6.80421	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	9.0	4.1565 ug/L	0.45259	4.1565 ppb	0.45259	10.89%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.6	3.2060 ug/L	2.44326	3.2060 ppb	2.44326	76.21%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-40.7	-1.6853 ug/L	0.39727	-1.6853 ppb	0.39727	23.57%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.7	-0.4247 ug/L	0.97045	-0.4247 ppb	0.97045	228.52%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	0.5	0.0043 ug/L	0.13603	0.0043 ppb	0.13603	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-27.1	-0.0461 ug/L	0.16291	-0.0461 ppb	0.16291	353.54%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-0.6	-0.2643 ug/L	2.70432	-0.2643 ppb	2.70432	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	120.3	4.0938 ug/L	2.37021	4.0938 ppb	2.37021	57.90%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	23.9	0.2256 ug/L	0.48474	0.2256 ppb	0.48474	214.84%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-99.0	-1.3167 ug/L	0.09207	-1.3167 ppb	0.09207	6.99%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-32.1	-2.8325 ug/L	0.66887	-2.8325 ppb	0.66887	23.61%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/26/2010 19:47:52

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	4188.0	4188.0	111 %		19:49:45
1	Y RADIAL	4481.4	4481.4	109.8 %		19:49:45
1	Al 396.153Radial†	109.1	171.6	203.73 ug/L	203.73 ppb	19:50:05
1	Ca 317.933Radial†	115.8	82.8	185.53 ug/L	185.53 ppb	19:50:05
1	Fe 238.204 Radial†	17.1	7.0	92.755 ug/L	92.755 ppb	19:50:05
1	K 766.490 Radial†	3255.1	465.7	102.62 ug/L	102.62 ppb	19:49:45
1	Mg 279.077 IEC†	7.8	4.2	200.14 ug/L	200.14 ppb	19:50:05
1	Na 589.592 Radial†	443.8	787.8	316.79 ug/L	316.79 ppb	19:49:45
1	Sr 421.552†	604.5	507.5	4.6060 ug/L	4.6060 ppb	19:49:45
1	Sc 361.383	811470.9	811470.9	110.73 %		19:51:02
1	Y 371.029	669286.3	669286.3	110.73 %		19:51:02
1	Ag 328.068†	1096.9	838.4	4.7671 ug/L	4.7671 ppb	19:51:02
1	As 188.979†	29.5	48.9	29.726 ug/L	29.726 ppb	19:51:22
1	B 249.677†	1639.8	1815.8	54.623 ug/L	54.623 ppb	19:51:02
1	Ba 233.527†	537.6	482.9	5.0754 ug/L	5.0754 ppb	19:51:22
1	Be 313.107†	7985.0	11102.5	5.1955 ug/L	5.1955 ppb	19:51:02
1	Cd 226.502†	158.5	314.3	5.1121 ug/L	5.1121 ppb	19:51:22
1	Co 228.616†	142.3	175.2	5.0436 ug/L	5.0436 ppb	19:51:22
1	Cr 267.716†	429.6	292.9	4.4767 ug/L	4.4767 ppb	19:51:22
1	Cu 324.752†	9191.7	2583.7	9.1939 ug/L	9.1939 ppb	19:51:02
1	Mn 257.610†	8466.0	7219.8	10.539 ug/L	10.539 ppb	19:51:02
1	Mo 202.031†	116.7	88.7	8.9623 ug/L	8.9623 ppb	19:51:22
1	Ni 231.604†	239.3	133.6	4.7887 ug/L	4.7887 ppb	19:51:22
1	P 214.914†	397.9	170.8	136.33 ug/L	136.33 ppb	19:51:22
1	Pb 220.353†	20.7	67.8	11.773 ug/L	11.773 ppb	19:51:22
1	S 181.975 Axial†	87.1	51.6	100.29 ug/L	100.29 ppb	19:51:22
1	Sb 206.836†	57.9	26.7	12.735 ug/L	12.735 ppb	19:51:22
1	Se 196.026†	14.0	34.4	31.257 ug/L	31.257 ppb	19:51:22
1	Si 251.611†	3002.5	2255.7	93.080 ug/L	93.080 ppb	19:51:22
1	Sn 189.927†	61.8	42.1	10.713 ug/L	10.713 ppb	19:51:22
1	Ti 334.940†	1896.5	2757.0	5.2522 ug/L	5.2522 ppb	19:51:02
1	Tl 190.801†	39.4	57.9	25.019 ug/L	25.019 ppb	19:51:22
1	U 409.014†	-24.8	1811.6	61.581 ug/L	61.581 ppb	19:51:02
1	V 292.402†	-888.0	578.7	5.4228 ug/L	5.4228 ppb	19:51:02
1	Zn 213.857†	1506.0	700.1	9.2922 ug/L	9.2922 ppb	19:51:22
1	SiO2†	3181.0	2408.6	211.75 ug/L	211.75 ppb	19:52:19
2	Sc Radial	4037.6	4037.6	107 %		19:50:11
2	Y RADIAL	4335.2	4335.2	106.2 %		19:50:11
2	Al 396.153Radial†	113.4	179.2	212.80 ug/L	212.80 ppb	19:50:31
2	Ca 317.933Radial†	116.0	86.9	194.72 ug/L	194.72 ppb	19:50:31
2	Fe 238.204 Radial†	14.3	4.9	65.483 ug/L	65.483 ppb	19:50:31
2	K 766.490 Radial†	3267.6	587.1	129.44 ug/L	129.44 ppb	19:50:11
2	Mg 279.077 IEC†	7.3	4.0	189.96 ug/L	189.96 ppb	19:50:31
2	Na 589.592 Radial†	301.7	669.4	269.19 ug/L	269.19 ppb	19:50:11
2	Sr 421.552†	617.1	539.7	4.8983 ug/L	4.8983 ppb	19:50:11
2	Sc 361.383	784023.8	784023.8	106.99 %		19:51:28
2	Y 371.029	646431.1	646431.1	106.95 %		19:51:28
2	Ag 328.068†	1096.4	872.6	4.9581 ug/L	4.9581 ppb	19:51:28
2	As 188.979†	31.6	51.8	31.478 ug/L	31.478 ppb	19:51:48
2	B 249.677†	1655.9	1882.7	56.641 ug/L	56.641 ppb	19:51:28
2	Ba 233.527†	519.8	483.3	5.0802 ug/L	5.0802 ppb	19:51:48
2	Be 313.107†	7631.7	11024.8	5.1589 ug/L	5.1589 ppb	19:51:28
2	Cd 226.502†	172.2	332.1	5.4038 ug/L	5.4038 ppb	19:51:48
2	Co 228.616†	140.4	178.0	5.1238 ug/L	5.1238 ppb	19:51:48
2	Cr 267.716†	451.5	327.0	4.9979 ug/L	4.9979 ppb	19:51:48
2	Cu 324.752†	8800.6	2508.7	8.9265 ug/L	8.9265 ppb	19:51:28
2	Mn 257.610†	8168.1	7208.9	10.520 ug/L	10.520 ppb	19:51:28
2	Mo 202.031†	116.9	92.5	9.3467 ug/L	9.3467 ppb	19:51:48
2	Ni 231.604†	234.9	137.0	4.9123 ug/L	4.9123 ppb	19:51:48

2	P 214.914†	401.9	187.2	149.61 ug/L	149.61 ppb	19:51:48
2	Pb 220.353†	24.3	71.8	12.475 ug/L	12.475 ppb	19:51:48
2	S 181.975 Axial†	88.4	55.6	108.01 ug/L	108.01 ppb	19:51:48
2	Sb 206.836†	48.0	19.2	9.2163 ug/L	9.2163 ppb	19:51:48
2	Se 196.026†	8.9	30.0	27.258 ug/L	27.258 ppb	19:51:48
2	Si 251.611†	3030.4	2376.8	98.076 ug/L	98.076 ppb	19:51:48
2	Sn 189.927†	46.2	29.6	7.5247 ug/L	7.5247 ppb	19:51:48
2	Ti 334.940†	1768.3	2697.1	5.1408 ug/L	5.1408 ppb	19:51:28
2	Tl 190.801†	26.1	46.7	20.199 ug/L	20.199 ppb	19:51:48
2	U 409.014†	-115.4	1726.2	58.679 ug/L	58.679 ppb	19:51:28
2	V 292.402†	-778.6	652.9	6.0926 ug/L	6.0926 ppb	19:51:28
2	Zn 213.857†	1501.1	743.2	9.8705 ug/L	9.8705 ppb	19:51:48
2	SiO2†	3191.4	2518.9	221.44 ug/L	221.44 ppb	19:52:24
3	Sc Radial	4222.3	4222.3	111 %		19:50:36
3	Y RADIAL	4498.5	4498.5	110.2 %		19:50:36
3	Al 396.153Radial†	109.4	171.1	203.05 ug/L	203.05 ppb	19:50:56
3	Ca 317.933Radial†	116.6	82.7	185.30 ug/L	185.30 ppb	19:50:56
3	Fe 238.204 Radial†	15.8	5.7	76.089 ug/L	76.089 ppb	19:50:56
3	K 766.490 Radial†	3151.2	348.6	76.769 ug/L	76.769 ppb	19:50:36
3	Mg 279.077 IEC†	9.7	5.9	278.61 ug/L	278.61 ppb	19:50:56
3	Na 589.592 Radial†	378.1	725.5	291.74 ug/L	291.74 ppb	19:50:36
3	Sr 421.552†	591.6	491.5	4.4608 ug/L	4.4608 ppb	19:50:36
3	Sc 361.383	777839.0	777839.0	106.15 %		19:51:53
3	Y 371.029	641104.6	641104.6	106.07 %		19:51:53
3	Ag 328.068†	1091.0	875.7	4.9760 ug/L	4.9760 ppb	19:51:53
3	As 188.979†	25.6	46.4	28.200 ug/L	28.200 ppb	19:52:13
3	B 249.677†	1606.3	1848.3	55.604 ug/L	55.604 ppb	19:51:53
3	Ba 233.527†	508.8	476.8	5.0119 ug/L	5.0119 ppb	19:52:13
3	Be 313.107†	7577.3	11030.2	5.1618 ug/L	5.1618 ppb	19:51:53
3	Cd 226.502†	176.5	337.4	5.4895 ug/L	5.4895 ppb	19:52:13
3	Co 228.616†	132.2	171.3	4.9327 ug/L	4.9327 ppb	19:52:13
3	Cr 267.716†	481.8	358.9	5.4864 ug/L	5.4864 ppb	19:52:13
3	Cu 324.752†	8858.7	2628.9	9.3550 ug/L	9.3550 ppb	19:51:53
3	Mn 257.610†	8112.1	7216.9	10.530 ug/L	10.530 ppb	19:51:53
3	Mo 202.031†	123.0	99.1	10.020 ug/L	10.020 ppb	19:52:13
3	Ni 231.604†	233.1	137.1	4.9147 ug/L	4.9147 ppb	19:52:13
3	P 214.914†	390.0	179.0	142.86 ug/L	142.86 ppb	19:52:13
3	Pb 220.353†	23.6	71.3	12.393 ug/L	12.393 ppb	19:52:13
3	S 181.975 Axial†	87.9	55.7	108.33 ug/L	108.33 ppb	19:52:13
3	Sb 206.836†	44.6	16.4	7.9170 ug/L	7.9170 ppb	19:52:13
3	Se 196.026†	22.5	42.9	38.873 ug/L	38.873 ppb	19:52:13
3	Si 251.611†	3027.4	2396.4	98.878 ug/L	98.878 ppb	19:52:13
3	Sn 189.927†	44.7	28.4	7.2390 ug/L	7.2390 ppb	19:52:13
3	Ti 334.940†	1842.5	2780.2	5.2904 ug/L	5.2904 ppb	19:51:53
3	Tl 190.801†	22.9	43.8	18.953 ug/L	18.953 ppb	19:52:13
3	U 409.014†	-67.4	1770.6	60.186 ug/L	60.186 ppb	19:51:53
3	V 292.402†	-821.4	606.7	5.6909 ug/L	5.6909 ppb	19:51:53
3	Zn 213.857†	1488.9	742.8	9.8636 ug/L	9.8636 ppb	19:52:13
3	SiO2†	3178.6	2530.6	222.45 ug/L	222.45 ppb	19:52:29

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	791111.2	107.96 %		2.443			2.26%
Sc Radial	4149.3	110 %		2.6			2.37%
Y 371.029	652274.0	107.92 %		2.477			2.30%
Y RADIAL	4438.4	108.7 %		2.20			2.02%
Ag 328.068†	862.3	4.9004 ug/L		0.11579	4.9004 ppb	0.11579	2.36%
QC value within limits for Ag 328.068 Recovery = 98.01%							
Al 396.153Radial†	173.9	206.53 ug/L		5.441	206.53 ppb	5.441	2.63%
QC value within limits for Al 396.153Radial Recovery = 103.26%							
As 188.979†	49.0	29.801 ug/L		1.6407	29.801 ppb	1.6407	5.51%
QC value within limits for As 188.979 Recovery = 99.34%							
B 249.677†	1848.9	55.623 ug/L		1.0091	55.623 ppb	1.0091	1.81%
QC value within limits for B 249.677 Recovery = 111.25%							
Ba 233.527†	481.0	5.0559 ug/L		0.03811	5.0559 ppb	0.03811	0.75%
QC value within limits for Ba 233.527 Recovery = 101.12%							
Be 313.107†	11052.5	5.1721 ug/L		0.02033	5.1721 ppb	0.02033	0.39%
QC value within limits for Be 313.107 Recovery = 103.44%							
Ca 317.933Radial†	84.1	188.52 ug/L		5.373	188.52 ppb	5.373	2.85%

QC value within limits for Ca 317.933 Radial Recovery = 94.26%

Cd 226.502†	327.9	5.3351 ug/L	0.19785	5.3351 ppb	0.19785	3.71%
QC value within limits for Cd 226.502 Recovery = 106.70%						
Co 228.616†	174.8	5.0334 ug/L	0.09598	5.0334 ppb	0.09598	1.91%
QC value within limits for Co 228.616 Recovery = 100.67%						
Cr 267.716†	326.2	4.9870 ug/L	0.50497	4.9870 ppb	0.50497	10.13%
QC value within limits for Cr 267.716 Recovery = 99.74%						
Cu 324.752†	2573.8	9.1585 ug/L	0.21642	9.1585 ppb	0.21642	2.36%
QC value within limits for Cu 324.752 Recovery = 91.58%						
Fe 238.204 Radial†	5.9	78.109 ug/L	13.7478	78.109 ppb	13.7478	17.60%
QC value within limits for Fe 238.204 Radial Recovery = 78.11%						
K 766.490 Radial†	467.1	102.94 ug/L	26.338	102.94 ppb	26.338	25.59%
QC value less than the lower limit for K 766.490 Radial Recovery = 68.63%						
Mg 279.077 IEC†	4.7	222.90 ug/L	48.514	222.90 ppb	48.514	21.76%
QC value within limits for Mg 279.077 IEC Recovery = 74.30%						
Mn 257.610†	7215.2	10.529 ug/L	0.0090	10.529 ppb	0.0090	0.09%
QC value within limits for Mn 257.610 Recovery = 105.29%						
Mo 202.031†	93.4	9.4429 ug/L	0.53515	9.4429 ppb	0.53515	5.67%
QC value within limits for Mo 202.031 Recovery = 94.43%						
Na 589.592 Radial†	727.6	292.57 ug/L	23.810	292.57 ppb	23.810	8.14%
QC value within limits for Na 589.592 Radial Recovery = 97.52%						
Ni 231.604†	135.9	4.8719 ug/L	0.07204	4.8719 ppb	0.07204	1.48%
QC value within limits for Ni 231.604 Recovery = 97.44%						
P 214.914†	179.0	142.93 ug/L	6.636	142.93 ppb	6.636	4.64%
QC value within limits for P 214.914 Recovery = 95.29%						
Pb 220.353†	70.3	12.213 ug/L	0.3840	12.213 ppb	0.3840	3.14%
QC value within limits for Pb 220.353 Recovery = 122.13%						
S 181.975 Axial†	54.3	105.54 ug/L	4.556	105.54 ppb	4.556	4.32%
QC value within limits for S 181.975 Axial Recovery = 105.54%						
Sb 206.836†	20.8	9.9562 ug/L	2.49289	9.9562 ppb	2.49289	25.04%
QC value within limits for Sb 206.836 Recovery = 99.56%						
Se 196.026†	35.8	32.463 ug/L	5.9006	32.463 ppb	5.9006	18.18%
QC value within limits for Se 196.026 Recovery = 108.21%						
Si 251.611†	2342.9	96.678 ug/L	3.1416	96.678 ppb	3.1416	3.25%
QC value within limits for Si 251.611 Recovery = 96.68%						
Sn 189.927†	33.4	8.4922 ug/L	1.92849	8.4922 ppb	1.92849	22.71%
QC value within limits for Sn 189.927 Recovery = 84.92%						
Sr 421.552†	512.9	4.6550 ug/L	0.22282	4.6550 ppb	0.22282	4.79%
QC value within limits for Sr 421.552 Recovery = 93.10%						
Ti 334.940†	2744.8	5.2278 ug/L	0.07770	5.2278 ppb	0.07770	1.49%
QC value within limits for Ti 334.940 Recovery = 104.56%						
Tl 190.801†	49.5	21.390 ug/L	3.2038	21.390 ppb	3.2038	14.98%
QC value within limits for Tl 190.801 Recovery = 106.95%						
U 409.014†	1769.4	60.149 ug/L	1.4514	60.149 ppb	1.4514	2.41%
QC value within limits for U 409.014 Recovery = 120.30%						
V 292.402†	612.8	5.7354 ug/L	0.33710	5.7354 ppb	0.33710	5.88%
QC value within limits for V 292.402 Recovery = 114.71%						
Zn 213.857†	728.7	9.6754 ug/L	0.33193	9.6754 ppb	0.33193	3.43%
QC value within limits for Zn 213.857 Recovery = 96.75%						
SiO2†	2486.0	218.55 ug/L	5.911	218.55 ppb	5.911	2.70%
QC value within limits for SiO2 Recovery = 102.60%						

QC Failed. Continue with analysis.

Sequence No.: 9  
 Sample ID: IC5A  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 13  
 Date Collected: 3/26/2010 19:54:40  
 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	3936.7	3936.7	104 %		19:56:53
1	Y RADIAL	4216.2	4216.2	103.3 %		19:56:53
1	Al 396.153Radial†	441754.7	425143.8	505890 ug/L	505890 ppb	19:56:33
1	Ca 317.933Radial†	215313.6	207160.0	464120 ug/L	464120 ppb	19:56:33
1	Fe 238.204 Radial†	14268.9	13721.5	181390 ug/L	181390 ppb	19:56:53
1	K 766.490 Radial†	2302.9	-262.6	-213.25 ug/L	-213.25 ppb	19:56:33
1	Mg 279.077 IEC†	10650.4	10245.4	484360 ug/L	484360 ppb	19:56:53
1	Na 589.592 Radial†	-178.0	215.0	86.465 ug/L	86.465 ppb	19:56:53
1	Sr 421.552†	433.4	377.7	-0.0363 ug/L	-0.0363 ppb	19:56:53
1	Sc 361.383	699922.4	699922.4	95.513 %		19:57:50
1	Y 371.029	568757.6	568757.6	94.099 %		19:57:50
1	Ag 328.068†	-8425.2	-8973.2	-1.2327 ug/L	-1.2327 ppb	19:57:50
1	As 188.979†	-87.9	-69.7	0.0453 ug/L	0.0453 ppb	19:58:11
1	B 249.677†	433.2	788.5	-5.7279 ug/L	-5.7279 ppb	19:57:50
1	Ba 233.527†	-465.0	-489.4	0.4282 ug/L	0.4282 ppb	19:58:11
1	Be 313.107†	-4147.7	-450.9	-0.2584 ug/L	-0.2584 ppb	19:57:50
1	Cd 226.502†	1060.8	1281.7	2.1013 ug/L	2.1013 ppb	19:58:11
1	Co 228.616†	6.1	53.1	-1.0975 ug/L	-1.0975 ppb	19:58:11
1	Cr 267.716†	-1205.1	-1356.8	-1.5479 ug/L	-1.5479 ppb	19:58:11
1	Cu 324.752†	3270.7	-2292.6	1.3917 ug/L	1.3917 ppb	19:57:50
1	Mn 257.610†	130.4	-289.0	-2.3182 ug/L	-2.3182 ppb	19:57:50
1	Mo 202.031†	-203.4	-229.7	-3.5927 ug/L	-3.5927 ppb	19:58:11
1	Ni 231.604†	183.0	109.0	3.9105 ug/L	3.9105 ppb	19:58:11
1	P 214.914†	161.4	-19.5	-34.903 ug/L	-34.903 ppb	19:58:11
1	Pb 220.353†	-623.2	-603.5	-11.821 ug/L	-11.821 ppb	19:58:11
1	S 181.975 Axial†	28.2	2.5	-90.024 ug/L	-90.024 ppb	19:58:11
1	Sb 206.836†	54.2	31.1	-2.9640 ug/L	-2.9640 ppb	19:58:11
1	Se 196.026†	-718.0	-730.0	-34.859 ug/L	-34.859 ppb	19:58:11
1	Si 251.611†	422.8	-13.0	-0.2526 ug/L	-0.2526 ppb	19:58:11
1	Sn 189.927†	-323.1	-352.0	-17.191 ug/L	-17.191 ppb	19:58:11
1	Ti 334.940†	-11527.0	-11024.2	1.5787 ug/L	1.5787 ppb	19:57:50
1	Tl 190.801†	-52.7	-32.9	-14.396 ug/L	-14.396 ppb	19:58:11
1	U 409.014†	-458.7	1353.7	25.400 ug/L	25.400 ppb	19:57:50
1	V 292.402†	577.7	1985.4	0.5556 ug/L	0.5556 ppb	19:58:11
1	Zn 213.857†	2596.9	2059.1	0.3356 ug/L	0.3356 ppb	19:58:11
1	SiO2†	379.1	-67.0	-5.2670 ug/L	-5.2670 ppb	19:59:07
2	Sc Radial	3807.7	3807.7	101 %		19:57:18
2	Y RADIAL	4082.6	4082.6	100.00 %		19:57:18
2	Al 396.153Radial†	440338.2	438137.4	521350 ug/L	521350 ppb	19:56:58
2	Ca 317.933Radial†	214634.4	213504.1	478330 ug/L	478330 ppb	19:56:58
2	Fe 238.204 Radial†	13846.2	13766.2	181980 ug/L	181980 ppb	19:57:18
2	K 766.490 Radial†	2253.8	-236.4	-212.20 ug/L	-212.20 ppb	19:56:58
2	Mg 279.077 IEC†	10293.1	10237.1	483970 ug/L	483970 ppb	19:57:18
2	Na 589.592 Radial†	-203.0	184.3	74.126 ug/L	74.126 ppb	19:57:18
2	Sr 421.552†	428.1	386.6	-0.0618 ug/L	-0.0618 ppb	19:57:18
2	Sc 361.383	705919.3	705919.3	96.331 %		19:58:16
2	Y 371.029	573669.7	573669.7	94.912 %		19:58:16
2	Ag 328.068†	-8490.2	-8965.7	-1.1983 ug/L	-1.1983 ppb	19:58:16
2	As 188.979†	-74.0	-54.5	9.4164 ug/L	9.4164 ppb	19:58:36
2	B 249.677†	386.4	736.1	-7.4047 ug/L	-7.4047 ppb	19:58:16
2	Ba 233.527†	-476.1	-496.7	0.3697 ug/L	0.3697 ppb	19:58:36
2	Be 313.107†	-4190.2	-458.2	-0.2619 ug/L	-0.2619 ppb	19:58:16
2	Cd 226.502†	1046.9	1257.9	1.6515 ug/L	1.6515 ppb	19:58:36
2	Co 228.616†	27.6	75.3	-0.4643 ug/L	-0.4643 ppb	19:58:36
2	Cr 267.716†	-1241.9	-1384.3	-1.9052 ug/L	-1.9052 ppb	19:58:36
2	Cu 324.752†	3225.9	-2368.2	1.1545 ug/L	1.1545 ppb	19:58:16
2	Mn 257.610†	124.0	-296.8	-2.2553 ug/L	-2.2553 ppb	19:58:16
2	Mo 202.031†	-197.7	-222.0	-2.5971 ug/L	-2.5971 ppb	19:58:36
2	Ni 231.604†	153.5	76.7	2.7521 ug/L	2.7521 ppb	19:58:36

2	P 214.914†	154.5	-28.1	-38.427 ug/L	-38.427 ppb	19:58:36
2	Pb 220.353†	-626.9	-601.7	-7.9714 ug/L	-7.9714 ppb	19:58:36
2	S 181.975 Axial†	42.9	17.4	-63.850 ug/L	-63.850 ppb	19:58:36
2	Sb 206.836†	58.7	35.3	-1.4520 ug/L	-1.4520 ppb	19:58:36
2	Se 196.026†	-725.8	-731.7	-30.551 ug/L	-30.551 ppb	19:58:36
2	Si 251.611†	398.6	-41.9	-1.4547 ug/L	-1.4547 ppb	19:58:36
2	Sn 189.927†	-328.6	-354.7	-15.402 ug/L	-15.402 ppb	19:58:36
2	Ti 334.940†	-11662.2	-11062.1	3.4459 ug/L	3.4459 ppb	19:58:16
2	Tl 190.801†	-66.6	-46.9	-20.425 ug/L	-20.425 ppb	19:58:36
2	U 409.014†	-545.2	1268.0	22.420 ug/L	22.420 ppb	19:58:16
2	V 292.402†	584.9	1987.7	0.4886 ug/L	0.4886 ppb	19:58:36
2	Zn 213.857†	2582.8	2021.4	-0.2487 ug/L	-0.2487 ppb	19:58:36
2	SiO2†	363.8	-86.4	-6.9907 ug/L	-6.9907 ppb	19:59:12
3	Sc Radial	3802.2	3802.2	100 %		19:57:44
3	Y RADIAL	4077.2	4077.2	99.86 %		19:57:44
3	Al 396.153Radial†	437938.5	436377.6	519260 ug/L	519260 ppb	19:57:24
3	Ca 317.933Radial†	212905.5	212089.3	475160 ug/L	475160 ppb	19:57:24
3	Fe 238.204 Radial†	13801.4	13741.5	181660 ug/L	181660 ppb	19:57:44
3	K 766.490 Radial†	2223.0	-263.8	-217.19 ug/L	-217.19 ppb	19:57:24
3	Mg 279.077 IEC†	10273.9	10232.7	483760 ug/L	483760 ppb	19:57:44
3	Na 589.592 Radial†	-198.8	188.3	75.717 ug/L	75.717 ppb	19:57:44
3	Sr 421.552†	430.0	389.2	-0.0149 ug/L	-0.0149 ppb	19:57:44
3	Sc 361.383	714015.7	714015.7	97.436 %		19:58:41
3	Y 371.029	580004.0	580004.0	95.960 %		19:58:41
3	Ag 328.068†	-8768.0	-9150.9	-2.3219 ug/L	-2.3219 ppb	19:58:41
3	As 188.979†	-80.3	-60.1	5.9033 ug/L	5.9033 ppb	19:59:01
3	B 249.677†	512.7	861.2	-3.5820 ug/L	-3.5820 ppb	19:58:41
3	Ba 233.527†	-452.4	-466.8	0.6719 ug/L	0.6719 ppb	19:59:01
3	Be 313.107†	-4356.5	-579.6	-0.3227 ug/L	-0.3227 ppb	19:58:41
3	Cd 226.502†	1050.9	1249.8	1.5552 ug/L	1.5552 ppb	19:59:01
3	Co 228.616†	-4.7	41.9	-1.4139 ug/L	-1.4139 ppb	19:59:01
3	Cr 267.716†	-1199.1	-1325.8	-1.0494 ug/L	-1.0494 ppb	19:59:01
3	Cu 324.752†	3340.3	-2288.8	1.4147 ug/L	1.4147 ppb	19:58:41
3	Mn 257.610†	119.4	-303.0	-2.2881 ug/L	-2.2881 ppb	19:58:41
3	Mo 202.031†	-188.2	-209.9	-1.4433 ug/L	-1.4433 ppb	19:59:01
3	Ni 231.604†	157.7	79.3	2.8438 ug/L	2.8438 ppb	19:59:01
3	P 214.914†	167.2	-16.9	-29.632 ug/L	-29.632 ppb	19:59:01
3	Pb 220.353†	-620.1	-587.4	-5.9586 ug/L	-5.9586 ppb	19:59:01
3	S 181.975 Axial†	28.2	1.8	-93.763 ug/L	-93.763 ppb	19:59:01
3	Sb 206.836†	63.4	39.5	0.7150 ug/L	0.7150 ppb	19:59:01
3	Se 196.026†	-724.3	-721.7	-22.958 ug/L	-22.958 ppb	19:59:01
3	Si 251.611†	401.9	-43.3	-1.5261 ug/L	-1.5261 ppb	19:59:01
3	Sn 189.927†	-301.2	-322.8	-7.8535 ug/L	-7.8535 ppb	19:59:01
3	Ti 334.940†	-12702.2	-11992.2	1.2537 ug/L	1.2537 ppb	19:58:41
3	Tl 190.801†	-67.5	-47.0	-20.492 ug/L	-20.492 ppb	19:59:01
3	U 409.014†	-227.4	1600.6	33.765 ug/L	33.765 ppb	19:58:41
3	V 292.402†	516.6	1910.8	-0.1183 ug/L	-0.1183 ppb	19:59:01
3	Zn 213.857†	2568.0	1975.7	-0.8098 ug/L	-0.8098 ppb	19:59:01
3	SiO2†	367.5	-86.8	-7.0653 ug/L	-7.0653 ppb	19:59:17

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	706619.1	96.427 %	0.9651			1.00%
Sc Radial	3848.9	102 %	2.0			1.98%
Y 371.029	574143.8	94.990 %	0.9328			0.98%
Y RADIAL	4125.3	101.0 %	1.93			1.91%
Ag 328.068†	-9029.9	-1.5843 ug/L	0.63902	-1.5843 ppb	0.63902	40.34%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	433219.6	515500 ug/L	8387.7	515500 ppb	8387.7	1.63%
QC value within limits for Al 396.153Radial Recovery = 103.10%						
As 188.979†	-61.4	5.1217 ug/L	4.73416	5.1217 ppb	4.73416	92.43%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	795.3	-5.5716 ug/L	1.91617	-5.5716 ppb	1.91617	34.39%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-484.3	0.4899 ug/L	0.16026	0.4899 ppb	0.16026	32.71%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-496.2	-0.2810 ug/L	0.03612	-0.2810 ppb	0.03612	12.85%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	210917.8	472540 ug/L	7461.4	472540 ppb	7461.4	1.58%



QC value within limits for Ca 317.933 Radial Recovery = 94.51%

Cd 226.502†	1263.1	1.7693 ug/L	0.29148	1.7693 ppb	0.29148	16.47%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	56.8	-0.9919 ug/L	0.48352	-0.9919 ppb	0.48352	48.75%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1355.6	-1.5009 ug/L	0.42982	-1.5009 ppb	0.42982	28.64%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-2316.5	1.3203 ug/L	0.14406	1.3203 ppb	0.14406	10.91%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	13743.1	181680 ug/L	295.7	181680 ppb	295.7	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 90.84%						
K 766.490 Radial†	-254.3	-214.21 ug/L	2.633	-214.21 ppb	2.633	1.23%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	10238.4	484030 ug/L	303.3	484030 ppb	303.3	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 96.81%						
Mn 257.610†	-296.3	-2.2872 ug/L	0.03145	-2.2872 ppb	0.03145	1.38%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-220.5	-2.5444 ug/L	1.07570	-2.5444 ppb	1.07570	42.28%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	195.9	78.769 ug/L	6.7123	78.769 ppb	6.7123	8.52%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	88.3	3.1688 ug/L	0.64398	3.1688 ppb	0.64398	20.32%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-21.5	-34.320 ug/L	4.4261	-34.320 ppb	4.4261	12.90%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-597.5	-8.5836 ug/L	2.97868	-8.5836 ppb	2.97868	34.70%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	7.2	-82.546 ug/L	16.2989	-82.546 ppb	16.2989	19.75%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	35.3	-1.2337 ug/L	1.84917	-1.2337 ppb	1.84917	149.89%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-727.8	-29.456 ug/L	6.0254	-29.456 ppb	6.0254	20.46%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-32.7	-1.0778 ug/L	0.71552	-1.0778 ppb	0.71552	66.39%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-343.2	-13.482 ug/L	4.9558	-13.482 ppb	4.9558	36.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	384.5	-0.0377 ug/L	0.02349	-0.0377 ppb	0.02349	62.36%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-11359.5	2.0928 ug/L	1.18307	2.0928 ppb	1.18307	56.53%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-42.2	-18.438 ug/L	3.5005	-18.438 ppb	3.5005	18.99%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1407.5	27.195 ug/L	5.8813	27.195 ppb	5.8813	21.63%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	1961.3	0.3086 ug/L	0.37123	0.3086 ppb	0.37123	120.28%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2018.7	-0.2409 ug/L	0.57274	-0.2409 ppb	0.57274	237.73%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-80.1	-6.4410 ug/L	1.01737	-6.4410 ppb	1.01737	15.80%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 3/26/2010 20:01:29  
 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	3946.8	3946.8	104 %		20:03:42
1	Y RADIAL	4232.2	4232.2	103.7 %		20:03:42
1	Al 396.153Radial†	445871.0	428008.0	509280 ug/L	509280 ppb	20:03:22
1	Ca 317.933Radial†	216033.3	207321.1	464480 ug/L	464480 ppb	20:03:22
1	Fe 238.204 Radial†	13831.9	13267.0	175400 ug/L	175400 ppb	20:03:42
1	K 766.490 Radial†	25889.1	22369.1	4780.6 ug/L	4780.6 ppb	20:03:22
1	Mg 279.077 IEC†	10309.3	9891.8	467640 ug/L	467640 ppb	20:03:42
1	Na 589.592 Radial†	12721.3	12595.8	5065.2 ug/L	5065.2 ppb	20:03:22
1	Sr 421.552†	54084.0	51869.1	467.43 ug/L	467.43 ppb	20:03:22
1	Sc 361.383	742976.8	742976.8	101.39 %		20:04:40
1	Y 371.029	601813.9	601813.9	99.568 %		20:04:40
1	Ag 328.068†	39360.9	38669.9	269.58 ug/L	269.58 ppb	20:04:40
1	As 188.979†	778.8	790.5	524.05 ug/L	524.05 ppb	20:05:00
1	B 249.677†	17644.9	17738.3	504.15 ug/L	504.15 ppb	20:04:40
1	Ba 233.527†	46337.1	45700.2	485.46 ug/L	485.46 ppb	20:04:40
1	Be 313.107†	531119.2	527739.8	247.48 ug/L	247.48 ppb	20:04:40
1	Cd 226.502†	29375.4	29144.4	455.82 ug/L	455.82 ppb	20:05:00
1	Co 228.616†	15594.0	15427.3	440.86 ug/L	440.86 ppb	20:05:00
1	Cr 267.716†	30599.4	30085.4	479.71 ug/L	479.71 ppb	20:04:40
1	Cu 324.752†	158471.6	150585.1	546.54 ug/L	546.54 ppb	20:04:40
1	Mn 257.610†	330397.5	325448.8	473.20 ug/L	473.20 ppb	20:04:40
1	Mo 202.031†	4619.0	4539.0	477.50 ug/L	477.50 ppb	20:05:00
1	Ni 231.604†	12791.9	12534.2	449.44 ug/L	449.44 ppb	20:05:00
1	P 214.914†	3292.4	3058.9	2355.1 ug/L	2355.1 ppb	20:05:00
1	Pb 220.353†	2000.1	2021.8	444.78 ug/L	444.78 ppb	20:05:00
1	S 181.975 Axial†	1393.4	1347.2	2524.3 ug/L	2524.3 ppb	20:05:00
1	Sb 206.836†	1226.5	1184.1	549.20 ug/L	549.20 ppb	20:05:00
1	Se 196.026†	2032.7	2026.6	2431.9 ug/L	2431.9 ppb	20:05:00
1	Si 251.611†	127381.1	125181.6	5166.0 ug/L	5166.0 ppb	20:04:40
1	Sn 189.927†	1585.9	1550.6	465.56 ug/L	465.56 ppb	20:05:00
1	Ti 334.940†	253904.0	251472.3	504.59 ug/L	504.59 ppb	20:04:40
1	Tl 190.801†	976.3	985.2	428.18 ug/L	428.18 ppb	20:05:00
1	U 409.014†	14012.9	15655.1	511.32 ug/L	511.32 ppb	20:04:40
1	V 292.402†	56909.3	57510.8	506.65 ug/L	506.65 ppb	20:04:40
1	Zn 213.857†	40091.0	38882.4	489.36 ug/L	489.36 ppb	20:04:40
2	SiO2†	126990.5	124788.0	10970 ug/L	10970 ppb	20:05:57
2	Sc Radial	3845.5	3845.5	102 %		20:04:07
2	Y RADIAL	4129.6	4129.6	101.1 %		20:04:07
2	Al 396.153Radial†	435144.4	428717.4	510120 ug/L	510120 ppb	20:03:47
2	Ca 317.933Radial†	211620.5	208437.5	466980 ug/L	466980 ppb	20:03:47
2	Fe 238.204 Radial†	13939.2	13722.5	181420 ug/L	181420 ppb	20:04:07
2	K 766.490 Radial†	25489.4	22630.1	4837.3 ug/L	4837.3 ppb	20:03:47
2	Mg 279.077 IEC†	10376.7	10218.9	483110 ug/L	483110 ppb	20:04:07
2	Na 589.592 Radial†	12536.8	12735.9	5121.5 ug/L	5121.5 ppb	20:03:47
2	Sr 421.552†	52912.9	52083.2	469.36 ug/L	469.36 ppb	20:03:47
2	Sc 361.383	723107.1	723107.1	98.677 %		20:05:06
2	Y 371.029	585407.7	585407.7	96.854 %		20:05:06
2	Ag 328.068†	38455.8	38819.4	272.27 ug/L	272.27 ppb	20:05:06
2	As 188.979†	766.3	798.9	530.57 ug/L	530.57 ppb	20:05:26
2	B 249.677†	17283.6	17850.4	506.52 ug/L	506.52 ppb	20:05:06
2	Ba 233.527†	45428.1	46034.8	489.16 ug/L	489.16 ppb	20:05:06
2	Be 313.107†	520717.8	531593.3	249.29 ug/L	249.29 ppb	20:05:06
2	Cd 226.502†	29133.5	29695.3	464.16 ug/L	464.16 ppb	20:05:26
2	Co 228.616†	15440.1	15693.9	448.46 ug/L	448.46 ppb	20:05:26
2	Cr 267.716†	29873.0	30178.6	481.78 ug/L	481.78 ppb	20:05:06
2	Cu 324.752†	154617.5	150974.3	548.24 ug/L	548.24 ppb	20:05:06
2	Mn 257.610†	324553.1	328480.5	477.59 ug/L	477.59 ppb	20:05:06
2	Mo 202.031†	4608.6	4653.7	489.57 ug/L	489.57 ppb	20:05:26
2	Ni 231.604†	12644.8	12731.8	456.52 ug/L	456.52 ppb	20:05:26

2	P 214.914†	3253.7	3108.8	2390.7 ug/L	2390.7 ppb	20:05:26
2	Pb 220.353†	1995.8	2071.7	452.80 ug/L	452.80 ppb	20:05:26
2	S 181.975 Axial†	1379.4	1370.8	2569.9 ug/L	2569.9 ppb	20:05:26
2	Sb 206.836†	1182.2	1172.5	544.11 ug/L	544.11 ppb	20:05:26
2	Se 196.026†	2036.3	2085.3	2501.0 ug/L	2501.0 ppb	20:05:26
2	Si 251.611†	124609.9	125825.5	5192.4 ug/L	5192.4 ppb	20:05:06
2	Sn 189.927†	1584.4	1592.0	476.15 ug/L	476.15 ppb	20:05:26
2	Ti 334.940†	248963.2	253346.6	507.24 ug/L	507.24 ppb	20:05:06
2	Tl 190.801†	968.8	1004.1	436.34 ug/L	436.34 ppb	20:05:26
2	U 409.014†	13906.5	15927.0	519.88 ug/L	519.88 ppb	20:05:06
2	V 292.402†	55756.1	57884.5	509.61 ug/L	509.61 ppb	20:05:06
2	Zn 213.857†	39350.7	39218.7	492.90 ug/L	492.90 ppb	20:05:06
2	SiO2†	126073.9	127300.9	11191 ug/L	11191 ppb	20:06:02
3	Sc Radial	3880.7	3880.7	102 %		20:04:32
3	Y RADIAL	4167.7	4167.7	102.1 %		20:04:32
3	Al 396.153Radial†	446881.8	436285.0	519130 ug/L	519130 ppb	20:04:12
3	Ca 317.933Radial†	216158.1	210975.3	472670 ug/L	472670 ppb	20:04:12
3	Fe 238.204 Radial†	13983.4	13641.1	180340 ug/L	180340 ppb	20:04:32
3	K 766.490 Radial†	25843.2	22747.7	4861.4 ug/L	4861.4 ppb	20:04:12
3	Mg 279.077 IEC†	10421.5	10169.8	480790 ug/L	480790 ppb	20:04:32
3	Na 589.592 Radial†	12705.0	12788.0	5142.4 ug/L	5142.4 ppb	20:04:12
3	Sr 421.552†	54276.7	52941.6	477.11 ug/L	477.11 ppb	20:04:12
3	Sc 361.383	729841.3	729841.3	99.596 %		20:05:32
3	Y 371.029	591151.2	591151.2	97.804 %		20:05:32
3	Ag 328.068†	38675.4	38680.3	271.06 ug/L	271.06 ppb	20:05:32
3	As 188.979†	751.5	776.9	516.93 ug/L	516.93 ppb	20:05:52
3	B 249.677†	17416.7	17822.4	505.86 ug/L	505.86 ppb	20:05:32
3	Ba 233.527†	45476.2	45658.3	485.17 ug/L	485.17 ppb	20:05:32
3	Be 313.107†	520801.8	526808.5	247.05 ug/L	247.05 ppb	20:05:32
3	Cd 226.502†	29346.3	29636.6	463.31 ug/L	463.31 ppb	20:05:52
3	Co 228.616†	15548.2	15658.1	447.44 ug/L	447.44 ppb	20:05:52
3	Cr 267.716†	30065.1	30092.1	480.34 ug/L	480.34 ppb	20:05:32
3	Cu 324.752†	155954.6	150871.0	547.81 ug/L	547.81 ppb	20:05:32
3	Mn 257.610†	324689.5	325582.6	473.35 ug/L	473.35 ppb	20:05:32
3	Mo 202.031†	4626.9	4628.9	487.05 ug/L	487.05 ppb	20:05:52
3	Ni 231.604†	12748.3	12717.5	456.01 ug/L	456.01 ppb	20:05:52
3	P 214.914†	3273.5	3098.3	2385.4 ug/L	2385.4 ppb	20:05:52
3	Pb 220.353†	1998.8	2056.0	452.31 ug/L	452.31 ppb	20:05:52
3	S 181.975 Axial†	1394.7	1373.3	2573.1 ug/L	2573.1 ppb	20:05:52
3	Sb 206.836†	1222.2	1201.5	557.32 ug/L	557.32 ppb	20:05:52
3	Se 196.026†	2040.9	2070.9	2487.6 ug/L	2487.6 ppb	20:05:52
3	Si 251.611†	125186.8	125239.5	5168.2 ug/L	5168.2 ppb	20:05:32
3	Sn 189.927†	1601.7	1594.6	477.89 ug/L	477.89 ppb	20:05:52
3	Ti 334.940†	249097.2	251153.2	504.00 ug/L	504.00 ppb	20:05:32
3	Tl 190.801†	960.7	986.9	428.90 ug/L	428.90 ppb	20:05:52
3	U 409.014†	13910.2	15800.7	515.71 ug/L	515.71 ppb	20:05:32
3	V 292.402†	55969.0	57576.9	506.92 ug/L	506.92 ppb	20:05:32
3	Zn 213.857†	39437.4	38937.7	489.31 ug/L	489.31 ppb	20:05:32
3	SiO2†	126471.7	126521.3	11123 ug/L	11123 ppb	20:06:07

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	731975.1	99.887 %	1.3790			1.38%
Sc Radial	3891.0	103 %	1.4			1.32%
Y 371.029	592790.9	98.075 %	1.3774			1.40%
Y RADIAL	4176.5	102.3 %	1.27			1.24%
Ag 328.068†	38723.2	270.97 ug/L	1.344	270.97 ppb	1.344	0.50%
QC value within limits for Ag 328.068 Recovery = 108.39%						
Al 396.153Radial†	431003.5	512840 ug/L	5458.9	512840 ppb	5458.9	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.57%						
As 188.979†	788.7	523.85 ug/L	6.823	523.85 ppb	6.823	1.30%
QC value within limits for As 188.979 Recovery = 104.77%						
B 249.677†	17803.7	505.51 ug/L	1.225	505.51 ppb	1.225	0.24%
QC value within limits for B 249.677 Recovery = 101.10%						
Ba 233.527†	45797.8	486.59 ug/L	2.222	486.59 ppb	2.222	0.46%
QC value within limits for Ba 233.527 Recovery = 97.32%						
Be 313.107†	528713.9	247.94 ug/L	1.190	247.94 ppb	1.190	0.48%
QC value within limits for Be 313.107 Recovery = 99.18%						
Ca 317.933Radial†	208911.3	468040 ug/L	4195.3	468040 ppb	4195.3	0.90%

QC value within limits for Ca 317.933 Radial Recovery = 93.61%

Cd 226.502†	29492.1	461.10 ug/L	4.588	461.10 ppb	4.588	1.00%
QC value within limits for Cd 226.502 Recovery = 92.22%						
Co 228.616†	15593.1	445.59 ug/L	4.124	445.59 ppb	4.124	0.93%
QC value within limits for Co 228.616 Recovery = 89.12%						
Cr 267.716†	30118.7	480.61 ug/L	1.059	480.61 ppb	1.059	0.22%
QC value within limits for Cr 267.716 Recovery = 96.12%						
Cu 324.752†	150810.1	547.53 ug/L	0.887	547.53 ppb	0.887	0.16%
QC value within limits for Cu 324.752 Recovery = 109.51%						
Fe 238.204 Radial†	13543.5	179050 ug/L	3211.0	179050 ppb	3211.0	1.79%
QC value within limits for Fe 238.204 Radial Recovery = 89.53%						
K 766.490 Radial†	22582.3	4826.4 ug/L	41.48	4826.4 ppb	41.48	0.86%
QC value within limits for K 766.490 Radial Recovery = 96.53%						
Mg 279.077 IEC†	10093.5	477180 ug/L	8340.9	477180 ppb	8340.9	1.75%
QC value within limits for Mg 279.077 IEC Recovery = 95.44%						
Mn 257.610†	326503.9	474.71 ug/L	2.492	474.71 ppb	2.492	0.52%
QC value within limits for Mn 257.610 Recovery = 94.94%						
Mo 202.031†	4607.2	484.71 ug/L	6.369	484.71 ppb	6.369	1.31%
QC value within limits for Mo 202.031 Recovery = 96.94%						
Na 589.592 Radial†	12706.6	5109.7 ug/L	39.96	5109.7 ppb	39.96	0.78%
QC value within limits for Na 589.592 Radial Recovery = 102.19%						
Ni 231.604†	12661.2	453.99 ug/L	3.951	453.99 ppb	3.951	0.87%
QC value within limits for Ni 231.604 Recovery = 90.80%						
P 214.914†	3088.7	2377.1 ug/L	19.20	2377.1 ppb	19.20	0.81%
QC value within limits for P 214.914 Recovery = 95.08%						
Pb 220.353†	2049.8	449.97 ug/L	4.499	449.97 ppb	4.499	1.00%
QC value within limits for Pb 220.353 Recovery = 89.99%						
S 181.975 Axial†	1363.7	2555.8 ug/L	27.31	2555.8 ppb	27.31	1.07%
QC value within limits for S 181.975 Axial Recovery = 102.23%						
Sb 206.836†	1186.0	550.21 ug/L	6.660	550.21 ppb	6.660	1.21%
QC value within limits for Sb 206.836 Recovery = 110.04%						
Se 196.026†	2060.9	2473.5 ug/L	36.67	2473.5 ppb	36.67	1.48%
QC value within limits for Se 196.026 Recovery = 98.94%						
Si 251.611†	125415.5	5175.5 ug/L	14.66	5175.5 ppb	14.66	0.28%
QC value within limits for Si 251.611 Recovery = 103.51%						
Sn 189.927†	1579.0	473.20 ug/L	6.674	473.20 ppb	6.674	1.41%
QC value within limits for Sn 189.927 Recovery = 94.64%						
Sr 421.552†	52298.0	471.30 ug/L	5.122	471.30 ppb	5.122	1.09%
QC value within limits for Sr 421.552 Recovery = 94.26%						
Ti 334.940†	251990.7	505.28 ug/L	1.726	505.28 ppb	1.726	0.34%
QC value within limits for Ti 334.940 Recovery = 101.06%						
Tl 190.801†	992.0	431.14 ug/L	4.518	431.14 ppb	4.518	1.05%
QC value within limits for Tl 190.801 Recovery = 86.23%						
U 409.014†	15794.3	515.64 ug/L	4.280	515.64 ppb	4.280	0.83%
QC value within limits for U 409.014 Recovery = 103.13%						
V 292.402†	57657.4	507.73 ug/L	1.634	507.73 ppb	1.634	0.32%
QC value within limits for V 292.402 Recovery = 101.55%						
Zn 213.857†	39012.9	490.52 ug/L	2.058	490.52 ppb	2.058	0.42%
QC value within limits for Zn 213.857 Recovery = 98.10%						
SiO2†	126203.4	11095 ug/L	113.0	11095 ppb	113.0	1.02%
QC value within limits for SiO2 Recovery = 103.74%						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/26/2010 20:08:17

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	3822.5	3822.5	101 %		20:10:30
1	Y RADIAL	4100.4	4100.4	100.4 %		20:10:30
1	Al 396.153Radial†	431570.0	427745.1	508990 ug/L	508990 ppb	20:10:10
1	Ca 317.933Radial†	212458.4	210517.6	471640 ug/L	471640 ppb	20:10:10
1	Fe 238.204 Radial†	32027.2	31729.5	419450 ug/L	419450 ppb	20:10:30
1	K 766.490 Radial†	2202.0	-296.4	-419.94 ug/L	-419.94 ppb	20:10:10
1	Mg 279.077 IEC†	10161.4	10066.8	475660 ug/L	475660 ppb	20:10:30
1	Na 589.592 Radial†	1265627.9	1254583.6	504510 ug/L	504510 ppb	20:10:10
1	Sr 421.552†	1370.4	1318.8	8.4512 ug/L	8.4512 ppb	20:10:30
1	Sc 361.383	699374.1	699374.1	95.438 %		20:11:28
1	Y 371.029	570313.7	570313.7	94.356 %		20:11:28
1	Ag 328.068†	-19819.5	-20919.0	-7.6713 ug/L	-7.6713 ppb	20:11:28
1	As 188.979†	-143.0	-127.6	20.738 ug/L	20.738 ppb	20:11:49
1	B 249.677†	1236.1	1630.2	-19.071 ug/L	-19.071 ppb	20:11:28
1	Ba 233.527†	-1327.7	-1393.7	-1.7850 ug/L	-1.7850 ppb	20:11:49
1	Be 313.107†	-9842.6	-6421.5	-3.0418 ug/L	-3.0418 ppb	20:11:28
1	Cd 226.502†	2711.7	3012.5	8.5048 ug/L	8.5048 ppb	20:11:49
1	Co 228.616†	210.0	266.8	1.5510 ug/L	1.5510 ppb	20:11:49
1	Cr 267.716†	-1164.6	-1315.3	18.480 ug/L	18.480 ppb	20:11:49
1	Cu 324.752†	1099.4	-4565.0	-2.2779 ug/L	-2.2779 ppb	20:11:28
1	Mn 257.610†	-19113.7	-20452.9	-7.8910 ug/L	-7.8910 ppb	20:11:28
1	Mo 202.031†	-384.3	-419.4	-4.1797 ug/L	-4.1797 ppb	20:11:49
1	Ni 231.604†	249.1	178.5	6.3985 ug/L	6.3985 ppb	20:11:49
1	P 214.914†	458.2	291.6	27.155 ug/L	27.155 ppb	20:11:49
1	Pb 220.353†	-452.8	-425.4	-14.151 ug/L	-14.151 ppb	20:11:49
1	S 181.975 Axial†	60.2	36.0	-25.457 ug/L	-25.457 ppb	20:11:49
1	Sb 206.836†	64.3	41.7	-1.2164 ug/L	-1.2164 ppb	20:11:49
1	Se 196.026†	-1729.2	-1790.1	-355.20 ug/L	-355.20 ppb	20:11:49
1	Si 251.611†	-451.6	-928.9	-37.854 ug/L	-37.854 ppb	20:11:49
1	Sn 189.927†	-340.8	-370.8	-34.294 ug/L	-34.294 ppb	20:11:49
1	Ti 334.940†	-10612.2	-10075.1	-1.3793 ug/L	-1.3793 ppb	20:11:28
1	Tl 190.801†	-86.8	-68.7	-29.996 ug/L	-29.996 ppb	20:11:49
1	U 409.014†	413137.2	434719.9	14735 ug/L	14735 ppb	20:11:28
1	V 292.402†	1631.2	3089.7	3.5663 ug/L	3.5663 ppb	20:11:49
1	Zn 213.857†	4615.9	4176.7	-7.0176 ug/L	-7.0176 ppb	20:11:49
1	SiO2†	-355.8	-836.8	-72.492 ug/L	-72.492 ppb	20:12:45
2	Sc Radial	3763.1	3763.1	99.3 %		20:10:56
2	Y RADIAL	4030.1	4030.1	98.71 %		20:10:56
2	Al 396.153Radial†	435595.5	438556.3	521850 ug/L	521850 ppb	20:10:36
2	Ca 317.933Radial†	213026.6	214416.9	480380 ug/L	480380 ppb	20:10:36
2	Fe 238.204 Radial†	31795.7	31998.0	423000 ug/L	423000 ppb	20:10:56
2	K 766.490 Radial†	2450.8	-11.5	-363.87 ug/L	-363.87 ppb	20:10:36
2	Mg 279.077 IEC†	10075.0	10139.0	479070 ug/L	479070 ppb	20:10:56
2	Na 589.592 Radial†	1270648.5	1279458.8	514510 ug/L	514510 ppb	20:10:36
2	Sr 421.552†	1330.6	1300.1	8.2165 ug/L	8.2165 ppb	20:10:56
2	Sc 361.383	723811.8	723811.8	98.773 %		20:11:54
2	Y 371.029	589736.3	589736.3	97.570 %		20:11:54
2	Ag 328.068†	-20523.4	-20930.6	-6.7273 ug/L	-6.7273 ppb	20:11:54
2	As 188.979†	-144.3	-123.8	23.814 ug/L	23.814 ppb	20:12:14
2	B 249.677†	1417.9	1770.5	-15.425 ug/L	-15.425 ppb	20:11:54
2	Ba 233.527†	-1333.6	-1352.7	-1.2494 ug/L	-1.2494 ppb	20:12:14
2	Be 313.107†	-10051.0	-6284.3	-2.9812 ug/L	-2.9812 ppb	20:11:54
2	Cd 226.502†	2714.4	2919.3	6.6155 ug/L	6.6155 ppb	20:12:14
2	Co 228.616†	230.4	280.0	1.8831 ug/L	1.8831 ppb	20:12:14
2	Cr 267.716†	-1180.5	-1290.2	19.256 ug/L	19.256 ppb	20:12:14
2	Cu 324.752†	1046.9	-4657.1	-2.3947 ug/L	-2.3947 ppb	20:11:54
2	Mn 257.610†	-20014.1	-20688.4	-8.0238 ug/L	-8.0238 ppb	20:11:54
2	Mo 202.031†	-397.3	-418.9	-3.7528 ug/L	-3.7528 ppb	20:12:14
2	Ni 231.604†	239.9	160.3	5.7481 ug/L	5.7481 ppb	20:12:14

2	P 214.914†	471.6	289.0	25.445 ug/L	25.445 ppb	20:12:14
2	Pb 220.353†	-453.0	-409.5	-8.9385 ug/L	-8.9385 ppb	20:12:14
2	S 181.975 Axial†	47.7	21.2	-56.498 ug/L	-56.498 ppb	20:12:14
2	Sb 206.836†	65.7	40.9	-1.9951 ug/L	-1.9951 ppb	20:12:14
2	Se 196.026†	-1721.5	-1721.2	-280.18 ug/L	-280.18 ppb	20:12:14
2	Si 251.611†	-490.5	-952.3	-38.820 ug/L	-38.820 ppb	20:12:14
2	Sn 189.927†	-351.9	-369.9	-32.732 ug/L	-32.732 ppb	20:12:14
2	Ti 334.940†	-11780.1	-10882.1	-2.0108 ug/L	-2.0108 ppb	20:11:54
2	Tl 190.801†	-89.7	-68.5	-29.947 ug/L	-29.947 ppb	20:12:14
2	U 409.014†	426312.5	433443.6	14691 ug/L	14691 ppb	20:11:54
2	V 292.402†	1568.6	2968.7	1.9475 ug/L	1.9475 ppb	20:12:14
2	Zn 213.857†	4607.0	4004.5	-9.8441 ug/L	-9.8441 ppb	20:12:14
2	SiO2†	-540.0	-1010.7	-87.801 ug/L	-87.801 ppb	20:12:50
3	Sc Radial	3777.1	3777.1	99.7 %		20:11:21
3	Y RADIAL	4062.6	4062.6	99.51 %		20:11:21
3	Al 396.153Radial†	420591.2	421880.8	502010 ug/L	502010 ppb	20:11:01
3	Ca 317.933Radial†	207041.5	207618.5	465150 ug/L	465150 ppb	20:11:01
3	Fe 238.204 Radial†	31775.4	31858.9	421160 ug/L	421160 ppb	20:11:21
3	K 766.490 Radial†	2367.9	-103.8	-371.63 ug/L	-371.63 ppb	20:11:01
3	Mg 279.077 IEC†	10089.9	10116.2	478000 ug/L	478000 ppb	20:11:21
3	Na 589.592 Radial†	1227633.3	1231571.0	495250 ug/L	495250 ppb	20:11:01
3	Sr 421.552†	1350.1	1314.7	8.4624 ug/L	8.4624 ppb	20:11:21
3	Sc 361.383	722925.1	722925.1	98.652 %		20:12:20
3	Y 371.029	588805.3	588805.3	97.416 %		20:12:20
3	Ag 328.068†	-20574.5	-21007.9	-7.5671 ug/L	-7.5671 ppb	20:12:20
3	As 188.979†	-152.8	-132.6	18.099 ug/L	18.099 ppb	20:12:40
3	B 249.677†	1337.8	1691.0	-17.518 ug/L	-17.518 ppb	20:12:20
3	Ba 233.527†	-1341.5	-1362.4	-1.4054 ug/L	-1.4054 ppb	20:12:40
3	Be 313.107†	-10077.2	-6323.3	-2.9961 ug/L	-2.9961 ppb	20:12:20
3	Cd 226.502†	2710.0	2918.2	6.7978 ug/L	6.7978 ppb	20:12:40
3	Co 228.616†	209.3	258.9	1.2985 ug/L	1.2985 ppb	20:12:40
3	Cr 267.716†	-1162.9	-1273.9	19.292 ug/L	19.292 ppb	20:12:40
3	Cu 324.752†	1007.9	-4695.3	-2.6571 ug/L	-2.6571 ppb	20:12:20
3	Mn 257.610†	-19952.1	-20650.3	-8.1058 ug/L	-8.1058 ppb	20:12:20
3	Mo 202.031†	-403.2	-425.5	-4.7365 ug/L	-4.7365 ppb	20:12:40
3	Ni 231.604†	284.9	206.2	7.3942 ug/L	7.3942 ppb	20:12:40
3	P 214.914†	488.6	306.8	36.440 ug/L	36.440 ppb	20:12:40
3	Pb 220.353†	-456.5	-413.7	-13.999 ug/L	-13.999 ppb	20:12:40
3	S 181.975 Axial†	55.5	29.1	-37.458 ug/L	-37.458 ppb	20:12:40
3	Sb 206.836†	51.1	26.2	-8.1705 ug/L	-8.1705 ppb	20:12:40
3	Se 196.026†	-1751.2	-1753.4	-319.51 ug/L	-319.51 ppb	20:12:40
3	Si 251.611†	-396.3	-857.5	-34.896 ug/L	-34.896 ppb	20:12:40
3	Sn 189.927†	-327.3	-345.5	-29.127 ug/L	-29.127 ppb	20:12:40
3	Ti 334.940†	-11000.3	-10106.3	-2.5049 ug/L	-2.5049 ppb	20:12:20
3	Tl 190.801†	-84.0	-62.8	-27.490 ug/L	-27.490 ppb	20:12:40
3	U 409.014†	427284.4	434958.1	14743 ug/L	14743 ppb	20:12:20
3	V 292.402†	1664.1	3067.5	3.1690 ug/L	3.1690 ppb	20:12:40
3	Zn 213.857†	4645.6	4049.3	-8.9809 ug/L	-8.9809 ppb	20:12:40
3	SiO2†	-486.3	-956.9	-83.048 ug/L	-83.048 ppb	20:12:56

## Mean Data: LRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	715370.3	97.621 %		1.8914			1.94%
Sc Radial	3787.6	100.0 %		0.82			0.82%
Y 371.029	582951.8	96.447 %		1.8124			1.88%
Y RADIAL	4064.4	99.55 %		0.861			0.87%
Ag 328.068†	-20952.5	-7.3219 ug/L		0.51760	-7.3219 ppb	0.51760	7.07%
Al 396.153Radial†	429394.1	510950 ug/L		10065.7	510950 ppb	10065.7	1.97%
QC value within limits for Al 396.153Radial Recovery = 102.19%							
As 188.979†	-128.0	20.884 ug/L		2.8603	20.884 ppb	2.8603	13.70%
B 249.677†	1697.2	-17.338 ug/L		1.8296	-17.338 ppb	1.8296	10.55%
Ba 233.527†	-1369.6	-1.4799 ug/L		0.27544	-1.4799 ppb	0.27544	18.61%
Be 313.107†	-6343.0	-3.0064 ug/L		0.03157	-3.0064 ppb	0.03157	1.05%
Ca 317.933Radial†	210851.0	472390 ug/L		7643.0	472390 ppb	7643.0	1.62%
QC value within limits for Ca 317.933Radial Recovery = 94.48%							
Cd 226.502†	2950.0	7.3060 ug/L		1.04213	7.3060 ppb	1.04213	14.26%
Co 228.616†	268.5	1.5775 ug/L		0.29321	1.5775 ppb	0.29321	18.59%
Cr 267.716†	-1293.1	19.009 ug/L		0.4590	19.009 ppb	0.4590	2.41%
Cu 324.752†	-4639.1	-2.4432 ug/L		0.19420	-2.4432 ppb	0.19420	7.95%

Fe 238.204 Radial†	31862.1	421200 ug/L	1774.9	421200 ppb	1774.9	0.42%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.24%						
K 766.490 Radial†	-137.2	-385.15 ug/L	30.383	-385.15 ppb	30.383	7.89%
Mg 279.077 IEC†	10107.3	477580 ug/L	1744.3	477580 ppb	1744.3	0.37%
QC value within limits for Mg 279.077 IEC Recovery = 95.52%						
Mn 257.610†	-20597.2	-8.0069 ug/L	0.10836	-8.0069 ppb	0.10836	1.35%
Mo 202.031†	-421.3	-4.2230 ug/L	0.49330	-4.2230 ppb	0.49330	11.68%
Na 589.592 Radial†	1255204.5	504750 ug/L	9631.0	504750 ppb	9631.0	1.91%
QC value within limits for Na 589.592 Radial Recovery = 100.95%						
Ni 231.604†	181.7	6.5136 ug/L	0.82904	6.5136 ppb	0.82904	12.73%
P 214.914†	295.8	29.680 ug/L	5.9163	29.680 ppb	5.9163	19.93%
Pb 220.353†	-416.2	-12.363 ug/L	2.9667	-12.363 ppb	2.9667	24.00%
S 181.975 Axial†	28.8	-39.804 ug/L	15.6530	-39.804 ppb	15.6530	39.32%
Sb 206.836†	36.3	-3.7940 ug/L	3.81011	-3.7940 ppb	3.81011	100.42%
Se 196.026†	-1754.9	-318.30 ug/L	37.525	-318.30 ppb	37.525	11.79%
Si 251.611†	-912.9	-37.190 ug/L	2.0445	-37.190 ppb	2.0445	5.50%
Sn 189.927†	-362.1	-32.051 ug/L	2.6499	-32.051 ppb	2.6499	8.27%
Sr 421.552†	1311.2	8.3767 ug/L	0.13881	8.3767 ppb	0.13881	1.66%
Ti 334.940†	-10354.5	-1.9650 ug/L	0.56420	-1.9650 ppb	0.56420	28.71%
Tl 190.801†	-66.7	-29.144 ug/L	1.4332	-29.144 ppb	1.4332	4.92%
U 409.014†	434373.9	14723 ug/L	27.9	14723 ppb	27.9	0.19%
QC value within limits for U 409.014 Recovery = 98.15%						
V 292.402†	3042.0	2.8943 ug/L	0.84362	2.8943 ppb	0.84362	29.15%
Zn 213.857†	4076.8	-8.6142 ug/L	1.44851	-8.6142 ppb	1.44851	16.82%
SiO2†	-934.8	-81.114 ug/L	7.8359	-81.114 ppb	7.8359	9.66%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/26/2010 20:15:05

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	4074.6	4074.6	108 %		20:17:23
1	Y RADIAL	4393.0	4393.0	107.6 %		20:17:03
1	Al 396.153Radial†	339.9	388.9	-19.332 ug/L	-19.332 ppb	20:17:03
1	Ca 317.933Radial†	27.3	3.5	7.7312 ug/L	7.7312 ppb	20:17:23
1	Fe 238.204 Radial†	-15.8	-23.2	-3.7612 ug/L	-3.7612 ppb	20:17:23
1	K 766.490 Radial†	1407117.0	1305677.8	288250 ug/L	288250 ppb	20:16:58
1	Mg 279.077 IEC†	-2.3	-5.0	-131.62 ug/L	-131.62 ppb	20:17:23
1	Na 589.592 Radial†	-242.1	161.3	64.858 ug/L	64.858 ppb	20:17:03
1	Sr 421.552†	1131406.0	1051796.4	9548.9 ug/L	9548.9 ppb	20:16:58
1	Sc 361.383	753006.7	753006.7	102.76 %		20:18:40
1	Y 371.029	610259.9	610259.9	100.97 %		20:18:40
1	Ag 328.068†	-6382.3	-6363.3	6.4283 ug/L	6.4283 ppb	20:18:46
1	As 188.979†	17741.6	17287.9	10564 ug/L	10564 ppb	20:18:46
1	B 249.677†	180415.9	175910.8	5265.8 ug/L	5265.8 ppb	20:18:40
1	Ba 233.527†	1462806.0	1423560.0	14944 ug/L	14944 ppb	20:18:40
1	Be 313.107†	6817810.8	6638797.2	3123.6 ug/L	3123.6 ppb	20:18:34
1	Cd 226.502†	641199.8	624169.1	10148 ug/L	10148 ppb	20:18:40
1	Co 228.616†	361314.2	351667.7	10102 ug/L	10102 ppb	20:18:40
1	Cr 267.716†	1689933.1	1644501.2	25192 ug/L	25192 ppb	20:18:40
1	Cu 324.752†	6181317.3	6009770.7	21453 ug/L	21453 ppb	20:18:34
1	Mn 257.610†	7149579.9	6957348.6	10155 ug/L	10155 ppb	20:18:34
1	Mo 202.031†	101174.3	98443.3	9940.9 ug/L	9940.9 ppb	20:18:46
1	Ni 231.604†	298067.9	289988.9	10398 ug/L	10398 ppb	20:18:40
1	P 214.914†	23730.8	22905.7	14353 ug/L	14353 ppb	20:18:46
1	Pb 220.353†	148907.2	144961.4	25087 ug/L	25087 ppb	20:18:40
1	S 181.975 Axial†	28493.7	27702.2	53868 ug/L	53868 ppb	20:18:46
1	Sb 206.836†	24205.5	23530.5	11283 ug/L	11283 ppb	20:18:46
1	Se 196.026†	11883.1	11586.0	10455 ug/L	10455 ppb	20:18:46
1	Si 251.611†	1234090.3	1200526.9	49475 ug/L	49475 ppb	20:18:40
1	Sn 189.927†	42725.6	41565.7	10538 ug/L	10538 ppb	20:18:46
1	Ti 334.940†	5702616.3	5550673.4	10606 ug/L	10606 ppb	20:18:34
1	Tl 190.801†	23789.1	23173.1	10065 ug/L	10065 ppb	20:18:46
1	U 409.014†	-883.5	974.2	-23.183 ug/L	-23.183 ppb	20:18:40
1	V 292.402†	1208559.5	1177517.4	10692 ug/L	10692 ppb	20:18:40
1	Zn 213.857†	1122155.9	1091391.4	14478 ug/L	14478 ppb	20:18:40
1	SiO2†	1280571.4	1245752.8	109370 ug/L	109370 ppb	20:19:32
2	Sc Radial	3985.2	3985.2	105 %		20:17:53
2	Y RADIAL	4380.1	4380.1	107.3 %		20:17:33
2	Al 396.153Radial†	349.0	404.6	3.1064 ug/L	3.1064 ppb	20:17:33
2	Ca 317.933Radial†	28.3	4.9	11.054 ug/L	11.054 ppb	20:17:53
2	Fe 238.204 Radial†	-14.0	-21.8	-1.4608 ug/L	-1.4608 ppb	20:17:53
2	K 766.490 Radial†	1349903.1	1280632.6	282720 ug/L	282720 ppb	20:17:28
2	Mg 279.077 IEC†	-4.2	-6.8	-216.62 ug/L	-216.62 ppb	20:17:53
2	Na 589.592 Radial†	-268.1	131.5	52.886 ug/L	52.886 ppb	20:17:33
2	Sr 421.552†	1077631.4	1024271.9	9299.0 ug/L	9299.0 ppb	20:17:28
2	Sc 361.383	791176.8	791176.8	107.97 %		20:19:00
2	Y 371.029	641041.0	641041.0	106.06 %		20:19:00
2	Ag 328.068†	-6639.8	-6302.1	4.6074 ug/L	4.6074 ppb	20:19:06
2	As 188.979†	18663.5	17308.8	10570 ug/L	10570 ppb	20:19:06
2	B 249.677†	181259.9	168221.9	5036.0 ug/L	5036.0 ppb	20:19:00
2	Ba 233.527†	1457700.5	1350151.8	14173 ug/L	14173 ppb	20:19:00
2	Be 313.107†	6665658.2	6177771.3	2906.7 ug/L	2906.7 ppb	20:18:54
2	Cd 226.502†	639725.5	592699.1	9636.7 ug/L	9636.7 ppb	20:19:00
2	Co 228.616†	359254.0	332795.7	9561.4 ug/L	9561.4 ppb	20:19:00
2	Cr 267.716†	1683745.4	1559427.1	23889 ug/L	23889 ppb	20:19:00
2	Cu 324.752†	6054908.4	5602472.8	19999 ug/L	19999 ppb	20:18:54
2	Mn 257.610†	6987734.0	6471767.9	9445.8 ug/L	9445.8 ppb	20:18:54
2	Mo 202.031†	105483.5	97684.4	9864.2 ug/L	9864.2 ppb	20:19:06
2	Ni 231.604†	296946.6	274956.0	9859.2 ug/L	9859.2 ppb	20:19:00



2	P 214.914†	24823.0	22803.1	14558 ug/L	14558 ppb	20:19:06
2	Pb 220.353†	148387.5	137488.9	23796 ug/L	23796 ppb	20:19:00
2	S 181.975 Axial†	30032.0	27789.2	54037 ug/L	54037 ppb	20:19:06
2	Sb 206.836†	25428.9	23527.2	11279 ug/L	11279 ppb	20:19:06
2	Se 196.026†	12489.6	11589.8	10458 ug/L	10458 ppb	20:19:06
2	Si 251.611†	1234399.5	1142872.4	47094 ug/L	47094 ppb	20:19:00
2	Sn 189.927†	44447.7	41154.8	10434 ug/L	10434 ppb	20:19:06
2	Ti 334.940†	5583735.4	5172823.2	9883.7 ug/L	9883.7 ppb	20:18:54
2	Tl 190.801†	24791.8	22985.0	9978.3 ug/L	9978.3 ppb	20:19:06
2	U 409.014†	-861.3	1036.3	-18.157 ug/L	-18.157 ppb	20:19:00
2	V 292.402†	1205202.9	1117666.1	10155 ug/L	10155 ppb	20:19:00
2	Zn 213.857†	1121603.7	1038194.2	13773 ug/L	13773 ppb	20:19:00
2	SiO2†	1250264.8	1157558.8	101610 ug/L	101610 ppb	20:19:38
3	Sc Radial	4023.0	4023.0	106 %		20:18:24
3	Y RADIAL	4477.2	4477.2	109.7 %		20:18:04
3	Al 396.153Radial†	358.5	410.5	26.670 ug/L	26.670 ppb	20:18:04
3	Ca 317.933Radial†	24.4	1.0	2.3481 ug/L	2.3481 ppb	20:18:24
3	Fe 238.204 Radial†	-16.3	-23.8	-29.683 ug/L	-29.683 ppb	20:18:24
3	K 766.490 Radial†	1376005.3	1293164.3	285490 ug/L	285490 ppb	20:17:59
3	Mg 279.077 IEC†	-4.6	-7.1	-236.58 ug/L	-236.58 ppb	20:18:24
3	Na 589.592 Radial†	-253.0	148.1	59.550 ug/L	59.550 ppb	20:18:04
3	Sr 421.552†	1103157.1	1038690.4	9429.9 ug/L	9429.9 ppb	20:17:59
3	Sc 361.383	819288.6	819288.6	111.80 %		20:19:21
3	Y 371.029	663250.1	663250.1	109.73 %		20:19:21
3	Ag 328.068†	-6720.7	-6163.4	5.1680 ug/L	5.1680 ppb	20:19:26
3	As 188.979†	18687.8	16737.4	10221 ug/L	10221 ppb	20:19:26
3	B 249.677†	188397.7	168845.6	5054.9 ug/L	5054.9 ppb	20:19:21
3	Ba 233.527†	1497436.4	1339366.1	14060 ug/L	14060 ppb	20:19:21
3	Be 313.107†	6636404.5	5939764.6	2794.8 ug/L	2794.8 ppb	20:19:14
3	Cd 226.502†	657706.1	588450.5	9567.6 ug/L	9567.6 ppb	20:19:21
3	Co 228.616†	370075.6	331057.6	9511.5 ug/L	9511.5 ppb	20:19:21
3	Cr 267.716†	1729436.0	1546783.6	23696 ug/L	23696 ppb	20:19:21
3	Cu 324.752†	6043984.2	5400270.9	19277 ug/L	19277 ppb	20:19:14
3	Mn 257.610†	6966748.4	6230920.6	9094.3 ug/L	9094.3 ppb	20:19:14
3	Mo 202.031†	105439.6	94292.7	9521.8 ug/L	9521.8 ppb	20:19:26
3	Ni 231.604†	305476.7	273148.3	9794.4 ug/L	9794.4 ppb	20:19:21
3	P 214.914†	24929.9	22109.9	14137 ug/L	14137 ppb	20:19:26
3	Pb 220.353†	152600.3	136541.1	23631 ug/L	23631 ppb	20:19:21
3	S 181.975 Axial†	29984.1	26791.9	52098 ug/L	52098 ppb	20:19:26
3	Sb 206.836†	25457.4	22744.5	10904 ug/L	10904 ppb	20:19:26
3	Se 196.026†	12549.7	11246.7	10148 ug/L	10148 ppb	20:19:26
3	Si 251.611†	1279003.6	1143537.7	47126 ug/L	47126 ppb	20:19:21
3	Sn 189.927†	44327.0	39634.2	10048 ug/L	10048 ppb	20:19:26
3	Ti 334.940†	5569163.0	4982332.6	9519.5 ug/L	9519.5 ppb	20:19:14
3	Tl 190.801†	24712.4	22126.0	9603.5 ug/L	9603.5 ppb	20:19:26
3	U 409.014†	-793.1	1124.6	-14.718 ug/L	-14.718 ppb	20:19:21
3	V 292.402†	1241326.5	1111674.0	10097 ug/L	10097 ppb	20:19:21
3	Zn 213.857†	1151559.2	1029342.1	13656 ug/L	13656 ppb	20:19:21
3	SiO2†	1259686.5	1126251.4	98865 ug/L	98865 ppb	20:19:44

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	787824.1	107.51 %	4.540			4.22%
Sc Radial	4027.6	106 %	1.2			1.11%
Y 371.029	638183.7	105.59 %	4.403			4.17%
Y RADIAL	4416.8	108.2 %	1.29			1.19%
Ag 328.068†	-6276.2	5.4012 ug/L	0.93262	5.4012 ppb	0.93262	17.27%
Al 396.153Radial†	401.3	3.4815 ug/L	23.00366	3.4815 ppb	23.00366	660.75%
As 188.979†	17111.4	10452 ug/L	199.8	10452 ppb	199.8	1.91%
QC value within limits for As 188.979 Recovery = 104.52%						
B 249.677†	170992.8	5118.9 ug/L	127.61	5118.9 ppb	127.61	2.49%
QC value within limits for B 249.677 Recovery = 102.38%						
Ba 233.527†	1371026.0	14392 ug/L	480.9	14392 ppb	480.9	3.34%
QC value within limits for Ba 233.527 Recovery = 95.95%						
Be 313.107†	6252111.0	2941.7 ug/L	167.18	2941.7 ppb	167.18	5.68%
QC value within limits for Be 313.107 Recovery = 98.06%						
Ca 317.933Radial†	3.1	7.0443 ug/L	4.39317	7.0443 ppb	4.39317	62.37%
Cd 226.502†	601772.9	9784.2 ug/L	317.24	9784.2 ppb	317.24	3.24%
QC value within limits for Cd 226.502 Recovery = 97.84%						

Co 228.616†	338507.0	9725.0 ug/L	327.57	9725.0 ppb	327.57	3.37%
QC value within limits for Co 228.616 Recovery = 97.25%						
Cr 267.716†	1583570.6	24259 ug/L	814.1	24259 ppb	814.1	3.36%
QC value within limits for Cr 267.716 Recovery = 97.04%						
Cu 324.752†	5670838.2	20243 ug/L	1108.2	20243 ppb	1108.2	5.47%
QC value within limits for Cu 324.752 Recovery = 101.22%						
Fe 238.204 Radial†	-22.9	-11.635 ug/L	15.6724	-11.635 ppb	15.6724	134.70%
K 766.490 Radial†	1293158.2	285490 ug/L	2764.6	285490 ppb	2764.6	0.97%
QC value within limits for K 766.490 Radial Recovery = 95.16%						
Mg 279.077 IEC†	-6.3	-194.94 ug/L	55.741	-194.94 ppb	55.741	28.59%
Mn 257.610†	6553345.7	9564.9 ug/L	540.06	9564.9 ppb	540.06	5.65%
QC value within limits for Mn 257.610 Recovery = 95.65%						
Mo 202.031†	96806.8	9775.6 ug/L	223.18	9775.6 ppb	223.18	2.28%
QC value within limits for Mo 202.031 Recovery = 97.76%						
Na 589.592 Radial†	147.0	59.098 ug/L	5.9987	59.098 ppb	5.9987	10.15%
Ni 231.604†	279364.4	10017 ug/L	331.5	10017 ppb	331.5	3.31%
QC value within limits for Ni 231.604 Recovery = 100.17%						
P 214.914†	22606.2	14349 ug/L	210.3	14349 ppb	210.3	1.47%
QC value within limits for P 214.914 Recovery = 95.66%						
Pb 220.353†	139663.8	24171 ug/L	797.6	24171 ppb	797.6	3.30%
QC value within limits for Pb 220.353 Recovery = 96.69%						
S 181.975 Axial†	27427.8	53335 ug/L	1074.2	53335 ppb	1074.2	2.01%
QC value within limits for S 181.975 Axial Recovery = 106.67%						
Sb 206.836†	23267.4	11155 ug/L	217.7	11155 ppb	217.7	1.95%
QC value greater than the upper limit for Sb 206.836 Recovery = 111.55%						
Se 196.026†	11474.2	10353 ug/L	178.0	10353 ppb	178.0	1.72%
QC value within limits for Se 196.026 Recovery = 103.53%						
Si 251.611†	1162312.3	47898 ug/L	1365.6	47898 ppb	1365.6	2.85%
QC value within limits for Si 251.611 Recovery = 95.80%						
Sn 189.927†	40784.9	10340 ug/L	258.0	10340 ppb	258.0	2.49%
QC value within limits for Sn 189.927 Recovery = 103.40%						
Sr 421.552†	1038252.9	9425.9 ug/L	124.99	9425.9 ppb	124.99	1.33%
QC value within limits for Sr 421.552 Recovery = 94.26%						
Ti 334.940†	5235276.4	10003 ug/L	552.9	10003 ppb	552.9	5.53%
QC value within limits for Ti 334.940 Recovery = 100.03%						
Tl 190.801†	22761.4	9882.4 ug/L	245.43	9882.4 ppb	245.43	2.48%
QC value within limits for Tl 190.801 Recovery = 98.82%						
U 409.014†	1045.0	-18.686 ug/L	4.2572	-18.686 ppb	4.2572	22.78%
V 292.402†	1135619.2	10315 ug/L	328.2	10315 ppb	328.2	3.18%
QC value within limits for V 292.402 Recovery = 103.15%						
Zn 213.857†	1052975.9	13969 ug/L	444.6	13969 ppb	444.6	3.18%
QC value within limits for Zn 213.857 Recovery = 93.13%						
SiO2†	1176521.0	103280 ug/L	5448.9	103280 ppb	5448.9	5.28%
QC value within limits for SiO2 Recovery = 96.53%						

QC Failed. Continue with analysis.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/26/2010 20:21:53

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	4288.5	4288.5	113 %		20:23:45
1	Y RADIAL	4552.4	4552.4	111.5 %		20:23:45
1	Al 396.153Radial†	4724.0	4245.5	5027.5 ug/L	5027.5 ppb	20:23:45
1	Ca 317.933Radial†	2589.8	2265.6	5075.9 ug/L	5075.9 ppb	20:24:05
1	Fe 238.204 Radial†	442.6	382.5	5071.3 ug/L	5071.3 ppb	20:24:05
1	K 766.490 Radial†	27760.1	22041.8	4859.9 ug/L	4859.9 ppb	20:23:45
1	Mg 279.077 IEC†	125.1	107.7	5093.5 ug/L	5093.5 ppb	20:24:05
1	Na 589.592 Radial†	28295.9	25379.8	10206 ug/L	10206 ppb	20:23:45
1	Sr 421.552†	60917.9	53769.0	488.11 ug/L	488.11 ppb	20:23:45
1	Sc 361.383	829894.9	829894.9	113.25 %		20:25:03
1	Y 371.029	675246.3	675246.3	111.72 %		20:25:03
1	Ag 328.068†	99016.6	87280.4	499.66 ug/L	499.66 ppb	20:25:08
1	As 188.979†	921.4	835.9	511.69 ug/L	511.69 ppb	20:25:28
1	B 249.677†	19447.5	17507.3	524.68 ug/L	524.68 ppb	20:25:08
1	Ba 233.527†	53428.4	47175.2	495.69 ug/L	495.69 ppb	20:25:08
1	Be 313.107†	1217275.4	1078757.8	504.76 ug/L	504.76 ppb	20:25:03
1	Cd 226.502†	34515.8	30649.0	497.89 ug/L	497.89 ppb	20:25:08
1	Co 228.616†	19884.9	17605.3	505.99 ug/L	505.99 ppb	20:25:08
1	Cr 267.716†	36900.0	32488.0	498.43 ug/L	498.43 ppb	20:25:08
1	Cu 324.752†	161490.5	136880.8	488.62 ug/L	488.62 ppb	20:25:08
1	Mn 257.610†	390074.6	344014.1	502.39 ug/L	502.39 ppb	20:25:03
1	Mo 202.031†	5661.4	4982.3	503.57 ug/L	503.57 ppb	20:25:28
1	Ni 231.604†	16012.2	14056.4	504.02 ug/L	504.02 ppb	20:25:08
1	P 214.914†	3712.2	3089.4	2402.2 ug/L	2402.2 ppb	20:25:28
1	Pb 220.353†	3224.4	2896.2	502.42 ug/L	502.42 ppb	20:25:28
1	S 181.975 Axial†	623.9	523.8	1017.7 ug/L	1017.7 ppb	20:25:28
1	Sb 206.836†	1271.1	1096.8	526.90 ug/L	526.90 ppb	20:25:28
1	Se 196.026†	625.9	574.4	533.18 ug/L	533.18 ppb	20:25:28
1	Si 251.611†	68889.6	60374.5	2488.1 ug/L	2488.1 ppb	20:25:08
1	Sn 189.927†	2301.4	2018.5	512.36 ug/L	512.36 ppb	20:25:28
1	Ti 334.940†	287936.1	255294.7	488.08 ug/L	488.08 ppb	20:25:08
1	Tl 190.801†	1318.1	1186.2	514.83 ug/L	514.83 ppb	20:25:28
1	U 409.014†	14514.6	14650.6	496.50 ug/L	496.50 ppb	20:25:08
1	V 292.402†	60765.4	55037.1	500.86 ug/L	500.86 ppb	20:25:08
1	Zn 213.857†	43075.5	37376.3	494.45 ug/L	494.45 ppb	20:25:08
1	SiO2†	68678.6	60179.9	5282.9 ug/L	5282.9 ppb	20:26:35
2	Sc Radial	4976.6	4976.6	131 %		20:24:10
2	Y RADIAL	5264.2	5264.2	128.9 %		20:24:10
2	Al 396.153Radial†	4605.9	3578.7	4233.7 ug/L	4233.7 ppb	20:24:10
2	Ca 317.933Radial†	2622.5	1974.2	4423.1 ug/L	4423.1 ppb	20:24:30
2	Fe 238.204 Radial†	446.4	331.3	4395.0 ug/L	4395.0 ppb	20:24:30
2	K 766.490 Radial†	27491.7	18447.1	4067.1 ug/L	4067.1 ppb	20:24:10
2	Mg 279.077 IEC†	129.1	95.5	4516.3 ug/L	4516.3 ppb	20:24:30
2	Na 589.592 Radial†	27941.3	21654.2	8707.8 ug/L	8707.8 ppb	20:24:10
2	Sr 421.552†	60037.0	45658.6	414.48 ug/L	414.48 ppb	20:24:10
2	Sc 361.383	822782.2	822782.2	112.28 %		20:25:34
2	Y 371.029	669951.9	669951.9	110.84 %		20:25:34
2	Ag 328.068†	100560.6	89411.4	511.62 ug/L	511.62 ppb	20:25:39
2	As 188.979†	920.1	841.8	515.18 ug/L	515.18 ppb	20:25:59
2	B 249.677†	19697.7	17878.6	535.93 ug/L	535.93 ppb	20:25:39
2	Ba 233.527†	54139.2	48216.2	506.60 ug/L	506.60 ppb	20:25:39
2	Be 313.107†	1220922.2	1091297.7	510.64 ug/L	510.64 ppb	20:25:34
2	Cd 226.502†	34867.9	31226.0	507.35 ug/L	507.35 ppb	20:25:39
2	Co 228.616†	20182.0	18021.7	517.95 ug/L	517.95 ppb	20:25:39
2	Cr 267.716†	37371.4	33189.6	509.11 ug/L	509.11 ppb	20:25:39
2	Cu 324.752†	165084.0	141314.0	504.40 ug/L	504.40 ppb	20:25:39
2	Mn 257.610†	390176.0	347082.1	506.83 ug/L	506.83 ppb	20:25:34
2	Mo 202.031†	5671.9	5034.9	508.82 ug/L	508.82 ppb	20:25:59
2	Ni 231.604†	16186.4	14333.8	513.96 ug/L	513.96 ppb	20:25:39

2	P 214.914†	3734.5	3137.6	2438.4 ug/L	2438.4 ppb	20:25:59
2	Pb 220.353†	3237.6	2932.6	508.63 ug/L	508.63 ppb	20:25:59
2	S 181.975 Axial†	631.8	535.6	1040.7 ug/L	1040.7 ppb	20:25:59
2	Sb 206.836†	1257.1	1094.0	525.82 ug/L	525.82 ppb	20:25:59
2	Se 196.026†	625.7	579.0	535.34 ug/L	535.34 ppb	20:25:59
2	Si 251.611†	69994.0	61883.9	2550.3 ug/L	2550.3 ppb	20:25:39
2	Sn 189.927†	2298.8	2033.7	516.14 ug/L	516.14 ppb	20:25:59
2	Ti 334.940†	292490.8	261549.3	499.99 ug/L	499.99 ppb	20:25:39
2	Tl 190.801†	1323.7	1201.2	521.34 ug/L	521.34 ppb	20:25:59
2	U 409.014†	14913.0	15116.1	512.38 ug/L	512.38 ppb	20:25:39
2	V 292.402†	61806.8	56428.4	513.53 ug/L	513.53 ppb	20:25:39
2	Zn 213.857†	43582.9	38157.0	504.90 ug/L	504.90 ppb	20:25:39
2	SiO2†	70505.6	62331.4	5472.1 ug/L	5472.1 ppb	20:26:40
3	Sc Radial	4266.1	4266.1	113 %		20:24:36
3	Y RADIAL	4530.5	4530.5	111.0 %		20:24:36
3	Al 396.153Radial†	4670.3	4219.8	4997.0 ug/L	4997.0 ppb	20:24:36
3	Ca 317.933Radial†	2574.4	2264.0	5072.3 ug/L	5072.3 ppb	20:24:56
3	Fe 238.204 Radial†	441.5	383.6	5086.0 ug/L	5086.0 ppb	20:24:56
3	K 766.490 Radial†	27404.8	21855.3	4818.8 ug/L	4818.8 ppb	20:24:36
3	Mg 279.077 IEC†	127.0	110.0	5199.9 ug/L	5199.9 ppb	20:24:56
3	Na 589.592 Radial†	28090.0	25328.6	10185 ug/L	10185 ppb	20:24:36
3	Sr 421.552†	60395.8	53588.7	486.47 ug/L	486.47 ppb	20:24:36
3	Sc 361.383	831778.5	831778.5	113.51 %		20:26:05
3	Y 371.029	676741.9	676741.9	111.96 %		20:26:05
3	Ag 328.068†	100155.7	88086.0	504.26 ug/L	504.26 ppb	20:26:10
3	As 188.979†	917.9	831.0	508.78 ug/L	508.78 ppb	20:26:30
3	B 249.677†	19764.8	17747.9	531.91 ug/L	531.91 ppb	20:26:10
3	Ba 233.527†	53938.8	47518.0	499.29 ug/L	499.29 ppb	20:26:10
3	Be 313.107†	1231206.0	1088596.7	509.36 ug/L	509.36 ppb	20:26:05
3	Cd 226.502†	34842.3	30867.6	501.44 ug/L	501.44 ppb	20:26:10
3	Co 228.616†	20068.3	17727.1	509.47 ug/L	509.47 ppb	20:26:10
3	Cr 267.716†	37144.2	32629.4	500.60 ug/L	500.60 ppb	20:26:10
3	Cu 324.752†	164545.4	139249.2	497.07 ug/L	497.07 ppb	20:26:10
3	Mn 257.610†	393770.5	346490.3	506.01 ug/L	506.01 ppb	20:26:05
3	Mo 202.031†	5648.5	4959.6	501.28 ug/L	501.28 ppb	20:26:30
3	Ni 231.604†	16196.9	14187.0	508.70 ug/L	508.70 ppb	20:26:10
3	P 214.914†	3714.4	3084.0	2396.0 ug/L	2396.0 ppb	20:26:30
3	Pb 220.353†	3190.6	2860.0	496.14 ug/L	496.14 ppb	20:26:30
3	S 181.975 Axial†	624.4	523.0	1016.0 ug/L	1016.0 ppb	20:26:30
3	Sb 206.836†	1246.5	1072.6	515.55 ug/L	515.55 ppb	20:26:30
3	Se 196.026†	619.5	567.5	527.02 ug/L	527.02 ppb	20:26:30
3	Si 251.611†	69719.3	60967.7	2512.6 ug/L	2512.6 ppb	20:26:10
3	Sn 189.927†	2282.5	1997.2	506.96 ug/L	506.96 ppb	20:26:30
3	Ti 334.940†	291640.1	257982.2	493.21 ug/L	493.21 ppb	20:26:10
3	Tl 190.801†	1300.4	1167.9	506.97 ug/L	506.97 ppb	20:26:30
3	U 409.014†	14686.9	14773.4	500.67 ug/L	500.67 ppb	20:26:10
3	V 292.402†	61463.8	55530.8	505.26 ug/L	505.26 ppb	20:26:10
3	Zn 213.857†	43519.1	37681.0	498.48 ug/L	498.48 ppb	20:26:10
3	SiO2†	69903.8	61122.0	5365.9 ug/L	5365.9 ppb	20:26:46

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	828151.9	113.01 %	0.647			0.57%
Sc Radial	4510.4	119 %	10.7			8.96%
Y 371.029	673980.0	111.51 %	0.590			0.53%
Y RADIAL	4782.3	117.1 %	10.22			8.73%
Ag 328.068†	88259.3	505.18 ug/L	6.033	505.18 ppb	6.033	1.19%
QC value within limits for Ag 328.068 Recovery = 101.04%						
Al 396.153Radial†	4014.7	4752.7 ug/L	449.74	4752.7 ppb	449.74	9.46%
QC value within limits for Al 396.153Radial Recovery = 95.05%						
As 188.979†	836.2	511.88 ug/L	3.208	511.88 ppb	3.208	0.63%
QC value within limits for As 188.979 Recovery = 102.38%						
B 249.677†	17711.3	530.84 ug/L	5.701	530.84 ppb	5.701	1.07%
QC value within limits for B 249.677 Recovery = 106.17%						
Ba 233.527†	47636.5	500.53 ug/L	5.563	500.53 ppb	5.563	1.11%
QC value within limits for Ba 233.527 Recovery = 100.11%						
Be 313.107†	1086217.4	508.25 ug/L	3.094	508.25 ppb	3.094	0.61%
QC value within limits for Be 313.107 Recovery = 101.65%						
Ca 317.933Radial†	2168.0	4857.1 ug/L	375.88	4857.1 ppb	375.88	7.74%

QC value within limits for Ca 317.933 Radial Recovery = 97.14%							
Cd	226.502†	30914.2	502.23 ug/L	4.776	502.23 ppb	4.776	0.95%
QC value within limits for Cd 226.502 Recovery = 100.45%							
Co	228.616†	17784.7	511.14 ug/L	6.152	511.14 ppb	6.152	1.20%
QC value within limits for Co 228.616 Recovery = 102.23%							
Cr	267.716†	32769.0	502.72 ug/L	5.645	502.72 ppb	5.645	1.12%
QC value within limits for Cr 267.716 Recovery = 100.54%							
Cu	324.752†	139148.0	496.70 ug/L	7.897	496.70 ppb	7.897	1.59%
QC value within limits for Cu 324.752 Recovery = 99.34%							
Fe	238.204 Radial†	365.8	4850.8 ug/L	394.75	4850.8 ppb	394.75	8.14%
QC value within limits for Fe 238.204 Radial Recovery = 97.02%							
K	766.490 Radial†	20781.4	4581.9 ug/L	446.34	4581.9 ppb	446.34	9.74%
QC value within limits for K 766.490 Radial Recovery = 91.64%							
Mg	279.077 IEC†	104.4	4936.6 ug/L	367.85	4936.6 ppb	367.85	7.45%
QC value within limits for Mg 279.077 IEC Recovery = 98.73%							
Mn	257.610†	345862.2	505.08 ug/L	2.359	505.08 ppb	2.359	0.47%
QC value within limits for Mn 257.610 Recovery = 101.02%							
Mo	202.031†	4992.3	504.56 ug/L	3.864	504.56 ppb	3.864	0.77%
QC value within limits for Mo 202.031 Recovery = 100.91%							
Na	589.592 Radial†	24120.9	9699.7 ug/L	859.11	9699.7 ppb	859.11	8.86%
QC value within limits for Na 589.592 Radial Recovery = 97.00%							
Ni	231.604†	14192.4	508.89 ug/L	4.975	508.89 ppb	4.975	0.98%
QC value within limits for Ni 231.604 Recovery = 101.78%							
P	214.914†	3103.7	2412.2 ug/L	22.88	2412.2 ppb	22.88	0.95%
QC value within limits for P 214.914 Recovery = 96.49%							
Pb	220.353†	2896.3	502.40 ug/L	6.248	502.40 ppb	6.248	1.24%
QC value within limits for Pb 220.353 Recovery = 100.48%							
S	181.975 Axial†	527.5	1024.8 ug/L	13.77	1024.8 ppb	13.77	1.34%
QC value within limits for S 181.975 Axial Recovery = 102.48%							
Sb	206.836†	1087.8	522.75 ug/L	6.264	522.75 ppb	6.264	1.20%
QC value within limits for Sb 206.836 Recovery = 104.55%							
Se	196.026†	573.6	531.85 ug/L	4.320	531.85 ppb	4.320	0.81%
QC value within limits for Se 196.026 Recovery = 106.37%							
Si	251.611†	61075.4	2517.0 ug/L	31.38	2517.0 ppb	31.38	1.25%
QC value within limits for Si 251.611 Recovery = 100.68%							
Sn	189.927†	2016.5	511.82 ug/L	4.613	511.82 ppb	4.613	0.90%
QC value within limits for Sn 189.927 Recovery = 102.36%							
Sr	421.552†	51005.4	463.02 ug/L	42.044	463.02 ppb	42.044	9.08%
QC value within limits for Sr 421.552 Recovery = 92.60%							
Ti	334.940†	258275.4	493.76 ug/L	5.974	493.76 ppb	5.974	1.21%
QC value within limits for Ti 334.940 Recovery = 98.75%							
Tl	190.801†	1185.1	514.38 ug/L	7.193	514.38 ppb	7.193	1.40%
QC value within limits for Tl 190.801 Recovery = 102.88%							
U	409.014†	14846.7	503.18 ug/L	8.236	503.18 ppb	8.236	1.64%
QC value within limits for U 409.014 Recovery = 100.64%							
V	292.402†	55665.4	506.55 ug/L	6.431	506.55 ppb	6.431	1.27%
QC value within limits for V 292.402 Recovery = 101.31%							
Zn	213.857†	37738.1	499.28 ug/L	5.266	499.28 ppb	5.266	1.05%
QC value within limits for Zn 213.857 Recovery = 99.86%							
SiO2†		61211.1	5373.6 ug/L	94.85	5373.6 ppb	94.85	1.77%
QC value within limits for SiO2 Recovery = 100.49%							
All analyte(s) passed QC.							

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/26/2010 20:28:56

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	4284.7	4284.7	113 %		20:31:08
1	Y RADIAL	4748.1	4748.1	116.3 %		20:30:48
1	Al 396.153Radial†	-83.1	-0.6	-0.6448 ug/L	-0.6448 ppb	20:31:08
1	Ca 317.933Radial†	25.6	0.7	1.5025 ug/L	1.5025 ppb	20:31:08
1	Fe 238.204 Radial†	8.6	-0.9	-11.411 ug/L	-11.411 ppb	20:31:08
1	K 766.490 Radial†	2693.4	-97.4	-21.512 ug/L	-21.512 ppb	20:30:48
1	Mg 279.077 IEC†	3.7	0.5	22.442 ug/L	22.442 ppb	20:31:08
1	Na 589.592 Radial†	-374.7	55.1	22.144 ug/L	22.144 ppb	20:30:48
1	Sr 421.552†	38.1	-5.6	-0.0505 ug/L	-0.0505 ppb	20:30:48
1	Sc 361.383	818070.9	818070.9	111.64 %		20:32:05
1	Y 371.029	672076.7	672076.7	111.19 %		20:32:05
1	Ag 328.068†	185.7	14.2	0.0735 ug/L	0.0735 ppb	20:32:05
1	As 188.979†	-25.8	-0.8	-0.4709 ug/L	-0.4709 ppb	20:32:25
1	B 249.677†	573.5	848.7	25.547 ug/L	25.547 ppb	20:32:25
1	Ba 233.527†	-10.4	-11.9	-0.1227 ug/L	-0.1227 ppb	20:32:25
1	Be 313.107†	-4112.4	207.8	0.0976 ug/L	0.0976 ppb	20:32:05
1	Cd 226.502†	-137.3	48.1	0.7849 ug/L	0.7849 ppb	20:32:25
1	Co 228.616†	-46.8	4.8	0.1356 ug/L	0.1356 ppb	20:32:25
1	Cr 267.716†	189.3	74.5	1.1372 ug/L	1.1372 ppb	20:32:25
1	Cu 324.752†	6088.7	-262.9	-0.9444 ug/L	-0.9444 ppb	20:32:05
1	Mn 257.610†	448.3	-24.0	-0.0371 ug/L	-0.0371 ppb	20:32:25
1	Mo 202.031†	11.1	-6.8	-0.6905 ug/L	-0.6905 ppb	20:32:25
1	Ni 231.604†	80.9	-10.1	-0.3623 ug/L	-0.3623 ppb	20:32:25
1	P 214.914†	196.0	-12.9	-10.192 ug/L	-10.192 ppb	20:32:25
1	Pb 220.353†	-50.4	3.9	0.6738 ug/L	0.6738 ppb	20:32:25
1	S 181.975 Axial†	32.9	2.3	4.5299 ug/L	4.5299 ppb	20:32:25
1	Sb 206.836†	34.1	4.9	2.3298 ug/L	2.3298 ppb	20:32:25
1	Se 196.026†	-15.0	8.3	7.4259 ug/L	7.4259 ppb	20:32:25
1	Si 251.611†	545.8	33.2	1.3816 ug/L	1.3816 ppb	20:32:25
1	Sn 189.927†	29.0	12.4	3.1349 ug/L	3.1349 ppb	20:32:25
1	Ti 334.940†	-1017.7	132.7	0.2475 ug/L	0.2475 ppb	20:32:05
1	Tl 190.801†	-16.7	7.3	3.1363 ug/L	3.1363 ppb	20:32:25
1	U 409.014†	-1730.5	283.9	9.6521 ug/L	9.6521 ppb	20:32:05
1	V 292.402†	-1405.5	121.6	1.1019 ug/L	1.1019 ppb	20:32:05
1	Zn 213.857†	715.6	-18.8	-0.2462 ug/L	-0.2462 ppb	20:32:25
1	SiO2†	524.6	5.9	0.5422 ug/L	0.5422 ppb	20:33:36
2	Sc Radial	4150.4	4150.4	110 %		20:31:33
2	Y RADIAL	4778.9	4778.9	117.1 %		20:31:13
2	Al 396.153Radial†	-76.2	3.3	3.8852 ug/L	3.8852 ppb	20:31:33
2	Ca 317.933Radial†	22.9	-1.0	-2.2032 ug/L	-2.2032 ppb	20:31:33
2	Fe 238.204 Radial†	8.3	-0.9	-11.243 ug/L	-11.243 ppb	20:31:33
2	K 766.490 Radial†	2650.5	-59.4	-13.120 ug/L	-13.120 ppb	20:31:13
2	Mg 279.077 IEC†	0.2	-2.6	-123.24 ug/L	-123.24 ppb	20:31:33
2	Na 589.592 Radial†	-425.6	-2.1	-0.8486 ug/L	-0.8486 ppb	20:31:13
2	Sr 421.552†	19.2	-21.7	-0.1971 ug/L	-0.1971 ppb	20:31:13
2	Sc 361.383	800708.9	800708.9	109.27 %		20:32:30
2	Y 371.029	658878.9	658878.9	109.01 %		20:32:30
2	Ag 328.068†	245.3	72.3	0.4104 ug/L	0.4104 ppb	20:32:30
2	As 188.979†	-26.8	-2.3	-1.3771 ug/L	-1.3771 ppb	20:32:50
2	B 249.677†	559.6	847.1	25.497 ug/L	25.497 ppb	20:32:50
2	Ba 233.527†	14.2	10.4	0.1114 ug/L	0.1114 ppb	20:32:50
2	Be 313.107†	-3962.0	265.6	0.1245 ug/L	0.1245 ppb	20:32:30
2	Cd 226.502†	-144.8	38.7	0.6295 ug/L	0.6295 ppb	20:32:50
2	Co 228.616†	-37.2	12.7	0.3637 ug/L	0.3637 ppb	20:32:50
2	Cr 267.716†	202.0	89.8	1.3743 ug/L	1.3743 ppb	20:32:50
2	Cu 324.752†	6079.5	-153.1	-0.5487 ug/L	-0.5487 ppb	20:32:30
2	Mn 257.610†	453.8	-10.2	-0.0110 ug/L	-0.0110 ppb	20:32:50
2	Mo 202.031†	22.0	3.4	0.3385 ug/L	0.3385 ppb	20:32:50
2	Ni 231.604†	65.1	-22.9	-0.8232 ug/L	-0.8232 ppb	20:32:50

2	P 214.914†	197.6	-7.6	-6.0201 ug/L	-6.0201 ppb	20:32:50
2	Pb 220.353†	-18.2	32.4	5.6103 ug/L	5.6103 ppb	20:32:50
2	S 181.975 Axial†	31.4	1.7	3.2514 ug/L	3.2514 ppb	20:32:50
2	Sb 206.836†	32.6	4.2	2.0134 ug/L	2.0134 ppb	20:32:50
2	Se 196.026†	-14.4	8.6	7.6960 ug/L	7.6960 ppb	20:32:50
2	Si 251.611†	526.1	25.8	1.0611 ug/L	1.0611 ppb	20:32:50
2	Sn 189.927†	27.4	11.4	2.8941 ug/L	2.8941 ppb	20:32:50
2	Ti 334.940†	-1000.4	128.8	0.2542 ug/L	0.2542 ppb	20:32:30
2	Tl 190.801†	-19.9	4.1	1.7645 ug/L	1.7645 ppb	20:32:50
2	U 409.014†	-1903.7	91.7	3.1180 ug/L	3.1180 ppb	20:32:30
2	V 292.402†	-1356.3	139.3	1.2600 ug/L	1.2600 ppb	20:32:30
2	Zn 213.857†	727.4	5.8	0.0858 ug/L	0.0858 ppb	20:32:50
2	SiO2†	538.6	28.9	2.5360 ug/L	2.5360 ppb	20:33:56
3	Sc Radial	4115.1	4115.1	109 %		20:31:58
3	Y RADIAL	4814.0	4814.0	117.9 %		20:31:38
3	Al 396.153Radial†	-75.4	3.4	4.1164 ug/L	4.1164 ppb	20:31:58
3	Ca 317.933Radial†	22.8	-0.9	-2.0004 ug/L	-2.0004 ppb	20:31:58
3	Fe 238.204 Radial†	8.3	-0.9	-11.377 ug/L	-11.377 ppb	20:31:58
3	K 766.490 Radial†	2667.5	-23.0	-5.0893 ug/L	-5.0893 ppb	20:31:38
3	Mg 279.077 IEC†	3.1	0.1	3.6781 ug/L	3.6781 ppb	20:31:58
3	Na 589.592 Radial†	-329.0	83.5	33.568 ug/L	33.568 ppb	20:31:38
3	Sr 421.552†	18.1	-22.6	-0.2051 ug/L	-0.2051 ppb	20:31:38
3	Sc 361.383	801484.8	801484.8	109.37 %		20:32:56
3	Y 371.029	658792.3	658792.3	108.99 %		20:32:56
3	Ag 328.068†	147.7	-17.1	-0.1062 ug/L	-0.1062 ppb	20:32:56
3	As 188.979†	-21.9	2.3	1.4017 ug/L	1.4017 ppb	20:33:16
3	B 249.677†	541.9	830.5	24.996 ug/L	24.996 ppb	20:33:16
3	Ba 233.527†	9.9	6.5	0.0682 ug/L	0.0682 ppb	20:33:16
3	Be 313.107†	-4031.8	205.3	0.0964 ug/L	0.0964 ppb	20:32:56
3	Cd 226.502†	-132.0	50.5	0.8225 ug/L	0.8225 ppb	20:33:16
3	Co 228.616†	-33.8	15.8	0.4530 ug/L	0.4530 ppb	20:33:16
3	Cr 267.716†	192.6	81.0	1.2366 ug/L	1.2366 ppb	20:33:16
3	Cu 324.752†	6146.7	-97.0	-0.3509 ug/L	-0.3509 ppb	20:32:56
3	Mn 257.610†	466.7	1.2	0.0004 ug/L	0.0004 ppb	20:33:16
3	Mo 202.031†	15.8	-2.3	-0.2301 ug/L	-0.2301 ppb	20:33:16
3	Ni 231.604†	83.6	-6.1	-0.2197 ug/L	-0.2197 ppb	20:33:16
3	P 214.914†	181.3	-22.7	-18.259 ug/L	-18.259 ppb	20:33:16
3	Pb 220.353†	-41.4	11.3	1.9496 ug/L	1.9496 ppb	20:33:16
3	S 181.975 Axial†	35.0	4.9	9.5407 ug/L	9.5407 ppb	20:33:16
3	Sb 206.836†	28.7	0.6	0.3239 ug/L	0.3239 ppb	20:33:16
3	Se 196.026†	-17.4	5.9	5.2400 ug/L	5.2400 ppb	20:33:16
3	Si 251.611†	526.3	25.5	1.0553 ug/L	1.0553 ppb	20:33:16
3	Sn 189.927†	25.0	9.2	2.3251 ug/L	2.3251 ppb	20:33:16
3	Ti 334.940†	-1000.1	129.9	0.2442 ug/L	0.2442 ppb	20:32:56
3	Tl 190.801†	-13.8	9.6	4.1563 ug/L	4.1563 ppb	20:33:16
3	U 409.014†	-1767.1	218.4	7.4234 ug/L	7.4234 ppb	20:32:56
3	V 292.402†	-1487.8	20.3	0.1940 ug/L	0.1940 ppb	20:32:56
3	Zn 213.857†	723.9	2.0	0.0307 ug/L	0.0307 ppb	20:33:16
3	SiO2†	523.2	14.4	1.2746 ug/L	1.2746 ppb	20:34:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	806754.9	110.09 %	1.338			1.22%
Sc Radial	4183.4	110 %	2.4			2.14%
Y 371.029	663249.3	109.73 %	1.265			1.15%
Y RADIAL	4780.4	117.1 %	0.81			0.69%
Ag 328.068†	23.1	0.1259 ug/L	0.26229	0.1259 ppb	0.26229	208.31%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.1	2.4522 ug/L	2.68461	2.4522 ppb	2.68461	109.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.2	-0.1487 ug/L	1.41714	-0.1487 ppb	1.41714	952.77%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	842.1	25.347 ug/L	0.3044	25.347 ppb	0.3044	1.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.7	0.0190 ug/L	0.12456	0.0190 ppb	0.12456	656.07%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	226.2	0.1062 ug/L	0.01591	0.1062 ppb	0.01591	14.98%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-0.4	-0.9004 ug/L	2.08342	-0.9004 ppb	2.08342	231.40%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	45.8	0.7456 ug/L	0.10229	0.7456 ppb	0.10229	13.72%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	11.1	0.3174 ug/L	0.16371	0.3174 ppb	0.16371	51.57%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	81.8	1.2494 ug/L	0.11909	1.2494 ppb	0.11909	9.53%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-171.0	-0.6147 ug/L	0.30217	-0.6147 ppb	0.30217	49.16%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.9	-11.344 ug/L	0.0888	-11.344 ppb	0.0888	0.78%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-59.9	-13.241 ug/L	8.2120	-13.241 ppb	8.2120	62.02%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.7	-32.375 ug/L	79.2531	-32.375 ppb	79.2531	244.80%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-11.0	-0.0159 ug/L	0.01923	-0.0159 ppb	0.01923	121.21%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.9	-0.1941 ug/L	0.51545	-0.1941 ppb	0.51545	265.62%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	45.5	18.288 ug/L	17.5291	18.288 ppb	17.5291	95.85%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-13.1	-0.4684 ug/L	0.31540	-0.4684 ppb	0.31540	67.33%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-14.4	-11.491 ug/L	6.2220	-11.491 ppb	6.2220	54.15%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	15.9	2.7446 ug/L	2.56246	2.7446 ppb	2.56246	93.36%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.0	5.7740 ug/L	3.32410	5.7740 ppb	3.32410	57.57%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.3	1.5557 ug/L	1.07845	1.5557 ppb	1.07845	69.32%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.6	6.7873 ug/L	1.34676	6.7873 ppb	1.34676	19.84%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	28.2	1.1660 ug/L	0.18671	1.1660 ppb	0.18671	16.01%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	11.0	2.7847 ug/L	0.41580	2.7847 ppb	0.41580	14.93%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-16.6	-0.1509 ug/L	0.08702	-0.1509 ppb	0.08702	57.66%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	130.5	0.2486 ug/L	0.00509	0.2486 ppb	0.00509	2.05%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.0	3.0190 ug/L	1.20017	3.0190 ppb	1.20017	39.75%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	198.0	6.7312 ug/L	3.32158	6.7312 ppb	3.32158	49.35%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	93.7	0.8520 ug/L	0.57530	0.8520 ppb	0.57530	67.53%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-3.7	-0.0432 ug/L	0.17790	-0.0432 ppb	0.17790	411.50%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	16.4	1.4509 ug/L	1.00854	1.4509 ppb	1.00854	69.51%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							



Sequence No.: 15

Sample ID: LR1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 25

Date Collected: 3/26/2010 20:36:27

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	4167.1	4167.1	110 %		20:38:40
1	Y RADIAL	4680.2	4680.2	114.6 %		20:38:20
1	Al 396.153Radial†	-97.0	-15.3	-17.056 ug/L	-17.056 ppb	20:38:40
1	Ca 317.933Radial†	10.7	-12.2	-27.275 ug/L	-27.275 ppb	20:38:40
1	Fe 238.204 Radial†	32190.0	29253.4	386720 ug/L	386720 ppb	20:38:20
1	K 766.490 Radial†	2277.7	-408.0	-90.019 ug/L	-90.019 ppb	20:38:20
1	Mg 279.077 IEC†	7.4	3.9	-221.43 ug/L	-221.43 ppb	20:38:40
1	Na 589.592 Radial†	-460.5	-32.3	-13.004 ug/L	-13.004 ppb	20:38:20
1	Sr 421.552†	82.2	35.4	0.3220 ug/L	0.3220 ppb	20:38:20
1	Sc 361.383	806617.7	806617.7	110.07 %		20:39:38
1	Y 371.029	662507.4	662507.4	109.61 %		20:39:38
1	Ag 328.068†	-22354.9	-20461.4	3.3447 ug/L	3.3447 ppb	20:39:38
1	As 188.979†	-165.2	-127.8	13.073 ug/L	13.073 ppb	20:39:58
1	B 249.677†	2137.7	2277.1	5.6845 ug/L	5.6845 ppb	20:39:38
1	Ba 233.527†	-1542.8	-1404.2	-2.8304 ug/L	-2.8304 ppb	20:39:38
1	Be 313.107†	-3915.4	334.5	0.1564 ug/L	0.1564 ppb	20:39:38
1	Cd 226.502†	2586.0	2520.5	1.0245 ug/L	1.0245 ppb	20:39:38
1	Co 228.616†	639.7	627.9	12.396 ug/L	12.396 ppb	20:39:58
1	Cr 267.716†	-402.3	-460.5	33.971 ug/L	33.971 ppb	20:39:58
1	Cu 324.752†	-972.7	-6600.6	-3.1316 ug/L	-3.1316 ppb	20:39:38
1	Mn 257.610†	-31803.3	-29318.6	-4.6048 ug/L	-4.6048 ppb	20:39:38
1	Mo 202.031†	-248.4	-242.5	5.5370 ug/L	5.5370 ppb	20:39:38
1	Ni 231.604†	174.1	75.6	2.7026 ug/L	2.7026 ppb	20:39:58
1	P 214.914†	623.9	378.3	-1.0209 ug/L	-1.0209 ppb	20:39:58
1	Pb 220.353†	174.1	207.3	-19.226 ug/L	-19.226 ppb	20:39:58
1	S 181.975 Axial†	33.3	3.1	6.1138 ug/L	6.1138 ppb	20:39:58
1	Sb 206.836†	29.2	1.0	-4.2851 ug/L	-4.2851 ppb	20:39:58
1	Se 196.026†	-1588.1	-1421.0	-250.85 ug/L	-250.85 ppb	20:39:58
1	Si 251.611†	-426.0	-842.7	-34.513 ug/L	-34.513 ppb	20:39:38
1	Sn 189.927†	-6.2	-19.3	-27.096 ug/L	-27.096 ppb	20:39:58
1	Ti 334.940†	-1086.2	57.5	0.0637 ug/L	0.0637 ppb	20:39:38
1	Tl 190.801†	-22.6	1.7	0.3662 ug/L	0.3662 ppb	20:39:58
1	U 409.014†	210.3	2025.1	24.791 ug/L	24.791 ppb	20:39:38
1	V 292.402†	5236.5	6137.9	-1.4228 ug/L	-1.4228 ppb	20:39:38
1	Zn 213.857†	3661.9	2667.0	-22.245 ug/L	-22.245 ppb	20:39:58
1	SiO2†	-460.0	-881.9	-76.949 ug/L	-76.949 ppb	20:40:55
2	Sc Radial	4156.6	4156.6	110 %		20:39:05
2	Y RADIAL	4572.3	4572.3	112.0 %		20:38:45
2	Al 396.153Radial†	-85.6	-5.2	-4.8426 ug/L	-4.8426 ppb	20:39:05
2	Ca 317.933Radial†	15.0	-8.2	-18.419 ug/L	-18.419 ppb	20:39:05
2	Fe 238.204 Radial†	31800.6	28972.1	383000 ug/L	383000 ppb	20:38:45
2	K 766.490 Radial†	2387.8	-302.5	-66.730 ug/L	-66.730 ppb	20:38:45
2	Mg 279.077 IEC†	11.4	7.6	-40.607 ug/L	-40.607 ppb	20:39:05
2	Na 589.592 Radial†	-409.1	13.5	5.4414 ug/L	5.4414 ppb	20:38:45
2	Sr 421.552†	87.7	40.7	0.3693 ug/L	0.3693 ppb	20:38:45
2	Sc 361.383	834478.0	834478.0	113.87 %		20:40:04
2	Y 371.029	684345.6	684345.6	113.22 %		20:40:04
2	Ag 328.068†	-23096.0	-20434.1	2.3537 ug/L	2.3537 ppb	20:40:04
2	As 188.979†	-170.1	-127.1	12.615 ug/L	12.615 ppb	20:40:24
2	B 249.677†	2165.3	2236.5	5.0689 ug/L	5.0689 ppb	20:40:04
2	Ba 233.527†	-1634.3	-1437.8	-3.2942 ug/L	-3.2942 ppb	20:40:04
2	Be 313.107†	-3978.8	397.6	0.1860 ug/L	0.1860 ppb	20:40:04
2	Cd 226.502†	2708.2	2549.4	1.8762 ug/L	1.8762 ppb	20:40:04
2	Co 228.616†	629.0	599.1	11.617 ug/L	11.617 ppb	20:40:24
2	Cr 267.716†	-444.7	-485.6	33.195 ug/L	33.195 ppb	20:40:24
2	Cu 324.752†	-1139.9	-6718.0	-3.7457 ug/L	-3.7457 ppb	20:40:04
2	Mn 257.610†	-33031.1	-29432.1	-5.1451 ug/L	-5.1451 ppb	20:40:04
2	Mo 202.031†	-283.0	-265.3	2.9442 ug/L	2.9442 ppb	20:40:04
2	Ni 231.604†	156.3	54.7	1.9520 ug/L	1.9520 ppb	20:40:24

2	P 214.914†	632.1	366.7	-7.3793 ug/L	-7.3793 ppb	20:40:24
2	Pb 220.353†	170.6	198.9	-20.147 ug/L	-20.147 ppb	20:40:24
2	S 181.975 Axial†	38.9	7.0	13.693 ug/L	13.693 ppb	20:40:24
2	Sb 206.836†	24.1	-4.4	-6.7676 ug/L	-6.7676 ppb	20:40:24
2	Se 196.026†	-1612.2	-1394.1	-236.46 ug/L	-236.46 ppb	20:40:24
2	Si 251.611†	-389.6	-797.9	-32.632 ug/L	-32.632 ppb	20:40:04
2	Sn 189.927†	-4.0	-17.2	-26.339 ug/L	-26.339 ppb	20:40:24
2	Ti 334.940†	-1087.7	89.1	0.1124 ug/L	0.1124 ppb	20:40:04
2	Tl 190.801†	-31.7	-5.6	-2.8049 ug/L	-2.8049 ppb	20:40:24
2	U 409.014†	113.4	1933.6	22.106 ug/L	22.106 ppb	20:40:04
2	V 292.402†	5472.0	6185.9	-0.4852 ug/L	-0.4852 ppb	20:40:04
2	Zn 213.857†	3711.1	2599.1	-22.590 ug/L	-22.590 ppb	20:40:24
2	SiO2†	-474.2	-880.4	-76.755 ug/L	-76.755 ppb	20:41:00
3	Sc Radial	4186.4	4186.4	111 %		20:39:30
3	Y RADIAL	4673.2	4673.2	114.5 %		20:39:10
3	Al 396.153Radial†	-92.2	-10.5	-11.218 ug/L	-11.218 ppb	20:39:30
3	Ca 317.933Radial†	14.1	-9.2	-20.599 ug/L	-20.599 ppb	20:39:30
3	Fe 238.204 Radial†	32166.8	29097.2	384650 ug/L	384650 ppb	20:39:10
3	K 766.490 Radial†	2214.1	-475.1	-104.84 ug/L	-104.84 ppb	20:39:10
3	Mg 279.077 IEC†	11.5	7.6	-42.679 ug/L	-42.679 ppb	20:39:30
3	Na 589.592 Radial†	-472.1	-40.9	-16.447 ug/L	-16.447 ppb	20:39:10
3	Sr 421.552†	70.7	24.7	0.2245 ug/L	0.2245 ppb	20:39:10
3	Sc 361.383	821455.8	821455.8	112.10 %		20:40:29
3	Y 371.029	673907.7	673907.7	111.50 %		20:40:29
3	Ag 328.068†	-22802.9	-20494.2	2.5207 ug/L	2.5207 ppb	20:40:29
3	As 188.979†	-171.1	-130.3	11.042 ug/L	11.042 ppb	20:40:50
3	B 249.677†	2249.1	2341.4	7.9573 ug/L	7.9573 ppb	20:40:29
3	Ba 233.527†	-1669.9	-1492.2	-3.8137 ug/L	-3.8137 ppb	20:40:29
3	Be 313.107†	-4039.1	288.4	0.1349 ug/L	0.1349 ppb	20:40:29
3	Cd 226.502†	2619.9	2508.3	1.0396 ug/L	1.0396 ppb	20:40:29
3	Co 228.616†	631.5	610.1	11.907 ug/L	11.907 ppb	20:40:50
3	Cr 267.716†	-417.9	-467.8	33.641 ug/L	33.641 ppb	20:40:50
3	Cu 324.752†	-990.4	-6600.5	-3.2420 ug/L	-3.2420 ppb	20:40:29
3	Mn 257.610†	-32227.3	-29175.0	-4.6063 ug/L	-4.6063 ppb	20:40:29
3	Mo 202.031†	-281.8	-268.1	2.7865 ug/L	2.7865 ppb	20:40:29
3	Ni 231.604†	153.8	54.6	1.9498 ug/L	1.9498 ppb	20:40:50
3	P 214.914†	624.6	368.7	-7.0953 ug/L	-7.0953 ppb	20:40:50
3	Pb 220.353†	140.4	174.3	-24.639 ug/L	-24.639 ppb	20:40:50
3	S 181.975 Axial†	39.2	7.8	15.256 ug/L	15.256 ppb	20:40:50
3	Sb 206.836†	15.0	-12.2	-10.390 ug/L	-10.390 ppb	20:40:50
3	Se 196.026†	-1603.6	-1408.8	-245.33 ug/L	-245.33 ppb	20:40:50
3	Si 251.611†	-377.7	-792.6	-32.412 ug/L	-32.412 ppb	20:40:29
3	Sn 189.927†	2.5	-11.4	-24.974 ug/L	-24.974 ppb	20:40:50
3	Ti 334.940†	-1111.7	52.6	0.0395 ug/L	0.0395 ppb	20:40:29
3	Tl 190.801†	-34.5	-8.5	-4.0661 ug/L	-4.0661 ppb	20:40:50
3	U 409.014†	311.5	2111.9	27.980 ug/L	27.980 ppb	20:40:29
3	V 292.402†	5452.4	6244.6	-0.1917 ug/L	-0.1917 ppb	20:40:29
3	Zn 213.857†	3694.5	2635.9	-22.346 ug/L	-22.346 ppb	20:40:50
3	SiO2†	-301.0	-732.5	-63.732 ug/L	-63.732 ppb	20:41:05

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820850.5	112.01 %		1.902			1.70%
Sc Radial	4170.0	110 %		0.4			0.36%
Y 371.029	673586.9	111.44 %		1.807			1.62%
Y RADIAL	4641.9	113.7 %		1.48			1.30%
Ag 328.068†	-20463.2	2.7397 ug/L		0.53053	2.7397 ppb	0.53053	19.36%
Al 396.153Radial†	-10.3	-11.039 ug/L		6.1089	-11.039 ppb	6.1089	55.34%
As 188.979†	-128.4	12.244 ug/L		1.0652	12.244 ppb	1.0652	8.70%
B 249.677†	2285.0	6.2369 ug/L		1.52138	6.2369 ppb	1.52138	24.39%
Ba 233.527†	-1444.7	-3.3128 ug/L		0.49190	-3.3128 ppb	0.49190	14.85%
Be 313.107†	340.2	0.1591 ug/L		0.02566	0.1591 ppb	0.02566	16.13%
Ca 317.933Radial†	-9.9	-22.098 ug/L		4.6143	-22.098 ppb	4.6143	20.88%
Cd 226.502†	2526.1	1.3135 ug/L		0.48745	1.3135 ppb	0.48745	37.11%
Co 228.616†	612.3	11.973 ug/L		0.3936	11.973 ppb	0.3936	3.29%
Cr 267.716†	-471.3	33.602 ug/L		0.3893	33.602 ppb	0.3893	1.16%
Cu 324.752†	-6639.7	-3.3731 ug/L		0.32738	-3.3731 ppb	0.32738	9.71%
Fe 238.204 Radial†	29107.6	384790 ug/L		1863.1	384790 ppb	1863.1	0.48%
K 766.490 Radial†	-395.2	-87.196 ug/L		19.2116	-87.196 ppb	19.2116	22.03%

Mg 279.077 IEC†	6.4	-101.57 ug/L	103.805	-101.57 ppb	103.805	102.20%
Mn 257.610†	-29308.5	-4.7854 ug/L	0.31149	-4.7854 ppb	0.31149	6.51%
Mo 202.031†	-258.6	3.7559 ug/L	1.54451	3.7559 ppb	1.54451	41.12%
Na 589.592 Radial†	-19.9	-8.0034 ug/L	11.77013	-8.0034 ppb	11.77013	147.06%
Ni 231.604†	61.7	2.2015 ug/L	0.43396	2.2015 ppb	0.43396	19.71%
P 214.914†	371.3	-5.1652 ug/L	3.59183	-5.1652 ppb	3.59183	69.54%
Pb 220.353†	193.5	-21.337 ug/L	2.8962	-21.337 ppb	2.8962	13.57%
S 181.975 Axial†	6.0	11.687 ug/L	4.8898	11.687 ppb	4.8898	41.84%
Sb 206.836†	-5.2	-7.1476 ug/L	3.07016	-7.1476 ppb	3.07016	42.95%
Se 196.026†	-1408.0	-244.21 ug/L	7.261	-244.21 ppb	7.261	2.97%
Si 251.611†	-811.1	-33.186 ug/L	1.1550	-33.186 ppb	1.1550	3.48%
Sn 189.927†	-15.9	-26.136 ug/L	1.0752	-26.136 ppb	1.0752	4.11%
Sr 421.552†	33.6	0.3053 ug/L	0.07383	0.3053 ppb	0.07383	24.18%
Ti 334.940†	66.4	0.0719 ug/L	0.03713	0.0719 ppb	0.03713	51.66%
Tl 190.801†	-4.1	-2.1683 ug/L	2.28370	-2.1683 ppb	2.28370	105.32%
U 409.014†	2023.5	24.959 ug/L	2.9406	24.959 ppb	2.9406	11.78%
V 292.402†	6189.5	-0.6999 ug/L	0.64302	-0.6999 ppb	0.64302	91.87%
Zn 213.857†	2634.0	-22.393 ug/L	0.1771	-22.393 ppb	0.1771	0.79%
SiO2†	-831.6	-72.479 ug/L	7.5753	-72.479 ppb	7.5753	10.45%

Sequence No.: 16

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/26/2010 20:43:17

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	4410.6	4410.6	116 %		20:45:09
1	Y RADIAL	4694.7	4694.7	115.0 %		20:45:09
1	Al 396.153Radial†	4798.7	4194.1	4965.9 ug/L	4965.9 ppb	20:45:09
1	Ca 317.933Radial†	2652.1	2255.8	5053.9 ug/L	5053.9 ppb	20:45:29
1	Fe 238.204 Radial†	451.0	378.8	5023.5 ug/L	5023.5 ppb	20:45:29
1	K 766.490 Radial†	27883.7	21469.2	4733.4 ug/L	4733.4 ppb	20:45:09
1	Mg 279.077 IEC†	128.1	107.2	5071.1 ug/L	5071.1 ppb	20:45:29
1	Na 589.592 Radial†	29496.7	25719.3	10342 ug/L	10342 ppb	20:45:09
1	Sr 421.552†	63153.4	54199.5	492.02 ug/L	492.02 ppb	20:45:09
1	Sc 361.383	826407.0	826407.0	112.77 %		20:46:27
1	Y 371.029	672543.8	672543.8	111.27 %		20:46:27
1	Ag 328.068†	100828.9	89256.5	510.92 ug/L	510.92 ppb	20:46:32
1	As 188.979†	935.8	852.1	521.58 ug/L	521.58 ppb	20:46:52
1	B 249.677†	19217.6	17375.9	520.70 ug/L	520.70 ppb	20:46:32
1	Ba 233.527†	54375.5	48214.2	506.60 ug/L	506.60 ppb	20:46:32
1	Be 313.107†	1233669.7	1097831.9	513.69 ug/L	513.69 ppb	20:46:27
1	Cd 226.502†	35029.5	31233.1	507.39 ug/L	507.39 ppb	20:46:32
1	Co 228.616†	20263.5	18015.1	517.76 ug/L	517.76 ppb	20:46:32
1	Cr 267.716†	37412.1	33079.6	507.50 ug/L	507.50 ppb	20:46:32
1	Cu 324.752†	165052.7	140641.3	502.03 ug/L	502.03 ppb	20:46:32
1	Mn 257.610†	393873.1	348836.2	509.43 ug/L	509.43 ppb	20:46:27
1	Mo 202.031†	5733.5	5067.4	512.16 ug/L	512.16 ppb	20:46:52
1	Ni 231.604†	16278.3	14352.0	514.61 ug/L	514.61 ppb	20:46:32
1	P 214.914†	3768.7	3153.4	2451.2 ug/L	2451.2 ppb	20:46:52
1	Pb 220.353†	3241.2	2923.1	507.08 ug/L	507.08 ppb	20:46:52
1	S 181.975 Axial†	628.4	530.2	1030.0 ug/L	1030.0 ppb	20:46:52
1	Sb 206.836†	1271.8	1102.1	529.52 ug/L	529.52 ppb	20:46:52
1	Se 196.026†	630.8	581.1	539.13 ug/L	539.13 ppb	20:46:52
1	Si 251.611†	70152.0	61750.6	2544.8 ug/L	2544.8 ppb	20:46:32
1	Sn 189.927†	2277.6	2006.0	509.18 ug/L	509.18 ppb	20:46:52
1	Ti 334.940†	293174.7	261013.1	499.01 ug/L	499.01 ppb	20:46:32
1	Tl 190.801†	1311.3	1185.0	514.39 ug/L	514.39 ppb	20:46:52
1	U 409.014†	14814.7	14970.8	507.37 ug/L	507.37 ppb	20:46:32
1	V 292.402†	61848.3	56223.8	511.65 ug/L	511.65 ppb	20:46:32
1	Zn 213.857†	43791.5	38171.7	505.00 ug/L	505.00 ppb	20:46:32
1	SiO2†	69028.8	60746.4	5332.5 ug/L	5332.5 ppb	20:47:59
2	Sc Radial	4338.8	4338.8	115 %		20:45:34
2	Y RADIAL	4595.8	4595.8	112.6 %		20:45:34
2	Al 396.153Radial†	4827.9	4287.9	5077.5 ug/L	5077.5 ppb	20:45:34
2	Ca 317.933Radial†	2672.6	2311.4	5178.5 ug/L	5178.5 ppb	20:45:54
2	Fe 238.204 Radial†	460.3	393.4	5216.5 ug/L	5216.5 ppb	20:45:54
2	K 766.490 Radial†	27896.6	21876.9	4823.3 ug/L	4823.3 ppb	20:45:34
2	Mg 279.077 IEC†	131.3	111.8	5289.0 ug/L	5289.0 ppb	20:45:54
2	Na 589.592 Radial†	29536.0	26173.0	10525 ug/L	10525 ppb	20:45:34
2	Sr 421.552†	63381.2	55296.3	501.98 ug/L	501.98 ppb	20:45:34
2	Sc 361.383	829199.8	829199.8	113.15 %		20:46:58
2	Y 371.029	674746.6	674746.6	111.63 %		20:46:58
2	Ag 328.068†	101547.5	89590.5	512.89 ug/L	512.89 ppb	20:47:03
2	As 188.979†	930.8	844.9	517.27 ug/L	517.27 ppb	20:47:23
2	B 249.677†	19291.6	17384.0	520.91 ug/L	520.91 ppb	20:47:03
2	Ba 233.527†	54761.6	48393.0	508.48 ug/L	508.48 ppb	20:47:03
2	Be 313.107†	1218517.6	1080756.6	505.72 ug/L	505.72 ppb	20:46:58
2	Cd 226.502†	35266.3	31337.8	509.08 ug/L	509.08 ppb	20:47:03
2	Co 228.616†	20328.4	18011.9	517.66 ug/L	517.66 ppb	20:47:03
2	Cr 267.716†	37752.7	33268.9	510.42 ug/L	510.42 ppb	20:47:03
2	Cu 324.752†	166943.2	141819.1	506.24 ug/L	506.24 ppb	20:47:03
2	Mn 257.610†	389132.8	343470.6	501.61 ug/L	501.61 ppb	20:46:58
2	Mo 202.031†	5747.5	5062.6	511.69 ug/L	511.69 ppb	20:47:23
2	Ni 231.604†	16414.6	14423.8	517.19 ug/L	517.19 ppb	20:47:03

2	P 214.914†	3796.1	3166.3	2460.7 ug/L	2460.7 ppb	20:47:23
2	Pb 220.353†	3285.8	2952.9	512.22 ug/L	512.22 ppb	20:47:23
2	S 181.975 Axial†	633.1	532.4	1034.3 ug/L	1034.3 ppb	20:47:23
2	Sb 206.836†	1266.7	1093.8	525.67 ug/L	525.67 ppb	20:47:23
2	Se 196.026†	635.6	583.4	541.72 ug/L	541.72 ppb	20:47:23
2	Si 251.611†	70795.5	62109.8	2559.6 ug/L	2559.6 ppb	20:47:03
2	Sn 189.927†	2287.9	2008.3	509.77 ug/L	509.77 ppb	20:47:23
2	Ti 334.940†	295774.4	262435.0	501.72 ug/L	501.72 ppb	20:47:03
2	Tl 190.801†	1319.5	1188.4	515.81 ug/L	515.81 ppb	20:47:23
2	U 409.014†	15159.4	15231.2	516.20 ug/L	516.20 ppb	20:47:03
2	V 292.402†	62416.0	56540.7	514.48 ug/L	514.48 ppb	20:47:03
2	Zn 213.857†	44082.7	38298.3	506.64 ug/L	506.64 ppb	20:47:03
2	SiO2†	70303.3	61666.6	5413.5 ug/L	5413.5 ppb	20:48:04
3	Sc Radial	4606.4	4606.4	122 %		20:45:59
3	Y RADIAL	4881.6	4881.6	119.6 %		20:45:59
3	Al 396.153Radial†	4909.5	4110.2	4866.8 ug/L	4866.8 ppb	20:45:59
3	Ca 317.933Radial†	2641.9	2150.6	4818.2 ug/L	4818.2 ppb	20:46:20
3	Fe 238.204 Radial†	453.9	364.8	4837.9 ug/L	4837.9 ppb	20:46:20
3	K 766.490 Radial†	28268.0	20767.5	4578.7 ug/L	4578.7 ppb	20:45:59
3	Mg 279.077 IEC†	127.7	102.2	4833.7 ug/L	4833.7 ppb	20:46:20
3	Na 589.592 Radial†	30073.0	25116.7	10100 ug/L	10100 ppb	20:45:59
3	Sr 421.552†	64545.6	53039.4	481.49 ug/L	481.49 ppb	20:45:59
3	Sc 361.383	841647.0	841647.0	114.85 %		20:47:29
3	Y 371.029	683793.3	683793.3	113.13 %		20:47:29
3	Ag 328.068†	102223.1	88851.4	508.56 ug/L	508.56 ppb	20:47:34
3	As 188.979†	926.0	828.6	507.28 ug/L	507.28 ppb	20:47:54
3	B 249.677†	19496.3	17310.0	518.75 ug/L	518.75 ppb	20:47:34
3	Ba 233.527†	55341.8	48182.4	506.26 ug/L	506.26 ppb	20:47:34
3	Be 313.107†	1228859.5	1073835.3	502.48 ug/L	502.48 ppb	20:47:29
3	Cd 226.502†	35694.9	31250.0	507.69 ug/L	507.69 ppb	20:47:34
3	Co 228.616†	20619.9	18000.0	517.30 ug/L	517.30 ppb	20:47:34
3	Cr 267.716†	38070.2	33051.9	507.05 ug/L	507.05 ppb	20:47:34
3	Cu 324.752†	167668.3	140268.5	500.69 ug/L	500.69 ppb	20:47:34
3	Mn 257.610†	393233.0	341954.7	499.38 ug/L	499.38 ppb	20:47:29
3	Mo 202.031†	5664.7	4915.4	496.79 ug/L	496.79 ppb	20:47:54
3	Ni 231.604†	16557.4	14333.6	513.95 ug/L	513.95 ppb	20:47:34
3	P 214.914†	3756.3	3082.1	2393.8 ug/L	2393.8 ppb	20:47:54
3	Pb 220.353†	3230.3	2861.7	496.41 ug/L	496.41 ppb	20:47:54
3	S 181.975 Axial†	625.7	517.7	1005.8 ug/L	1005.8 ppb	20:47:54
3	Sb 206.836†	1256.2	1068.1	513.26 ug/L	513.26 ppb	20:47:54
3	Se 196.026†	627.8	568.3	527.04 ug/L	527.04 ppb	20:47:54
3	Si 251.611†	71371.2	61685.8	2542.3 ug/L	2542.3 ppb	20:47:34
3	Sn 189.927†	2264.1	1957.6	496.89 ug/L	496.89 ppb	20:47:54
3	Ti 334.940†	298016.4	260521.4	498.06 ug/L	498.06 ppb	20:47:34
3	Tl 190.801†	1296.5	1151.1	499.71 ug/L	499.71 ppb	20:47:54
3	U 409.014†	15115.9	14995.1	508.22 ug/L	508.22 ppb	20:47:34
3	V 292.402†	62807.3	56065.7	510.04 ug/L	510.04 ppb	20:47:34
3	Zn 213.857†	44539.8	38120.1	504.34 ug/L	504.34 ppb	20:47:34
3	SiO2†	70925.7	61289.6	5380.8 ug/L	5380.8 ppb	20:48:09

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832417.9	113.59 %	1.107			0.97%
Sc Radial	4451.9	118 %	3.7			3.11%
Y 371.029	677027.9	112.01 %	0.986			0.88%
Y RADIAL	4724.0	115.7 %	3.55			3.07%
Ag 328.068†	89232.8	510.79 ug/L	2.167	510.79 ppb	2.167	0.42%
QC value within limits for Ag 328.068 Recovery = 102.16%						
Al 396.153Radial†	4197.4	4970.1 ug/L	105.44	4970.1 ppb	105.44	2.12%
QC value within limits for Al 396.153Radial Recovery = 99.40%						
As 188.979†	841.8	515.38 ug/L	7.336	515.38 ppb	7.336	1.42%
QC value within limits for As 188.979 Recovery = 103.08%						
B 249.677†	17356.6	520.12 ug/L	1.193	520.12 ppb	1.193	0.23%
QC value within limits for B 249.677 Recovery = 104.02%						
Ba 233.527†	48263.2	507.11 ug/L	1.200	507.11 ppb	1.200	0.24%
QC value within limits for Ba 233.527 Recovery = 101.42%						
Be 313.107†	1084141.3	507.30 ug/L	5.767	507.30 ppb	5.767	1.14%
QC value within limits for Be 313.107 Recovery = 101.46%						
Ca 317.933Radial†	2239.3	5016.9 ug/L	182.99	5016.9 ppb	182.99	3.65%

QC value within limits for Ca 317.933 Radial Recovery = 100.34%							
Cd 226.502†	31273.6	508.05 ug/L	0.900	508.05 ppb	0.900	0.18%	
QC value within limits for Cd 226.502 Recovery = 101.61%							
Co 228.616†	18009.0	517.57 ug/L	0.244	517.57 ppb	0.244	0.05%	
QC value within limits for Co 228.616 Recovery = 103.51%							
Cr 267.716†	33133.5	508.32 ug/L	1.827	508.32 ppb	1.827	0.36%	
QC value within limits for Cr 267.716 Recovery = 101.66%							
Cu 324.752†	140909.6	502.99 ug/L	2.896	502.99 ppb	2.896	0.58%	
QC value within limits for Cu 324.752 Recovery = 100.60%							
Fe 238.204 Radial†	379.0	5026.0 ug/L	189.32	5026.0 ppb	189.32	3.77%	
QC value within limits for Fe 238.204 Radial Recovery = 100.52%							
K 766.490 Radial†	21371.2	4711.8 ug/L	123.74	4711.8 ppb	123.74	2.63%	
QC value within limits for K 766.490 Radial Recovery = 94.24%							
Mg 279.077 IEC†	107.1	5064.6 ug/L	227.74	5064.6 ppb	227.74	4.50%	
QC value within limits for Mg 279.077 IEC Recovery = 101.29%							
Mn 257.610†	344753.8	503.47 ug/L	5.279	503.47 ppb	5.279	1.05%	
QC value within limits for Mn 257.610 Recovery = 100.69%							
Mo 202.031†	5015.1	506.88 ug/L	8.740	506.88 ppb	8.740	1.72%	
QC value within limits for Mo 202.031 Recovery = 101.38%							
Na 589.592 Radial†	25669.7	10323 ug/L	213.1	10323 ppb	213.1	2.06%	
QC value within limits for Na 589.592 Radial Recovery = 103.23%							
Ni 231.604†	14369.8	515.25 ug/L	1.710	515.25 ppb	1.710	0.33%	
QC value within limits for Ni 231.604 Recovery = 103.05%							
P 214.914†	3133.9	2435.2 ug/L	36.18	2435.2 ppb	36.18	1.49%	
QC value within limits for P 214.914 Recovery = 97.41%							
Pb 220.353†	2912.6	505.24 ug/L	8.064	505.24 ppb	8.064	1.60%	
QC value within limits for Pb 220.353 Recovery = 101.05%							
S 181.975 Axial†	526.8	1023.4 ug/L	15.39	1023.4 ppb	15.39	1.50%	
QC value within limits for S 181.975 Axial Recovery = 102.34%							
Sb 206.836†	1088.0	522.82 ug/L	8.495	522.82 ppb	8.495	1.62%	
QC value within limits for Sb 206.836 Recovery = 104.56%							
Se 196.026†	577.6	535.96 ug/L	7.839	535.96 ppb	7.839	1.46%	
QC value within limits for Se 196.026 Recovery = 107.19%							
Si 251.611†	61848.7	2548.9 ug/L	9.37	2548.9 ppb	9.37	0.37%	
QC value within limits for Si 251.611 Recovery = 101.96%							
Sn 189.927†	1990.6	505.28 ug/L	7.270	505.28 ppb	7.270	1.44%	
QC value within limits for Sn 189.927 Recovery = 101.06%							
Sr 421.552†	54178.4	491.83 ug/L	10.245	491.83 ppb	10.245	2.08%	
QC value within limits for Sr 421.552 Recovery = 98.37%							
Ti 334.940†	261323.2	499.59 ug/L	1.902	499.59 ppb	1.902	0.38%	
QC value within limits for Ti 334.940 Recovery = 99.92%							
Tl 190.801†	1174.9	509.97 ug/L	8.912	509.97 ppb	8.912	1.75%	
QC value within limits for Tl 190.801 Recovery = 101.99%							
U 409.014†	15065.7	510.60 ug/L	4.869	510.60 ppb	4.869	0.95%	
QC value within limits for U 409.014 Recovery = 102.12%							
V 292.402†	56276.7	512.05 ug/L	2.247	512.05 ppb	2.247	0.44%	
QC value within limits for V 292.402 Recovery = 102.41%							
Zn 213.857†	38196.7	505.33 ug/L	1.182	505.33 ppb	1.182	0.23%	
QC value within limits for Zn 213.857 Recovery = 101.07%							
SiO2†	61234.2	5375.6 ug/L	40.75	5375.6 ppb	40.75	0.76%	
QC value within limits for SiO2 Recovery = 100.53%							
All analyte(s) passed QC.							

Sequence No.: 17

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/26/2010 20:50:19

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	4019.4	4019.4	106 %		20:52:32
1	Y RADIAL	4378.4	4378.4	107.2 %		20:52:12
1	Al 396.153Radial†	-78.6	-1.2	-1.4148 ug/L	-1.4148 ppb	20:52:32
1	Ca 317.933Radial†	20.9	-2.3	-5.0465 ug/L	-5.0465 ppb	20:52:32
1	Fe 238.204 Radial†	7.1	-1.7	-23.089 ug/L	-23.089 ppb	20:52:32
1	K 766.490 Radial†	2508.6	-114.4	-25.230 ug/L	-25.230 ppb	20:52:12
1	Mg 279.077 IEC†	2.5	-0.4	-19.235 ug/L	-19.235 ppb	20:52:32
1	Na 589.592 Radial†	-545.7	-127.9	-51.446 ug/L	-51.446 ppb	20:52:12
1	Sr 421.552†	20.9	-19.6	-0.1777 ug/L	-0.1777 ppb	20:52:12
1	Sc 361.383	804049.7	804049.7	109.72 %		20:53:29
1	Y 371.029	661535.8	661535.8	109.45 %		20:53:29
1	Ag 328.068†	242.9	69.2	0.3880 ug/L	0.3880 ppb	20:53:29
1	As 188.979†	-21.1	3.1	1.8573 ug/L	1.8573 ppb	20:53:49
1	B 249.677†	289.3	598.6	18.020 ug/L	18.020 ppb	20:53:49
1	Ba 233.527†	30.0	24.8	0.2616 ug/L	0.2616 ppb	20:53:49
1	Be 313.107†	-4020.4	227.4	0.1068 ug/L	0.1068 ppb	20:53:29
1	Cd 226.502†	-150.3	34.1	0.5573 ug/L	0.5573 ppb	20:53:49
1	Co 228.616†	-40.7	9.6	0.2759 ug/L	0.2759 ppb	20:53:49
1	Cr 267.716†	135.9	28.8	0.4383 ug/L	0.4383 ppb	20:53:49
1	Cu 324.752†	6148.1	-113.6	-0.4087 ug/L	-0.4087 ppb	20:53:29
1	Mn 257.610†	431.9	-32.0	-0.0481 ug/L	-0.0481 ppb	20:53:49
1	Mo 202.031†	22.1	3.4	0.3371 ug/L	0.3371 ppb	20:53:49
1	Ni 231.604†	70.6	-18.2	-0.6532 ug/L	-0.6532 ppb	20:53:49
1	P 214.914†	190.3	-15.0	-12.034 ug/L	-12.034 ppb	20:53:49
1	Pb 220.353†	-47.4	5.9	1.0199 ug/L	1.0199 ppb	20:53:49
1	S 181.975 Axial†	33.3	3.3	6.4016 ug/L	6.4016 ppb	20:53:49
1	Sb 206.836†	24.0	-3.8	-1.7281 ug/L	-1.7281 ppb	20:53:49
1	Se 196.026†	-12.5	10.3	9.2177 ug/L	9.2177 ppb	20:53:49
1	Si 251.611†	486.5	-12.3	-0.5125 ug/L	-0.5125 ppb	20:53:49
1	Sn 189.927†	17.2	2.0	0.5194 ug/L	0.5194 ppb	20:53:49
1	Ti 334.940†	-987.1	144.7	0.2760 ug/L	0.2760 ppb	20:53:29
1	Tl 190.801†	-13.9	9.6	4.1402 ug/L	4.1402 ppb	20:53:49
1	U 409.014†	-1906.4	96.5	3.2836 ug/L	3.2836 ppb	20:53:29
1	V 292.402†	-1389.5	114.2	1.0392 ug/L	1.0392 ppb	20:53:29
1	Zn 213.857†	695.7	-25.8	-0.3358 ug/L	-0.3358 ppb	20:53:49
1	SiO2†	515.3	5.6	0.4861 ug/L	0.4861 ppb	20:55:00
2	Sc Radial	4145.7	4145.7	109 %		20:52:57
2	Y RADIAL	4623.5	4623.5	113.2 %		20:52:37
2	Al 396.153Radial†	-74.5	4.8	5.7380 ug/L	5.7380 ppb	20:52:57
2	Ca 317.933Radial†	26.2	2.0	4.5365 ug/L	4.5365 ppb	20:52:57
2	Fe 238.204 Radial†	6.3	-2.7	-35.787 ug/L	-35.787 ppb	20:52:57
2	K 766.490 Radial†	2604.0	-99.2	-21.885 ug/L	-21.885 ppb	20:52:37
2	Mg 279.077 IEC†	2.8	-0.2	-10.785 ug/L	-10.785 ppb	20:52:57
2	Na 589.592 Radial†	-531.3	-99.1	-39.863 ug/L	-39.863 ppb	20:52:37
2	Sr 421.552†	31.9	-10.1	-0.0918 ug/L	-0.0918 ppb	20:52:37
2	Sc 361.383	789616.2	789616.2	107.75 %		20:53:54
2	Y 371.029	649261.6	649261.6	107.42 %		20:53:54
2	Ag 328.068†	205.7	38.8	0.2089 ug/L	0.2089 ppb	20:53:54
2	As 188.979†	-25.5	-1.3	-0.8171 ug/L	-0.8171 ppb	20:54:14
2	B 249.677†	296.8	610.4	18.378 ug/L	18.378 ppb	20:54:14
2	Ba 233.527†	13.0	9.5	0.1002 ug/L	0.1002 ppb	20:54:14
2	Be 313.107†	-3909.8	263.1	0.1233 ug/L	0.1233 ppb	20:53:54
2	Cd 226.502†	-154.4	27.8	0.4571 ug/L	0.4571 ppb	20:54:14
2	Co 228.616†	-55.9	-5.2	-0.1499 ug/L	-0.1499 ppb	20:54:14
2	Cr 267.716†	126.9	22.7	0.3436 ug/L	0.3436 ppb	20:54:14
2	Cu 324.752†	6025.8	-124.7	-0.4493 ug/L	-0.4493 ppb	20:53:54
2	Mn 257.610†	449.1	-8.8	-0.0159 ug/L	-0.0159 ppb	20:54:14
2	Mo 202.031†	9.3	-8.1	-0.8206 ug/L	-0.8206 ppb	20:54:14
2	Ni 231.604†	93.3	4.1	0.1460 ug/L	0.1460 ppb	20:54:14

2	P 214.914†	187.6	-14.4	-11.508 ug/L	-11.508 ppb	20:54:14
2	Pb 220.353†	-59.7	-6.4	-1.0948 ug/L	-1.0948 ppb	20:54:14
2	S 181.975 Axial†	32.6	3.1	6.0965 ug/L	6.0965 ppb	20:54:14
2	Sb 206.836†	31.5	3.6	1.6499 ug/L	1.6499 ppb	20:54:14
2	Se 196.026†	-21.9	1.4	1.1457 ug/L	1.1457 ppb	20:54:14
2	Si 251.611†	488.1	-2.8	-0.1041 ug/L	-0.1041 ppb	20:54:14
2	Sn 189.927†	12.3	-2.2	-0.5519 ug/L	-0.5519 ppb	20:54:14
2	Ti 334.940†	-1013.9	103.4	0.1972 ug/L	0.1972 ppb	20:53:54
2	Tl 190.801†	-20.2	3.5	1.5273 ug/L	1.5273 ppb	20:54:14
2	U 409.014†	-1839.0	127.3	4.3333 ug/L	4.3333 ppb	20:53:54
2	V 292.402†	-1399.0	82.3	0.7400 ug/L	0.7400 ppb	20:53:54
2	Zn 213.857†	714.2	3.0	0.0446 ug/L	0.0446 ppb	20:54:14
2	SiO2†	493.7	-5.8	-0.4906 ug/L	-0.4906 ppb	20:55:20
3	Sc Radial	4121.5	4121.5	109 %		20:53:22
3	Y RADIAL	4515.2	4515.2	110.6 %		20:53:02
3	Al 396.153Radial†	-68.0	10.4	12.318 ug/L	12.318 ppb	20:53:22
3	Ca 317.933Radial†	19.1	-4.3	-9.7237 ug/L	-9.7237 ppb	20:53:22
3	Fe 238.204 Radial†	7.9	-1.2	-15.287 ug/L	-15.287 ppb	20:53:22
3	K 766.490 Radial†	2531.3	-152.0	-33.556 ug/L	-33.556 ppb	20:53:02
3	Mg 279.077 IEC†	3.3	0.3	12.248 ug/L	12.248 ppb	20:53:22
3	Na 589.592 Radial†	-475.9	-51.1	-20.542 ug/L	-20.542 ppb	20:53:02
3	Sr 421.552†	24.3	-16.9	-0.1536 ug/L	-0.1536 ppb	20:53:02
3	Sc 361.383	790190.1	790190.1	107.83 %		20:54:19
3	Y 371.029	649430.0	649430.0	107.45 %		20:54:19
3	Ag 328.068†	164.3	0.2	-0.0023 ug/L	-0.0023 ppb	20:54:19
3	As 188.979†	-21.1	2.8	1.6747 ug/L	1.6747 ppb	20:54:40
3	B 249.677†	279.0	593.7	17.871 ug/L	17.871 ppb	20:54:40
3	Ba 233.527†	3.1	0.3	0.0045 ug/L	0.0045 ppb	20:54:40
3	Be 313.107†	-3988.4	192.9	0.0903 ug/L	0.0903 ppb	20:54:19
3	Cd 226.502†	-153.3	29.0	0.4724 ug/L	0.4724 ppb	20:54:40
3	Co 228.616†	-36.6	12.8	0.3681 ug/L	0.3681 ppb	20:54:40
3	Cr 267.716†	128.6	24.2	0.3691 ug/L	0.3691 ppb	20:54:40
3	Cu 324.752†	6055.4	-101.3	-0.3638 ug/L	-0.3638 ppb	20:54:19
3	Mn 257.610†	461.2	2.2	0.0011 ug/L	0.0011 ppb	20:54:40
3	Mo 202.031†	21.4	3.1	0.3147 ug/L	0.3147 ppb	20:54:40
3	Ni 231.604†	83.8	-4.8	-0.1736 ug/L	-0.1736 ppb	20:54:40
3	P 214.914†	191.8	-10.6	-8.4841 ug/L	-8.4841 ppb	20:54:40
3	Pb 220.353†	-54.2	-1.1	-0.1928 ug/L	-0.1928 ppb	20:54:40
3	S 181.975 Axial†	32.9	3.4	6.6178 ug/L	6.6178 ppb	20:54:40
3	Sb 206.836†	29.7	2.0	0.9304 ug/L	0.9304 ppb	20:54:40
3	Se 196.026†	-16.1	6.8	6.0542 ug/L	6.0542 ppb	20:54:40
3	Si 251.611†	515.8	22.6	0.9297 ug/L	0.9297 ppb	20:54:40
3	Sn 189.927†	18.7	3.7	0.9445 ug/L	0.9445 ppb	20:54:40
3	Ti 334.940†	-1062.0	59.5	0.1104 ug/L	0.1104 ppb	20:54:19
3	Tl 190.801†	-19.2	4.4	1.9033 ug/L	1.9033 ppb	20:54:40
3	U 409.014†	-1909.4	63.2	2.1512 ug/L	2.1512 ppb	20:54:19
3	V 292.402†	-1401.6	80.8	0.7361 ug/L	0.7361 ppb	20:54:19
3	Zn 213.857†	708.0	-3.2	-0.0392 ug/L	-0.0392 ppb	20:54:40
3	SiO2†	510.0	9.0	0.7825 ug/L	0.7825 ppb	20:55:40

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	794618.7	108.44 %	1.115			1.03%
Sc Radial	4095.5	108 %	1.8			1.64%
Y 371.029	653409.1	108.10 %	1.164			1.08%
Y RADIAL	4505.7	110.4 %	3.01			2.73%
Ag 328.068†	36.0	0.1982 ug/L	0.19536	0.1982 ppb	0.19536	98.57%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.7	5.5472 ug/L	6.86863	5.5472 ppb	6.86863	123.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.5	0.9050 ug/L	1.49416	0.9050 ppb	1.49416	165.10%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	600.9	18.090 ug/L	0.2602	18.090 ppb	0.2602	1.44%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.5	0.1221 ug/L	0.12997	0.1221 ppb	0.12997	106.44%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	227.8	0.1068 ug/L	0.01649	0.1068 ppb	0.01649	15.44%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.5	-3.4113 ug/L	7.26941	-3.4113 ppb	7.26941	213.10%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	30.3	0.4956 ug/L	0.05394	0.4956 ppb	0.05394	10.88%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	5.7	0.1647 ug/L	0.27636	0.1647 ppb	0.27636	167.79%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	25.2	0.3837 ug/L	0.04902	0.3837 ppb	0.04902	12.78%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-113.2	-0.4073 ug/L	0.04279	-0.4073 ppb	0.04279	10.51%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-1.9	-24.721 ug/L	10.3472	-24.721 ppb	10.3472	41.86%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-121.9	-26.890 ug/L	6.0100	-26.890 ppb	6.0100	22.35%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.1	-5.9241 ug/L	16.29475	-5.9241 ppb	16.29475	275.06%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-12.9	-0.0210 ug/L	0.02502	-0.0210 ppb	0.02502	119.39%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-0.5	-0.0563 ug/L	0.66203	-0.0563 ppb	0.66203	>999.9%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-92.7	-37.284 ug/L	15.6130	-37.284 ppb	15.6130	41.88%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-6.3	-0.2269 ug/L	0.40224	-0.2269 ppb	0.40224	177.24%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-13.3	-10.675 ug/L	1.9159	-10.675 ppb	1.9159	17.95%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-0.5	-0.0892 ug/L	1.06116	-0.0892 ppb	1.06116	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	3.3	6.3720 ug/L	0.26193	6.3720 ppb	0.26193	4.11%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	0.6	0.2841 ug/L	1.77933	0.2841 ppb	1.77933	626.33%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	6.2	5.4725 ug/L	4.06727	5.4725 ppb	4.06727	74.32%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	2.5	0.1044 ug/L	0.74339	0.1044 ppb	0.74339	712.26%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.2	0.3040 ug/L	0.77112	0.3040 ppb	0.77112	253.67%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-15.5	-0.1410 ug/L	0.04427	-0.1410 ppb	0.04427	31.39%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	102.5	0.1945 ug/L	0.08286	0.1945 ppb	0.08286	42.59%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.9	2.5236 ug/L	1.41256	2.5236 ppb	1.41256	55.97%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	95.7	3.2560 ug/L	1.09131	3.2560 ppb	1.09131	33.52%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	92.4	0.8384 ug/L	0.17388	0.8384 ppb	0.17388	20.74%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-8.7	-0.1101 ug/L	0.19987	-0.1101 ppb	0.19987	181.49%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		2.9	0.2593 ug/L	0.66617	0.2593 ppb	0.66617	256.91%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/26/2010 21:59:22

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	4240.5	4240.5	112 %		22:01:34
1	Y RADIAL	4594.5	4594.5	112.5 %		22:01:14
1	Al 396.153Radial†	4741.6	4308.6	5102.5 ug/L	5102.5 ppb	22:01:14
1	Ca 317.933Radial†	2635.7	2332.6	5225.9 ug/L	5225.9 ppb	22:01:34
1	Fe 238.204 Radial†	448.5	392.2	5199.8 ug/L	5199.8 ppb	22:01:34
1	K 766.490 Radial†	27512.8	22098.8	4872.4 ug/L	4872.4 ppb	22:01:14
1	Mg 279.077 IEC†	126.3	110.1	5204.7 ug/L	5204.7 ppb	22:01:34
1	Na 589.592 Radial†	28540.3	25881.4	10408 ug/L	10408 ppb	22:01:14
1	Sr 421.552†	61349.8	54764.7	497.15 ug/L	497.15 ppb	22:01:14
1	Sc 361.383	840963.2	840963.2	114.76 %		22:02:32
1	Y 371.029	684325.7	684325.7	113.22 %		22:02:32
1	Ag 328.068†	102434.5	89108.1	510.13 ug/L	510.13 ppb	22:02:37
1	As 188.979†	936.1	838.0	513.06 ug/L	513.06 ppb	22:02:57
1	B 249.677†	19065.4	16948.4	507.81 ug/L	507.81 ppb	22:02:37
1	Ba 233.527†	55257.4	48148.1	505.91 ug/L	505.91 ppb	22:02:37
1	Be 313.107†	1244313.0	1088171.3	509.17 ug/L	509.17 ppb	22:02:32
1	Cd 226.502†	35635.6	31223.6	507.22 ug/L	507.22 ppb	22:02:37
1	Co 228.616†	20544.8	17949.2	515.85 ug/L	515.85 ppb	22:02:37
1	Cr 267.716†	37917.3	32945.6	505.46 ug/L	505.46 ppb	22:02:37
1	Cu 324.752†	166975.1	139783.2	498.98 ug/L	498.98 ppb	22:02:37
1	Mn 257.610†	395951.0	344601.5	503.26 ug/L	503.26 ppb	22:02:32
1	Mo 202.031†	5737.5	4982.8	503.63 ug/L	503.63 ppb	22:02:57
1	Ni 231.604†	16504.9	14299.6	512.74 ug/L	512.74 ppb	22:02:37
1	P 214.914†	3783.9	3108.7	2415.6 ug/L	2415.6 ppb	22:02:57
1	Pb 220.353†	3278.9	2906.3	504.15 ug/L	504.15 ppb	22:02:57
1	S 181.975 Axial†	636.1	527.2	1024.2 ug/L	1024.2 ppb	22:02:57
1	Sb 206.836†	1281.5	1091.1	524.16 ug/L	524.16 ppb	22:02:57
1	Se 196.026†	621.5	563.3	523.60 ug/L	523.60 ppb	22:02:57
1	Si 251.611†	71353.8	61721.1	2543.7 ug/L	2543.7 ppb	22:02:37
1	Sn 189.927†	2302.6	1992.8	505.85 ug/L	505.85 ppb	22:02:57
1	Ti 334.940†	297765.0	260513.2	498.06 ug/L	498.06 ppb	22:02:37
1	Tl 190.801†	1313.6	1166.9	506.54 ug/L	506.54 ppb	22:02:57
1	U 409.014†	15124.3	15013.1	508.80 ug/L	508.80 ppb	22:02:37
1	V 292.402†	62783.5	56089.4	510.30 ug/L	510.30 ppb	22:02:37
1	Zn 213.857†	44403.8	38033.2	503.14 ug/L	503.14 ppb	22:02:37
1	SiO2†	71645.0	61966.6	5440.2 ug/L	5440.2 ppb	22:04:04
2	Sc Radial	4199.8	4199.8	111 %		22:01:59
2	Y RADIAL	4612.6	4612.6	113.0 %		22:01:39
2	Al 396.153Radial†	4754.3	4361.0	5164.5 ug/L	5164.5 ppb	22:01:39
2	Ca 317.933Radial†	2612.6	2334.5	5230.2 ug/L	5230.2 ppb	22:01:59
2	Fe 238.204 Radial†	440.9	389.2	5160.6 ug/L	5160.6 ppb	22:01:59
2	K 766.490 Radial†	27531.4	22353.4	4928.5 ug/L	4928.5 ppb	22:01:39
2	Mg 279.077 IEC†	125.9	110.7	5237.7 ug/L	5237.7 ppb	22:01:59
2	Na 589.592 Radial†	28533.0	26121.7	10504 ug/L	10504 ppb	22:01:39
2	Sr 421.552†	61614.6	55533.9	504.13 ug/L	504.13 ppb	22:01:39
2	Sc 361.383	837809.8	837809.8	114.33 %		22:03:03
2	Y 371.029	681039.7	681039.7	112.68 %		22:03:03
2	Ag 328.068†	103497.9	90374.1	517.34 ug/L	517.34 ppb	22:03:08
2	As 188.979†	942.3	846.5	518.26 ug/L	518.26 ppb	22:03:28
2	B 249.677†	19215.6	17142.3	513.63 ug/L	513.63 ppb	22:03:08
2	Ba 233.527†	55930.8	48918.3	514.00 ug/L	514.00 ppb	22:03:08
2	Be 313.107†	1239360.1	1087920.2	509.08 ug/L	509.08 ppb	22:03:03
2	Cd 226.502†	35978.9	31640.7	514.01 ug/L	514.01 ppb	22:03:08
2	Co 228.616†	20779.3	18221.7	523.68 ug/L	523.68 ppb	22:03:08
2	Cr 267.716†	38388.2	33481.9	513.68 ug/L	513.68 ppb	22:03:08
2	Cu 324.752†	169328.8	142389.5	508.28 ug/L	508.28 ppb	22:03:08
2	Mn 257.610†	394909.4	344989.1	503.82 ug/L	503.82 ppb	22:03:03
2	Mo 202.031†	5797.2	5053.9	510.81 ug/L	510.81 ppb	22:03:28
2	Ni 231.604†	16772.1	14587.5	523.06 ug/L	523.06 ppb	22:03:08

2	P 214.914†	3813.9	3147.4	2445.1 ug/L	2445.1 ppb	22:03:28
2	Pb 220.353†	3305.3	2940.1	510.04 ug/L	510.04 ppb	22:03:28
2	S 181.975 Axial†	635.9	529.1	1028.0 ug/L	1028.0 ppb	22:03:28
2	Sb 206.836†	1279.4	1093.4	525.47 ug/L	525.47 ppb	22:03:28
2	Se 196.026†	632.6	575.0	534.05 ug/L	534.05 ppb	22:03:28
2	Si 251.611†	72269.0	62755.6	2586.3 ug/L	2586.3 ppb	22:03:08
2	Sn 189.927†	2312.7	2009.2	510.02 ug/L	510.02 ppb	22:03:28
2	Ti 334.940†	301629.9	264870.3	506.39 ug/L	506.39 ppb	22:03:08
2	Tl 190.801†	1337.5	1192.1	517.43 ug/L	517.43 ppb	22:03:28
2	U 409.014†	15258.4	15180.0	514.46 ug/L	514.46 ppb	22:03:08
2	V 292.402†	63500.0	56922.0	517.89 ug/L	517.89 ppb	22:03:08
2	Zn 213.857†	44906.8	38618.7	510.88 ug/L	510.88 ppb	22:03:08
2	SiO2†	70920.6	61568.0	5404.9 ug/L	5404.9 ppb	22:04:09
3	Sc Radial	4261.8	4261.8	113 %		22:02:24
3	Y RADIAL	4716.8	4716.8	115.5 %		22:02:04
3	Al 396.153Radial†	4836.7	4371.8	5177.5 ug/L	5177.5 ppb	22:02:04
3	Ca 317.933Radial†	2657.8	2340.4	5243.3 ug/L	5243.3 ppb	22:02:24
3	Fe 238.204 Radial†	450.7	392.2	5199.7 ug/L	5199.7 ppb	22:02:24
3	K 766.490 Radial†	27944.4	22359.1	4929.8 ug/L	4929.8 ppb	22:02:04
3	Mg 279.077 IEC†	128.4	111.3	5264.5 ug/L	5264.5 ppb	22:02:24
3	Na 589.592 Radial†	28835.8	26016.3	10462 ug/L	10462 ppb	22:02:04
3	Sr 421.552†	62489.7	55503.0	503.85 ug/L	503.85 ppb	22:02:04
3	Sc 361.383	834802.6	834802.6	113.92 %		22:03:34
3	Y 371.029	680824.7	680824.7	112.64 %		22:03:34
3	Ag 328.068†	102100.1	89473.2	512.22 ug/L	512.22 ppb	22:03:39
3	As 188.979†	945.7	852.4	521.84 ug/L	521.84 ppb	22:03:59
3	B 249.677†	18923.7	16946.5	507.75 ug/L	507.75 ppb	22:03:39
3	Ba 233.527†	55041.8	48314.2	507.66 ug/L	507.66 ppb	22:03:39
3	Be 313.107†	1234800.7	1087822.8	509.02 ug/L	509.02 ppb	22:03:34
3	Cd 226.502†	35408.8	31253.7	507.71 ug/L	507.71 ppb	22:03:39
3	Co 228.616†	20400.9	17955.0	516.02 ug/L	516.02 ppb	22:03:39
3	Cr 267.716†	37876.1	33153.3	508.65 ug/L	508.65 ppb	22:03:39
3	Cu 324.752†	166656.1	140576.9	501.81 ug/L	501.81 ppb	22:03:39
3	Mn 257.610†	391719.4	343433.1	501.55 ug/L	501.55 ppb	22:03:34
3	Mo 202.031†	5755.9	5035.9	508.99 ug/L	508.99 ppb	22:03:59
3	Ni 231.604†	16457.9	14364.5	515.06 ug/L	515.06 ppb	22:03:39
3	P 214.914†	3769.1	3120.1	2424.3 ug/L	2424.3 ppb	22:03:59
3	Pb 220.353†	3290.0	2937.1	509.51 ug/L	509.51 ppb	22:03:59
3	S 181.975 Axial†	641.2	535.8	1040.8 ug/L	1040.8 ppb	22:03:59
3	Sb 206.836†	1283.2	1100.8	528.90 ug/L	528.90 ppb	22:03:59
3	Se 196.026†	624.4	569.8	529.49 ug/L	529.49 ppb	22:03:59
3	Si 251.611†	71014.8	61882.4	2550.3 ug/L	2550.3 ppb	22:03:39
3	Sn 189.927†	2315.4	2018.9	512.47 ug/L	512.47 ppb	22:03:59
3	Ti 334.940†	297114.1	261856.7	500.63 ug/L	500.63 ppb	22:03:39
3	Tl 190.801†	1312.6	1174.5	509.81 ug/L	509.81 ppb	22:03:59
3	U 409.014†	14900.7	14914.1	505.42 ug/L	505.42 ppb	22:03:39
3	V 292.402†	62680.2	56402.4	513.18 ug/L	513.18 ppb	22:03:39
3	Zn 213.857†	44254.5	38187.6	505.18 ug/L	505.18 ppb	22:03:39
3	SiO2†	71264.5	62093.3	5451.2 ug/L	5451.2 ppb	22:04:14

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	837858.5	114.34 %	0.420			0.37%
Sc Radial	4234.0	112 %	0.8			0.74%
Y 371.029	682063.4	112.84 %	0.325			0.29%
Y RADIAL	4641.3	113.7 %	1.62			1.42%
Ag 328.068†	89651.8	513.23 ug/L	3.713	513.23 ppb	3.713	0.72%
QC value within limits for Ag 328.068 Recovery = 102.65%						
Al 396.153Radial†	4347.1	5148.2 ug/L	40.07	5148.2 ppb	40.07	0.78%
QC value within limits for Al 396.153Radial Recovery = 102.96%						
As 188.979†	845.6	517.72 ug/L	4.415	517.72 ppb	4.415	0.85%
QC value within limits for As 188.979 Recovery = 103.54%						
B 249.677†	17012.4	509.73 ug/L	3.376	509.73 ppb	3.376	0.66%
QC value within limits for B 249.677 Recovery = 101.95%						
Ba 233.527†	48460.2	509.19 ug/L	4.256	509.19 ppb	4.256	0.84%
QC value within limits for Ba 233.527 Recovery = 101.84%						
Be 313.107†	1087971.4	509.09 ug/L	0.079	509.09 ppb	0.079	0.02%
QC value within limits for Be 313.107 Recovery = 101.82%						
Ca 317.933Radial†	2335.8	5233.1 ug/L	9.09	5233.1 ppb	9.09	0.17%

QC value within limits for Ca 317.933 Radial Recovery = 104.66%

Cd 226.502†	31372.7	509.65 ug/L	3.786	509.65 ppb	3.786	0.74%
QC value within limits for Cd 226.502 Recovery = 101.93%						
Co 228.616†	18042.0	518.52 ug/L	4.473	518.52 ppb	4.473	0.86%
QC value within limits for Co 228.616 Recovery = 103.70%						
Cr 267.716†	33193.6	509.26 ug/L	4.142	509.26 ppb	4.142	0.81%
QC value within limits for Cr 267.716 Recovery = 101.85%						
Cu 324.752†	140916.5	503.02 ug/L	4.766	503.02 ppb	4.766	0.95%
QC value within limits for Cu 324.752 Recovery = 100.60%						
Fe 238.204 Radial†	391.2	5186.7 ug/L	22.62	5186.7 ppb	22.62	0.44%
QC value within limits for Fe 238.204 Radial Recovery = 103.73%						
K 766.490 Radial†	22270.4	4910.2 ug/L	32.80	4910.2 ppb	32.80	0.67%
QC value within limits for K 766.490 Radial Recovery = 98.20%						
Mg 279.077 IEC†	110.7	5235.6 ug/L	29.97	5235.6 ppb	29.97	0.57%
QC value within limits for Mg 279.077 IEC Recovery = 104.71%						
Mn 257.610†	344341.2	502.88 ug/L	1.181	502.88 ppb	1.181	0.23%
QC value within limits for Mn 257.610 Recovery = 100.58%						
Mo 202.031†	5024.2	507.81 ug/L	3.730	507.81 ppb	3.730	0.73%
QC value within limits for Mo 202.031 Recovery = 101.56%						
Na 589.592 Radial†	26006.4	10458 ug/L	48.4	10458 ppb	48.4	0.46%
QC value within limits for Na 589.592 Radial Recovery = 104.58%						
Ni 231.604†	14417.2	516.95 ug/L	5.414	516.95 ppb	5.414	1.05%
QC value within limits for Ni 231.604 Recovery = 103.39%						
P 214.914†	3125.4	2428.3 ug/L	15.15	2428.3 ppb	15.15	0.62%
QC value within limits for P 214.914 Recovery = 97.13%						
Pb 220.353†	2927.8	507.90 ug/L	3.257	507.90 ppb	3.257	0.64%
QC value within limits for Pb 220.353 Recovery = 101.58%						
S 181.975 Axial†	530.7	1031.0 ug/L	8.73	1031.0 ppb	8.73	0.85%
QC value within limits for S 181.975 Axial Recovery = 103.10%						
Sb 206.836†	1095.1	526.18 ug/L	2.447	526.18 ppb	2.447	0.47%
QC value within limits for Sb 206.836 Recovery = 105.24%						
Se 196.026†	569.4	529.04 ug/L	5.239	529.04 ppb	5.239	0.99%
QC value within limits for Se 196.026 Recovery = 105.81%						
Si 251.611†	62119.7	2560.1 ug/L	22.96	2560.1 ppb	22.96	0.90%
QC value within limits for Si 251.611 Recovery = 102.40%						
Sn 189.927†	2007.0	509.45 ug/L	3.344	509.45 ppb	3.344	0.66%
QC value within limits for Sn 189.927 Recovery = 101.89%						
Sr 421.552†	55267.2	501.71 ug/L	3.954	501.71 ppb	3.954	0.79%
QC value within limits for Sr 421.552 Recovery = 100.34%						
Ti 334.940†	262413.4	501.69 ug/L	4.263	501.69 ppb	4.263	0.85%
QC value within limits for Ti 334.940 Recovery = 100.34%						
Tl 190.801†	1177.8	511.26 ug/L	5.588	511.26 ppb	5.588	1.09%
QC value within limits for Tl 190.801 Recovery = 102.25%						
U 409.014†	15035.7	509.56 ug/L	4.565	509.56 ppb	4.565	0.90%
QC value within limits for U 409.014 Recovery = 101.91%						
V 292.402†	56471.3	513.79 ug/L	3.828	513.79 ppb	3.828	0.75%
QC value within limits for V 292.402 Recovery = 102.76%						
Zn 213.857†	38279.8	506.40 ug/L	4.014	506.40 ppb	4.014	0.79%
QC value within limits for Zn 213.857 Recovery = 101.28%						
SiO2†	61876.0	5432.1 ug/L	24.18	5432.1 ppb	24.18	0.45%
QC value within limits for SiO2 Recovery = 101.58%						

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/26/2010 22:06:24

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	4140.6	4140.6	109 %		22:08:36
1	Y RADIAL	4645.1	4645.1	113.8 %		22:08:16
1	Al 396.153Radial†	-69.4	9.3	11.142 ug/L	11.142 ppb	22:08:36
1	Ca 317.933Radial†	24.2	0.2	0.4976 ug/L	0.4976 ppb	22:08:36
1	Fe 238.204 Radial†	7.8	-1.3	-17.703 ug/L	-17.703 ppb	22:08:36
1	K 766.490 Radial†	2537.2	-157.4	-34.740 ug/L	-34.740 ppb	22:08:16
1	Mg 279.077 IEC†	0.7	-2.2	-102.06 ug/L	-102.06 ppb	22:08:36
1	Na 589.592 Radial†	-525.0	-94.0	-37.797 ug/L	-37.797 ppb	22:08:16
1	Sr 421.552†	67.8	22.8	0.2066 ug/L	0.2066 ppb	22:08:16
1	Sc 361.383	826714.8	826714.8	112.82 %		22:09:33
1	Y 371.029	678959.1	678959.1	112.33 %		22:09:33
1	Ag 328.068†	280.4	96.4	0.5443 ug/L	0.5443 ppb	22:09:33
1	As 188.979†	-29.1	-3.5	-2.1487 ug/L	-2.1487 ppb	22:09:53
1	B 249.677†	-59.9	281.9	8.4860 ug/L	8.4860 ppb	22:09:53
1	Ba 233.527†	11.2	7.4	0.0789 ug/L	0.0789 ppb	22:09:53
1	Be 313.107†	-4023.0	325.6	0.1523 ug/L	0.1523 ppb	22:09:33
1	Cd 226.502†	-169.1	21.3	0.3481 ug/L	0.3481 ppb	22:09:53
1	Co 228.616†	-39.7	11.5	0.3302 ug/L	0.3302 ppb	22:09:53
1	Cr 267.716†	133.2	23.0	0.3502 ug/L	0.3502 ppb	22:09:53
1	Cu 324.752†	6074.8	-332.2	-1.1886 ug/L	-1.1886 ppb	22:09:33
1	Mn 257.610†	447.0	-29.3	-0.0404 ug/L	-0.0404 ppb	22:09:53
1	Mo 202.031†	15.2	-3.2	-0.3291 ug/L	-0.3291 ppb	22:09:53
1	Ni 231.604†	88.0	-4.6	-0.1636 ug/L	-0.1636 ppb	22:09:53
1	P 214.914†	199.2	-11.9	-9.3656 ug/L	-9.3656 ppb	22:09:53
1	Pb 220.353†	-43.4	10.6	1.8447 ug/L	1.8447 ppb	22:09:53
1	S 181.975 Axial†	28.6	-1.7	-3.3243 ug/L	-3.3243 ppb	22:09:53
1	Sb 206.836†	29.3	0.3	0.1149 ug/L	0.1149 ppb	22:09:53
1	Se 196.026†	-20.4	3.7	3.2536 ug/L	3.2536 ppb	22:09:53
1	Si 251.611†	493.5	-18.3	-0.7517 ug/L	-0.7517 ppb	22:09:53
1	Sn 189.927†	4.4	-9.7	-2.4666 ug/L	-2.4666 ppb	22:09:53
1	Ti 334.940†	-1104.9	64.9	0.1310 ug/L	0.1310 ppb	22:09:33
1	Tl 190.801†	-17.1	7.1	3.0639 ug/L	3.0639 ppb	22:09:53
1	U 409.014†	-1966.4	91.0	3.0952 ug/L	3.0952 ppb	22:09:33
1	V 292.402†	-1432.6	110.7	0.9955 ug/L	0.9955 ppb	22:09:33
1	Zn 213.857†	628.5	-102.7	-1.3663 ug/L	-1.3663 ppb	22:09:53
1	SiO2†	499.6	-21.1	-1.8503 ug/L	-1.8503 ppb	22:11:04
2	Sc Radial	4159.1	4159.1	110 %		22:09:01
2	Y RADIAL	4712.8	4712.8	115.4 %		22:08:41
2	Al 396.153Radial†	-75.2	4.4	5.1844 ug/L	5.1844 ppb	22:09:01
2	Ca 317.933Radial†	25.9	1.7	3.7283 ug/L	3.7283 ppb	22:09:01
2	Fe 238.204 Radial†	6.9	-2.2	-29.025 ug/L	-29.025 ppb	22:09:01
2	K 766.490 Radial†	2524.9	-178.9	-39.477 ug/L	-39.477 ppb	22:08:41
2	Mg 279.077 IEC†	0.5	-2.4	-113.37 ug/L	-113.37 ppb	22:09:01
2	Na 589.592 Radial†	-523.7	-90.7	-36.454 ug/L	-36.454 ppb	22:08:41
2	Sr 421.552†	44.2	1.0	0.0088 ug/L	0.0088 ppb	22:08:41
2	Sc 361.383	828154.1	828154.1	113.01 %		22:09:58
2	Y 371.029	680992.4	680992.4	112.67 %		22:09:58
2	Ag 328.068†	278.0	93.8	0.5249 ug/L	0.5249 ppb	22:09:58
2	As 188.979†	-16.6	7.6	4.5962 ug/L	4.5962 ppb	22:10:18
2	B 249.677†	-31.9	306.8	9.2378 ug/L	9.2378 ppb	22:10:18
2	Ba 233.527†	13.8	9.7	0.1037 ug/L	0.1037 ppb	22:10:18
2	Be 313.107†	-3975.3	374.0	0.1753 ug/L	0.1753 ppb	22:09:58
2	Cd 226.502†	-165.0	25.2	0.4128 ug/L	0.4128 ppb	22:10:18
2	Co 228.616†	-44.3	7.5	0.2168 ug/L	0.2168 ppb	22:10:18
2	Cr 267.716†	109.4	1.7	0.0227 ug/L	0.0227 ppb	22:10:18
2	Cu 324.752†	5961.3	-442.0	-1.5832 ug/L	-1.5832 ppb	22:09:58
2	Mn 257.610†	436.6	-39.2	-0.0555 ug/L	-0.0555 ppb	22:10:18
2	Mo 202.031†	23.4	4.0	0.4015 ug/L	0.4015 ppb	22:10:18
2	Ni 231.604†	64.7	-25.3	-0.9089 ug/L	-0.9089 ppb	22:10:18

2	P 214.914†	181.0	-28.3	-22.556 ug/L	-22.556 ppb	22:10:18
2	Pb 220.353†	-59.0	-3.1	-0.5309 ug/L	-0.5309 ppb	22:10:18
2	S 181.975 Axial†	28.3	-2.1	-4.0744 ug/L	-4.0744 ppb	22:10:18
2	Sb 206.836†	25.6	-3.0	-1.3970 ug/L	-1.3970 ppb	22:10:18
2	Se 196.026†	-17.0	6.7	5.9487 ug/L	5.9487 ppb	22:10:18
2	Si 251.611†	486.3	-25.4	-1.0553 ug/L	-1.0553 ppb	22:10:18
2	Sn 189.927†	6.9	-7.5	-1.9081 ug/L	-1.9081 ppb	22:10:18
2	Ti 334.940†	-990.6	167.8	0.3276 ug/L	0.3276 ppb	22:09:58
2	Tl 190.801†	-27.0	-1.6	-0.6897 ug/L	-0.6897 ppb	22:10:18
2	U 409.014†	-1838.0	207.7	7.0649 ug/L	7.0649 ppb	22:09:58
2	V 292.402†	-1372.2	166.4	1.5148 ug/L	1.5148 ppb	22:09:58
2	Zn 213.857†	609.6	-120.4	-1.5957 ug/L	-1.5957 ppb	22:10:18
2	SiO2†	501.1	-20.5	-1.8186 ug/L	-1.8186 ppb	22:11:24
3	Sc Radial	4131.9	4131.9	109 %		22:09:26
3	Y RADIAL	4583.1	4583.1	112.3 %		22:09:06
3	Al 396.153Radial†	-65.8	12.5	14.923 ug/L	14.923 ppb	22:09:26
3	Ca 317.933Radial†	22.0	-1.8	-4.0218 ug/L	-4.0218 ppb	22:09:26
3	Fe 238.204 Radial†	8.0	-1.1	-14.362 ug/L	-14.362 ppb	22:09:26
3	K 766.490 Radial†	2544.9	-145.4	-32.089 ug/L	-32.089 ppb	22:09:06
3	Mg 279.077 IEC†	2.9	-0.2	-8.1053 ug/L	-8.1053 ppb	22:09:26
3	Na 589.592 Radial†	-551.8	-119.6	-48.088 ug/L	-48.088 ppb	22:09:06
3	Sr 421.552†	11.4	-28.8	-0.2613 ug/L	-0.2613 ppb	22:09:06
3	Sc 361.383	815508.0	815508.0	111.29 %		22:10:24
3	Y 371.029	671126.6	671126.6	111.04 %		22:10:24
3	Ag 328.068†	131.8	-33.7	-0.1980 ug/L	-0.1980 ppb	22:10:24
3	As 188.979†	-29.2	-4.0	-2.4067 ug/L	-2.4067 ppb	22:10:44
3	B 249.677†	-64.8	276.7	8.3316 ug/L	8.3316 ppb	22:10:44
3	Ba 233.527†	0.6	-2.0	-0.0196 ug/L	-0.0196 ppb	22:10:44
3	Be 313.107†	-4062.8	240.8	0.1132 ug/L	0.1132 ppb	22:10:24
3	Cd 226.502†	-166.9	21.2	0.3467 ug/L	0.3467 ppb	22:10:44
3	Co 228.616†	-54.6	-2.4	-0.0700 ug/L	-0.0700 ppb	22:10:44
3	Cr 267.716†	122.4	14.9	0.2257 ug/L	0.2257 ppb	22:10:44
3	Cu 324.752†	6026.6	-301.5	-1.0806 ug/L	-1.0806 ppb	22:10:24
3	Mn 257.610†	443.5	-27.0	-0.0405 ug/L	-0.0405 ppb	22:10:44
3	Mo 202.031†	13.4	-4.7	-0.4736 ug/L	-0.4736 ppb	22:10:44
3	Ni 231.604†	81.8	-9.1	-0.3247 ug/L	-0.3247 ppb	22:10:44
3	P 214.914†	199.8	-8.9	-7.0155 ug/L	-7.0155 ppb	22:10:44
3	Pb 220.353†	-60.9	-5.6	-0.9722 ug/L	-0.9722 ppb	22:10:44
3	S 181.975 Axial†	25.5	-4.2	-8.2024 ug/L	-8.2024 ppb	22:10:44
3	Sb 206.836†	20.6	-7.1	-3.3441 ug/L	-3.3441 ppb	22:10:44
3	Se 196.026†	-18.9	4.7	4.2348 ug/L	4.2348 ppb	22:10:44
3	Si 251.611†	487.3	-17.9	-0.7318 ug/L	-0.7318 ppb	22:10:44
3	Sn 189.927†	8.3	-6.2	-1.5799 ug/L	-1.5799 ppb	22:10:44
3	Ti 334.940†	-953.7	187.3	0.3555 ug/L	0.3555 ppb	22:10:24
3	Tl 190.801†	-16.4	7.6	3.2647 ug/L	3.2647 ppb	22:10:44
3	U 409.014†	-1833.0	186.9	6.3565 ug/L	6.3565 ppb	22:10:24
3	V 292.402†	-1434.2	91.8	0.8311 ug/L	0.8311 ppb	22:10:24
3	Zn 213.857†	601.3	-119.5	-1.5906 ug/L	-1.5906 ppb	22:10:44
3	SiO2†	501.4	-13.4	-1.1702 ug/L	-1.1702 ppb	22:11:44

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823459.0	112.37 %	0.945			0.84%
Sc Radial	4143.9	109 %	0.4			0.33%
Y 371.029	677026.1	112.01 %	0.862			0.77%
Y RADIAL	4647.0	113.8 %	1.59			1.40%
Ag 328.068†	52.2	0.2904 ug/L	0.42306	0.2904 ppb	0.42306	145.67%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.7	10.416 ug/L	4.9095	10.416 ppb	4.9095	47.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.0	0.0136 ug/L	3.97076	0.0136 ppb	3.97076	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	288.5	8.6851 ug/L	0.48480	8.6851 ppb	0.48480	5.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.0	0.0544 ug/L	0.06522	0.0544 ppb	0.06522	119.98%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	313.5	0.1470 ug/L	0.03139	0.1470 ppb	0.03139	21.36%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.0	0.0680 ug/L	3.89283	0.0680 ppb	3.89283	>999.9%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	22.5	0.3692 ug/L	0.03777	0.3692 ppb	0.03777	10.23%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	5.6	0.1590 ug/L	0.20629	0.1590 ppb	0.20629	129.75%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.2	0.1995 ug/L	0.16531	0.1995 ppb	0.16531	82.85%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-358.6	-1.2842 ug/L	0.26457	-1.2842 ppb	0.26457	20.60%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.5	-20.363 ug/L	7.6853	-20.363 ppb	7.6853	37.74%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-160.6	-35.435 ug/L	3.7426	-35.435 ppb	3.7426	10.56%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.6	-74.512 ug/L	57.7873	-74.512 ppb	57.7873	77.55%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-31.9	-0.0455 ug/L	0.00869	-0.0455 ppb	0.00869	19.12%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.3	-0.1338 ug/L	0.46913	-0.1338 ppb	0.46913	350.74%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-101.4	-40.780 ug/L	6.3649	-40.780 ppb	6.3649	15.61%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-13.0	-0.4657 ug/L	0.39211	-0.4657 ppb	0.39211	84.19%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-16.4	-12.979 ug/L	8.3766	-12.979 ppb	8.3766	64.54%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	0.6	0.1138 ug/L	1.51507	0.1138 ppb	1.51507	>999.9%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.7	-5.2004 ug/L	2.62674	-5.2004 ppb	2.62674	50.51%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.3	-1.5421 ug/L	1.73405	-1.5421 ppb	1.73405	112.45%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.0	4.4790 ug/L	1.36404	4.4790 ppb	1.36404	30.45%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-20.5	-0.8463 ug/L	0.18133	-0.8463 ppb	0.18133	21.43%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-7.8	-1.9849 ug/L	0.44833	-1.9849 ppb	0.44833	22.59%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1.7	-0.0153 ug/L	0.23488	-0.0153 ppb	0.23488	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	140.0	0.2714 ug/L	0.12234	0.2714 ppb	0.12234	45.09%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.4	1.8796 ug/L	2.22738	1.8796 ppb	2.22738	118.50%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	161.8	5.5055 ug/L	2.11724	5.5055 ppb	2.11724	38.46%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	123.0	1.1138 ug/L	0.35683	1.1138 ppb	0.35683	32.04%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-114.2	-1.5175 ug/L	0.13103	-1.5175 ppb	0.13103	8.63%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-18.4	-1.6130 ug/L	0.38383	-1.6130 ppb	0.38383	23.80%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 36  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 3/26/2010 23:02:27  
 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	4285.2	4285.2	113 %		23:04:39
1	Y RADIAL	4602.1	4602.1	112.7 %		23:04:19
1	Al 396.153Radial†	4790.2	4307.3	5100.8 ug/L	5100.8 ppb	23:04:19
1	Ca 317.933Radial†	2670.3	2338.6	5239.4 ug/L	5239.4 ppb	23:04:39
1	Fe 238.204 Radial†	443.4	383.5	5084.9 ug/L	5084.9 ppb	23:04:39
1	K 766.490 Radial†	27346.6	21695.3	4783.7 ug/L	4783.7 ppb	23:04:19
1	Mg 279.077 IEC†	126.3	108.9	5148.5 ug/L	5148.5 ppb	23:04:39
1	Na 589.592 Radial†	26012.9	23381.2	9402.3 ug/L	9402.3 ppb	23:04:19
1	Sr 421.552†	59277.5	52360.9	475.33 ug/L	475.33 ppb	23:04:19
1	Sc 361.383	834302.6	834302.6	113.85 %		23:05:36
1	Y 371.029	679064.9	679064.9	112.35 %		23:05:36
1	Ag 328.068†	100861.0	88438.5	506.27 ug/L	506.27 ppb	23:05:41
1	As 188.979†	927.5	837.0	512.39 ug/L	512.39 ppb	23:06:01
1	B 249.677†	18470.8	16558.7	496.11 ug/L	496.11 ppb	23:05:41
1	Ba 233.527†	54485.1	47854.1	502.82 ug/L	502.82 ppb	23:05:41
1	Be 313.107†	1232739.8	1086662.3	508.46 ug/L	508.46 ppb	23:05:36
1	Cd 226.502†	35170.8	31063.3	504.63 ug/L	504.63 ppb	23:05:41
1	Co 228.616†	20238.7	17823.3	512.24 ug/L	512.24 ppb	23:05:41
1	Cr 267.716†	37405.8	32760.1	502.61 ug/L	502.61 ppb	23:05:41
1	Cu 324.752†	164403.0	138685.6	495.06 ug/L	495.06 ppb	23:05:41
1	Mn 257.610†	386284.2	338865.2	494.88 ug/L	494.88 ppb	23:05:41
1	Mo 202.031†	5725.1	5011.8	506.56 ug/L	506.56 ppb	23:06:01
1	Ni 231.604†	16309.1	14242.5	510.69 ug/L	510.69 ppb	23:05:41
1	P 214.914†	3770.0	3122.9	2427.9 ug/L	2427.9 ppb	23:06:01
1	Pb 220.353†	3265.9	2917.7	506.15 ug/L	506.15 ppb	23:06:01
1	S 181.975 Axial†	636.3	531.7	1033.1 ug/L	1033.1 ppb	23:06:01
1	Sb 206.836†	1270.9	1090.6	524.05 ug/L	524.05 ppb	23:06:01
1	Se 196.026†	615.7	562.6	522.62 ug/L	522.62 ppb	23:06:01
1	Si 251.611†	70299.2	61291.3	2525.9 ug/L	2525.9 ppb	23:05:41
1	Sn 189.927†	2291.3	1998.9	507.41 ug/L	507.41 ppb	23:06:01
1	Ti 334.940†	293483.1	258823.7	494.84 ug/L	494.84 ppb	23:05:41
1	Tl 190.801†	1324.9	1186.0	514.71 ug/L	514.71 ppb	23:06:01
1	U 409.014†	14845.1	14873.2	504.06 ug/L	504.06 ppb	23:05:41
1	V 292.402†	61987.3	55826.8	508.00 ug/L	508.00 ppb	23:05:41
1	Zn 213.857†	43848.1	37854.0	500.78 ug/L	500.78 ppb	23:05:41
1	SiO2†	71398.5	62248.6	5464.9 ug/L	5464.9 ppb	23:07:08
2	Sc Radial	4311.7	4311.7	114 %		23:05:04
2	Y RADIAL	4723.0	4723.0	115.7 %		23:04:44
2	Al 396.153Radial†	4936.3	4409.6	5222.4 ug/L	5222.4 ppb	23:04:44
2	Ca 317.933Radial†	2683.5	2335.6	5232.7 ug/L	5232.7 ppb	23:05:04
2	Fe 238.204 Radial†	442.8	380.5	5045.9 ug/L	5045.9 ppb	23:05:04
2	K 766.490 Radial†	28017.4	22135.9	4880.9 ug/L	4880.9 ppb	23:04:44
2	Mg 279.077 IEC†	128.2	109.8	5192.5 ug/L	5192.5 ppb	23:05:04
2	Na 589.592 Radial†	26668.1	23815.3	9576.8 ug/L	9576.8 ppb	23:04:44
2	Sr 421.552†	61110.5	53648.7	487.02 ug/L	487.02 ppb	23:04:44
2	Sc 361.383	828430.8	828430.8	113.05 %		23:06:07
2	Y 371.029	674633.3	674633.3	111.62 %		23:06:07
2	Ag 328.068†	100382.4	88643.1	507.43 ug/L	507.43 ppb	23:06:12
2	As 188.979†	943.1	856.5	524.28 ug/L	524.28 ppb	23:06:32
2	B 249.677†	18382.9	16595.9	497.24 ug/L	497.24 ppb	23:06:12
2	Ba 233.527†	54104.0	47856.3	502.84 ug/L	502.84 ppb	23:06:12
2	Be 313.107†	1226341.5	1088677.0	509.41 ug/L	509.41 ppb	23:06:07
2	Cd 226.502†	34830.3	30981.0	503.29 ug/L	503.29 ppb	23:06:12
2	Co 228.616†	20074.7	17804.2	511.70 ug/L	511.70 ppb	23:06:12
2	Cr 267.716†	37188.9	32801.2	503.23 ug/L	503.23 ppb	23:06:12
2	Cu 324.752†	164040.2	139388.2	497.56 ug/L	497.56 ppb	23:06:12
2	Mn 257.610†	384013.2	339261.1	495.45 ug/L	495.45 ppb	23:06:12
2	Mo 202.031†	5713.7	5037.4	509.13 ug/L	509.13 ppb	23:06:32
2	Ni 231.604†	16212.8	14258.8	511.27 ug/L	511.27 ppb	23:06:12



2	P 214.914†	3756.5	3134.4	2436.8 ug/L	2436.8 ppb	23:06:32
2	Pb 220.353†	3232.3	2908.3	504.56 ug/L	504.56 ppb	23:06:32
2	S 181.975 Axial†	626.9	527.4	1024.6 ug/L	1024.6 ppb	23:06:32
2	Sb 206.836†	1280.1	1106.7	531.54 ug/L	531.54 ppb	23:06:32
2	Se 196.026†	614.9	565.7	525.36 ug/L	525.36 ppb	23:06:32
2	Si 251.611†	69801.4	61288.6	2525.7 ug/L	2525.7 ppb	23:06:12
2	Sn 189.927†	2277.5	2001.0	507.95 ug/L	507.95 ppb	23:06:32
2	Ti 334.940†	292224.0	259537.1	496.20 ug/L	496.20 ppb	23:06:12
2	Tl 190.801†	1317.0	1187.2	515.26 ug/L	515.26 ppb	23:06:32
2	U 409.014†	14677.0	14816.8	502.14 ug/L	502.14 ppb	23:06:12
2	V 292.402†	61471.5	55756.5	507.40 ug/L	507.40 ppb	23:06:12
2	Zn 213.857†	43626.4	37930.8	501.80 ug/L	501.80 ppb	23:06:12
2	SiO2†	71826.3	63071.5	5537.3 ug/L	5537.3 ppb	23:07:13
3	Sc Radial	4257.9	4257.9	112 %		23:05:29
3	Y RADIAL	4842.5	4842.5	118.6 %		23:05:09
3	Al 396.153Radial†	5038.4	4555.2	5395.7 ug/L	5395.7 ppb	23:05:09
3	Ca 317.933Radial†	2648.3	2334.1	5229.3 ug/L	5229.3 ppb	23:05:29
3	Fe 238.204 Radial†	440.9	383.8	5089.1 ug/L	5089.1 ppb	23:05:29
3	K 766.490 Radial†	28419.6	22804.7	5028.4 ug/L	5028.4 ppb	23:05:09
3	Mg 279.077 IEC†	126.3	109.5	5180.5 ug/L	5180.5 ppb	23:05:29
3	Na 589.592 Radial†	27409.7	24771.1	9961.2 ug/L	9961.2 ppb	23:05:09
3	Sr 421.552†	62661.4	55706.8	505.70 ug/L	505.70 ppb	23:05:09
3	Sc 361.383	844823.9	844823.9	115.29 %		23:06:38
3	Y 371.029	687249.5	687249.5	113.70 %		23:06:38
3	Ag 328.068†	102513.2	88768.4	508.16 ug/L	508.16 ppb	23:06:43
3	As 188.979†	954.5	850.2	520.46 ug/L	520.46 ppb	23:07:03
3	B 249.677†	18906.3	16734.4	501.39 ug/L	501.39 ppb	23:06:43
3	Ba 233.527†	55342.4	48001.8	504.37 ug/L	504.37 ppb	23:06:43
3	Be 313.107†	1251781.0	1089694.0	509.88 ug/L	509.88 ppb	23:06:38
3	Cd 226.502†	35606.2	31056.2	504.51 ug/L	504.51 ppb	23:06:43
3	Co 228.616†	20552.7	17874.3	513.71 ug/L	513.71 ppb	23:06:43
3	Cr 267.716†	37938.8	32813.3	503.42 ug/L	503.42 ppb	23:06:43
3	Cu 324.752†	167503.9	139577.0	498.24 ug/L	498.24 ppb	23:06:43
3	Mn 257.610†	392536.1	340062.7	496.63 ug/L	496.63 ppb	23:06:43
3	Mo 202.031†	5823.6	5034.6	508.86 ug/L	508.86 ppb	23:07:03
3	Ni 231.604†	16517.7	14245.0	510.78 ug/L	510.78 ppb	23:06:43
3	P 214.914†	3817.8	3123.1	2427.5 ug/L	2427.5 ppb	23:07:03
3	Pb 220.353†	3302.3	2913.5	505.50 ug/L	505.50 ppb	23:07:03
3	S 181.975 Axial†	644.9	532.2	1034.0 ug/L	1034.0 ppb	23:07:03
3	Sb 206.836†	1278.9	1083.7	520.84 ug/L	520.84 ppb	23:07:03
3	Se 196.026†	627.6	566.1	525.93 ug/L	525.93 ppb	23:07:03
3	Si 251.611†	71526.0	61586.4	2538.1 ug/L	2538.1 ppb	23:06:43
3	Sn 189.927†	2316.6	1995.8	506.61 ug/L	506.61 ppb	23:07:03
3	Ti 334.940†	298851.2	260269.7	497.60 ug/L	497.60 ppb	23:06:43
3	Tl 190.801†	1326.5	1172.8	509.07 ug/L	509.07 ppb	23:07:03
3	U 409.014†	15196.0	15015.1	508.88 ug/L	508.88 ppb	23:06:43
3	V 292.402†	62988.2	56017.0	509.74 ug/L	509.74 ppb	23:06:43
3	Zn 213.857†	44417.8	37868.4	500.97 ug/L	500.97 ppb	23:06:43
3	SiO2†	72224.0	62183.6	5459.1 ug/L	5459.1 ppb	23:07:19

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	835852.5	114.06 %	1.133			0.99%
Sc Radial	4284.9	113 %	0.7			0.63%
Y 371.029	680315.9	112.56 %	1.059			0.94%
Y RADIAL	4722.5	115.7 %	2.94			2.55%
Ag 328.068†	88616.7	507.29 ug/L	0.949	507.29 ppb	0.949	0.19%
QC value within limits for Ag 328.068 Recovery = 101.46%						
Al 396.153Radial†	4424.0	5239.7 ug/L	148.20	5239.7 ppb	148.20	2.83%
QC value within limits for Al 396.153Radial Recovery = 104.79%						
As 188.979†	847.9	519.04 ug/L	6.071	519.04 ppb	6.071	1.17%
QC value within limits for As 188.979 Recovery = 103.81%						
B 249.677†	16629.7	498.24 ug/L	2.782	498.24 ppb	2.782	0.56%
QC value within limits for B 249.677 Recovery = 99.65%						
Ba 233.527†	47904.1	503.34 ug/L	0.890	503.34 ppb	0.890	0.18%
QC value within limits for Ba 233.527 Recovery = 100.67%						
Be 313.107†	1088344.4	509.25 ug/L	0.723	509.25 ppb	0.723	0.14%
QC value within limits for Be 313.107 Recovery = 101.85%						
Ca 317.933Radial†	2336.1	5233.8 ug/L	5.12	5233.8 ppb	5.12	0.10%

QC value within limits for Ca 317.933 Radial Recovery = 104.68%

Cd 226.502†	31033.5	504.14 ug/L	0.738	504.14 ppb	0.738	0.15%
QC value within limits for Cd 226.502 Recovery = 100.83%						
Co 228.616†	17833.9	512.55 ug/L	1.039	512.55 ppb	1.039	0.20%
QC value within limits for Co 228.616 Recovery = 102.51%						
Cr 267.716†	32791.5	503.09 ug/L	0.426	503.09 ppb	0.426	0.08%
QC value within limits for Cr 267.716 Recovery = 100.62%						
Cu 324.752†	139216.9	496.95 ug/L	1.676	496.95 ppb	1.676	0.34%
QC value within limits for Cu 324.752 Recovery = 99.39%						
Fe 238.204 Radial†	382.6	5073.3 ug/L	23.81	5073.3 ppb	23.81	0.47%
QC value within limits for Fe 238.204 Radial Recovery = 101.47%						
K 766.490 Radial†	22211.9	4897.7 ug/L	123.21	4897.7 ppb	123.21	2.52%
QC value within limits for K 766.490 Radial Recovery = 97.95%						
Mg 279.077 IEC†	109.4	5173.8 ug/L	22.74	5173.8 ppb	22.74	0.44%
QC value within limits for Mg 279.077 IEC Recovery = 103.48%						
Mn 257.610†	339396.3	495.65 ug/L	0.891	495.65 ppb	0.891	0.18%
QC value within limits for Mn 257.610 Recovery = 99.13%						
Mo 202.031†	5028.0	508.18 ug/L	1.416	508.18 ppb	1.416	0.28%
QC value within limits for Mo 202.031 Recovery = 101.64%						
Na 589.592 Radial†	23989.2	9646.8 ug/L	285.95	9646.8 ppb	285.95	2.96%
QC value within limits for Na 589.592 Radial Recovery = 96.47%						
Ni 231.604†	14248.7	510.91 ug/L	0.315	510.91 ppb	0.315	0.06%
QC value within limits for Ni 231.604 Recovery = 102.18%						
P 214.914†	3126.8	2430.7 ug/L	5.24	2430.7 ppb	5.24	0.22%
QC value within limits for P 214.914 Recovery = 97.23%						
Pb 220.353†	2913.2	505.40 ug/L	0.801	505.40 ppb	0.801	0.16%
QC value within limits for Pb 220.353 Recovery = 101.08%						
S 181.975 Axial†	530.5	1030.5 ug/L	5.18	1030.5 ppb	5.18	0.50%
QC value within limits for S 181.975 Axial Recovery = 103.05%						
Sb 206.836†	1093.7	525.48 ug/L	5.491	525.48 ppb	5.491	1.04%
QC value within limits for Sb 206.836 Recovery = 105.10%						
Se 196.026†	564.8	524.64 ug/L	1.771	524.64 ppb	1.771	0.34%
QC value within limits for Se 196.026 Recovery = 104.93%						
Si 251.611†	61388.7	2529.9 ug/L	7.06	2529.9 ppb	7.06	0.28%
QC value within limits for Si 251.611 Recovery = 101.20%						
Sn 189.927†	1998.5	507.32 ug/L	0.670	507.32 ppb	0.670	0.13%
QC value within limits for Sn 189.927 Recovery = 101.46%						
Sr 421.552†	53905.5	489.35 ug/L	15.322	489.35 ppb	15.322	3.13%
QC value within limits for Sr 421.552 Recovery = 97.87%						
Ti 334.940†	259543.5	496.22 ug/L	1.379	496.22 ppb	1.379	0.28%
QC value within limits for Ti 334.940 Recovery = 99.24%						
Tl 190.801†	1182.0	513.01 ug/L	3.426	513.01 ppb	3.426	0.67%
QC value within limits for Tl 190.801 Recovery = 102.60%						
U 409.014†	14901.7	505.03 ug/L	3.471	505.03 ppb	3.471	0.69%
QC value within limits for U 409.014 Recovery = 101.01%						
V 292.402†	55866.8	508.38 ug/L	1.216	508.38 ppb	1.216	0.24%
QC value within limits for V 292.402 Recovery = 101.68%						
Zn 213.857†	37884.4	501.18 ug/L	0.546	501.18 ppb	0.546	0.11%
QC value within limits for Zn 213.857 Recovery = 100.24%						
SiO2†	62501.2	5487.1 ug/L	43.54	5487.1 ppb	43.54	0.79%
QC value within limits for SiO2 Recovery = 102.61%						

All analyte(s) passed QC.

Sequence No.: 37

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/26/2010 23:09:28

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	4155.5	4155.5	110 %		23:11:40
1	Y RADIAL	4622.6	4622.6	113.2 %		23:11:20
1	Al 396.153Radial†	-62.4	16.0	19.055 ug/L	19.055 ppb	23:11:40
1	Ca 317.933Radial†	29.8	5.2	11.733 ug/L	11.733 ppb	23:11:40
1	Fe 238.204 Radial†	6.5	-2.5	-33.139 ug/L	-33.139 ppb	23:11:40
1	K 766.490 Radial†	2476.7	-220.9	-48.748 ug/L	-48.748 ppb	23:11:20
1	Mg 279.077 IEC†	2.1	-0.9	-43.570 ug/L	-43.570 ppb	23:11:40
1	Na 589.592 Radial†	-624.1	-182.6	-73.422 ug/L	-73.422 ppb	23:11:20
1	Sr 421.552†	45.8	2.5	0.0223 ug/L	0.0223 ppb	23:11:20
1	Sc 361.383	821266.7	821266.7	112.07 %		23:12:37
1	Y 371.029	674762.1	674762.1	111.64 %		23:12:37
1	Ag 328.068†	166.3	-3.8	-0.0310 ug/L	-0.0310 ppb	23:12:37
1	As 188.979†	-23.3	1.5	0.9258 ug/L	0.9258 ppb	23:12:57
1	B 249.677†	-169.1	184.1	5.5459 ug/L	5.5459 ppb	23:12:57
1	Ba 233.527†	14.0	9.9	0.1052 ug/L	0.1052 ppb	23:12:57
1	Be 313.107†	-4097.9	235.1	0.1104 ug/L	0.1104 ppb	23:12:37
1	Cd 226.502†	-168.7	20.6	0.3393 ug/L	0.3393 ppb	23:12:57
1	Co 228.616†	-37.3	13.5	0.3854 ug/L	0.3854 ppb	23:12:57
1	Cr 267.716†	107.4	0.8	0.0082 ug/L	0.0082 ppb	23:12:57
1	Cu 324.752†	5952.5	-405.6	-1.4522 ug/L	-1.4522 ppb	23:12:37
1	Mn 257.610†	458.5	-16.4	-0.0255 ug/L	-0.0255 ppb	23:12:57
1	Mo 202.031†	12.9	-5.2	-0.5306 ug/L	-0.5306 ppb	23:12:57
1	Ni 231.604†	82.3	-9.1	-0.3257 ug/L	-0.3257 ppb	23:12:57
1	P 214.914†	187.3	-21.3	-16.896 ug/L	-16.896 ppb	23:12:57
1	Pb 220.353†	-48.8	5.5	0.9602 ug/L	0.9602 ppb	23:12:57
1	S 181.975 Axial†	23.4	-6.3	-12.158 ug/L	-12.158 ppb	23:12:57
1	Sb 206.836†	27.1	-1.4	-0.6771 ug/L	-0.6771 ppb	23:12:57
1	Se 196.026†	-24.1	0.3	0.1456 ug/L	0.1456 ppb	23:12:57
1	Si 251.611†	465.5	-40.4	-1.6611 ug/L	-1.6611 ppb	23:12:57
1	Sn 189.927†	16.2	0.8	0.2171 ug/L	0.2171 ppb	23:12:57
1	Ti 334.940†	-1019.5	134.6	0.2606 ug/L	0.2606 ppb	23:12:37
1	Tl 190.801†	-19.3	5.0	2.1751 ug/L	2.1751 ppb	23:12:57
1	U 409.014†	-1910.8	129.0	4.3912 ug/L	4.3912 ppb	23:12:37
1	V 292.402†	-1402.1	129.5	1.1672 ug/L	1.1672 ppb	23:12:37
1	Zn 213.857†	611.4	-114.3	-1.5173 ug/L	-1.5173 ppb	23:12:57
1	SiO2†	488.6	-28.0	-2.4537 ug/L	-2.4537 ppb	23:14:08
2	Sc Radial	4204.2	4204.2	111 %		23:12:05
2	Y RADIAL	4571.1	4571.1	112.0 %		23:11:45
2	Al 396.153Radial†	-76.0	4.4	5.2640 ug/L	5.2640 ppb	23:12:05
2	Ca 317.933Radial†	22.7	-1.5	-3.3849 ug/L	-3.3849 ppb	23:12:05
2	Fe 238.204 Radial†	8.6	-0.7	-9.5198 ug/L	-9.5198 ppb	23:12:05
2	K 766.490 Radial†	2515.5	-212.1	-46.804 ug/L	-46.804 ppb	23:11:45
2	Mg 279.077 IEC†	1.2	-1.7	-81.106 ug/L	-81.106 ppb	23:12:05
2	Na 589.592 Radial†	-563.0	-120.9	-48.622 ug/L	-48.622 ppb	23:11:45
2	Sr 421.552†	69.5	23.4	0.2122 ug/L	0.2122 ppb	23:11:45
2	Sc 361.383	804056.6	804056.6	109.72 %		23:13:02
2	Y 371.029	661231.6	661231.6	109.40 %		23:13:02
2	Ag 328.068†	140.9	-23.8	-0.1362 ug/L	-0.1362 ppb	23:13:02
2	As 188.979†	-17.0	6.8	4.1327 ug/L	4.1327 ppb	23:13:22
2	B 249.677†	-159.8	189.4	5.7008 ug/L	5.7008 ppb	23:13:22
2	Ba 233.527†	16.6	12.6	0.1336 ug/L	0.1336 ppb	23:13:22
2	Be 313.107†	-4082.8	170.6	0.0801 ug/L	0.0801 ppb	23:13:02
2	Cd 226.502†	-162.2	23.4	0.3806 ug/L	0.3806 ppb	23:13:22
2	Co 228.616†	-50.5	0.7	0.0170 ug/L	0.0170 ppb	23:13:22
2	Cr 267.716†	101.8	-2.3	-0.0356 ug/L	-0.0356 ppb	23:13:22
2	Cu 324.752†	5912.9	-328.0	-1.1724 ug/L	-1.1724 ppb	23:13:02
2	Mn 257.610†	458.5	-7.7	-0.0088 ug/L	-0.0088 ppb	23:13:22
2	Mo 202.031†	7.9	-9.5	-0.9619 ug/L	-0.9619 ppb	23:13:22
2	Ni 231.604†	82.9	-7.0	-0.2513 ug/L	-0.2513 ppb	23:13:22

2	P 214.914†	187.5	-17.5	-13.944 ug/L	-13.944 ppb	23:13:22
2	Pb 220.353†	-63.4	-8.7	-1.5002 ug/L	-1.5002 ppb	23:13:22
2	S 181.975 Axial†	27.6	-2.0	-3.8484 ug/L	-3.8484 ppb	23:13:22
2	Sb 206.836†	17.8	-9.4	-4.4080 ug/L	-4.4080 ppb	23:13:22
2	Se 196.026†	-20.1	3.4	3.0155 ug/L	3.0155 ppb	23:13:22
2	Si 251.611†	487.2	-11.7	-0.4715 ug/L	-0.4715 ppb	23:13:22
2	Sn 189.927†	7.6	-6.7	-1.6984 ug/L	-1.6984 ppb	23:13:22
2	Ti 334.940†	-1039.8	96.6	0.1902 ug/L	0.1902 ppb	23:13:02
2	Tl 190.801†	-29.6	-4.7	-2.0239 ug/L	-2.0239 ppb	23:13:22
2	U 409.014†	-1955.2	52.1	1.7725 ug/L	1.7725 ppb	23:13:02
2	V 292.402†	-1408.0	97.4	0.8636 ug/L	0.8636 ppb	23:13:02
2	Zn 213.857†	591.6	-120.6	-1.6059 ug/L	-1.6059 ppb	23:13:22
2	SiO2†	500.3	-8.0	-0.6821 ug/L	-0.6821 ppb	23:14:28
3	Sc Radial	4112.8	4112.8	109 %		23:12:30
3	Y RADIAL	4492.2	4492.2	110.0 %		23:12:10
3	Al 396.153Radial†	-69.1	9.3	11.039 ug/L	11.039 ppb	23:12:30
3	Ca 317.933Radial†	25.2	1.2	2.7892 ug/L	2.7892 ppb	23:12:30
3	Fe 238.204 Radial†	8.7	-0.5	-6.3075 ug/L	-6.3075 ppb	23:12:30
3	K 766.490 Radial†	2524.6	-153.3	-33.811 ug/L	-33.811 ppb	23:12:10
3	Mg 279.077 IEC†	-0.2	-3.0	-142.38 ug/L	-142.38 ppb	23:12:30
3	Na 589.592 Radial†	-678.3	-238.5	-95.891 ug/L	-95.891 ppb	23:12:10
3	Sr 421.552†	37.8	-4.4	-0.0403 ug/L	-0.0403 ppb	23:12:10
3	Sc 361.383	817977.2	817977.2	111.62 %		23:13:27
3	Y 371.029	672221.2	672221.2	111.22 %		23:13:27
3	Ag 328.068†	114.6	-49.5	-0.2848 ug/L	-0.2848 ppb	23:13:27
3	As 188.979†	-24.3	0.6	0.3388 ug/L	0.3388 ppb	23:13:47
3	B 249.677†	-163.0	189.0	5.6873 ug/L	5.6873 ppb	23:13:47
3	Ba 233.527†	8.8	5.3	0.0582 ug/L	0.0582 ppb	23:13:47
3	Be 313.107†	-4111.9	207.9	0.0975 ug/L	0.0975 ppb	23:13:27
3	Cd 226.502†	-157.7	29.9	0.4876 ug/L	0.4876 ppb	23:13:47
3	Co 228.616†	-40.3	10.6	0.3023 ug/L	0.3023 ppb	23:13:47
3	Cr 267.716†	114.2	7.2	0.1091 ug/L	0.1091 ppb	23:13:47
3	Cu 324.752†	5922.8	-410.8	-1.4706 ug/L	-1.4706 ppb	23:13:27
3	Mn 257.610†	421.0	-48.4	-0.0654 ug/L	-0.0654 ppb	23:13:47
3	Mo 202.031†	13.2	-5.0	-0.5016 ug/L	-0.5016 ppb	23:13:47
3	Ni 231.604†	86.3	-5.3	-0.1890 ug/L	-0.1890 ppb	23:13:47
3	P 214.914†	189.6	-18.6	-14.725 ug/L	-14.725 ppb	23:13:47
3	Pb 220.353†	-62.0	-6.5	-1.1169 ug/L	-1.1169 ppb	23:13:47
3	S 181.975 Axial†	32.8	2.3	4.4821 ug/L	4.4821 ppb	23:13:47
3	Sb 206.836†	29.6	0.9	0.3818 ug/L	0.3818 ppb	23:13:47
3	Se 196.026†	-26.6	-2.1	-1.9196 ug/L	-1.9196 ppb	23:13:47
3	Si 251.611†	489.8	-16.9	-0.6926 ug/L	-0.6926 ppb	23:13:47
3	Sn 189.927†	10.9	-3.8	-0.9724 ug/L	-0.9724 ppb	23:13:47
3	Ti 334.940†	-1038.8	113.7	0.2264 ug/L	0.2264 ppb	23:13:27
3	Tl 190.801†	-21.1	3.4	1.4651 ug/L	1.4651 ppb	23:13:47
3	U 409.014†	-1827.9	196.4	6.6790 ug/L	6.6790 ppb	23:13:27
3	V 292.402†	-1407.4	119.8	1.0789 ug/L	1.0789 ppb	23:13:27
3	Zn 213.857†	611.3	-112.2	-1.4934 ug/L	-1.4934 ppb	23:13:47
3	SiO2†	484.1	-30.3	-2.6507 ug/L	-2.6507 ppb	23:14:48

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814433.5	111.14 %	1.247			1.12%
Sc Radial	4157.5	110 %	1.2			1.10%
Y 371.029	669405.0	110.75 %	1.190			1.07%
Y RADIAL	4562.0	111.7 %	1.61			1.44%
Ag 328.068†	-25.7	-0.1506 ug/L	0.12751	-0.1506 ppb	0.12751	84.65%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.9	11.786 ug/L	6.9260	11.786 ppb	6.9260	58.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.0	1.7991 ug/L	2.04215	1.7991 ppb	2.04215	113.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	187.5	5.6447 ug/L	0.08578	5.6447 ppb	0.08578	1.52%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.3	0.0990 ug/L	0.03808	0.0990 ppb	0.03808	38.46%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	204.5	0.0960 ug/L	0.01521	0.0960 ppb	0.01521	15.84%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.7	3.7123 ug/L	7.60105	3.7123 ppb	7.60105	204.75%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	24.6	0.4025 ug/L	0.07655	0.4025 ppb	0.07655	19.02%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	8.2	0.2349 ug/L	0.19322	0.2349 ppb	0.19322	82.27%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	1.9	0.0272 ug/L	0.07420	0.0272 ppb	0.07420	272.35%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-381.5	-1.3651 ug/L	0.16712	-1.3651 ppb	0.16712	12.24%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-16.322 ug/L	14.6523	-16.322 ppb	14.6523	89.77%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-195.4	-43.121 ug/L	8.1213	-43.121 ppb	8.1213	18.83%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.9	-89.019 ug/L	49.8777	-89.019 ppb	49.8777	56.03%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-24.2	-0.0332 ug/L	0.02910	-0.0332 ppb	0.02910	87.55%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-6.6	-0.6647 ug/L	0.25776	-0.6647 ppb	0.25776	38.78%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-180.7	-72.645 ug/L	23.6443	-72.645 ppb	23.6443	32.55%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-7.1	-0.2553 ug/L	0.06848	-0.2553 ppb	0.06848	26.82%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-19.1	-15.188 ug/L	1.5299	-15.188 ppb	1.5299	10.07%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-3.2	-0.5523 ug/L	1.32381	-0.5523 ppb	1.32381	239.70%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.0	-3.8414 ug/L	8.32002	-3.8414 ppb	8.32002	216.59%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.3	-1.5677 ug/L	2.51605	-1.5677 ppb	2.51605	160.49%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.5	0.4138 ug/L	2.47848	0.4138 ppb	2.47848	598.90%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-23.0	-0.9417 ug/L	0.63268	-0.9417 ppb	0.63268	67.18%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-3.2	-0.8179 ug/L	0.96705	-0.8179 ppb	0.96705	118.23%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	7.1	0.0647 ug/L	0.13147	0.0647 ppb	0.13147	203.16%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	115.0	0.2257 ug/L	0.03520	0.2257 ppb	0.03520	15.59%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.3	0.5387 ug/L	2.24756	0.5387 ppb	2.24756	417.18%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	125.8	4.2809 ug/L	2.45512	4.2809 ppb	2.45512	57.35%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	115.5	1.0366 ug/L	0.15615	1.0366 ppb	0.15615	15.06%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-115.7	-1.5389 ug/L	0.05924	-1.5389 ppb	0.05924	3.85%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-22.1	-1.9288 ug/L	1.08420	-1.9288 ppb	1.08420	56.21%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 45  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 3/27/2010 00:04:42  
 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	4205.2	4205.2	111 %		00:06:53
1	Y RADIAL	4653.7	4653.7	114.0 %		00:06:33
1	Al 396.153Radial†	4789.3	4387.0	5195.4 ug/L	5195.4 ppb	00:06:33
1	Ca 317.933Radial†	2576.0	2298.5	5149.6 ug/L	5149.6 ppb	00:06:53
1	Fe 238.204 Radial†	422.1	371.8	4929.9 ug/L	4929.9 ppb	00:06:53
1	K 766.490 Radial†	27113.0	21944.5	4838.8 ug/L	4838.8 ppb	00:06:33
1	Mg 279.077 IEC†	122.2	107.2	5071.4 ug/L	5071.4 ppb	00:06:53
1	Na 589.592 Radial†	25164.1	23053.8	9270.6 ug/L	9270.6 ppb	00:06:33
1	Sr 421.552†	58287.3	52465.2	476.27 ug/L	476.27 ppb	00:06:33
1	Sc 361.383	838515.4	838515.4	114.43 %		00:07:51
1	Y 371.029	683287.2	683287.2	113.05 %		00:07:51
1	Ag 328.068†	103243.2	90075.4	515.57 ug/L	515.57 ppb	00:07:56
1	As 188.979†	942.9	846.3	518.11 ug/L	518.11 ppb	00:08:16
1	B 249.677†	18855.4	16813.3	503.78 ug/L	503.78 ppb	00:07:56
1	Ba 233.527†	55576.1	48567.2	510.31 ug/L	510.31 ppb	00:07:56
1	Be 313.107†	1240187.1	1087730.7	508.98 ug/L	508.98 ppb	00:07:51
1	Cd 226.502†	35742.0	31407.2	510.24 ug/L	510.24 ppb	00:07:56
1	Co 228.616†	20605.1	18054.1	518.88 ug/L	518.88 ppb	00:07:56
1	Cr 267.716†	38245.5	33328.9	511.31 ug/L	511.31 ppb	00:07:56
1	Cu 324.752†	169241.6	142188.6	507.55 ug/L	507.55 ppb	00:07:56
1	Mn 257.610†	392552.1	342638.3	500.37 ug/L	500.37 ppb	00:07:51
1	Mo 202.031†	5824.4	5073.4	512.76 ug/L	512.76 ppb	00:08:16
1	Ni 231.604†	16714.7	14525.0	520.82 ug/L	520.82 ppb	00:07:56
1	P 214.914†	3811.1	3142.2	2441.1 ug/L	2441.1 ppb	00:08:16
1	Pb 220.353†	3297.4	2930.8	508.47 ug/L	508.47 ppb	00:08:16
1	S 181.975 Axial†	635.5	528.3	1026.3 ug/L	1026.3 ppb	00:08:16
1	Sb 206.836†	1297.1	1107.9	532.23 ug/L	532.23 ppb	00:08:16
1	Se 196.026†	630.7	573.0	531.60 ug/L	531.60 ppb	00:08:16
1	Si 251.611†	71825.7	62315.1	2568.1 ug/L	2568.1 ppb	00:07:56
1	Sn 189.927†	2310.0	2005.1	508.98 ug/L	508.98 ppb	00:08:16
1	Ti 334.940†	300764.1	263891.7	504.52 ug/L	504.52 ppb	00:07:56
1	Tl 190.801†	1329.7	1184.4	514.07 ug/L	514.07 ppb	00:08:16
1	U 409.014†	15429.6	15318.5	519.20 ug/L	519.20 ppb	00:07:56
1	V 292.402†	63483.1	56860.5	517.40 ug/L	517.40 ppb	00:07:56
1	Zn 213.857†	44725.0	38426.8	508.37 ug/L	508.37 ppb	00:07:56
1	SiO2†	70610.7	61245.0	5376.4 ug/L	5376.4 ppb	00:09:23
2	Sc Radial	4195.5	4195.5	111 %		00:07:18
2	Y RADIAL	4633.0	4633.0	113.5 %		00:06:58
2	Al 396.153Radial†	4814.4	4419.6	5234.9 ug/L	5234.9 ppb	00:06:58
2	Ca 317.933Radial†	2590.2	2316.7	5190.2 ug/L	5190.2 ppb	00:07:18
2	Fe 238.204 Radial†	424.7	375.0	4972.2 ug/L	4972.2 ppb	00:07:18
2	K 766.490 Radial†	27283.5	22154.9	4885.2 ug/L	4885.2 ppb	00:06:58
2	Mg 279.077 IEC†	122.6	107.9	5101.6 ug/L	5101.6 ppb	00:07:18
2	Na 589.592 Radial†	25222.8	23159.2	9313.0 ug/L	9313.0 ppb	00:06:58
2	Sr 421.552†	58802.8	53051.9	481.60 ug/L	481.60 ppb	00:06:58
2	Sc 361.383	852862.4	852862.4	116.38 %		00:08:22
2	Y 371.029	694023.9	694023.9	114.82 %		00:08:22
2	Ag 328.068†	102823.8	88197.2	504.86 ug/L	504.86 ppb	00:08:27
2	As 188.979†	935.7	826.3	505.88 ug/L	505.88 ppb	00:08:47
2	B 249.677†	18923.9	16595.0	497.23 ug/L	497.23 ppb	00:08:27
2	Ba 233.527†	55239.6	47461.0	498.69 ug/L	498.69 ppb	00:08:27
2	Be 313.107†	1263462.1	1089496.9	509.78 ug/L	509.78 ppb	00:08:22
2	Cd 226.502†	35521.7	30692.5	498.61 ug/L	498.61 ppb	00:08:27
2	Co 228.616†	20455.7	17622.8	506.47 ug/L	506.47 ppb	00:08:27
2	Cr 267.716†	38041.7	32591.6	500.01 ug/L	500.01 ppb	00:08:27
2	Cu 324.752†	168625.2	139171.0	496.78 ug/L	496.78 ppb	00:08:27
2	Mn 257.610†	400803.3	343956.9	502.30 ug/L	502.30 ppb	00:08:22
2	Mo 202.031†	5756.3	4929.3	498.21 ug/L	498.21 ppb	00:08:47
2	Ni 231.604†	16585.9	14168.6	508.04 ug/L	508.04 ppb	00:08:27

2	P 214.914†	3780.0	3059.4	2376.3 ug/L	2376.3 ppb	00:08:47
2	Pb 220.353†	3281.8	2868.9	497.73 ug/L	497.73 ppb	00:08:47
2	S 181.975 Axial†	632.4	516.3	1003.0 ug/L	1003.0 ppb	00:08:47
2	Sb 206.836†	1278.8	1073.2	515.61 ug/L	515.61 ppb	00:08:47
2	Se 196.026†	620.1	554.5	515.12 ug/L	515.12 ppb	00:08:47
2	Si 251.611†	71594.6	61060.6	2516.5 ug/L	2516.5 ppb	00:08:27
2	Sn 189.927†	2291.7	1955.4	496.39 ug/L	496.39 ppb	00:08:47
2	Ti 334.940†	299185.9	258114.0	493.48 ug/L	493.48 ppb	00:08:27
2	Tl 190.801†	1305.8	1144.2	496.77 ug/L	496.77 ppb	00:08:47
2	U 409.014†	15257.9	14944.0	506.48 ug/L	506.48 ppb	00:08:27
2	V 292.402†	63097.1	55595.6	505.83 ug/L	505.83 ppb	00:08:27
2	Zn 213.857†	44540.9	37611.0	497.57 ug/L	497.57 ppb	00:08:27
2	SiO2†	69790.8	59502.4	5223.4 ug/L	5223.4 ppb	00:09:28
3	Sc Radial	4205.2	4205.2	111 %		00:07:44
3	Y RADIAL	4682.4	4682.4	114.7 %		00:07:24
3	Al 396.153Radial†	4880.1	4468.9	5293.3 ug/L	5293.3 ppb	00:07:24
3	Ca 317.933Radial†	2610.7	2329.8	5219.7 ug/L	5219.7 ppb	00:07:44
3	Fe 238.204 Radial†	428.9	377.9	5011.2 ug/L	5011.2 ppb	00:07:44
3	K 766.490 Radial†	27604.1	22387.3	4936.5 ug/L	4936.5 ppb	00:07:24
3	Mg 279.077 IEC†	123.5	108.4	5127.5 ug/L	5127.5 ppb	00:07:44
3	Na 589.592 Radial†	25314.0	23189.2	9325.1 ug/L	9325.1 ppb	00:07:24
3	Sr 421.552†	59377.3	53447.9	485.19 ug/L	485.19 ppb	00:07:24
3	Sc 361.383	842276.9	842276.9	114.94 %		00:08:53
3	Y 371.029	686076.6	686076.6	113.51 %		00:08:53
3	Ag 328.068†	101459.8	88120.8	504.43 ug/L	504.43 ppb	00:08:58
3	As 188.979†	930.4	831.8	509.20 ug/L	509.20 ppb	00:09:18
3	B 249.677†	18599.1	16516.7	494.87 ug/L	494.87 ppb	00:08:58
3	Ba 233.527†	54662.0	47555.0	499.67 ug/L	499.67 ppb	00:08:58
3	Be 313.107†	1247319.7	1089096.0	509.59 ug/L	509.59 ppb	00:08:53
3	Cd 226.502†	35169.8	30769.9	499.86 ug/L	499.86 ppb	00:08:58
3	Co 228.616†	20230.4	17647.8	507.20 ug/L	507.20 ppb	00:08:58
3	Cr 267.716†	37558.7	32582.1	499.87 ug/L	499.87 ppb	00:08:58
3	Cu 324.752†	165517.6	138288.1	493.64 ug/L	493.64 ppb	00:08:58
3	Mn 257.610†	396066.3	344163.6	502.61 ug/L	502.61 ppb	00:08:53
3	Mo 202.031†	5727.1	4966.0	501.92 ug/L	501.92 ppb	00:09:18
3	Ni 231.604†	16293.4	14093.2	505.33 ug/L	505.33 ppb	00:08:58
3	P 214.914†	3741.4	3066.7	2382.8 ug/L	2382.8 ppb	00:09:18
3	Pb 220.353†	3259.7	2885.1	500.56 ug/L	500.56 ppb	00:09:18
3	S 181.975 Axial†	626.6	518.0	1006.3 ug/L	1006.3 ppb	00:09:18
3	Sb 206.836†	1280.0	1088.0	522.59 ug/L	522.59 ppb	00:09:18
3	Se 196.026†	607.8	550.5	511.62 ug/L	511.62 ppb	00:09:18
3	Si 251.611†	70536.4	60913.0	2510.3 ug/L	2510.3 ppb	00:08:58
3	Sn 189.927†	2273.7	1964.5	498.69 ug/L	498.69 ppb	00:09:18
3	Ti 334.940†	294796.7	257526.0	492.36 ug/L	492.36 ppb	00:08:58
3	Tl 190.801†	1305.5	1158.1	502.73 ug/L	502.73 ppb	00:09:18
3	U 409.014†	14890.6	14789.2	501.22 ug/L	501.22 ppb	00:08:58
3	V 292.402†	62157.4	55459.3	504.64 ug/L	504.64 ppb	00:08:58
3	Zn 213.857†	43972.7	37597.7	497.40 ug/L	497.40 ppb	00:08:58
3	SiO2†	72009.6	62186.4	5459.6 ug/L	5459.6 ppb	00:09:34

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	844551.6	115.25 %	1.015			0.88%
Sc Radial	4202.0	111 %	0.1			0.13%
Y 371.029	687795.9	113.79 %	0.922			0.81%
Y RADIAL	4656.4	114.1 %	0.61			0.53%
Ag 328.068†	88797.8	508.29 ug/L	6.309	508.29 ppb	6.309	1.24%
QC value within limits for Ag 328.068 Recovery = 101.66%						
Al 396.153Radial†	4425.2	5241.2 ug/L	49.30	5241.2 ppb	49.30	0.94%
QC value within limits for Al 396.153Radial Recovery = 104.82%						
As 188.979†	834.8	511.07 ug/L	6.324	511.07 ppb	6.324	1.24%
QC value within limits for As 188.979 Recovery = 102.21%						
B 249.677†	16641.7	498.63 ug/L	4.613	498.63 ppb	4.613	0.93%
QC value within limits for B 249.677 Recovery = 99.73%						
Ba 233.527†	47861.0	502.89 ug/L	6.442	502.89 ppb	6.442	1.28%
QC value within limits for Ba 233.527 Recovery = 100.58%						
Be 313.107†	1088774.5	509.45 ug/L	0.418	509.45 ppb	0.418	0.08%
QC value within limits for Be 313.107 Recovery = 101.89%						
Ca 317.933Radial†	2315.0	5186.5 ug/L	35.23	5186.5 ppb	35.23	0.68%

QC value within limits for Ca 317.933 Radial Recovery = 103.73%							
Cd 226.502†	30956.5	502.90 ug/L	6.383	502.90 ppb	6.383	1.27%	
QC value within limits for Cd 226.502 Recovery = 100.58%							
Co 228.616†	17774.9	510.85 ug/L	6.962	510.85 ppb	6.962	1.36%	
QC value within limits for Co 228.616 Recovery = 102.17%							
Cr 267.716†	32834.2	503.73 ug/L	6.562	503.73 ppb	6.562	1.30%	
QC value within limits for Cr 267.716 Recovery = 100.75%							
Cu 324.752†	139882.6	499.32 ug/L	7.294	499.32 ppb	7.294	1.46%	
QC value within limits for Cu 324.752 Recovery = 99.86%							
Fe 238.204 Radial†	374.9	4971.1 ug/L	40.70	4971.1 ppb	40.70	0.82%	
QC value within limits for Fe 238.204 Radial Recovery = 99.42%							
K 766.490 Radial†	22162.3	4886.8 ug/L	48.89	4886.8 ppb	48.89	1.00%	
QC value within limits for K 766.490 Radial Recovery = 97.74%							
Mg 279.077 IEC†	107.8	5100.2 ug/L	28.09	5100.2 ppb	28.09	0.55%	
QC value within limits for Mg 279.077 IEC Recovery = 102.00%							
Mn 257.610†	343586.3	501.76 ug/L	1.210	501.76 ppb	1.210	0.24%	
QC value within limits for Mn 257.610 Recovery = 100.35%							
Mo 202.031†	4989.5	504.30 ug/L	7.562	504.30 ppb	7.562	1.50%	
QC value within limits for Mo 202.031 Recovery = 100.86%							
Na 589.592 Radial†	23134.1	9302.9 ug/L	28.60	9302.9 ppb	28.60	0.31%	
QC value within limits for Na 589.592 Radial Recovery = 93.03%							
Ni 231.604†	14262.3	511.40 ug/L	8.271	511.40 ppb	8.271	1.62%	
QC value within limits for Ni 231.604 Recovery = 102.28%							
P 214.914†	3089.4	2400.1 ug/L	35.73	2400.1 ppb	35.73	1.49%	
QC value within limits for P 214.914 Recovery = 96.00%							
Pb 220.353†	2894.9	502.25 ug/L	5.566	502.25 ppb	5.566	1.11%	
QC value within limits for Pb 220.353 Recovery = 100.45%							
S 181.975 Axial†	520.9	1011.9 ug/L	12.60	1011.9 ppb	12.60	1.24%	
QC value within limits for S 181.975 Axial Recovery = 101.19%							
Sb 206.836†	1089.7	523.47 ug/L	8.344	523.47 ppb	8.344	1.59%	
QC value within limits for Sb 206.836 Recovery = 104.69%							
Se 196.026†	559.3	519.45 ug/L	10.674	519.45 ppb	10.674	2.05%	
QC value within limits for Se 196.026 Recovery = 103.89%							
Si 251.611†	61429.5	2531.6 ug/L	31.74	2531.6 ppb	31.74	1.25%	
QC value within limits for Si 251.611 Recovery = 101.27%							
Sn 189.927†	1975.0	501.35 ug/L	6.705	501.35 ppb	6.705	1.34%	
QC value within limits for Sn 189.927 Recovery = 100.27%							
Sr 421.552†	52988.4	481.02 ug/L	4.489	481.02 ppb	4.489	0.93%	
QC value within limits for Sr 421.552 Recovery = 96.20%							
Ti 334.940†	259843.9	496.79 ug/L	6.719	496.79 ppb	6.719	1.35%	
QC value within limits for Ti 334.940 Recovery = 99.36%							
Tl 190.801†	1162.2	504.53 ug/L	8.789	504.53 ppb	8.789	1.74%	
QC value within limits for Tl 190.801 Recovery = 100.91%							
U 409.014†	15017.2	508.97 ug/L	9.243	508.97 ppb	9.243	1.82%	
QC value within limits for U 409.014 Recovery = 101.79%							
V 292.402†	55971.8	509.29 ug/L	7.051	509.29 ppb	7.051	1.38%	
QC value within limits for V 292.402 Recovery = 101.86%							
Zn 213.857†	37878.5	501.11 ug/L	6.285	501.11 ppb	6.285	1.25%	
QC value within limits for Zn 213.857 Recovery = 100.22%							
SiO2†	60977.9	5353.1 ug/L	119.77	5353.1 ppb	119.77	2.24%	
QC value within limits for SiO2 Recovery = 100.11%							
All analyte(s) passed QC.							



Sequence No.: 46

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 00:11:43

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	4234.9	4234.9	112 %		00:13:55
1	Y RADIAL	4547.8	4547.8	111.4 %		00:13:35
1	Al 396.153Radial†	-69.9	10.4	12.348 ug/L	12.348 ppb	00:13:55
1	Ca 317.933Radial†	26.4	1.7	3.8659 ug/L	3.8659 ppb	00:13:55
1	Fe 238.204 Radial†	4.8	-4.1	-54.792 ug/L	-54.792 ppb	00:13:55
1	K 766.490 Radial†	2601.1	-151.9	-33.518 ug/L	-33.518 ppb	00:13:35
1	Mg 279.077 IEC†	2.2	-0.8	-39.243 ug/L	-39.243 ppb	00:13:55
1	Na 589.592 Radial†	-582.4	-134.6	-54.143 ug/L	-54.143 ppb	00:13:35
1	Sr 421.552†	46.4	2.3	0.0205 ug/L	0.0205 ppb	00:13:35
1	Sc 361.383	823631.4	823631.4	112.39 %		00:14:52
1	Y 371.029	678592.1	678592.1	112.27 %		00:14:52
1	Ag 328.068†	232.1	54.4	0.2974 ug/L	0.2974 ppb	00:14:52
1	As 188.979†	-24.6	0.4	0.2236 ug/L	0.2236 ppb	00:15:12
1	B 249.677†	-194.5	161.9	4.8825 ug/L	4.8825 ppb	00:15:12
1	Ba 233.527†	19.1	14.4	0.1523 ug/L	0.1523 ppb	00:15:12
1	Be 313.107†	-3975.0	354.9	0.1660 ug/L	0.1660 ppb	00:14:52
1	Cd 226.502†	-175.9	14.6	0.2434 ug/L	0.2434 ppb	00:15:12
1	Co 228.616†	-44.9	6.8	0.1958 ug/L	0.1958 ppb	00:15:12
1	Cr 267.716†	106.5	-0.3	-0.0085 ug/L	-0.0085 ppb	00:15:12
1	Cu 324.752†	5898.3	-469.1	-1.6774 ug/L	-1.6774 ppb	00:14:52
1	Mn 257.610†	451.7	-23.6	-0.0383 ug/L	-0.0383 ppb	00:15:12
1	Mo 202.031†	19.3	0.5	0.0420 ug/L	0.0420 ppb	00:15:12
1	Ni 231.604†	92.1	-0.6	-0.0206 ug/L	-0.0206 ppb	00:15:12
1	P 214.914†	192.1	-17.5	-13.795 ug/L	-13.795 ppb	00:15:12
1	Pb 220.353†	-70.5	-13.7	-2.3540 ug/L	-2.3540 ppb	00:15:12
1	S 181.975 Axial†	30.4	-0.1	-0.1430 ug/L	-0.1430 ppb	00:15:12
1	Sb 206.836†	23.4	-4.8	-2.2279 ug/L	-2.2279 ppb	00:15:12
1	Se 196.026†	-15.6	7.9	6.9482 ug/L	6.9482 ppb	00:15:12
1	Si 251.611†	495.4	-14.9	-0.6170 ug/L	-0.6170 ppb	00:15:12
1	Sn 189.927†	9.0	-5.6	-1.4204 ug/L	-1.4204 ppb	00:15:12
1	Ti 334.940†	-1089.5	75.0	0.1472 ug/L	0.1472 ppb	00:14:52
1	Tl 190.801†	-32.1	-6.3	-2.7282 ug/L	-2.7282 ppb	00:15:12
1	U 409.014†	-2071.2	-8.8	-0.2915 ug/L	-0.2915 ppb	00:14:52
1	V 292.402†	-1400.2	134.8	1.2176 ug/L	1.2176 ppb	00:14:52
1	Zn 213.857†	598.5	-127.3	-1.6892 ug/L	-1.6892 ppb	00:15:12
1	SiO2†	482.1	-35.1	-3.0875 ug/L	-3.0875 ppb	00:16:23
2	Sc Radial	4240.8	4240.8	112 %		00:14:20
2	Y RADIAL	4660.6	4660.6	114.2 %		00:14:00
2	Al 396.153Radial†	-68.2	12.0	14.311 ug/L	14.311 ppb	00:14:20
2	Ca 317.933Radial†	27.5	2.6	5.8281 ug/L	5.8281 ppb	00:14:20
2	Fe 238.204 Radial†	6.9	-2.3	-30.312 ug/L	-30.312 ppb	00:14:20
2	K 766.490 Radial†	2707.9	-59.7	-13.164 ug/L	-13.164 ppb	00:14:00
2	Mg 279.077 IEC†	2.8	-0.3	-13.280 ug/L	-13.280 ppb	00:14:20
2	Na 589.592 Radial†	-621.2	-168.5	-67.764 ug/L	-67.764 ppb	00:14:00
2	Sr 421.552†	44.9	0.8	0.0075 ug/L	0.0075 ppb	00:14:00
2	Sc 361.383	821666.0	821666.0	112.13 %		00:15:17
2	Y 371.029	676773.7	676773.7	111.97 %		00:15:17
2	Ag 328.068†	217.8	42.1	0.2297 ug/L	0.2297 ppb	00:15:17
2	As 188.979†	-28.0	-2.7	-1.6467 ug/L	-1.6467 ppb	00:15:37
2	B 249.677†	-209.7	147.9	4.4563 ug/L	4.4563 ppb	00:15:37
2	Ba 233.527†	15.0	10.8	0.1141 ug/L	0.1141 ppb	00:15:37
2	Be 313.107†	-3950.6	368.2	0.1722 ug/L	0.1722 ppb	00:15:17
2	Cd 226.502†	-164.0	24.9	0.4085 ug/L	0.4085 ppb	00:15:37
2	Co 228.616†	-33.8	16.6	0.4745 ug/L	0.4745 ppb	00:15:37
2	Cr 267.716†	113.9	6.5	0.0955 ug/L	0.0955 ppb	00:15:37
2	Cu 324.752†	5938.1	-421.0	-1.5067 ug/L	-1.5067 ppb	00:15:17
2	Mn 257.610†	433.7	-38.8	-0.0590 ug/L	-0.0590 ppb	00:15:37
2	Mo 202.031†	3.9	-13.2	-1.3387 ug/L	-1.3387 ppb	00:15:37
2	Ni 231.604†	76.2	-14.6	-0.5244 ug/L	-0.5244 ppb	00:15:37

2	P 214.914†	190.5	-18.6	-14.716 ug/L	-14.716 ppb	00:15:37
2	Pb 220.353†	-57.8	-2.5	-0.4195 ug/L	-0.4195 ppb	00:15:37
2	S 181.975 Axial†	22.2	-7.3	-14.282 ug/L	-14.282 ppb	00:15:37
2	Sb 206.836†	32.5	3.4	1.5174 ug/L	1.5174 ppb	00:15:37
2	Se 196.026†	-5.7	16.6	14.883 ug/L	14.883 ppb	00:15:37
2	Si 251.611†	473.8	-33.1	-1.3527 ug/L	-1.3527 ppb	00:15:37
2	Sn 189.927†	5.7	-8.5	-2.1598 ug/L	-2.1598 ppb	00:15:37
2	Ti 334.940†	-1092.1	70.4	0.1348 ug/L	0.1348 ppb	00:15:17
2	Tl 190.801†	-30.8	-5.2	-2.2628 ug/L	-2.2628 ppb	00:15:37
2	U 409.014†	-1933.0	110.0	3.7444 ug/L	3.7444 ppb	00:15:17
2	V 292.402†	-1456.6	81.5	0.7243 ug/L	0.7243 ppb	00:15:17
2	Zn 213.857†	600.9	-123.9	-1.6445 ug/L	-1.6445 ppb	00:15:37
2	SiO2†	507.9	-11.0	-0.9353 ug/L	-0.9353 ppb	00:16:43
3	Sc Radial	4273.5	4273.5	113 %		00:14:45
3	Y RADIAL	4585.1	4585.1	112.3 %		00:14:25
3	Al 396.153Radial†	-68.8	11.9	14.161 ug/L	14.161 ppb	00:14:45
3	Ca 317.933Radial†	28.0	2.9	6.5212 ug/L	6.5212 ppb	00:14:45
3	Fe 238.204 Radial†	9.0	-0.5	-6.2495 ug/L	-6.2495 ppb	00:14:45
3	K 766.490 Radial†	2618.4	-157.6	-34.777 ug/L	-34.777 ppb	00:14:25
3	Mg 279.077 IEC†	3.5	0.3	13.753 ug/L	13.753 ppb	00:14:45
3	Na 589.592 Radial†	-616.2	-159.9	-64.298 ug/L	-64.298 ppb	00:14:25
3	Sr 421.552†	42.1	-2.0	-0.0178 ug/L	-0.0178 ppb	00:14:25
3	Sc 361.383	804119.7	804119.7	109.73 %		00:15:43
3	Y 371.029	662186.8	662186.8	109.56 %		00:15:43
3	Ag 328.068†	196.4	26.8	0.1472 ug/L	0.1472 ppb	00:15:43
3	As 188.979†	-22.1	2.1	1.2995 ug/L	1.2995 ppb	00:16:03
3	B 249.677†	-191.5	160.5	4.8316 ug/L	4.8316 ppb	00:16:03
3	Ba 233.527†	13.9	10.1	0.1073 ug/L	0.1073 ppb	00:16:03
3	Be 313.107†	-3940.9	300.2	0.1405 ug/L	0.1405 ppb	00:15:43
3	Cd 226.502†	-171.1	15.2	0.2486 ug/L	0.2486 ppb	00:16:03
3	Co 228.616†	-49.9	1.3	0.0339 ug/L	0.0339 ppb	00:16:03
3	Cr 267.716†	102.4	-1.7	-0.0290 ug/L	-0.0290 ppb	00:16:03
3	Cu 324.752†	5850.6	-385.3	-1.3800 ug/L	-1.3800 ppb	00:15:43
3	Mn 257.610†	433.7	-30.4	-0.0455 ug/L	-0.0455 ppb	00:16:03
3	Mo 202.031†	8.2	-9.3	-0.9415 ug/L	-0.9415 ppb	00:16:03
3	Ni 231.604†	72.9	-16.2	-0.5796 ug/L	-0.5796 ppb	00:16:03
3	P 214.914†	192.8	-12.8	-10.072 ug/L	-10.072 ppb	00:16:03
3	Pb 220.353†	-56.5	-2.4	-0.4111 ug/L	-0.4111 ppb	00:16:03
3	S 181.975 Axial†	29.6	-0.1	-0.1697 ug/L	-0.1697 ppb	00:16:03
3	Sb 206.836†	24.1	-3.6	-1.7417 ug/L	-1.7417 ppb	00:16:03
3	Se 196.026†	-23.2	0.6	0.5056 ug/L	0.5056 ppb	00:16:03
3	Si 251.611†	489.7	-9.5	-0.3804 ug/L	-0.3804 ppb	00:16:03
3	Sn 189.927†	6.1	-8.1	-2.0585 ug/L	-2.0585 ppb	00:16:03
3	Ti 334.940†	-1052.4	85.3	0.1593 ug/L	0.1593 ppb	00:15:43
3	Tl 190.801†	-26.7	-2.1	-0.8998 ug/L	-0.8998 ppb	00:16:03
3	U 409.014†	-1756.8	233.0	7.9248 ug/L	7.9248 ppb	00:15:43
3	V 292.402†	-1418.9	87.5	0.7887 ug/L	0.7887 ppb	00:15:43
3	Zn 213.857†	606.4	-107.2	-1.4247 ug/L	-1.4247 ppb	00:16:03
3	SiO2†	499.0	-9.2	-0.7848 ug/L	-0.7848 ppb	00:17:03

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	816472.4	111.42 %		1.466			1.32%
Sc Radial	4249.7	112 %		0.5			0.49%
Y 371.029	672517.5	111.27 %		1.488			1.34%
Y RADIAL	4597.8	112.6 %		1.41			1.25%
Ag 328.068†	41.1	0.2247 ug/L		0.07522	0.2247 ppb	0.07522	33.47%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	11.4	13.607 ug/L		1.0923	13.607 ppb	1.0923	8.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.1	-0.0412 ug/L		1.49081	-0.0412 ppb	1.49081	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	156.8	4.7235 ug/L		0.23278	4.7235 ppb	0.23278	4.93%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	11.8	0.1246 ug/L		0.02430	0.1246 ppb	0.02430	19.51%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	341.1	0.1596 ug/L		0.01680	0.1596 ppb	0.01680	10.53%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	2.4	5.4051 ug/L		1.37726	5.4051 ppb	1.37726	25.48%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	18.3	0.3002 ug/L	0.09387	0.3002 ppb	0.09387	31.27%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	8.2	0.2348 ug/L	0.22287	0.2348 ppb	0.22287	94.94%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	1.5	0.0193 ug/L	0.06676	0.0193 ppb	0.06676	345.06%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-425.1	-1.5214 ug/L	0.14926	-1.5214 ppb	0.14926	9.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.3	-30.451 ug/L	24.2716	-30.451 ppb	24.2716	79.71%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-123.1	-27.153 ug/L	12.1315	-27.153 ppb	12.1315	44.68%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.3	-12.923 ug/L	26.4998	-12.923 ppb	26.4998	205.06%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-30.9	-0.0476 ug/L	0.01052	-0.0476 ppb	0.01052	22.10%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-7.4	-0.7460 ug/L	0.71078	-0.7460 ppb	0.71078	95.28%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-154.3	-62.069 ug/L	7.0789	-62.069 ppb	7.0789	11.40%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-10.4	-0.3748 ug/L	0.30803	-0.3748 ppb	0.30803	82.17%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-16.3	-12.861 ug/L	2.4590	-12.861 ppb	2.4590	19.12%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.2	-1.0615 ug/L	1.11930	-1.0615 ppb	1.11930	105.44%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.5	-4.8649 ug/L	8.15542	-4.8649 ppb	8.15542	167.64%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.7	-0.8174 ug/L	2.03656	-0.8174 ppb	2.03656	249.15%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	8.4	7.4455 ug/L	7.20146	7.4455 ppb	7.20146	96.72%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-19.2	-0.7834 ug/L	0.50705	-0.7834 ppb	0.50705	64.73%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-7.4	-1.8795 ug/L	0.40086	-1.8795 ppb	0.40086	21.33%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	0.4	0.0034 ug/L	0.01945	0.0034 ppb	0.01945	572.22%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	76.9	0.1471 ug/L	0.01228	0.1471 ppb	0.01228	8.34%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-4.5	-1.9636 ug/L	0.95019	-1.9636 ppb	0.95019	48.39%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	111.4	3.7926 ug/L	4.10834	3.7926 ppb	4.10834	108.33%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	101.3	0.9102 ug/L	0.26818	0.9102 ppb	0.26818	29.46%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-119.5	-1.5861 ug/L	0.14158	-1.5861 ppb	0.14158	8.93%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-18.4	-1.6025 ug/L	1.28823	-1.6025 ppb	1.28823	80.39%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 55

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/27/2010 01:14:20

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	4213.9	4213.9	111 %		01:16:32
1	Y RADIAL	4616.5	4616.5	113.1 %		01:16:12
1	Al 396.153Radial†	4771.0	4361.7	5166.2 ug/L	5166.2 ppb	01:16:12
1	Ca 317.933Radial†	2629.2	2341.6	5246.1 ug/L	5246.1 ppb	01:16:32
1	Fe 238.204 Radial†	434.5	382.2	5067.2 ug/L	5067.2 ppb	01:16:32
1	K 766.490 Radial†	27146.6	21924.7	4834.2 ug/L	4834.2 ppb	01:16:12
1	Mg 279.077 IEC†	127.4	111.7	5281.8 ug/L	5281.8 ppb	01:16:32
1	Na 589.592 Radial†	26398.1	24116.7	9698.0 ug/L	9698.0 ppb	01:16:12
1	Sr 421.552†	59659.3	53591.0	486.49 ug/L	486.49 ppb	01:16:12
1	Sc 361.383	851299.2	851299.2	116.17 %		01:17:30
1	Y 371.029	694115.0	694115.0	114.84 %		01:17:30
1	Ag 328.068†	101946.9	87604.5	501.51 ug/L	501.51 ppb	01:17:35
1	As 188.979†	931.5	824.1	504.60 ug/L	504.60 ppb	01:17:55
1	B 249.677†	18712.1	16442.5	492.63 ug/L	492.63 ppb	01:17:35
1	Ba 233.527†	54993.4	47336.2	497.38 ug/L	497.38 ppb	01:17:35
1	Be 313.107†	1264419.7	1092314.6	511.09 ug/L	511.09 ppb	01:17:30
1	Cd 226.502†	35413.8	30655.6	498.00 ug/L	498.00 ppb	01:17:35
1	Co 228.616†	20375.5	17586.1	505.41 ug/L	505.41 ppb	01:17:35
1	Cr 267.716†	37851.1	32487.5	498.43 ug/L	498.43 ppb	01:17:35
1	Cu 324.752†	166754.7	137826.9	491.99 ug/L	491.99 ppb	01:17:35
1	Mn 257.610†	390011.7	335299.8	489.67 ug/L	489.67 ppb	01:17:35
1	Mo 202.031†	5695.5	4886.0	493.84 ug/L	493.84 ppb	01:17:55
1	Ni 231.604†	16508.3	14127.9	506.58 ug/L	506.58 ppb	01:17:35
1	P 214.914†	3727.1	3019.9	2345.1 ug/L	2345.1 ppb	01:17:55
1	Pb 220.353†	3230.4	2829.8	490.94 ug/L	490.94 ppb	01:17:55
1	S 181.975 Axial†	613.7	501.2	973.57 ug/L	973.57 ppb	01:17:55
1	Sb 206.836†	1258.1	1057.4	508.08 ug/L	508.08 ppb	01:17:55
1	Se 196.026†	617.4	553.2	514.13 ug/L	514.13 ppb	01:17:55
1	Si 251.611†	70874.8	60553.9	2495.6 ug/L	2495.6 ppb	01:17:35
1	Sn 189.927†	2254.2	1926.8	489.14 ug/L	489.14 ppb	01:17:55
1	Ti 334.940†	296390.2	256179.4	489.78 ug/L	489.78 ppb	01:17:35
1	Tl 190.801†	1306.8	1147.2	497.96 ug/L	497.96 ppb	01:17:55
1	U 409.014†	15002.7	14748.4	499.83 ug/L	499.83 ppb	01:17:35
1	V 292.402†	62675.6	55332.2	503.38 ug/L	503.38 ppb	01:17:35
1	Zn 213.857†	44353.3	37519.9	496.35 ug/L	496.35 ppb	01:17:35
1	SiO2†	70990.3	60645.0	5324.1 ug/L	5324.1 ppb	01:19:02
2	Sc Radial	4228.5	4228.5	112 %		01:16:58
2	Y RADIAL	4743.5	4743.5	116.2 %		01:16:37
2	Al 396.153Radial†	4884.3	4448.4	5269.0 ug/L	5269.0 ppb	01:16:37
2	Ca 317.933Radial†	2630.4	2334.5	5230.2 ug/L	5230.2 ppb	01:16:58
2	Fe 238.204 Radial†	432.5	379.0	5024.9 ug/L	5024.9 ppb	01:16:58
2	K 766.490 Radial†	27750.7	22381.6	4935.0 ug/L	4935.0 ppb	01:16:37
2	Mg 279.077 IEC†	126.8	110.8	5241.1 ug/L	5241.1 ppb	01:16:58
2	Na 589.592 Radial†	27098.0	24661.7	9917.2 ug/L	9917.2 ppb	01:16:37
2	Sr 421.552†	61527.0	55078.9	500.00 ug/L	500.00 ppb	01:16:37
2	Sc 361.383	837508.4	837508.4	114.29 %		01:18:00
2	Y 371.029	682888.4	682888.4	112.98 %		01:18:00
2	Ag 328.068†	101734.9	88864.1	508.68 ug/L	508.68 ppb	01:18:06
2	As 188.979†	923.0	829.9	508.09 ug/L	508.09 ppb	01:18:26
2	B 249.677†	18711.7	16707.4	500.60 ug/L	500.60 ppb	01:18:06
2	Ba 233.527†	54727.2	47882.8	503.12 ug/L	503.12 ppb	01:18:06
2	Be 313.107†	1238874.4	1087885.4	509.03 ug/L	509.03 ppb	01:18:00
2	Cd 226.502†	35251.5	31015.6	503.86 ug/L	503.86 ppb	01:18:06
2	Co 228.616†	20273.5	17785.7	511.15 ug/L	511.15 ppb	01:18:06
2	Cr 267.716†	37659.9	32856.7	504.08 ug/L	504.08 ppb	01:18:06
2	Cu 324.752†	166309.0	139800.6	499.03 ug/L	499.03 ppb	01:18:06
2	Mn 257.610†	388033.2	339096.8	495.21 ug/L	495.21 ppb	01:18:06
2	Mo 202.031†	5679.5	4952.7	500.58 ug/L	500.58 ppb	01:18:26
2	Ni 231.604†	16418.0	14282.9	512.14 ug/L	512.14 ppb	01:18:06

2	P 214.914†	3697.0	3046.4	2365.3 ug/L	2365.3 ppb	01:18:26
2	Pb 220.353†	3213.4	2860.8	496.33 ug/L	496.33 ppb	01:18:26
2	S 181.975 Axial†	614.7	510.7	992.11 ug/L	992.11 ppb	01:18:26
2	Sb 206.836†	1236.4	1056.2	507.82 ug/L	507.82 ppb	01:18:26
2	Se 196.026†	610.5	555.9	516.47 ug/L	516.47 ppb	01:18:26
2	Si 251.611†	70608.3	61325.3	2527.4 ug/L	2527.4 ppb	01:18:06
2	Sn 189.927†	2266.3	1969.3	499.92 ug/L	499.92 ppb	01:18:26
2	Ti 334.940†	295130.9	259278.8	495.70 ug/L	495.70 ppb	01:18:06
2	Tl 190.801†	1292.9	1153.5	500.73 ug/L	500.73 ppb	01:18:26
2	U 409.014†	14957.7	14921.7	505.71 ug/L	505.71 ppb	01:18:06
2	V 292.402†	62414.2	55992.0	509.41 ug/L	509.41 ppb	01:18:06
2	Zn 213.857†	44154.3	37974.4	502.38 ug/L	502.38 ppb	01:18:06
2	SiO2†	69837.5	60642.7	5323.7 ug/L	5323.7 ppb	01:19:07
3	Sc Radial	4264.4	4264.4	113 %		01:17:23
3	Y RADIAL	4741.4	4741.4	116.1 %		01:17:03
3	Al 396.153Radial†	4906.2	4431.0	5248.1 ug/L	5248.1 ppb	01:17:03
3	Ca 317.933Radial†	2652.6	2334.3	5229.7 ug/L	5229.7 ppb	01:17:23
3	Fe 238.204 Radial†	444.4	386.3	5121.5 ug/L	5121.5 ppb	01:17:23
3	K 766.490 Radial†	27744.6	22166.4	4887.6 ug/L	4887.6 ppb	01:17:03
3	Mg 279.077 IEC†	125.5	108.6	5137.5 ug/L	5137.5 ppb	01:17:23
3	Na 589.592 Radial†	26784.5	24178.4	9722.9 ug/L	9722.9 ppb	01:17:03
3	Sr 421.552†	61147.3	54276.7	492.72 ug/L	492.72 ppb	01:17:03
3	Sc 361.383	830371.8	830371.8	113.31 %		01:18:31
3	Y 371.029	678622.1	678622.1	112.28 %		01:18:31
3	Ag 328.068†	100948.1	88934.8	509.11 ug/L	509.11 ppb	01:18:36
3	As 188.979†	919.6	833.8	510.52 ug/L	510.52 ppb	01:18:56
3	B 249.677†	18475.3	16639.5	498.54 ug/L	498.54 ppb	01:18:36
3	Ba 233.527†	54063.1	47708.3	501.29 ug/L	501.29 ppb	01:18:36
3	Be 313.107†	1239426.4	1097688.9	513.61 ug/L	513.61 ppb	01:18:31
3	Cd 226.502†	34786.9	30870.7	501.49 ug/L	501.49 ppb	01:18:36
3	Co 228.616†	20034.8	17727.5	509.48 ug/L	509.48 ppb	01:18:36
3	Cr 267.716†	37388.7	32900.6	504.76 ug/L	504.76 ppb	01:18:36
3	Cu 324.752†	165133.5	140013.9	499.80 ug/L	499.80 ppb	01:18:36
3	Mn 257.610†	383965.2	338424.9	494.24 ug/L	494.24 ppb	01:18:36
3	Mo 202.031†	5681.5	4997.2	505.08 ug/L	505.08 ppb	01:18:56
3	Ni 231.604†	16155.0	14174.2	508.24 ug/L	508.24 ppb	01:18:36
3	P 214.914†	3683.0	3061.8	2377.5 ug/L	2377.5 ppb	01:18:56
3	Pb 220.353†	3220.5	2891.2	501.59 ug/L	501.59 ppb	01:18:56
3	S 181.975 Axial†	613.8	514.6	999.64 ug/L	999.64 ppb	01:18:56
3	Sb 206.836†	1252.3	1079.6	518.77 ug/L	518.77 ppb	01:18:56
3	Se 196.026†	613.0	562.7	522.90 ug/L	522.90 ppb	01:18:56
3	Si 251.611†	69953.8	61278.7	2525.4 ug/L	2525.4 ppb	01:18:36
3	Sn 189.927†	2249.8	1971.8	500.54 ug/L	500.54 ppb	01:18:56
3	Ti 334.940†	292813.6	259453.1	496.04 ug/L	496.04 ppb	01:18:36
3	Tl 190.801†	1300.4	1169.9	507.78 ug/L	507.78 ppb	01:18:56
3	U 409.014†	14925.9	15006.2	508.57 ug/L	508.57 ppb	01:18:36
3	V 292.402†	61904.5	56011.4	509.64 ug/L	509.64 ppb	01:18:36
3	Zn 213.857†	43760.6	37959.0	502.19 ug/L	502.19 ppb	01:18:36
3	SiO2†	70298.3	61574.5	5405.6 ug/L	5405.6 ppb	01:19:12

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	839726.5	114.59 %	1.452			1.27%
Sc Radial	4235.6	112 %	0.7			0.61%
Y 371.029	685208.5	113.37 %	1.324			1.17%
Y RADIAL	4700.5	115.1 %	1.78			1.55%
Ag 328.068†	88467.8	506.43 ug/L	4.271	506.43 ppb	4.271	0.84%
QC value within limits for Ag 328.068 Recovery = 101.29%						
Al 396.153Radial†	4413.7	5227.7 ug/L	54.36	5227.7 ppb	54.36	1.04%
QC value within limits for Al 396.153Radial Recovery = 104.55%						
As 188.979†	829.3	507.74 ug/L	2.980	507.74 ppb	2.980	0.59%
QC value within limits for As 188.979 Recovery = 101.55%						
B 249.677†	16596.5	497.26 ug/L	4.135	497.26 ppb	4.135	0.83%
QC value within limits for B 249.677 Recovery = 99.45%						
Ba 233.527†	47642.4	500.60 ug/L	2.933	500.60 ppb	2.933	0.59%
QC value within limits for Ba 233.527 Recovery = 100.12%						
Be 313.107†	1092629.6	511.25 ug/L	2.293	511.25 ppb	2.293	0.45%
QC value within limits for Be 313.107 Recovery = 102.25%						
Ca 317.933Radial†	2336.8	5235.3 ug/L	9.31	5235.3 ppb	9.31	0.18%

QC value within limits for Ca 317.933 Radial Recovery = 104.71%						
Cd 226.502†	30847.3	501.12 ug/L	2.947	501.12 ppb	2.947	0.59%
QC value within limits for Cd 226.502 Recovery = 100.22%						
Co 228.616†	17699.8	508.68 ug/L	2.952	508.68 ppb	2.952	0.58%
QC value within limits for Co 228.616 Recovery = 101.74%						
Cr 267.716†	32748.2	502.42 ug/L	3.478	502.42 ppb	3.478	0.69%
QC value within limits for Cr 267.716 Recovery = 100.48%						
Cu 324.752†	139213.8	496.94 ug/L	4.302	496.94 ppb	4.302	0.87%
QC value within limits for Cu 324.752 Recovery = 99.39%						
Fe 238.204 Radial†	382.5	5071.2 ug/L	48.46	5071.2 ppb	48.46	0.96%
QC value within limits for Fe 238.204 Radial Recovery = 101.42%						
K 766.490 Radial†	22157.5	4885.6 ug/L	50.42	4885.6 ppb	50.42	1.03%
QC value within limits for K 766.490 Radial Recovery = 97.71%						
Mg 279.077 IEC†	110.4	5220.1 ug/L	74.40	5220.1 ppb	74.40	1.43%
QC value within limits for Mg 279.077 IEC Recovery = 104.40%						
Mn 257.610†	337607.2	493.04 ug/L	2.959	493.04 ppb	2.959	0.60%
QC value within limits for Mn 257.610 Recovery = 98.61%						
Mo 202.031†	4945.3	499.84 ug/L	5.655	499.84 ppb	5.655	1.13%
QC value within limits for Mo 202.031 Recovery = 99.97%						
Na 589.592 Radial†	24318.9	9779.4 ug/L	120.01	9779.4 ppb	120.01	1.23%
QC value within limits for Na 589.592 Radial Recovery = 97.79%						
Ni 231.604†	14195.0	508.99 ug/L	2.854	508.99 ppb	2.854	0.56%
QC value within limits for Ni 231.604 Recovery = 101.80%						
P 214.914†	3042.7	2362.6 ug/L	16.38	2362.6 ppb	16.38	0.69%
QC value within limits for P 214.914 Recovery = 94.51%						
Pb 220.353†	2860.6	496.29 ug/L	5.324	496.29 ppb	5.324	1.07%
QC value within limits for Pb 220.353 Recovery = 99.26%						
S 181.975 Axial†	508.8	988.44 ug/L	13.415	988.44 ppb	13.415	1.36%
QC value within limits for S 181.975 Axial Recovery = 98.84%						
Sb 206.836†	1064.4	511.56 ug/L	6.246	511.56 ppb	6.246	1.22%
QC value within limits for Sb 206.836 Recovery = 102.31%						
Se 196.026†	557.3	517.83 ug/L	4.539	517.83 ppb	4.539	0.88%
QC value within limits for Se 196.026 Recovery = 103.57%						
Si 251.611†	61052.6	2516.1 ug/L	17.81	2516.1 ppb	17.81	0.71%
QC value within limits for Si 251.611 Recovery = 100.64%						
Sn 189.927†	1956.0	496.53 ug/L	6.413	496.53 ppb	6.413	1.29%
QC value within limits for Sn 189.927 Recovery = 99.31%						
Sr 421.552†	54315.5	493.07 ug/L	6.761	493.07 ppb	6.761	1.37%
QC value within limits for Sr 421.552 Recovery = 98.61%						
Ti 334.940†	258303.8	493.84 ug/L	3.522	493.84 ppb	3.522	0.71%
QC value within limits for Ti 334.940 Recovery = 98.77%						
Tl 190.801†	1156.9	502.16 ug/L	5.062	502.16 ppb	5.062	1.01%
QC value within limits for Tl 190.801 Recovery = 100.43%						
U 409.014†	14892.1	504.70 ug/L	4.458	504.70 ppb	4.458	0.88%
QC value within limits for U 409.014 Recovery = 100.94%						
V 292.402†	55778.6	507.48 ug/L	3.547	507.48 ppb	3.547	0.70%
QC value within limits for V 292.402 Recovery = 101.50%						
Zn 213.857†	37817.8	500.31 ug/L	3.427	500.31 ppb	3.427	0.68%
QC value within limits for Zn 213.857 Recovery = 100.06%						
SiO2†	60954.1	5351.1 ug/L	47.17	5351.1 ppb	47.17	0.88%
QC value within limits for SiO2 Recovery = 100.07%						
All analyte(s) passed QC.						

Sequence No.: 56

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 01:21:23

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	3987.8	3987.8	105 %		01:23:35
1	Y RADIAL	4620.2	4620.2	113.2 %		01:23:14
1	Al 396.153Radial†	-71.8	4.6	5.5529 ug/L	5.5529 ppb	01:23:35
1	Ca 317.933Radial†	26.9	3.7	8.2057 ug/L	8.2057 ppb	01:23:35
1	Fe 238.204 Radial†	4.6	-4.1	-53.957 ug/L	-53.957 ppb	01:23:35
1	K 766.490 Radial†	2513.4	-91.1	-20.080 ug/L	-20.080 ppb	01:23:14
1	Mg 279.077 IEC†	2.6	-0.3	-14.851 ug/L	-14.851 ppb	01:23:35
1	Na 589.592 Radial†	-598.5	-182.2	-73.286 ug/L	-73.286 ppb	01:23:14
1	Sr 421.552†	40.3	-1.0	-0.0092 ug/L	-0.0092 ppb	01:23:14
1	Sc 361.383	805251.6	805251.6	109.89 %		01:24:31
1	Y 371.029	663748.0	663748.0	109.81 %		01:24:31
1	Ag 328.068†	182.1	13.6	0.0609 ug/L	0.0609 ppb	01:24:31
1	As 188.979†	-24.2	0.3	0.1697 ug/L	0.1697 ppb	01:24:51
1	B 249.677†	-225.0	130.2	3.9266 ug/L	3.9266 ppb	01:24:51
1	Ba 233.527†	25.4	20.6	0.2158 ug/L	0.2158 ppb	01:24:51
1	Be 313.107†	-3771.8	459.2	0.2146 ug/L	0.2146 ppb	01:24:31
1	Cd 226.502†	-155.6	29.6	0.4871 ug/L	0.4871 ppb	01:24:51
1	Co 228.616†	-38.9	11.3	0.3242 ug/L	0.3242 ppb	01:24:51
1	Cr 267.716†	119.9	14.1	0.2097 ug/L	0.2097 ppb	01:24:51
1	Cu 324.752†	5871.9	-373.3	-1.3374 ug/L	-1.3374 ppb	01:24:31
1	Mn 257.610†	445.3	-20.3	-0.0344 ug/L	-0.0344 ppb	01:24:51
1	Mo 202.031†	13.9	-4.1	-0.4167 ug/L	-0.4167 ppb	01:24:51
1	Ni 231.604†	96.0	4.8	0.1735 ug/L	0.1735 ppb	01:24:51
1	P 214.914†	182.5	-22.3	-17.753 ug/L	-17.753 ppb	01:24:51
1	Pb 220.353†	-46.2	7.1	1.2295 ug/L	1.2295 ppb	01:24:51
1	S 181.975 Axial†	29.3	-0.4	-0.8170 ug/L	-0.8170 ppb	01:24:51
1	Sb 206.836†	26.6	-1.4	-0.6753 ug/L	-0.6753 ppb	01:24:51
1	Se 196.026†	-21.2	2.5	2.0786 ug/L	2.0786 ppb	01:24:51
1	Si 251.611†	484.9	-14.5	-0.5921 ug/L	-0.5921 ppb	01:24:51
1	Sn 189.927†	11.6	-3.1	-0.7734 ug/L	-0.7734 ppb	01:24:51
1	Ti 334.940†	-1102.5	41.0	0.0791 ug/L	0.0791 ppb	01:24:31
1	Tl 190.801†	-26.7	-2.1	-0.8951 ug/L	-0.8951 ppb	01:24:51
1	U 409.014†	-1901.0	104.0	3.5421 ug/L	3.5421 ppb	01:24:31
1	V 292.402†	-1416.1	91.9	0.8337 ug/L	0.8337 ppb	01:24:31
1	Zn 213.857†	625.8	-90.3	-1.1974 ug/L	-1.1974 ppb	01:24:51
1	SiO2†	494.4	-14.1	-1.2294 ug/L	-1.2294 ppb	01:26:02
2	Sc Radial	4040.3	4040.3	107 %		01:24:00
2	Y RADIAL	4426.1	4426.1	108.4 %		01:23:40
2	Al 396.153Radial†	-66.9	10.1	12.029 ug/L	12.029 ppb	01:24:00
2	Ca 317.933Radial†	25.4	1.8	4.1310 ug/L	4.1310 ppb	01:24:00
2	Fe 238.204 Radial†	9.8	0.7	9.4444 ug/L	9.4444 ppb	01:24:00
2	K 766.490 Radial†	2467.2	-165.4	-36.483 ug/L	-36.483 ppb	01:23:40
2	Mg 279.077 IEC†	1.6	-1.3	-63.584 ug/L	-63.584 ppb	01:24:00
2	Na 589.592 Radial†	-682.3	-253.3	-101.88 ug/L	-101.88 ppb	01:23:40
2	Sr 421.552†	39.8	-2.0	-0.0181 ug/L	-0.0181 ppb	01:23:40
2	Sc 361.383	799446.3	799446.3	109.09 %		01:24:57
2	Y 371.029	658412.6	658412.6	108.93 %		01:24:57
2	Ag 328.068†	242.2	69.9	0.4015 ug/L	0.4015 ppb	01:24:57
2	As 188.979†	-20.6	3.4	2.0881 ug/L	2.0881 ppb	01:25:17
2	B 249.677†	-204.7	147.3	4.4311 ug/L	4.4311 ppb	01:25:17
2	Ba 233.527†	21.2	16.9	0.1782 ug/L	0.1782 ppb	01:25:17
2	Be 313.107†	-3856.3	356.7	0.1668 ug/L	0.1668 ppb	01:24:57
2	Cd 226.502†	-154.9	29.1	0.4723 ug/L	0.4723 ppb	01:25:17
2	Co 228.616†	-29.1	20.1	0.5773 ug/L	0.5773 ppb	01:25:17
2	Cr 267.716†	142.5	35.6	0.5460 ug/L	0.5460 ppb	01:25:17
2	Cu 324.752†	5840.5	-363.3	-1.2973 ug/L	-1.2973 ppb	01:24:57
2	Mn 257.610†	430.3	-31.1	-0.0419 ug/L	-0.0419 ppb	01:25:17
2	Mo 202.031†	22.0	3.4	0.3490 ug/L	0.3490 ppb	01:25:17
2	Ni 231.604†	72.0	-16.6	-0.5946 ug/L	-0.5946 ppb	01:25:17

2	P 214.914†	184.2	-19.6	-15.623 ug/L	-15.623 ppb	01:25:17
2	Pb 220.353†	-42.7	9.9	1.7148 ug/L	1.7148 ppb	01:25:17
2	S 181.975 Axial†	30.2	0.6	1.0952 ug/L	1.0952 ppb	01:25:17
2	Sb 206.836†	18.7	-8.5	-3.9505 ug/L	-3.9505 ppb	01:25:17
2	Se 196.026†	-12.2	10.5	9.4873 ug/L	9.4873 ppb	01:25:17
2	Si 251.611†	476.7	-18.8	-0.7794 ug/L	-0.7794 ppb	01:25:17
2	Sn 189.927†	8.0	-6.3	-1.5907 ug/L	-1.5907 ppb	01:25:17
2	Ti 334.940†	-1065.9	67.3	0.1336 ug/L	0.1336 ppb	01:24:57
2	Tl 190.801†	-14.0	9.4	4.0458 ug/L	4.0458 ppb	01:25:17
2	U 409.014†	-1957.1	40.1	1.3606 ug/L	1.3606 ppb	01:24:57
2	V 292.402†	-1440.9	59.8	0.5418 ug/L	0.5418 ppb	01:24:57
2	Zn 213.857†	607.9	-102.6	-1.3661 ug/L	-1.3661 ppb	01:25:17
2	SiO2†	510.1	3.6	0.3074 ug/L	0.3074 ppb	01:26:22
3	Sc Radial	4046.8	4046.8	107 %		01:24:25
3	Y RADIAL	4696.4	4696.4	115.0 %		01:24:05
3	Al 396.153Radial†	-70.0	7.4	8.7798 ug/L	8.7798 ppb	01:24:25
3	Ca 317.933Radial†	25.3	1.7	3.9129 ug/L	3.9129 ppb	01:24:25
3	Fe 238.204 Radial†	6.7	-2.2	-28.540 ug/L	-28.540 ppb	01:24:25
3	K 766.490 Radial†	2532.2	-108.2	-23.864 ug/L	-23.864 ppb	01:24:05
3	Mg 279.077 IEC†	0.5	-2.3	-109.36 ug/L	-109.36 ppb	01:24:25
3	Na 589.592 Radial†	-641.9	-214.5	-86.255 ug/L	-86.255 ppb	01:24:05
3	Sr 421.552†	51.9	9.4	0.0849 ug/L	0.0849 ppb	01:24:05
3	Sc 361.383	785816.0	785816.0	107.23 %		01:25:22
3	Y 371.029	646774.7	646774.7	107.01 %		01:25:22
3	Ag 328.068†	169.0	5.4	0.0231 ug/L	0.0231 ppb	01:25:22
3	As 188.979†	-21.8	2.0	1.1948 ug/L	1.1948 ppb	01:25:42
3	B 249.677†	-205.1	143.7	4.3282 ug/L	4.3282 ppb	01:25:42
3	Ba 233.527†	23.7	19.5	0.2049 ug/L	0.2049 ppb	01:25:42
3	Be 313.107†	-3782.7	364.1	0.1704 ug/L	0.1704 ppb	01:25:22
3	Cd 226.502†	-156.8	25.0	0.4090 ug/L	0.4090 ppb	01:25:42
3	Co 228.616†	-39.7	9.7	0.2775 ug/L	0.2775 ppb	01:25:42
3	Cr 267.716†	126.7	23.1	0.3509 ug/L	0.3509 ppb	01:25:42
3	Cu 324.752†	5721.0	-381.9	-1.3655 ug/L	-1.3655 ppb	01:25:22
3	Mn 257.610†	464.6	7.7	0.0129 ug/L	0.0129 ppb	01:25:42
3	Mo 202.031†	12.0	-5.6	-0.5656 ug/L	-0.5656 ppb	01:25:42
3	Ni 231.604†	85.2	-3.1	-0.1110 ug/L	-0.1110 ppb	01:25:42
3	P 214.914†	187.0	-14.1	-11.088 ug/L	-11.088 ppb	01:25:42
3	Pb 220.353†	-58.7	-5.7	-0.9748 ug/L	-0.9748 ppb	01:25:42
3	S 181.975 Axial†	28.0	-1.0	-1.9655 ug/L	-1.9655 ppb	01:25:42
3	Sb 206.836†	23.8	-3.5	-1.6218 ug/L	-1.6218 ppb	01:25:42
3	Se 196.026†	-20.7	2.4	2.0969 ug/L	2.0969 ppb	01:25:42
3	Si 251.611†	485.6	-2.8	-0.1108 ug/L	-0.1108 ppb	01:25:42
3	Sn 189.927†	13.1	-1.4	-0.3595 ug/L	-0.3595 ppb	01:25:42
3	Ti 334.940†	-1011.1	101.4	0.2026 ug/L	0.2026 ppb	01:25:22
3	Tl 190.801†	-18.1	5.4	2.3249 ug/L	2.3249 ppb	01:25:42
3	U 409.014†	-1918.6	44.9	1.5288 ug/L	1.5288 ppb	01:25:22
3	V 292.402†	-1411.7	64.1	0.5722 ug/L	0.5722 ppb	01:25:22
3	Zn 213.857†	617.0	-84.5	-1.1211 ug/L	-1.1211 ppb	01:25:42
3	SiO2†	503.6	5.7	0.5137 ug/L	0.5137 ppb	01:26:42

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	796838.0	108.74 %		1.361			1.25%
Sc Radial	4025.0	106 %		0.9			0.80%
Y 371.029	656311.8	108.58 %		1.436			1.32%
Y RADIAL	4580.9	112.2 %		3.41			3.04%
Ag 328.068†	29.6	0.1618 ug/L		0.20840	0.1618 ppb	0.20840	128.77%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	7.4	8.7872 ug/L		3.23802	8.7872 ppb	3.23802	36.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	1.9	1.1509 ug/L		0.95993	1.1509 ppb	0.95993	83.41%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	140.4	4.2286 ug/L		0.26658	4.2286 ppb	0.26658	6.30%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	19.0	0.1996 ug/L		0.01935	0.1996 ppb	0.01935	9.70%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	393.3	0.1839 ug/L		0.02658	0.1839 ppb	0.02658	14.45%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	2.4	5.4165 ug/L		2.41791	5.4165 ppb	2.41791	44.64%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	27.9	0.4561 ug/L	0.04148	0.4561 ppb	0.04148	9.09%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	13.7	0.3930 ug/L	0.16133	0.3930 ppb	0.16133	41.05%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	24.3	0.3689 ug/L	0.16889	0.3689 ppb	0.16889	45.79%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-372.8	-1.3334 ug/L	0.03429	-1.3334 ppb	0.03429	2.57%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.8	-24.351 ug/L	31.9078	-24.351 ppb	31.9078	131.03%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-121.6	-26.809 ug/L	8.5888	-26.809 ppb	8.5888	32.04%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.3	-62.597 ug/L	47.2610	-62.597 ppb	47.2610	75.50%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-14.6	-0.0211 ug/L	0.02971	-0.0211 ppb	0.02971	140.69%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-2.1	-0.2111 ug/L	0.49074	-0.2111 ppb	0.49074	232.48%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-216.7	-87.139 ug/L	14.3155	-87.139 ppb	14.3155	16.43%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.9	-0.1774 ug/L	0.38830	-0.1774 ppb	0.38830	218.94%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-18.7	-14.821 ug/L	3.4039	-14.821 ppb	3.4039	22.97%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	3.8	0.6565 ug/L	1.43346	0.6565 ppb	1.43346	218.36%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.3	-0.5624 ug/L	1.54611	-0.5624 ppb	1.54611	274.91%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-4.5	-2.0826 ug/L	1.68552	-2.0826 ppb	1.68552	80.93%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.1	4.5543 ug/L	4.27212	4.5543 ppb	4.27212	93.80%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-12.0	-0.4941 ug/L	0.34494	-0.4941 ppb	0.34494	69.81%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-3.6	-0.9079 ug/L	0.62655	-0.9079 ppb	0.62655	69.01%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	2.1	0.0192 ug/L	0.05708	0.0192 ppb	0.05708	297.01%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	69.9	0.1384 ug/L	0.06190	0.1384 ppb	0.06190	44.72%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.2	1.8252 ug/L	2.50809	1.8252 ppb	2.50809	137.41%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	63.0	2.1439 ug/L	1.21385	2.1439 ppb	1.21385	56.62%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	72.0	0.6493 ug/L	0.16046	0.6493 ppb	0.16046	24.71%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-92.5	-1.2282 ug/L	0.12538	-1.2282 ppb	0.12538	10.21%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-1.6	-0.1361 ug/L	0.95242	-0.1361 ppb	0.95242	699.83%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 66

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/27/2010 02:30:48

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	4369.2	4369.2	115 %		02:32:40
1	Y RADIAL	4642.7	4642.7	113.7 %		02:32:40
1	Al 396.153Radial†	4837.4	4266.8	5052.6 ug/L	5052.6 ppb	02:32:40
1	Ca 317.933Radial†	2636.5	2263.9	5071.9 ug/L	5071.9 ppb	02:33:00
1	Fe 238.204 Radial†	434.8	368.5	4886.7 ug/L	4886.7 ppb	02:33:00
1	K 766.490 Radial†	27341.6	21226.0	4680.2 ug/L	4680.2 ppb	02:32:40
1	Mg 279.077 IEC†	131.7	111.4	5267.4 ug/L	5267.4 ppb	02:33:00
1	Na 589.592 Radial†	25921.8	22859.9	9192.6 ug/L	9192.6 ppb	02:32:40
1	Sr 421.552†	59630.7	51659.1	468.96 ug/L	468.96 ppb	02:32:40
1	Sc 361.383	841707.3	841707.3	114.86 %		02:33:57
1	Y 371.029	686755.6	686755.6	113.62 %		02:33:57
1	Ag 328.068†	100581.4	87415.8	500.37 ug/L	500.37 ppb	02:34:02
1	As 188.979†	954.5	853.3	522.21 ug/L	522.21 ppb	02:34:23
1	B 249.677†	18310.7	16276.6	487.67 ug/L	487.67 ppb	02:34:02
1	Ba 233.527†	54262.9	47239.7	496.36 ug/L	496.36 ppb	02:34:02
1	Be 313.107†	1248124.9	1090531.4	510.25 ug/L	510.25 ppb	02:33:57
1	Cd 226.502†	35014.9	30655.8	498.02 ug/L	498.02 ppb	02:34:02
1	Co 228.616†	20047.9	17500.8	503.00 ug/L	503.00 ppb	02:34:02
1	Cr 267.716†	37427.6	32490.1	498.44 ug/L	498.44 ppb	02:34:02
1	Cu 324.752†	163995.6	137060.5	489.25 ug/L	489.25 ppb	02:34:02
1	Mn 257.610†	384640.2	334449.1	488.41 ug/L	488.41 ppb	02:34:02
1	Mo 202.031†	5784.2	5019.1	507.27 ug/L	507.27 ppb	02:34:23
1	Ni 231.604†	16303.4	14111.5	505.99 ug/L	505.99 ppb	02:34:02
1	P 214.914†	3775.1	3098.3	2409.2 ug/L	2409.2 ppb	02:34:23
1	Pb 220.353†	3268.9	2895.0	502.25 ug/L	502.25 ppb	02:34:23
1	S 181.975 Axial†	633.1	524.1	1018.2 ug/L	1018.2 ppb	02:34:23
1	Sb 206.836†	1268.6	1078.8	518.53 ug/L	518.53 ppb	02:34:23
1	Se 196.026†	615.8	557.8	517.84 ug/L	517.84 ppb	02:34:23
1	Si 251.611†	69779.2	60295.3	2484.7 ug/L	2484.7 ppb	02:34:02
1	Sn 189.927†	2291.2	1981.1	502.88 ug/L	502.88 ppb	02:34:23
1	Ti 334.940†	291780.6	255073.7	487.64 ug/L	487.64 ppb	02:34:02
1	Tl 190.801†	1301.4	1155.2	501.42 ug/L	501.42 ppb	02:34:23
1	U 409.014†	14894.7	14801.6	501.66 ug/L	501.66 ppb	02:34:02
1	V 292.402†	61753.9	55144.7	501.92 ug/L	501.92 ppb	02:34:02
1	Zn 213.857†	43689.0	37376.6	494.47 ug/L	494.47 ppb	02:34:02
1	SiO2†	71981.4	62204.3	5461.0 ug/L	5461.0 ppb	02:35:30
2	Sc Radial	4460.2	4460.2	118 %		02:33:05
2	Y RADIAL	4745.2	4745.2	116.2 %		02:33:05
2	Al 396.153Radial†	4956.0	4282.0	5070.9 ug/L	5070.9 ppb	02:33:05
2	Ca 317.933Radial†	2670.9	2246.4	5032.9 ug/L	5032.9 ppb	02:33:25
2	Fe 238.204 Radial†	441.6	366.6	4861.1 ug/L	4861.1 ppb	02:33:25
2	K 766.490 Radial†	27660.6	21013.3	4633.3 ug/L	4633.3 ppb	02:33:05
2	Mg 279.077 IEC†	127.9	105.9	5006.4 ug/L	5006.4 ppb	02:33:25
2	Na 589.592 Radial†	26319.7	22739.3	9144.2 ug/L	9144.2 ppb	02:33:05
2	Sr 421.552†	60887.6	51671.8	469.07 ug/L	469.07 ppb	02:33:05
2	Sc 361.383	857817.1	857817.1	117.06 %		02:34:28
2	Y 371.029	698833.0	698833.0	115.62 %		02:34:28
2	Ag 328.068†	103329.1	88118.5	504.38 ug/L	504.38 ppb	02:34:33
2	As 188.979†	952.2	835.7	511.57 ug/L	511.57 ppb	02:34:53
2	B 249.677†	18980.2	16549.1	495.87 ug/L	495.87 ppb	02:34:33
2	Ba 233.527†	55835.8	47696.2	501.15 ug/L	501.15 ppb	02:34:33
2	Be 313.107†	1272854.1	1091249.7	510.60 ug/L	510.60 ppb	02:34:28
2	Cd 226.502†	35962.2	30892.5	501.87 ug/L	501.87 ppb	02:34:33
2	Co 228.616†	20638.9	17677.8	508.06 ug/L	508.06 ppb	02:34:33
2	Cr 267.716†	38464.0	32763.5	502.63 ug/L	502.63 ppb	02:34:33
2	Cu 324.752†	168944.0	138606.4	494.76 ug/L	494.76 ppb	02:34:33
2	Mn 257.610†	395636.4	337553.8	492.95 ug/L	492.95 ppb	02:34:33
2	Mo 202.031†	5847.0	4978.2	503.14 ug/L	503.14 ppb	02:34:53
2	Ni 231.604†	16780.2	14252.2	511.04 ug/L	511.04 ppb	02:34:33

2	P 214.914†	3809.8	3066.2	2382.2 ug/L	2382.2 ppb	02:34:53
2	Pb 220.353†	3304.2	2871.8	498.23 ug/L	498.23 ppb	02:34:53
2	S 181.975 Axial†	640.6	520.2	1010.6 ug/L	1010.6 ppb	02:34:53
2	Sb 206.836†	1291.6	1077.7	517.88 ug/L	517.88 ppb	02:34:53
2	Se 196.026†	633.2	562.7	522.09 ug/L	522.09 ppb	02:34:53
2	Si 251.611†	71899.2	60965.4	2512.5 ug/L	2512.5 ppb	02:34:33
2	Sn 189.927†	2323.2	1971.0	500.31 ug/L	500.31 ppb	02:34:53
2	Ti 334.940†	300834.0	258037.1	493.32 ug/L	493.32 ppb	02:34:33
2	Tl 190.801†	1326.3	1155.2	501.46 ug/L	501.46 ppb	02:34:53
2	U 409.014†	15217.0	14833.4	502.73 ug/L	502.73 ppb	02:34:33
2	V 292.402†	63534.4	55656.0	506.44 ug/L	506.44 ppb	02:34:33
2	Zn 213.857†	45079.1	37849.8	500.76 ug/L	500.76 ppb	02:34:33
2	SiO2†	72435.2	61415.1	5391.6 ug/L	5391.6 ppb	02:35:35
3	Sc Radial	4479.7	4479.7	118 %		02:33:30
3	Y RADIAL	4794.6	4794.6	117.4 %		02:33:30
3	Al 396.153Radial†	5006.8	4306.6	5100.1 ug/L	5100.1 ppb	02:33:30
3	Ca 317.933Radial†	2631.1	2202.9	4935.4 ug/L	4935.4 ppb	02:33:50
3	Fe 238.204 Radial†	435.4	359.7	4770.2 ug/L	4770.2 ppb	02:33:50
3	K 766.490 Radial†	27814.8	21041.5	4639.6 ug/L	4639.6 ppb	02:33:30
3	Mg 279.077 IEC†	125.4	103.2	4882.9 ug/L	4882.9 ppb	02:33:50
3	Na 589.592 Radial†	26286.1	22613.7	9093.6 ug/L	9093.6 ppb	02:33:30
3	Sr 421.552†	61131.2	51652.9	468.90 ug/L	468.90 ppb	02:33:30
3	Sc 361.383	860434.3	860434.3	117.42 %		02:34:59
3	Y 371.029	701461.8	701461.8	116.05 %		02:34:59
3	Ag 328.068†	103020.7	87587.4	501.31 ug/L	501.31 ppb	02:35:04
3	As 188.979†	973.1	851.1	520.83 ug/L	520.83 ppb	02:35:24
3	B 249.677†	18954.1	16477.6	493.75 ug/L	493.75 ppb	02:35:04
3	Ba 233.527†	55268.7	47068.1	494.56 ug/L	494.56 ppb	02:35:04
3	Be 313.107†	1274286.2	1089161.9	509.61 ug/L	509.61 ppb	02:34:59
3	Cd 226.502†	35563.3	30459.3	494.84 ug/L	494.84 ppb	02:35:04
3	Co 228.616†	20395.6	17417.0	500.58 ug/L	500.58 ppb	02:35:04
3	Cr 267.716†	38082.6	32338.7	496.11 ug/L	496.11 ppb	02:35:04
3	Cu 324.752†	168530.2	137815.0	491.93 ug/L	491.93 ppb	02:35:04
3	Mn 257.610†	391683.9	333159.5	486.53 ug/L	486.53 ppb	02:35:04
3	Mo 202.031†	5878.0	4989.4	504.26 ug/L	504.26 ppb	02:35:24
3	Ni 231.604†	16569.0	14028.8	503.03 ug/L	503.03 ppb	02:35:04
3	P 214.914†	3828.5	3072.2	2387.7 ug/L	2387.7 ppb	02:35:24
3	Pb 220.353†	3342.1	2895.4	502.34 ug/L	502.34 ppb	02:35:24
3	S 181.975 Axial†	637.4	515.7	1001.9 ug/L	1001.9 ppb	02:35:24
3	Sb 206.836†	1295.1	1077.4	517.75 ug/L	517.75 ppb	02:35:24
3	Se 196.026†	638.5	565.5	524.44 ug/L	524.44 ppb	02:35:24
3	Si 251.611†	71386.9	60342.3	2486.7 ug/L	2486.7 ppb	02:35:04
3	Sn 189.927†	2328.6	1969.5	499.93 ug/L	499.93 ppb	02:35:24
3	Ti 334.940†	298624.1	255373.3	488.23 ug/L	488.23 ppb	02:35:04
3	Tl 190.801†	1323.2	1149.2	498.81 ug/L	498.81 ppb	02:35:24
3	U 409.014†	15264.0	14833.9	502.77 ug/L	502.77 ppb	02:35:04
3	V 292.402†	63097.1	55118.5	501.65 ug/L	501.65 ppb	02:35:04
3	Zn 213.857†	44629.5	37349.7	494.15 ug/L	494.15 ppb	02:35:04
3	SiO2†	71838.9	60719.0	5330.3 ug/L	5330.3 ppb	02:35:40

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	853319.6	116.45 %	1.384			1.19%
Sc Radial	4436.4	117 %	1.6			1.33%
Y 371.029	695683.5	115.10 %	1.298			1.13%
Y RADIAL	4727.5	115.8 %	1.90			1.64%
Ag 328.068†	87707.2	502.02 ug/L	2.096	502.02 ppb	2.096	0.42%
QC value within limits for Ag 328.068 Recovery = 100.40%						
Al 396.153Radial†	4285.1	5074.5 ug/L	23.97	5074.5 ppb	23.97	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.49%						
As 188.979†	846.7	518.21 ug/L	5.784	518.21 ppb	5.784	1.12%
QC value within limits for As 188.979 Recovery = 103.64%						
B 249.677†	16434.4	492.43 ug/L	4.253	492.43 ppb	4.253	0.86%
QC value within limits for B 249.677 Recovery = 98.49%						
Ba 233.527†	47334.7	497.36 ug/L	3.409	497.36 ppb	3.409	0.69%
QC value within limits for Ba 233.527 Recovery = 99.47%						
Be 313.107†	1090314.4	510.16 ug/L	0.500	510.16 ppb	0.500	0.10%
QC value within limits for Be 313.107 Recovery = 102.03%						
Ca 317.933Radial†	2237.7	5013.4 ug/L	70.32	5013.4 ppb	70.32	1.40%

QC value within limits for Ca 317.933 Radial Recovery = 100.27%							
Cd 226.502†	30669.2	498.25 ug/L	3.523	498.25 ppb	3.523	0.71%	
QC value within limits for Cd 226.502 Recovery = 99.65%							
Co 228.616†	17531.9	503.88 ug/L	3.818	503.88 ppb	3.818	0.76%	
QC value within limits for Co 228.616 Recovery = 100.78%							
Cr 267.716†	32530.8	499.06 ug/L	3.304	499.06 ppb	3.304	0.66%	
QC value within limits for Cr 267.716 Recovery = 99.81%							
Cu 324.752†	137827.3	491.98 ug/L	2.759	491.98 ppb	2.759	0.56%	
QC value within limits for Cu 324.752 Recovery = 98.40%							
Fe 238.204 Radial†	364.9	4839.3 ug/L	61.18	4839.3 ppb	61.18	1.26%	
QC value within limits for Fe 238.204 Radial Recovery = 96.79%							
K 766.490 Radial†	21093.6	4651.0 ug/L	25.47	4651.0 ppb	25.47	0.55%	
QC value within limits for K 766.490 Radial Recovery = 93.02%							
Mg 279.077 IEC†	106.8	5052.2 ug/L	196.29	5052.2 ppb	196.29	3.89%	
QC value within limits for Mg 279.077 IEC Recovery = 101.04%							
Mn 257.610†	335054.1	489.30 ug/L	3.299	489.30 ppb	3.299	0.67%	
QC value within limits for Mn 257.610 Recovery = 97.86%							
Mo 202.031†	4995.5	504.89 ug/L	2.137	504.89 ppb	2.137	0.42%	
QC value within limits for Mo 202.031 Recovery = 100.98%							
Na 589.592 Radial†	22737.6	9143.5 ug/L	49.50	9143.5 ppb	49.50	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 91.43%							
Ni 231.604†	14130.8	506.69 ug/L	4.052	506.69 ppb	4.052	0.80%	
QC value within limits for Ni 231.604 Recovery = 101.34%							
P 214.914†	3078.9	2393.0 ug/L	14.29	2393.0 ppb	14.29	0.60%	
QC value within limits for P 214.914 Recovery = 95.72%							
Pb 220.353†	2887.4	500.94 ug/L	2.349	500.94 ppb	2.349	0.47%	
QC value within limits for Pb 220.353 Recovery = 100.19%							
S 181.975 Axial†	520.0	1010.2 ug/L	8.17	1010.2 ppb	8.17	0.81%	
QC value within limits for S 181.975 Axial Recovery = 101.02%							
Sb 206.836†	1078.0	518.05 ug/L	0.416	518.05 ppb	0.416	0.08%	
QC value within limits for Sb 206.836 Recovery = 103.61%							
Se 196.026†	562.0	521.46 ug/L	3.346	521.46 ppb	3.346	0.64%	
QC value within limits for Se 196.026 Recovery = 104.29%							
Si 251.611†	60534.3	2494.6 ug/L	15.47	2494.6 ppb	15.47	0.62%	
QC value within limits for Si 251.611 Recovery = 99.79%							
Sn 189.927†	1973.9	501.04 ug/L	1.607	501.04 ppb	1.607	0.32%	
QC value within limits for Sn 189.927 Recovery = 100.21%							
Sr 421.552†	51661.3	468.98 ug/L	0.087	468.98 ppb	0.087	0.02%	
QC value within limits for Sr 421.552 Recovery = 93.80%							
Ti 334.940†	256161.4	489.73 ug/L	3.125	489.73 ppb	3.125	0.64%	
QC value within limits for Ti 334.940 Recovery = 97.95%							
Tl 190.801†	1153.2	500.56 ug/L	1.518	500.56 ppb	1.518	0.30%	
QC value within limits for Tl 190.801 Recovery = 100.11%							
U 409.014†	14823.0	502.39 ug/L	0.633	502.39 ppb	0.633	0.13%	
QC value within limits for U 409.014 Recovery = 100.48%							
V 292.402†	55306.4	503.34 ug/L	2.693	503.34 ppb	2.693	0.54%	
QC value within limits for V 292.402 Recovery = 100.67%							
Zn 213.857†	37525.4	496.46 ug/L	3.725	496.46 ppb	3.725	0.75%	
QC value within limits for Zn 213.857 Recovery = 99.29%							
SiO2†	61446.1	5394.3 ug/L	65.36	5394.3 ppb	65.36	1.21%	
QC value within limits for SiO2 Recovery = 100.88%							
All analyte(s) passed QC.							

Sequence No.: 67

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 02:37:50

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	4234.2	4234.2	112 %		02:40:01
1	Y RADIAL	4592.0	4592.0	112.5 %		02:39:41
1	Al 396.153Radial†	-63.4	16.1	19.225 ug/L	19.225 ppb	02:40:01
1	Ca 317.933Radial†	31.7	6.4	14.329 ug/L	14.329 ppb	02:40:01
1	Fe 238.204 Radial†	9.2	-0.2	-2.9938 ug/L	-2.9938 ppb	02:40:01
1	K 766.490 Radial†	2499.1	-242.8	-53.560 ug/L	-53.560 ppb	02:39:41
1	Mg 279.077 IEC†	-0.3	-3.1	-144.71 ug/L	-144.71 ppb	02:40:01
1	Na 589.592 Radial†	-720.9	-258.6	-104.00 ug/L	-104.00 ppb	02:39:41
1	Sr 421.552†	64.7	18.6	0.1685 ug/L	0.1685 ppb	02:39:41
1	Sc 361.383	812395.1	812395.1	110.86 %		02:40:58
1	Y 371.029	669575.2	669575.2	110.78 %		02:40:58
1	Ag 328.068†	177.6	8.0	0.0478 ug/L	0.0478 ppb	02:40:58
1	As 188.979†	-21.4	3.0	1.8142 ug/L	1.8142 ppb	02:41:18
1	B 249.677†	-205.5	149.6	4.5029 ug/L	4.5029 ppb	02:41:18
1	Ba 233.527†	13.8	9.9	0.1064 ug/L	0.1064 ppb	02:41:18
1	Be 313.107†	-3756.7	502.9	0.2353 ug/L	0.2353 ppb	02:40:58
1	Cd 226.502†	-166.4	21.1	0.3434 ug/L	0.3434 ppb	02:41:18
1	Co 228.616†	-32.2	17.7	0.5073 ug/L	0.5073 ppb	02:41:18
1	Cr 267.716†	125.9	18.5	0.2837 ug/L	0.2837 ppb	02:41:18
1	Cu 324.752†	5806.3	-479.5	-1.7128 ug/L	-1.7128 ppb	02:40:58
1	Mn 257.610†	491.5	17.8	0.0316 ug/L	0.0316 ppb	02:41:18
1	Mo 202.031†	12.4	-5.6	-0.5635 ug/L	-0.5635 ppb	02:41:18
1	Ni 231.604†	97.1	5.0	0.1802 ug/L	0.1802 ppb	02:41:18
1	P 214.914†	176.4	-29.3	-23.359 ug/L	-23.359 ppb	02:41:18
1	Pb 220.353†	-53.0	1.3	0.2248 ug/L	0.2248 ppb	02:41:18
1	S 181.975 Axial†	28.4	-1.4	-2.8050 ug/L	-2.8050 ppb	02:41:18
1	Sb 206.836†	18.6	-8.9	-4.1288 ug/L	-4.1288 ppb	02:41:18
1	Se 196.026†	-19.4	4.2	3.7809 ug/L	3.7809 ppb	02:41:18
1	Si 251.611†	503.4	-1.6	-0.0589 ug/L	-0.0589 ppb	02:41:18
1	Sn 189.927†	14.4	-0.6	-0.1559 ug/L	-0.1559 ppb	02:41:18
1	Ti 334.940†	-1041.7	104.6	0.2130 ug/L	0.2130 ppb	02:40:58
1	Tl 190.801†	-12.8	10.7	4.6152 ug/L	4.6152 ppb	02:41:18
1	U 409.014†	-1975.4	52.2	1.7742 ug/L	1.7742 ppb	02:40:58
1	V 292.402†	-1385.9	130.4	1.1637 ug/L	1.1637 ppb	02:40:58
1	Zn 213.857†	616.4	-103.8	-1.3843 ug/L	-1.3843 ppb	02:41:18
1	SiO2†	502.5	-10.7	-0.9290 ug/L	-0.9290 ppb	02:42:29
2	Sc Radial	4211.3	4211.3	111 %		02:40:26
2	Y RADIAL	4623.1	4623.1	113.2 %		02:40:06
2	Al 396.153Radial†	-68.4	11.3	13.460 ug/L	13.460 ppb	02:40:26
2	Ca 317.933Radial†	29.4	4.5	10.103 ug/L	10.103 ppb	02:40:26
2	Fe 238.204 Radial†	11.0	1.5	19.242 ug/L	19.242 ppb	02:40:26
2	K 766.490 Radial†	2540.7	-193.2	-42.624 ug/L	-42.624 ppb	02:40:06
2	Mg 279.077 IEC†	5.9	2.5	118.53 ug/L	118.53 ppb	02:40:26
2	Na 589.592 Radial†	-695.1	-238.9	-96.083 ug/L	-96.083 ppb	02:40:06
2	Sr 421.552†	50.1	5.8	0.0529 ug/L	0.0529 ppb	02:40:06
2	Sc 361.383	832224.3	832224.3	113.57 %		02:41:23
2	Y 371.029	685788.3	685788.3	113.46 %		02:41:23
2	Ag 328.068†	212.9	35.3	0.2089 ug/L	0.2089 ppb	02:41:23
2	As 188.979†	-22.0	2.9	1.7575 ug/L	1.7575 ppb	02:41:43
2	B 249.677†	-200.5	158.4	4.7635 ug/L	4.7635 ppb	02:41:43
2	Ba 233.527†	28.0	22.1	0.2354 ug/L	0.2354 ppb	02:41:43
2	Be 313.107†	-3784.8	559.0	0.2614 ug/L	0.2614 ppb	02:41:23
2	Cd 226.502†	-162.1	28.4	0.4603 ug/L	0.4603 ppb	02:41:43
2	Co 228.616†	-25.6	24.2	0.6957 ug/L	0.6957 ppb	02:41:43
2	Cr 267.716†	118.6	9.4	0.1461 ug/L	0.1461 ppb	02:41:43
2	Cu 324.752†	5991.5	-441.2	-1.5763 ug/L	-1.5763 ppb	02:41:23
2	Mn 257.610†	469.9	-11.7	-0.0201 ug/L	-0.0201 ppb	02:41:43
2	Mo 202.031†	20.7	1.5	0.1534 ug/L	0.1534 ppb	02:41:43
2	Ni 231.604†	89.6	-3.7	-0.1319 ug/L	-0.1319 ppb	02:41:43

2	P 214.914†	185.0	-25.6	-20.393 ug/L	-20.393 ppb	02:41:43
2	Pb 220.353†	-55.3	0.3	0.0607 ug/L	0.0607 ppb	02:41:43
2	S 181.975 Axial†	30.2	-0.5	-0.9409 ug/L	-0.9409 ppb	02:41:43
2	Sb 206.836†	25.4	-3.3	-1.5487 ug/L	-1.5487 ppb	02:41:43
2	Se 196.026†	-17.7	6.1	5.5732 ug/L	5.5732 ppb	02:41:43
2	Si 251.611†	491.6	-22.8	-0.9451 ug/L	-0.9451 ppb	02:41:43
2	Sn 189.927†	5.2	-9.1	-2.3085 ug/L	-2.3085 ppb	02:41:43
2	Ti 334.940†	-1081.1	92.3	0.1665 ug/L	0.1665 ppb	02:41:23
2	Tl 190.801†	-22.8	2.2	0.9467 ug/L	0.9467 ppb	02:41:43
2	U 409.014†	-1949.7	117.2	3.9831 ug/L	3.9831 ppb	02:41:23
2	V 292.402†	-1391.3	155.5	1.4052 ug/L	1.4052 ppb	02:41:23
2	Zn 213.857†	630.8	-104.4	-1.3938 ug/L	-1.3938 ppb	02:41:43
2	SiO2†	564.1	32.7	2.8761 ug/L	2.8761 ppb	02:42:49
3	Sc Radial	4218.7	4218.7	111 %		02:40:51
3	Y RADIAL	4732.0	4732.0	115.9 %		02:40:31
3	Al 396.153Radial†	-64.7	14.8	17.623 ug/L	17.623 ppb	02:40:51
3	Ca 317.933Radial†	30.1	5.1	11.379 ug/L	11.379 ppb	02:40:51
3	Fe 238.204 Radial†	7.1	-2.1	-28.124 ug/L	-28.124 ppb	02:40:51
3	K 766.490 Radial†	2435.5	-291.7	-64.377 ug/L	-64.377 ppb	02:40:31
3	Mg 279.077 IEC†	3.5	0.4	16.907 ug/L	16.907 ppb	02:40:51
3	Na 589.592 Radial†	-685.5	-229.2	-92.157 ug/L	-92.157 ppb	02:40:31
3	Sr 421.552†	50.2	5.8	0.0530 ug/L	0.0530 ppb	02:40:31
3	Sc 361.383	826829.3	826829.3	112.83 %		02:41:49
3	Y 371.029	681603.9	681603.9	112.77 %		02:41:49
3	Ag 328.068†	235.8	56.8	0.3131 ug/L	0.3131 ppb	02:41:49
3	As 188.979†	-21.2	3.5	2.1402 ug/L	2.1402 ppb	02:42:09
3	B 249.677†	-204.0	154.2	4.6438 ug/L	4.6438 ppb	02:42:09
3	Ba 233.527†	23.4	18.2	0.1927 ug/L	0.1927 ppb	02:42:09
3	Be 313.107†	-3914.5	422.2	0.1976 ug/L	0.1976 ppb	02:41:49
3	Cd 226.502†	-159.4	29.9	0.4907 ug/L	0.4907 ppb	02:42:09
3	Co 228.616†	-35.4	15.3	0.4399 ug/L	0.4399 ppb	02:42:09
3	Cr 267.716†	121.0	12.1	0.1815 ug/L	0.1815 ppb	02:42:09
3	Cu 324.752†	5966.5	-428.9	-1.5371 ug/L	-1.5371 ppb	02:41:49
3	Mn 257.610†	497.8	15.6	0.0193 ug/L	0.0193 ppb	02:42:09
3	Mo 202.031†	13.9	-4.4	-0.4513 ug/L	-0.4513 ppb	02:42:09
3	Ni 231.604†	95.1	1.7	0.0611 ug/L	0.0611 ppb	02:42:09
3	P 214.914†	176.1	-32.4	-25.880 ug/L	-25.880 ppb	02:42:09
3	Pb 220.353†	-56.8	-1.3	-0.2136 ug/L	-0.2136 ppb	02:42:09
3	S 181.975 Axial†	31.5	0.8	1.5899 ug/L	1.5899 ppb	02:42:09
3	Sb 206.836†	23.8	-4.5	-2.1421 ug/L	-2.1421 ppb	02:42:09
3	Se 196.026†	-20.5	3.6	3.1253 ug/L	3.1253 ppb	02:42:09
3	Si 251.611†	497.5	-14.8	-0.6074 ug/L	-0.6074 ppb	02:42:09
3	Sn 189.927†	1.3	-12.5	-3.1553 ug/L	-3.1553 ppb	02:42:09
3	Ti 334.940†	-1068.0	97.8	0.1835 ug/L	0.1835 ppb	02:41:49
3	Tl 190.801†	-16.9	7.3	3.1328 ug/L	3.1328 ppb	02:42:09
3	U 409.014†	-1796.5	241.8	8.2261 ug/L	8.2261 ppb	02:41:49
3	V 292.402†	-1393.6	145.4	1.3194 ug/L	1.3194 ppb	02:41:49
3	Zn 213.857†	626.5	-104.6	-1.3907 ug/L	-1.3907 ppb	02:42:09
3	SiO2†	502.6	-18.6	-1.6212 ug/L	-1.6212 ppb	02:43:09

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	823816.2	112.42 %		1.399				1.24%
Sc Radial	4221.4	111 %		0.3				0.28%
Y 371.029	678989.1	112.34 %		1.393				1.24%
Y RADIAL	4649.0	113.9 %		1.80				1.58%
Ag 328.068†	33.4	0.1899 ug/L		0.13369	0.1899 ppb		0.13369	70.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.1	16.769 ug/L		2.9757	16.769 ppb		2.9757	17.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.1	1.9040 ug/L		0.20658	1.9040 ppb		0.20658	10.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.1	4.6367 ug/L		0.13043	4.6367 ppb		0.13043	2.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.7	0.1782 ug/L		0.06576	0.1782 ppb		0.06576	36.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	494.7	0.2314 ug/L		0.03208	0.2314 ppb		0.03208	13.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.3	11.937 ug/L		2.1672	11.937 ppb		2.1672	18.16%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	26.5	0.4315 ug/L	0.07777	0.4315 ppb	0.07777	18.02%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	19.1	0.5476 ug/L	0.13256	0.5476 ppb	0.13256	24.21%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.3	0.2038 ug/L	0.07149	0.2038 ppb	0.07149	35.09%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-449.9	-1.6088 ug/L	0.09221	-1.6088 ppb	0.09221	5.73%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.3	-3.9584 ug/L	23.69774	-3.9584 ppb	23.69774	598.68%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-242.6	-53.520 ug/L	10.8769	-53.520 ppb	10.8769	20.32%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.1	-3.0885 ug/L	132.75527	-3.0885 ppb	132.75527	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	7.2	0.0103 ug/L	0.02701	0.0103 ppb	0.02701	262.61%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-2.8	-0.2872 ug/L	0.38560	-0.2872 ppb	0.38560	134.28%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-242.2	-97.415 ug/L	6.0351	-97.415 ppb	6.0351	6.20%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.0	0.0365 ug/L	0.15749	0.0365 ppb	0.15749	432.00%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-29.1	-23.211 ug/L	2.7469	-23.211 ppb	2.7469	11.83%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	0.1	0.0239 ug/L	0.22151	0.0239 ppb	0.22151	924.97%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.4	-0.7186 ug/L	2.20586	-0.7186 ppb	2.20586	306.95%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.6	-2.6065 ug/L	1.35130	-2.6065 ppb	1.35130	51.84%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.6	4.1598 ug/L	1.26715	4.1598 ppb	1.26715	30.46%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-13.1	-0.5371 ug/L	0.44729	-0.5371 ppb	0.44729	83.28%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-7.4	-1.8732 ug/L	1.54634	-1.8732 ppb	1.54634	82.55%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	10.1	0.0915 ug/L	0.06674	0.0915 ppb	0.06674	72.95%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	98.3	0.1876 ug/L	0.02352	0.1876 ppb	0.02352	12.54%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.7	2.8982 ug/L	1.84543	2.8982 ppb	1.84543	63.67%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	137.1	4.6611 ug/L	3.27897	4.6611 ppb	3.27897	70.35%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	143.8	1.2961 ug/L	0.12241	1.2961 ppb	0.12241	9.44%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-104.3	-1.3896 ug/L	0.00482	-1.3896 ppb	0.00482	0.35%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	1.1	0.1086 ug/L	2.42154	0.1086 ppb	2.42154	>999.9%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 78

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/27/2010 03:55:36

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	4392.6	4392.6	116 %		03:57:27
1	Y RADIAL	4688.4	4688.4	114.8 %		03:57:27
1	Al 396.153Radial†	4924.8	4319.8	5115.6 ug/L	5115.6 ppb	03:57:27
1	Ca 317.933Radial†	2691.3	2299.0	5150.5 ug/L	5150.5 ppb	03:57:47
1	Fe 238.204 Radial†	443.5	374.0	4959.6 ug/L	4959.6 ppb	03:57:47
1	K 766.490 Radial†	27604.4	21326.3	4702.3 ug/L	4702.3 ppb	03:57:27
1	Mg 279.077 IEC†	126.6	106.3	5029.3 ug/L	5029.3 ppb	03:57:47
1	Na 589.592 Radial†	26200.4	22980.4	9241.1 ug/L	9241.1 ppb	03:57:27
1	Sr 421.552†	60383.5	52032.9	472.35 ug/L	472.35 ppb	03:57:27
1	Sc 361.383	859939.9	859939.9	117.35 %		03:58:45
1	Y 371.029	702126.5	702126.5	116.16 %		03:58:45
1	Ag 328.068†	104964.5	89294.3	511.12 ug/L	511.12 ppb	03:58:50
1	As 188.979†	971.6	850.3	520.47 ug/L	520.47 ppb	03:59:10
1	B 249.677†	19255.2	16743.4	501.69 ug/L	501.69 ppb	03:58:50
1	Ba 233.527†	56327.0	47997.0	504.32 ug/L	504.32 ppb	03:58:50
1	Be 313.107†	1286698.6	1100363.3	514.87 ug/L	514.87 ppb	03:58:45
1	Cd 226.502†	36254.8	31066.0	504.69 ug/L	504.69 ppb	03:58:50
1	Co 228.616†	20855.5	17818.9	512.11 ug/L	512.11 ppb	03:58:50
1	Cr 267.716†	38983.5	33125.1	508.19 ug/L	508.19 ppb	03:58:50
1	Cu 324.752†	171997.6	140852.3	502.78 ug/L	502.78 ppb	03:58:50
1	Mn 257.610†	404136.9	343963.3	502.31 ug/L	502.31 ppb	03:58:45
1	Mo 202.031†	5916.0	5024.7	507.84 ug/L	507.84 ppb	03:59:10
1	Ni 231.604†	16929.1	14343.7	514.32 ug/L	514.32 ppb	03:58:50
1	P 214.914†	3870.6	3109.9	2415.9 ug/L	2415.9 ppb	03:59:10
1	Pb 220.353†	3360.0	2912.3	505.24 ug/L	505.24 ppb	03:59:10
1	S 181.975 Axial†	647.8	524.9	1019.7 ug/L	1019.7 ppb	03:59:10
1	Sb 206.836†	1287.8	1071.8	515.27 ug/L	515.27 ppb	03:59:10
1	Se 196.026†	646.9	573.0	531.65 ug/L	531.65 ppb	03:59:10
1	Si 251.611†	73278.9	61989.5	2554.7 ug/L	2554.7 ppb	03:58:50
1	Sn 189.927†	2343.6	1983.5	503.50 ug/L	503.50 ppb	03:59:10
1	Ti 334.940†	304871.4	260843.2	498.70 ug/L	498.70 ppb	03:58:50
1	Tl 190.801†	1343.8	1167.4	506.74 ug/L	506.74 ppb	03:59:10
1	U 409.014†	15427.2	14980.4	507.71 ug/L	507.71 ppb	03:58:50
1	V 292.402†	64576.9	56410.4	513.27 ug/L	513.27 ppb	03:58:50
1	Zn 213.857†	45556.9	38161.9	504.88 ug/L	504.88 ppb	03:58:50
1	SiO2†	72294.5	61142.4	5367.5 ug/L	5367.5 ppb	04:00:17
2	Sc Radial	4465.2	4465.2	118 %		03:57:52
2	Y RADIAL	4793.6	4793.6	117.4 %		03:57:52
2	Al 396.153Radial†	5032.7	4342.3	5142.9 ug/L	5142.9 ppb	03:57:52
2	Ca 317.933Radial†	2733.3	2296.8	5145.8 ug/L	5145.8 ppb	03:58:12
2	Fe 238.204 Radial†	455.7	378.1	5013.4 ug/L	5013.4 ppb	03:58:12
2	K 766.490 Radial†	27895.3	21186.0	4671.3 ug/L	4671.3 ppb	03:57:52
2	Mg 279.077 IEC†	130.8	108.1	5112.9 ug/L	5112.9 ppb	03:58:12
2	Na 589.592 Radial†	26814.5	23133.9	9302.8 ug/L	9302.8 ppb	03:57:52
2	Sr 421.552†	61929.3	52497.4	476.57 ug/L	476.57 ppb	03:57:52
2	Sc 361.383	877488.2	877488.2	119.74 %		03:59:16
2	Y 371.029	714381.1	714381.1	118.19 %		03:59:16
2	Ag 328.068†	104503.6	87120.6	498.73 ug/L	498.73 ppb	03:59:21
2	As 188.979†	979.3	840.1	514.24 ug/L	514.24 ppb	03:59:41
2	B 249.677†	19184.5	16356.3	490.06 ug/L	490.06 ppb	03:59:21
2	Ba 233.527†	56198.5	46929.8	493.11 ug/L	493.11 ppb	03:59:21
2	Be 313.107†	1288571.3	1079999.6	505.33 ug/L	505.33 ppb	03:59:16
2	Cd 226.502†	36191.3	30395.1	493.77 ug/L	493.77 ppb	03:59:21
2	Co 228.616†	20794.4	17412.4	500.44 ug/L	500.44 ppb	03:59:21
2	Cr 267.716†	38886.3	32379.6	496.77 ug/L	496.77 ppb	03:59:21
2	Cu 324.752†	171250.4	137297.2	490.10 ug/L	490.10 ppb	03:59:21
2	Mn 257.610†	406146.2	338754.1	494.71 ug/L	494.71 ppb	03:59:16
2	Mo 202.031†	5919.1	4926.4	497.92 ug/L	497.92 ppb	03:59:41
2	Ni 231.604†	16824.8	13968.1	500.85 ug/L	500.85 ppb	03:59:21



2	P 214.914†	3847.5	3024.7	2349.4 ug/L	2349.4 ppb	03:59:41
2	Pb 220.353†	3368.5	2862.2	496.55 ug/L	496.55 ppb	03:59:41
2	S 181.975 Axial†	646.8	513.1	996.74 ug/L	996.74 ppb	03:59:41
2	Sb 206.836†	1288.1	1050.1	504.80 ug/L	504.80 ppb	03:59:41
2	Se 196.026†	642.2	558.0	518.32 ug/L	518.32 ppb	03:59:41
2	Si 251.611†	73151.9	60634.7	2498.9 ug/L	2498.9 ppb	03:59:21
2	Sn 189.927†	2327.7	1930.3	490.00 ug/L	490.00 ppb	03:59:41
2	Ti 334.940†	303485.6	254490.3	486.55 ug/L	486.55 ppb	03:59:21
2	Tl 190.801†	1355.2	1154.0	500.92 ug/L	500.92 ppb	03:59:41
2	U 409.014†	15292.6	14605.1	494.96 ug/L	494.96 ppb	03:59:21
2	V 292.402†	64135.8	54941.5	499.93 ug/L	499.93 ppb	03:59:21
2	Zn 213.857†	45503.7	37341.1	494.01 ug/L	494.01 ppb	03:59:21
2	SiO2†	72839.3	60365.3	5299.4 ug/L	5299.4 ppb	04:00:22
3	Sc Radial	4519.7	4519.7	119 %		03:58:17
3	Y RADIAL	4824.5	4824.5	118.2 %		03:58:17
3	Al 396.153Radial†	5112.5	4357.6	5160.4 ug/L	5160.4 ppb	03:58:17
3	Ca 317.933Radial†	2757.3	2289.0	5128.3 ug/L	5128.3 ppb	03:58:38
3	Fe 238.204 Radial†	453.8	371.9	4931.3 ug/L	4931.3 ppb	03:58:38
3	K 766.490 Radial†	28238.2	21188.0	4671.8 ug/L	4671.8 ppb	03:58:17
3	Mg 279.077 IEC†	134.6	110.0	5203.0 ug/L	5203.0 ppb	03:58:38
3	Na 589.592 Radial†	27090.3	23090.8	9285.5 ug/L	9285.5 ppb	03:58:17
3	Sr 421.552†	62881.0	52661.6	478.06 ug/L	478.06 ppb	03:58:17
3	Sc 361.383	851374.6	851374.6	116.18 %		03:59:47
3	Y 371.029	694177.9	694177.9	114.85 %		03:59:47
3	Ag 328.068†	104439.7	89742.4	513.67 ug/L	513.67 ppb	03:59:52
3	As 188.979†	961.3	849.8	520.17 ug/L	520.17 ppb	04:00:12
3	B 249.677†	19136.7	16806.6	503.58 ug/L	503.58 ppb	03:59:52
3	Ba 233.527†	56176.7	48350.6	508.03 ug/L	508.03 ppb	03:59:52
3	Be 313.107†	1272105.8	1098833.9	514.16 ug/L	514.16 ppb	03:59:47
3	Cd 226.502†	36117.4	31258.6	507.82 ug/L	507.82 ppb	03:59:52
3	Co 228.616†	20827.7	17973.8	516.57 ug/L	516.57 ppb	03:59:52
3	Cr 267.716†	38812.7	33312.3	511.05 ug/L	511.05 ppb	03:59:52
3	Cu 324.752†	171076.6	141534.1	505.21 ug/L	505.21 ppb	03:59:52
3	Mn 257.610†	401105.6	344818.9	503.55 ug/L	503.55 ppb	03:59:47
3	Mo 202.031†	5925.1	5083.2	513.75 ug/L	513.75 ppb	04:00:12
3	Ni 231.604†	16829.6	14403.2	516.45 ug/L	516.45 ppb	03:59:52
3	P 214.914†	3838.2	3115.2	2419.8 ug/L	2419.8 ppb	04:00:12
3	Pb 220.353†	3370.9	2950.5	511.87 ug/L	511.87 ppb	04:00:12
3	S 181.975 Axial†	647.1	529.9	1029.4 ug/L	1029.4 ppb	04:00:12
3	Sb 206.836†	1282.5	1078.3	518.45 ug/L	518.45 ppb	04:00:12
3	Se 196.026†	639.8	572.5	531.16 ug/L	531.16 ppb	04:00:12
3	Si 251.611†	73114.6	62476.3	2574.8 ug/L	2574.8 ppb	03:59:52
3	Sn 189.927†	2335.1	1996.2	506.73 ug/L	506.73 ppb	04:00:12
3	Ti 334.940†	304327.6	262988.8	502.78 ug/L	502.78 ppb	03:59:52
3	Tl 190.801†	1343.8	1178.9	511.73 ug/L	511.73 ppb	04:00:12
3	U 409.014†	15454.5	15136.2	513.00 ug/L	513.00 ppb	03:59:52
3	V 292.402†	64200.5	56640.0	515.43 ug/L	515.43 ppb	03:59:52
3	Zn 213.857†	45402.0	38419.2	508.30 ug/L	508.30 ppb	03:59:52
3	SiO2†	72213.9	61692.8	5415.8 ug/L	5415.8 ppb	04:00:28

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	862934.2	117.76 %	1.817			1.54%
Sc Radial	4459.2	118 %	1.7			1.43%
Y 371.029	703561.8	116.40 %	1.684			1.45%
Y RADIAL	4768.8	116.8 %	1.75			1.50%
Ag 328.068†	88719.1	507.84 ug/L	7.992	507.84 ppb	7.992	1.57%
QC value within limits for Ag 328.068 Recovery = 101.57%						
Al 396.153Radial†	4339.9	5139.6 ug/L	22.55	5139.6 ppb	22.55	0.44%
QC value within limits for Al 396.153Radial Recovery = 102.79%						
As 188.979†	846.7	518.29 ug/L	3.514	518.29 ppb	3.514	0.68%
QC value within limits for As 188.979 Recovery = 103.66%						
B 249.677†	16635.4	498.44 ug/L	7.321	498.44 ppb	7.321	1.47%
QC value within limits for B 249.677 Recovery = 99.69%						
Ba 233.527†	47759.1	501.82 ug/L	7.769	501.82 ppb	7.769	1.55%
QC value within limits for Ba 233.527 Recovery = 100.36%						
Be 313.107†	1093065.6	511.45 ug/L	5.313	511.45 ppb	5.313	1.04%
QC value within limits for Be 313.107 Recovery = 102.29%						
Ca 317.933Radial†	2294.9	5141.5 ug/L	11.72	5141.5 ppb	11.72	0.23%

Cd	QC value within limits for Ca 317.933	Radial Recovery = 102.83%				
226.502†	30906.6	502.09 ug/L	7.376	502.09 ppb	7.376	1.47%
Co	QC value within limits for Cd 226.502	Recovery = 100.42%				
228.616†	17735.0	509.71 ug/L	8.332	509.71 ppb	8.332	1.63%
Cr	QC value within limits for Co 228.616	Recovery = 101.94%				
267.716†	32939.0	505.34 ug/L	7.558	505.34 ppb	7.558	1.50%
Cu	QC value within limits for Cr 267.716	Recovery = 101.07%				
324.752†	139894.5	499.37 ug/L	8.114	499.37 ppb	8.114	1.62%
Fe	QC value within limits for Cu 324.752	Recovery = 99.87%				
238.204 Radial†	374.7	4968.1 ug/L	41.70	4968.1 ppb	41.70	0.84%
K	QC value within limits for Fe 238.204 Radial	Recovery = 99.36%				
766.490 Radial†	21233.5	4681.8 ug/L	17.77	4681.8 ppb	17.77	0.38%
Mg	QC value within limits for K 766.490 Radial	Recovery = 93.64%				
279.077 IEC†	108.2	5115.1 ug/L	86.88	5115.1 ppb	86.88	1.70%
Mn	QC value within limits for Mg 279.077 IEC	Recovery = 102.30%				
257.610†	342512.1	500.19 ug/L	4.786	500.19 ppb	4.786	0.96%
Mo	QC value within limits for Mn 257.610	Recovery = 100.04%				
202.031†	5011.4	506.50 ug/L	7.997	506.50 ppb	7.997	1.58%
Na	QC value within limits for Mo 202.031	Recovery = 101.30%				
589.592 Radial†	23068.4	9276.5 ug/L	31.84	9276.5 ppb	31.84	0.34%
Ni	QC value within limits for Na 589.592 Radial	Recovery = 92.76%				
231.604†	14238.4	510.54 ug/L	8.459	510.54 ppb	8.459	1.66%
P	QC value within limits for Ni 231.604	Recovery = 102.11%				
214.914†	3083.3	2395.0 ug/L	39.57	2395.0 ppb	39.57	1.65%
Pb	QC value within limits for P 214.914	Recovery = 95.80%				
220.353†	2908.3	504.55 ug/L	7.683	504.55 ppb	7.683	1.52%
S	QC value within limits for Pb 220.353	Recovery = 100.91%				
181.975 Axial†	522.6	1015.3 ug/L	16.79	1015.3 ppb	16.79	1.65%
Sb	QC value within limits for S 181.975 Axial	Recovery = 101.53%				
206.836†	1066.7	512.84 ug/L	7.146	512.84 ppb	7.146	1.39%
Se	QC value within limits for Sb 206.836	Recovery = 102.57%				
196.026†	567.8	527.04 ug/L	7.560	527.04 ppb	7.560	1.43%
Si	QC value within limits for Se 196.026	Recovery = 105.41%				
251.611†	61700.2	2542.8 ug/L	39.33	2542.8 ppb	39.33	1.55%
Sn	QC value within limits for Si 251.611	Recovery = 101.71%				
189.927†	1970.0	500.08 ug/L	8.874	500.08 ppb	8.874	1.77%
Sr	QC value within limits for Sn 189.927	Recovery = 100.02%				
421.552†	52397.3	475.66 ug/L	2.960	475.66 ppb	2.960	0.62%
Ti	QC value within limits for Sr 421.552	Recovery = 95.13%				
334.940†	259440.8	496.01 ug/L	8.442	496.01 ppb	8.442	1.70%
Tl	QC value within limits for Ti 334.940	Recovery = 99.20%				
190.801†	1166.8	506.47 ug/L	5.412	506.47 ppb	5.412	1.07%
U	QC value within limits for Tl 190.801	Recovery = 101.29%				
409.014†	14907.3	505.22 ug/L	9.270	505.22 ppb	9.270	1.83%
V	QC value within limits for U 409.014	Recovery = 101.04%				
292.402†	55997.3	509.54 ug/L	8.395	509.54 ppb	8.395	1.65%
Zn	QC value within limits for V 292.402	Recovery = 101.91%				
213.857†	37974.1	502.40 ug/L	7.460	502.40 ppb	7.460	1.48%
SiO2†	QC value within limits for Zn 213.857	Recovery = 100.48%				
	61066.9	5360.9 ug/L	58.48	5360.9 ppb	58.48	1.09%</

Sequence No.: 79

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 04:02:37

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	4510.9	4510.9	119 %		04:04:29
1	Y RADIAL	4834.5	4834.5	118.4 %		04:04:29
1	Al 396.153Radial†	-55.7	26.1	31.047 ug/L	31.047 ppb	04:04:49
1	Ca 317.933Radial†	25.1	-0.8	-1.8101 ug/L	-1.8101 ppb	04:04:49
1	Fe 238.204 Radial†	7.6	-2.1	-27.270 ug/L	-27.270 ppb	04:04:49
1	K 766.490 Radial†	2515.8	-365.9	-80.743 ug/L	-80.743 ppb	04:04:29
1	Mg 279.077 IEC†	1.9	-1.3	-59.200 ug/L	-59.200 ppb	04:04:49
1	Na 589.592 Radial†	-718.3	-216.9	-87.223 ug/L	-87.223 ppb	04:04:29
1	Sr 421.552†	34.8	-10.0	-0.0911 ug/L	-0.0911 ppb	04:04:29
1	Sc 361.383	836715.4	836715.4	114.18 %		04:05:46
1	Y 371.029	690031.0	690031.0	114.16 %		04:05:46
1	Ag 328.068†	224.5	44.5	0.2450 ug/L	0.2450 ppb	04:05:46
1	As 188.979†	-21.3	3.6	2.2090 ug/L	2.2090 ppb	04:06:06
1	B 249.677†	-165.9	189.7	5.7124 ug/L	5.7124 ppb	04:06:06
1	Ba 233.527†	18.5	13.6	0.1441 ug/L	0.1441 ppb	04:06:06
1	Be 313.107†	-3949.2	432.9	0.2028 ug/L	0.2028 ppb	04:05:46
1	Cd 226.502†	-155.7	34.8	0.5692 ug/L	0.5692 ppb	04:06:06
1	Co 228.616†	-48.8	4.0	0.1138 ug/L	0.1138 ppb	04:06:06
1	Cr 267.716†	121.2	11.1	0.1668 ug/L	0.1668 ppb	04:06:06
1	Cu 324.752†	5841.4	-601.0	-2.1491 ug/L	-2.1491 ppb	04:05:46
1	Mn 257.610†	590.7	91.8	0.1337 ug/L	0.1337 ppb	04:06:06
1	Mo 202.031†	17.5	-1.5	-0.1494 ug/L	-0.1494 ppb	04:06:06
1	Ni 231.604†	95.8	1.4	0.0494 ug/L	0.0494 ppb	04:06:06
1	P 214.914†	168.2	-41.1	-32.818 ug/L	-32.818 ppb	04:06:06
1	Pb 220.353†	-65.4	-8.2	-1.4014 ug/L	-1.4014 ppb	04:06:06
1	S 181.975 Axial†	28.3	-2.3	-4.5458 ug/L	-4.5458 ppb	04:06:06
1	Sb 206.836†	15.3	-12.2	-5.7124 ug/L	-5.7124 ppb	04:06:06
1	Se 196.026†	-16.0	7.7	6.8435 ug/L	6.8435 ppb	04:06:06
1	Si 251.611†	584.1	55.8	2.3083 ug/L	2.3083 ppb	04:06:06
1	Sn 189.927†	5.7	-8.7	-2.2027 ug/L	-2.2027 ppb	04:06:06
1	Ti 334.940†	-1021.5	149.7	0.2889 ug/L	0.2889 ppb	04:05:46
1	Tl 190.801†	-20.1	4.6	2.0030 ug/L	2.0030 ppb	04:06:06
1	U 409.014†	-1953.8	122.9	4.1806 ug/L	4.1806 ppb	04:05:46
1	V 292.402†	-1457.8	103.8	0.9402 ug/L	0.9402 ppb	04:05:46
1	Zn 213.857†	643.6	-96.2	-1.2774 ug/L	-1.2774 ppb	04:06:06
1	SiO2†	569.0	34.4	3.0281 ug/L	3.0281 ppb	04:07:17
2	Sc Radial	4550.8	4550.8	120 %		04:04:54
2	Y RADIAL	4873.1	4873.1	119.4 %		04:04:54
2	Al 396.153Radial†	-69.8	14.8	17.565 ug/L	17.565 ppb	04:05:14
2	Ca 317.933Radial†	29.6	2.7	6.0407 ug/L	6.0407 ppb	04:05:14
2	Fe 238.204 Radial†	7.6	-2.2	-28.568 ug/L	-28.568 ppb	04:05:14
2	K 766.490 Radial†	2426.2	-459.0	-101.32 ug/L	-101.32 ppb	04:04:54
2	Mg 279.077 IEC†	-1.9	-4.4	-206.91 ug/L	-206.91 ppb	04:05:14
2	Na 589.592 Radial†	-697.3	-194.1	-78.068 ug/L	-78.068 ppb	04:04:54
2	Sr 421.552†	23.4	-19.8	-0.1797 ug/L	-0.1797 ppb	04:04:54
2	Sc 361.383	838590.9	838590.9	114.44 %		04:06:11
2	Y 371.029	693183.1	693183.1	114.68 %		04:06:11
2	Ag 328.068†	268.9	82.8	0.4613 ug/L	0.4613 ppb	04:06:11
2	As 188.979†	-23.3	2.0	1.1872 ug/L	1.1872 ppb	04:06:31
2	B 249.677†	-156.9	197.8	5.9576 ug/L	5.9576 ppb	04:06:31
2	Ba 233.527†	11.9	7.8	0.0845 ug/L	0.0845 ppb	04:06:31
2	Be 313.107†	-3811.5	560.9	0.2626 ug/L	0.2626 ppb	04:06:11
2	Cd 226.502†	-172.0	20.8	0.3431 ug/L	0.3431 ppb	04:06:31
2	Co 228.616†	-32.0	18.7	0.5382 ug/L	0.5382 ppb	04:06:31
2	Cr 267.716†	117.4	7.5	0.1112 ug/L	0.1112 ppb	04:06:31
2	Cu 324.752†	5938.6	-527.5	-1.8893 ug/L	-1.8893 ppb	04:06:11
2	Mn 257.610†	554.7	59.2	0.0920 ug/L	0.0920 ppb	04:06:31
2	Mo 202.031†	19.8	0.6	0.0561 ug/L	0.0561 ppb	04:06:31
2	Ni 231.604†	100.0	4.8	0.1727 ug/L	0.1727 ppb	04:06:31

2	P 214.914†	175.5	-35.1	-28.010 ug/L	-28.010 ppb	04:06:31
2	Pb 220.353†	-49.3	6.0	1.0467 ug/L	1.0467 ppb	04:06:31
2	S 181.975 Axial†	24.9	-5.3	-10.368 ug/L	-10.368 ppb	04:06:31
2	Sb 206.836†	16.6	-11.1	-5.1783 ug/L	-5.1783 ppb	04:06:31
2	Se 196.026†	-19.3	4.9	4.3206 ug/L	4.3206 ppb	04:06:31
2	Si 251.611†	559.1	32.8	1.3560 ug/L	1.3560 ppb	04:06:31
2	Sn 189.927†	6.9	-7.6	-1.9308 ug/L	-1.9308 ppb	04:06:31
2	Ti 334.940†	-1011.9	160.1	0.3201 ug/L	0.3201 ppb	04:06:11
2	Tl 190.801†	-14.6	9.5	4.0865 ug/L	4.0865 ppb	04:06:31
2	U 409.014†	-1815.7	247.3	8.4129 ug/L	8.4129 ppb	04:06:11
2	V 292.402†	-1394.6	161.9	1.4704 ug/L	1.4704 ppb	04:06:11
2	Zn 213.857†	616.8	-120.8	-1.6078 ug/L	-1.6078 ppb	04:06:31
2	SiO2†	579.6	42.5	3.7394 ug/L	3.7394 ppb	04:07:37
3	Sc Radial	4478.7	4478.7	118 %		04:05:19
3	Y RADIAL	4785.2	4785.2	117.2 %		04:05:19
3	Al 396.153Radial†	-78.7	6.3	7.4648 ug/L	7.4648 ppb	04:05:39
3	Ca 317.933Radial†	22.5	-2.9	-6.5263 ug/L	-6.5263 ppb	04:05:39
3	Fe 238.204 Radial†	7.4	-2.2	-28.850 ug/L	-28.850 ppb	04:05:39
3	K 766.490 Radial†	2436.7	-417.6	-92.155 ug/L	-92.155 ppb	04:05:19
3	Mg 279.077 IEC†	1.0	-2.0	-93.674 ug/L	-93.674 ppb	04:05:39
3	Na 589.592 Radial†	-784.9	-277.6	-111.61 ug/L	-111.61 ppb	04:05:19
3	Sr 421.552†	31.1	-12.9	-0.1174 ug/L	-0.1174 ppb	04:05:19
3	Sc 361.383	847676.3	847676.3	115.68 %		04:06:37
3	Y 371.029	700831.5	700831.5	115.95 %		04:06:37
3	Ag 328.068†	269.8	81.1	0.4507 ug/L	0.4507 ppb	04:06:37
3	As 188.979†	-16.9	7.7	4.6664 ug/L	4.6664 ppb	04:06:57
3	B 249.677†	-171.5	186.7	5.6232 ug/L	5.6232 ppb	04:06:57
3	Ba 233.527†	34.5	27.2	0.2870 ug/L	0.2870 ppb	04:06:57
3	Be 313.107†	-3984.7	446.8	0.2093 ug/L	0.2093 ppb	04:06:37
3	Cd 226.502†	-168.9	25.2	0.4133 ug/L	0.4133 ppb	04:06:57
3	Co 228.616†	-32.7	18.5	0.5294 ug/L	0.5294 ppb	04:06:57
3	Cr 267.716†	134.1	20.9	0.3154 ug/L	0.3154 ppb	04:06:57
3	Cu 324.752†	6009.6	-521.7	-1.8681 ug/L	-1.8681 ppb	04:06:37
3	Mn 257.610†	767.0	237.5	0.3476 ug/L	0.3476 ppb	04:06:57
3	Mo 202.031†	16.0	-2.9	-0.2999 ug/L	-0.2999 ppb	04:06:57
3	Ni 231.604†	97.8	2.0	0.0713 ug/L	0.0713 ppb	04:06:57
3	P 214.914†	172.0	-39.7	-31.747 ug/L	-31.747 ppb	04:06:57
3	Pb 220.353†	-66.6	-8.5	-1.4720 ug/L	-1.4720 ppb	04:06:57
3	S 181.975 Axial†	26.5	-4.2	-8.2236 ug/L	-8.2236 ppb	04:06:57
3	Sb 206.836†	16.4	-11.5	-5.3503 ug/L	-5.3503 ppb	04:06:57
3	Se 196.026†	-21.0	3.6	3.1444 ug/L	3.1444 ppb	04:06:57
3	Si 251.611†	555.2	24.3	1.0063 ug/L	1.0063 ppb	04:06:57
3	Sn 189.927†	8.7	-6.2	-1.5600 ug/L	-1.5600 ppb	04:06:57
3	Ti 334.940†	-1033.8	150.7	0.2914 ug/L	0.2914 ppb	04:06:37
3	Tl 190.801†	-23.9	1.6	0.6870 ug/L	0.6870 ppb	04:06:57
3	U 409.014†	-1860.7	225.5	7.6707 ug/L	7.6707 ppb	04:06:37
3	V 292.402†	-1455.2	122.6	1.1134 ug/L	1.1134 ppb	04:06:37
3	Zn 213.857†	641.1	-105.6	-1.4042 ug/L	-1.4042 ppb	04:06:57
3	SiO2†	584.8	41.6	3.6704 ug/L	3.6704 ppb	04:07:57

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	840994.2	114.76 %	0.800			0.70%
Sc Radial	4513.5	119 %	1.0			0.80%
Y 371.029	694681.9	114.93 %	0.919			0.80%
Y RADIAL	4830.9	118.3 %	1.08			0.91%
Ag 328.068†	69.5	0.3857 ug/L	0.12195	0.3857 ppb	0.12195	31.62%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.7	18.692 ug/L	11.8314	18.692 ppb	11.8314	63.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.4	2.6875 ug/L	1.78828	2.6875 ppb	1.78828	66.54%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	191.4	5.7644 ug/L	0.17315	5.7644 ppb	0.17315	3.00%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	16.2	0.1719 ug/L	0.10407	0.1719 ppb	0.10407	60.55%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	480.2	0.2249 ug/L	0.03281	0.2249 ppb	0.03281	14.59%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-0.3	-0.7652 ug/L	6.34834	-0.7652 ppb	6.34834	829.59%

QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	26.9	0.4419 ug/L	0.11574	0.4419 ppb	0.11574	26.19%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	13.7	0.3938 ug/L	0.24253	0.3938 ppb	0.24253	61.59%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.2	0.1978 ug/L	0.10553	0.1978 ppb	0.10553	53.35%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-550.1	-1.9688 ug/L	0.15646	-1.9688 ppb	0.15646	7.95%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.1	-28.230 ug/L	0.8428	-28.230 ppb	0.8428	2.99%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-414.2	-91.406 ug/L	10.3086	-91.406 ppb	10.3086	11.28%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.5	-119.93 ug/L	77.277	-119.93 ppb	77.277	64.44%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	129.5	0.1911 ug/L	0.13713	0.1911 ppb	0.13713	71.74%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.3	-0.1311 ug/L	0.17873	-0.1311 ppb	0.17873	136.38%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-229.5	-92.301 ug/L	17.3396	-92.301 ppb	17.3396	18.79%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.7	0.0978 ug/L	0.06579	0.0978 ppb	0.06579	67.27%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-38.7	-30.858 ug/L	2.5238	-30.858 ppb	2.5238	8.18%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-3.6	-0.6089 ug/L	1.43423	-0.6089 ppb	1.43423	235.54%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-4.0	-7.7126 ug/L	2.94470	-7.7126 ppb	2.94470	38.18%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-11.6	-5.4137 ug/L	0.27265	-5.4137 ppb	0.27265	5.04%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.4	4.7695 ug/L	1.88997	4.7695 ppb	1.88997	39.63%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	37.6	1.5568 ug/L	0.67384	1.5568 ppb	0.67384	43.28%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-7.5	-1.8978 ug/L	0.32264	-1.8978 ppb	0.32264	17.00%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-14.3	-0.1294 ug/L	0.04550	-0.1294 ppb	0.04550	35.16%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	153.5	0.3001 ug/L	0.01730	0.3001 ppb	0.01730	5.77%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.2	2.2588 ug/L	1.71412	2.2588 ppb	1.71412	75.88%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	198.6	6.7547 ug/L	2.25996	6.7547 ppb	2.25996	33.46%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	129.4	1.1747 ug/L	0.27032	1.1747 ppb	0.27032	23.01%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-107.5	-1.4298 ug/L	0.16668	-1.4298 ppb	0.16668	11.66%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	39.5	3.4793 ug/L	0.39225	3.4793 ppb	0.39225	11.27%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 89

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/27/2010 05:13:44

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	4181.6	4181.6	110 %		05:15:56
1	Y RADIAL	4626.7	4626.7	113.3 %		05:15:36
1	Al 396.153Radial†	4964.0	4569.7	5413.1 ug/L	5413.1 ppb	05:15:36
1	Ca 317.933Radial†	2654.1	2382.4	5337.5 ug/L	5337.5 ppb	05:15:56
1	Fe 238.204 Radial†	440.8	390.9	5182.2 ug/L	5182.2 ppb	05:15:56
1	K 766.490 Radial†	27711.1	22624.5	4988.7 ug/L	4988.7 ppb	05:15:36
1	Mg 279.077 IEC†	126.5	111.8	5285.7 ug/L	5285.7 ppb	05:15:56
1	Na 589.592 Radial†	26146.5	24072.0	9680.1 ug/L	9680.1 ppb	05:15:36
1	Sr 421.552†	60661.2	54912.7	498.49 ug/L	498.49 ppb	05:15:36
1	Sc 361.383	843887.2	843887.2	115.16 %		05:16:53
1	Y 371.029	688063.9	688063.9	113.84 %		05:16:53
1	Ag 328.068†	102707.1	89035.5	509.71 ug/L	509.71 ppb	05:16:58
1	As 188.979†	949.8	847.1	518.57 ug/L	518.57 ppb	05:17:18
1	B 249.677†	18687.9	16562.9	496.22 ug/L	496.22 ppb	05:16:58
1	Ba 233.527†	55152.4	47890.1	503.20 ug/L	503.20 ppb	05:16:58
1	Be 313.107†	1256156.2	1094698.6	512.22 ug/L	512.22 ppb	05:16:53
1	Cd 226.502†	35527.5	31022.1	503.95 ug/L	503.95 ppb	05:16:58
1	Co 228.616†	20405.6	17766.3	510.60 ug/L	510.60 ppb	05:16:58
1	Cr 267.716†	38109.1	32997.7	506.26 ug/L	506.26 ppb	05:16:58
1	Cu 324.752†	167909.6	140090.5	500.08 ug/L	500.08 ppb	05:16:58
1	Mn 257.610†	391576.7	339607.5	495.97 ug/L	495.97 ppb	05:16:58
1	Mo 202.031†	5795.4	5015.8	506.97 ug/L	506.97 ppb	05:17:18
1	Ni 231.604†	16589.9	14323.6	513.60 ug/L	513.60 ppb	05:16:58
1	P 214.914†	3782.9	3096.5	2405.5 ug/L	2405.5 ppb	05:17:18
1	Pb 220.353†	3279.5	2896.9	502.62 ug/L	502.62 ppb	05:17:18
1	S 181.975 Axial†	645.9	533.8	1037.0 ug/L	1037.0 ppb	05:17:18
1	Sb 206.836†	1261.4	1069.7	514.25 ug/L	514.25 ppb	05:17:18
1	Se 196.026†	624.0	563.6	523.88 ug/L	523.88 ppb	05:17:18
1	Si 251.611†	71484.2	61618.9	2539.4 ug/L	2539.4 ppb	05:16:58
1	Sn 189.927†	2290.0	1974.9	501.34 ug/L	501.34 ppb	05:17:18
1	Ti 334.940†	297778.0	259625.5	496.38 ug/L	496.38 ppb	05:16:58
1	Tl 190.801†	1334.0	1180.7	512.44 ug/L	512.44 ppb	05:17:18
1	U 409.014†	15130.1	14972.5	507.42 ug/L	507.42 ppb	05:16:58
1	V 292.402†	63063.8	56143.2	510.84 ug/L	510.84 ppb	05:16:58
1	Zn 213.857†	44633.0	38098.1	504.00 ug/L	504.00 ppb	05:16:58
1	SiO2†	71642.6	61748.3	5420.9 ug/L	5420.9 ppb	05:18:25
2	Sc Radial	4190.1	4190.1	111 %		05:16:21
2	Y RADIAL	4646.4	4646.4	113.8 %		05:16:01
2	Al 396.153Radial†	4890.8	4494.4	5323.4 ug/L	5323.4 ppb	05:16:01
2	Ca 317.933Radial†	2636.1	2361.3	5290.2 ug/L	5290.2 ppb	05:16:21
2	Fe 238.204 Radial†	430.7	380.9	5050.2 ug/L	5050.2 ppb	05:16:21
2	K 766.490 Radial†	27282.4	22186.1	4892.0 ug/L	4892.0 ppb	05:16:01
2	Mg 279.077 IEC†	127.1	112.1	5301.0 ug/L	5301.0 ppb	05:16:21
2	Na 589.592 Radial†	25634.9	23561.5	9474.8 ug/L	9474.8 ppb	05:16:01
2	Sr 421.552†	59702.5	53934.7	489.61 ug/L	489.61 ppb	05:16:01
2	Sc 361.383	837564.5	837564.5	114.30 %		05:17:24
2	Y 371.029	683428.0	683428.0	113.07 %		05:17:24
2	Ag 328.068†	102053.0	89136.4	510.24 ug/L	510.24 ppb	05:17:29
2	As 188.979†	933.4	838.9	513.60 ug/L	513.60 ppb	05:17:49
2	B 249.677†	18532.4	16549.4	495.84 ug/L	495.84 ppb	05:17:29
2	Ba 233.527†	54680.2	47838.5	502.66 ug/L	502.66 ppb	05:17:29
2	Be 313.107†	1246855.2	1094795.4	512.26 ug/L	512.26 ppb	05:17:24
2	Cd 226.502†	35175.4	30947.0	502.74 ug/L	502.74 ppb	05:17:29
2	Co 228.616†	20209.9	17728.8	509.53 ug/L	509.53 ppb	05:17:29
2	Cr 267.716†	37818.4	32993.1	506.17 ug/L	506.17 ppb	05:17:29
2	Cu 324.752†	166593.5	140039.7	499.89 ug/L	499.89 ppb	05:17:29
2	Mn 257.610†	388599.2	339569.3	495.90 ug/L	495.90 ppb	05:17:29
2	Mo 202.031†	5755.9	5019.3	507.30 ug/L	507.30 ppb	05:17:49
2	Ni 231.604†	16387.2	14255.0	511.14 ug/L	511.14 ppb	05:17:29

2	P 214.914†	3725.8	3071.4	2385.3 ug/L	2385.3 ppb	05:17:49
2	Pb 220.353†	3262.2	2903.3	503.71 ug/L	503.71 ppb	05:17:49
2	S 181.975 Axial†	626.8	521.3	1012.7 ug/L	1012.7 ppb	05:17:49
2	Sb 206.836†	1244.6	1063.3	511.23 ug/L	511.23 ppb	05:17:49
2	Se 196.026†	620.8	564.9	524.70 ug/L	524.70 ppb	05:17:49
2	Si 251.611†	70966.0	61634.1	2540.0 ug/L	2540.0 ppb	05:17:29
2	Sn 189.927†	2257.3	1961.3	497.90 ug/L	497.90 ppb	05:17:49
2	Ti 334.940†	295647.8	259713.8	496.54 ug/L	496.54 ppb	05:17:29
2	Tl 190.801†	1314.6	1172.4	508.89 ug/L	508.89 ppb	05:17:49
2	U 409.014†	15075.0	15023.5	509.16 ug/L	509.16 ppb	05:17:29
2	V 292.402†	62472.2	56039.0	509.93 ug/L	509.93 ppb	05:17:29
2	Zn 213.857†	44236.4	38043.6	503.31 ug/L	503.31 ppb	05:17:29
2	SiO2†	72565.8	63025.6	5533.3 ug/L	5533.3 ppb	05:18:30
3	Sc Radial	4203.8	4203.8	111 %		05:16:46
3	Y RADIAL	4576.8	4576.8	112.1 %		05:16:26
3	Al 396.153Radial†	4870.1	4461.3	5284.1 ug/L	5284.1 ppb	05:16:26
3	Ca 317.933Radial†	2642.6	2359.3	5285.7 ug/L	5285.7 ppb	05:16:46
3	Fe 238.204 Radial†	434.8	383.3	5082.3 ug/L	5082.3 ppb	05:16:46
3	K 766.490 Radial†	26940.0	21796.9	4806.2 ug/L	4806.2 ppb	05:16:26
3	Mg 279.077 IEC†	124.6	109.5	5178.4 ug/L	5178.4 ppb	05:16:46
3	Na 589.592 Radial†	25150.6	23049.4	9268.8 ug/L	9268.8 ppb	05:16:26
3	Sr 421.552†	58850.7	52990.7	481.04 ug/L	481.04 ppb	05:16:26
3	Sc 361.383	844887.1	844887.1	115.29 %		05:17:54
3	Y 371.029	689713.1	689713.1	114.11 %		05:17:54
3	Ag 328.068†	101713.9	88068.5	504.16 ug/L	504.16 ppb	05:18:00
3	As 188.979†	938.6	836.3	511.99 ug/L	511.99 ppb	05:18:20
3	B 249.677†	18602.2	16469.5	493.45 ug/L	493.45 ppb	05:18:00
3	Ba 233.527†	54580.9	47337.7	497.40 ug/L	497.40 ppb	05:18:00
3	Be 313.107†	1260640.7	1097297.2	513.42 ug/L	513.42 ppb	05:17:54
3	Cd 226.502†	35086.3	30603.0	497.14 ug/L	497.14 ppb	05:18:00
3	Co 228.616†	20116.8	17494.9	502.81 ug/L	502.81 ppb	05:18:00
3	Cr 267.716†	37799.3	32689.9	501.53 ug/L	501.53 ppb	05:18:00
3	Cu 324.752†	166477.8	138676.1	495.02 ug/L	495.02 ppb	05:18:00
3	Mn 257.610†	387945.5	336055.5	490.78 ug/L	490.78 ppb	05:18:00
3	Mo 202.031†	5799.2	5013.1	506.68 ug/L	506.68 ppb	05:18:20
3	Ni 231.604†	16405.5	14146.6	507.25 ug/L	507.25 ppb	05:18:00
3	P 214.914†	3759.6	3072.4	2387.0 ug/L	2387.0 ppb	05:18:20
3	Pb 220.353†	3281.3	2895.0	502.28 ug/L	502.28 ppb	05:18:20
3	S 181.975 Axial†	635.7	524.2	1018.4 ug/L	1018.4 ppb	05:18:20
3	Sb 206.836†	1252.5	1060.7	510.04 ug/L	510.04 ppb	05:18:20
3	Se 196.026†	622.2	561.4	521.64 ug/L	521.64 ppb	05:18:20
3	Si 251.611†	70842.1	60988.6	2513.4 ug/L	2513.4 ppb	05:18:00
3	Sn 189.927†	2285.6	1968.8	499.79 ug/L	499.79 ppb	05:18:20
3	Ti 334.940†	295172.5	257059.6	491.47 ug/L	491.47 ppb	05:18:00
3	Tl 190.801†	1319.2	1166.5	506.31 ug/L	506.31 ppb	05:18:20
3	U 409.014†	14998.3	14842.7	503.02 ug/L	503.02 ppb	05:18:00
3	V 292.402†	62413.2	55514.1	505.20 ug/L	505.20 ppb	05:18:00
3	Zn 213.857†	44110.7	37599.2	497.40 ug/L	497.40 ppb	05:18:00
3	SiO2†	71300.6	61378.0	5388.3 ug/L	5388.3 ppb	05:18:35

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	842112.9	114.92 %	0.542			0.47%
Sc Radial	4191.8	111 %	0.3			0.27%
Y 371.029	687068.3	113.67 %	0.539			0.47%
Y RADIAL	4616.6	113.1 %	0.88			0.78%
Ag 328.068†	88746.8	508.03 ug/L	3.368	508.03 ppb	3.368	0.66%
QC value within limits for Ag 328.068 Recovery = 101.61%						
Al 396.153Radial†	4508.5	5340.2 ug/L	66.12	5340.2 ppb	66.12	1.24%
QC value within limits for Al 396.153Radial Recovery = 106.80%						
As 188.979†	840.8	514.72 ug/L	3.431	514.72 ppb	3.431	0.67%
QC value within limits for As 188.979 Recovery = 102.94%						
B 249.677†	16527.3	495.17 ug/L	1.504	495.17 ppb	1.504	0.30%
QC value within limits for B 249.677 Recovery = 99.03%						
Ba 233.527†	47688.8	501.09 ug/L	3.206	501.09 ppb	3.206	0.64%
QC value within limits for Ba 233.527 Recovery = 100.22%						
Be 313.107†	1095597.1	512.63 ug/L	0.681	512.63 ppb	0.681	0.13%
QC value within limits for Be 313.107 Recovery = 102.53%						
Ca 317.933Radial†	2367.7	5304.5 ug/L	28.71	5304.5 ppb	28.71	0.54%

QC value within limits for Ca 317.933 Radial Recovery = 106.09%							
Cd 226.502†	30857.4	501.28 ug/L	3.631	501.28 ppb	3.631	0.72%	
QC value within limits for Cd 226.502 Recovery = 100.26%							
Co 228.616†	17663.4	507.65 ug/L	4.221	507.65 ppb	4.221	0.83%	
QC value within limits for Co 228.616 Recovery = 101.53%							
Cr 267.716†	32893.6	504.65 ug/L	2.706	504.65 ppb	2.706	0.54%	
QC value within limits for Cr 267.716 Recovery = 100.93%							
Cu 324.752†	139602.1	498.33 ug/L	2.864	498.33 ppb	2.864	0.57%	
QC value within limits for Cu 324.752 Recovery = 99.67%							
Fe 238.204 Radial†	385.0	5104.9 ug/L	68.84	5104.9 ppb	68.84	1.35%	
QC value within limits for Fe 238.204 Radial Recovery = 102.10%							
K 766.490 Radial†	22202.5	4895.6 ug/L	91.32	4895.6 ppb	91.32	1.87%	
QC value within limits for K 766.490 Radial Recovery = 97.91%							
Mg 279.077 IEC†	111.1	5255.0 ug/L	66.82	5255.0 ppb	66.82	1.27%	
QC value within limits for Mg 279.077 IEC Recovery = 105.10%							
Mn 257.610†	338410.8	494.21 ug/L	2.976	494.21 ppb	2.976	0.60%	
QC value within limits for Mn 257.610 Recovery = 98.84%							
Mo 202.031†	5016.1	506.98 ug/L	0.310	506.98 ppb	0.310	0.06%	
QC value within limits for Mo 202.031 Recovery = 101.40%							
Na 589.592 Radial†	23561.0	9474.6 ug/L	205.62	9474.6 ppb	205.62	2.17%	
QC value within limits for Na 589.592 Radial Recovery = 94.75%							
Ni 231.604†	14241.7	510.66 ug/L	3.199	510.66 ppb	3.199	0.63%	
QC value within limits for Ni 231.604 Recovery = 102.13%							
P 214.914†	3080.1	2392.6 ug/L	11.19	2392.6 ppb	11.19	0.47%	
QC value within limits for P 214.914 Recovery = 95.70%							
Pb 220.353†	2898.4	502.87 ug/L	0.752	502.87 ppb	0.752	0.15%	
QC value within limits for Pb 220.353 Recovery = 100.57%							
S 181.975 Axial†	526.5	1022.7 ug/L	12.70	1022.7 ppb	12.70	1.24%	
QC value within limits for S 181.975 Axial Recovery = 102.27%							
Sb 206.836†	1064.6	511.84 ug/L	2.172	511.84 ppb	2.172	0.42%	
QC value within limits for Sb 206.836 Recovery = 102.37%							
Se 196.026†	563.3	523.41 ug/L	1.582	523.41 ppb	1.582	0.30%	
QC value within limits for Se 196.026 Recovery = 104.68%							
Si 251.611†	61413.9	2530.9 ug/L	15.22	2530.9 ppb	15.22	0.60%	
QC value within limits for Si 251.611 Recovery = 101.24%							
Sn 189.927†	1968.3	499.67 ug/L	1.721	499.67 ppb	1.721	0.34%	
QC value within limits for Sn 189.927 Recovery = 99.93%							
Sr 421.552†	53946.0	489.72 ug/L	8.725	489.72 ppb	8.725	1.78%	
QC value within limits for Sr 421.552 Recovery = 97.94%							
Ti 334.940†	258799.6	494.79 ug/L	2.877	494.79 ppb	2.877	0.58%	
QC value within limits for Ti 334.940 Recovery = 98.96%							
Tl 190.801†	1173.2	509.21 ug/L	3.080	509.21 ppb	3.080	0.60%	
QC value within limits for Tl 190.801 Recovery = 101.84%							
U 409.014†	14946.2	506.53 ug/L	3.165	506.53 ppb	3.165	0.62%	
QC value within limits for U 409.014 Recovery = 101.31%							
V 292.402†	55898.8	508.65 ug/L	3.029	508.65 ppb	3.029	0.60%	
QC value within limits for V 292.402 Recovery = 101.73%							
Zn 213.857†	37913.6	501.57 ug/L	3.627	501.57 ppb	3.627	0.72%	
QC value within limits for Zn 213.857 Recovery = 100.31%							
SiO2†	62050.6	5447.5 ug/L	76.07	5447.5 ppb	76.07	1.40%	
QC value within limits for SiO2 Recovery = 101.87%							
All analyte(s) passed QC.							



Sequence No.: 90

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 05:20:45

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	4554.0	4554.0	120 %		05:22:37
1	Y RADIAL	4870.6	4870.6	119.3 %		05:22:37
1	Al 396.153Radial†	-78.5	7.6	9.0427 ug/L	9.0427 ppb	05:22:57
1	Ca 317.933Radial†	31.6	4.3	9.7001 ug/L	9.7001 ppb	05:22:57
1	Fe 238.204 Radial†	7.9	-1.9	-24.621 ug/L	-24.621 ppb	05:22:57
1	K 766.490 Radial†	2544.0	-362.5	-79.987 ug/L	-79.987 ppb	05:22:37
1	Mg 279.077 IEC†	0.3	-2.5	-119.52 ug/L	-119.52 ppb	05:22:57
1	Na 589.592 Radial†	-768.7	-253.1	-101.78 ug/L	-101.78 ppb	05:22:37
1	Sr 421.552†	81.6	28.6	0.2596 ug/L	0.2596 ppb	05:22:37
1	Sc 361.383	894194.6	894194.6	122.02 %		05:23:54
1	Y 371.029	734313.1	734313.1	121.49 %		05:23:54
1	Ag 328.068†	318.2	108.6	0.6038 ug/L	0.6038 ppb	05:23:59
1	As 188.979†	-21.0	5.1	3.0874 ug/L	3.0874 ppb	05:24:19
1	B 249.677†	-290.2	97.1	2.9270 ug/L	2.9270 ppb	05:24:19
1	Ba 233.527†	17.6	11.9	0.1271 ug/L	0.1271 ppb	05:24:19
1	Be 313.107†	-4080.6	547.5	0.2566 ug/L	0.2566 ppb	05:23:59
1	Cd 226.502†	-167.9	33.6	0.5507 ug/L	0.5507 ppb	05:24:19
1	Co 228.616†	-44.8	10.0	0.2866 ug/L	0.2866 ppb	05:24:19
1	Cr 267.716†	112.8	-2.6	-0.0469 ug/L	-0.0469 ppb	05:24:19
1	Cu 324.752†	5983.0	-813.8	-2.9152 ug/L	-2.9152 ppb	05:23:59
1	Mn 257.610†	690.9	140.7	0.2078 ug/L	0.2078 ppb	05:24:19
1	Mo 202.031†	13.0	-6.1	-0.6165 ug/L	-0.6165 ppb	05:24:19
1	Ni 231.604†	85.4	-12.6	-0.4514 ug/L	-0.4514 ppb	05:24:19
1	P 214.914†	183.1	-38.4	-30.443 ug/L	-30.443 ppb	05:24:19
1	Pb 220.353†	-57.5	1.9	0.3381 ug/L	0.3381 ppb	05:24:19
1	S 181.975 Axial†	24.7	-6.9	-13.354 ug/L	-13.354 ppb	05:24:19
1	Sb 206.836†	27.2	-3.3	-1.5828 ug/L	-1.5828 ppb	05:24:19
1	Se 196.026†	-17.1	7.7	6.8426 ug/L	6.8426 ppb	05:24:19
1	Si 251.611†	600.3	36.2	1.5045 ug/L	1.5045 ppb	05:24:19
1	Sn 189.927†	7.9	-7.1	-1.8081 ug/L	-1.8081 ppb	05:24:19
1	Ti 334.940†	-1004.2	221.4	0.4275 ug/L	0.4275 ppb	05:23:59
1	Tl 190.801†	-25.5	1.4	0.6045 ug/L	0.6045 ppb	05:24:19
1	U 409.014†	-1668.5	466.6	15.870 ug/L	15.870 ppb	05:23:54
1	V 292.402†	-1463.1	181.6	1.6528 ug/L	1.6528 ppb	05:23:59
1	Zn 213.857†	636.6	-138.1	-1.8340 ug/L	-1.8340 ppb	05:24:19
1	SiO2†	625.3	48.5	4.2812 ug/L	4.2812 ppb	05:25:40
2	Sc Radial	4565.0	4565.0	121 %		05:23:02
2	Y RADIAL	4892.6	4892.6	119.8 %		05:23:02
2	Al 396.153Radial†	-77.9	8.2	9.7963 ug/L	9.7963 ppb	05:23:22
2	Ca 317.933Radial†	29.4	2.5	5.5672 ug/L	5.5672 ppb	05:23:22
2	Fe 238.204 Radial†	9.0	-1.0	-12.742 ug/L	-12.742 ppb	05:23:22
2	K 766.490 Radial†	2408.4	-480.1	-105.95 ug/L	-105.95 ppb	05:23:02
2	Mg 279.077 IEC†	1.9	-1.3	-60.251 ug/L	-60.251 ppb	05:23:22
2	Na 589.592 Radial†	-756.3	-241.3	-97.016 ug/L	-97.016 ppb	05:23:02
2	Sr 421.552†	59.5	10.1	0.0916 ug/L	0.0916 ppb	05:23:02
2	Sc 361.383	865255.7	865255.7	118.07 %		05:24:24
2	Y 371.029	710886.6	710886.6	117.61 %		05:24:24
2	Ag 328.068†	296.5	98.9	0.5645 ug/L	0.5645 ppb	05:24:29
2	As 188.979†	-14.2	10.3	6.2301 ug/L	6.2301 ppb	05:24:49
2	B 249.677†	-289.3	90.0	2.7086 ug/L	2.7086 ppb	05:24:49
2	Ba 233.527†	26.5	19.9	0.2121 ug/L	0.2121 ppb	05:24:49
2	Be 313.107†	-3963.7	534.6	0.2505 ug/L	0.2505 ppb	05:24:29
2	Cd 226.502†	-172.8	24.8	0.4051 ug/L	0.4051 ppb	05:24:49
2	Co 228.616†	-31.3	20.2	0.5798 ug/L	0.5798 ppb	05:24:49
2	Cr 267.716†	115.0	2.3	0.0361 ug/L	0.0361 ppb	05:24:49
2	Cu 324.752†	5906.9	-714.3	-2.5515 ug/L	-2.5515 ppb	05:24:29
2	Mn 257.610†	649.0	124.1	0.1824 ug/L	0.1824 ppb	05:24:49
2	Mo 202.031†	22.8	2.5	0.2537 ug/L	0.2537 ppb	05:24:49
2	Ni 231.604†	85.4	-10.3	-0.3684 ug/L	-0.3684 ppb	05:24:49

2	P 214.914†	175.1	-40.2	-31.958 ug/L	-31.958 ppb	05:24:49
2	Pb 220.353†	-57.0	0.8	0.1459 ug/L	0.1459 ppb	05:24:49
2	S 181.975 Axial†	22.6	-8.0	-15.470 ug/L	-15.470 ppb	05:24:49
2	Sb 206.836†	32.3	1.7	0.7825 ug/L	0.7825 ppb	05:24:49
2	Se 196.026†	-19.7	5.1	4.5418 ug/L	4.5418 ppb	05:24:49
2	Si 251.611†	620.1	69.4	2.8656 ug/L	2.8656 ppb	05:24:49
2	Sn 189.927†	11.5	-3.9	-0.9822 ug/L	-0.9822 ppb	05:24:49
2	Ti 334.940†	-999.1	198.2	0.3837 ug/L	0.3837 ppb	05:24:29
2	Tl 190.801†	-27.0	-0.6	-0.2563 ug/L	-0.2563 ppb	05:24:49
2	U 409.014†	-2090.9	63.1	2.1486 ug/L	2.1486 ppb	05:24:24
2	V 292.402†	-1391.2	202.3	1.8245 ug/L	1.8245 ppb	05:24:29
2	Zn 213.857†	624.0	-131.3	-1.7461 ug/L	-1.7461 ppb	05:24:49
2	SiO2†	662.1	96.8	8.5117 ug/L	8.5117 ppb	05:26:00
3	Sc Radial	4678.9	4678.9	124 %		05:23:27
3	Y RADIAL	5011.6	5011.6	122.8 %		05:23:27
3	Al 396.153Radial†	-69.9	16.3	19.398 ug/L	19.398 ppb	05:23:47
3	Ca 317.933Radial†	26.7	-0.3	-0.7649 ug/L	-0.7649 ppb	05:23:47
3	Fe 238.204 Radial†	11.3	0.7	9.4459 ug/L	9.4459 ppb	05:23:47
3	K 766.490 Radial†	2468.7	-479.9	-105.92 ug/L	-105.92 ppb	05:23:27
3	Mg 279.077 IEC†	1.0	-2.0	-93.356 ug/L	-93.356 ppb	05:23:47
3	Na 589.592 Radial†	-789.1	-252.5	-101.56 ug/L	-101.56 ppb	05:23:27
3	Sr 421.552†	45.4	-2.5	-0.0226 ug/L	-0.0226 ppb	05:23:27
3	Sc 361.383	869361.5	869361.5	118.63 %		05:24:54
3	Y 371.029	715041.8	715041.8	118.30 %		05:24:54
3	Ag 328.068†	234.3	45.3	0.2578 ug/L	0.2578 ppb	05:24:59
3	As 188.979†	-27.4	-0.8	-0.4737 ug/L	-0.4737 ppb	05:25:19
3	B 249.677†	-267.5	109.5	3.2919 ug/L	3.2919 ppb	05:25:19
3	Ba 233.527†	29.6	22.4	0.2383 ug/L	0.2383 ppb	05:25:19
3	Be 313.107†	-4057.4	471.5	0.2210 ug/L	0.2210 ppb	05:24:59
3	Cd 226.502†	-153.6	41.7	0.6779 ug/L	0.6779 ppb	05:25:19
3	Co 228.616†	-27.2	23.7	0.6806 ug/L	0.6806 ppb	05:25:19
3	Cr 267.716†	122.2	7.9	0.1199 ug/L	0.1199 ppb	05:25:19
3	Cu 324.752†	6046.1	-620.6	-2.2208 ug/L	-2.2208 ppb	05:24:59
3	Mn 257.610†	577.1	60.9	0.0936 ug/L	0.0936 ppb	05:25:19
3	Mo 202.031†	15.0	-4.1	-0.4105 ug/L	-0.4105 ppb	05:25:19
3	Ni 231.604†	95.1	-2.4	-0.0865 ug/L	-0.0865 ppb	05:25:19
3	P 214.914†	173.8	-42.0	-33.506 ug/L	-33.506 ppb	05:25:19
3	Pb 220.353†	-64.2	-5.1	-0.8734 ug/L	-0.8734 ppb	05:25:19
3	S 181.975 Axial†	21.9	-8.6	-16.802 ug/L	-16.802 ppb	05:25:19
3	Sb 206.836†	21.1	-7.8	-3.6494 ug/L	-3.6494 ppb	05:25:19
3	Se 196.026†	-14.8	9.3	8.3615 ug/L	8.3615 ppb	05:25:19
3	Si 251.611†	660.1	100.7	4.1643 ug/L	4.1643 ppb	05:25:19
3	Sn 189.927†	11.3	-4.1	-1.0485 ug/L	-1.0485 ppb	05:25:19
3	Ti 334.940†	-1007.4	195.2	0.3759 ug/L	0.3759 ppb	05:24:59
3	Tl 190.801†	-19.1	6.1	2.6421 ug/L	2.6421 ppb	05:25:19
3	U 409.014†	-1795.2	320.8	10.906 ug/L	10.906 ppb	05:24:54
3	V 292.402†	-1446.6	161.2	1.4592 ug/L	1.4592 ppb	05:24:59
3	Zn 213.857†	620.3	-137.0	-1.8271 ug/L	-1.8271 ppb	05:25:19
3	SiO2†	605.3	46.3	4.0841 ug/L	4.0841 ppb	05:26:20

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	876270.6	119.58 %	2.137			1.79%
Sc Radial	4599.3	121 %	1.8			1.50%
Y 371.029	720080.5	119.13 %	2.068			1.74%
Y RADIAL	4925.0	120.6 %	1.86			1.54%
Ag 328.068†	84.3	0.4754 ug/L	0.18941	0.4754 ppb	0.18941	39.84%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.7	12.746 ug/L	5.7736	12.746 ppb	5.7736	45.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.9	2.9480 ug/L	3.35408	2.9480 ppb	3.35408	113.78%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	98.9	2.9758 ug/L	0.29473	2.9758 ppb	0.29473	9.90%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	18.1	0.1925 ug/L	0.05813	0.1925 ppb	0.05813	30.20%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	517.9	0.2427 ug/L	0.01902	0.2427 ppb	0.01902	7.84%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.2	4.8341 ug/L	5.27089	4.8341 ppb	5.27089	109.03%

QC value within limits for Ca 317.933Radial	Recovery = Not calculated		
Cd 226.502†	33.4 0.5445 ug/L	0.13649 0.5445 ppb	0.13649 25.06%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	18.0 0.5157 ug/L	0.20470 0.5157 ppb	0.20470 39.69%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	2.5 0.0364 ug/L	0.08341 0.0364 ppb	0.08341 229.24%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-716.2 -2.5625 ug/L	0.34733 -2.5625 ppb	0.34733 13.55%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-0.7 -9.3058 ug/L	17.29161 -9.3058 ppb	17.29161 185.82%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-440.8 -97.285 ug/L	14.9800 -97.285 ppb	14.9800 15.40%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-1.9 -91.042 ug/L	29.7017 -91.042 ppb	29.7017 32.62%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	108.6 0.1612 ug/L	0.05995 0.1612 ppb	0.05995 37.18%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	-2.5 -0.2578 ug/L	0.45480 -0.2578 ppb	0.45480 176.44%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-249.0 -100.12 ug/L	2.689 -100.12 ppb	2.689 2.69%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-8.4 -0.3021 ug/L	0.19124 -0.3021 ppb	0.19124 63.30%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-40.2 -31.969 ug/L	1.5314 -31.969 ppb	1.5314 4.79%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-0.8 -0.1298 ug/L	0.65110 -0.1298 ppb	0.65110 501.55%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-7.8 -15.209 ug/L	1.7390 -15.209 ppb	1.7390 11.43%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-3.2 -1.4832 ug/L	2.21759 -1.4832 ppb	2.21759 149.51%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	7.3 6.5820 ug/L	1.92313 6.5820 ppb	1.92313 29.22%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	68.8 2.8448 ug/L	1.32999 2.8448 ppb	1.32999 46.75%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-5.1 -1.2796 ug/L	0.45892 -1.2796 ppb	0.45892 35.86%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	12.1 0.1095 ug/L	0.14196 0.1095 ppb	0.14196 129.63%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	204.9 0.3957 ug/L	0.02781 0.3957 ppb	0.02781 7.03%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	2.3 0.9967 ug/L	1.48849 0.9967 ppb	1.48849 149.34%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	283.5 9.6416 ug/L	6.94758 9.6416 ppb	6.94758 72.06%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	181.7 1.6455 ug/L	0.18276 1.6455 ppb	0.18276 11.11%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	-135.5 -1.8024 ug/L	0.04892 -1.8024 ppb	0.04892 2.71%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	63.8 5.6257 ug/L	2.50135 5.6257 ppb	2.50135 44.46%
QC value within limits for SiO2	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 91

Sample ID: 1202056854|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 96

Date Collected: 3/27/2010 05:28:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056854|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4560.7	4560.7	120 %		05:30:23
1	Y RADIAL	4888.8	4888.8	119.7 %		05:30:23
1	Al 396.153Radial†	-38.6	40.8	48.519 ug/L	48.519 ppb	05:30:43
1	Ca 317.933Radial†	36.9	8.7	19.558 ug/L	19.558 ppb	05:30:43
1	Fe 238.204 Radial†	11.2	0.9	11.661 ug/L	11.661 ppb	05:30:43
1	K 766.490 Radial†	2557.7	-354.2	-78.168 ug/L	-78.168 ppb	05:30:23
1	Mg 279.077 IEC†	3.1	-0.2	-9.7037 ug/L	-9.7037 ppb	05:30:43
1	Na 589.592 Radial†	-691.2	-187.8	-75.511 ug/L	-75.511 ppb	05:30:23
1	Sr 421.552†	64.5	14.3	0.1297 ug/L	0.1297 ppb	05:30:23
1	Sc 361.383	870593.0	870593.0	118.80 %		05:31:40
1	Y 371.029	716473.7	716473.7	118.54 %		05:31:40
1	Ag 328.068†	260.6	67.2	0.3871 ug/L	0.3871 ppb	05:31:45
1	As 188.979†	-18.8	6.5	3.9419 ug/L	3.9419 ppb	05:32:05
1	B 249.677†	-319.0	66.4	1.9954 ug/L	1.9954 ppb	05:32:05
1	Ba 233.527†	83.6	67.8	0.7154 ug/L	0.7154 ppb	05:32:05
1	Be 313.107†	-3914.4	596.7	0.2802 ug/L	0.2802 ppb	05:31:45
1	Cd 226.502†	-180.8	19.0	0.3086 ug/L	0.3086 ppb	05:32:05
1	Co 228.616†	-27.5	23.6	0.6758 ug/L	0.6758 ppb	05:32:05
1	Cr 267.716†	220.4	90.4	1.3853 ug/L	1.3853 ppb	05:32:05
1	Cu 324.752†	6032.8	-639.0	-2.2849 ug/L	-2.2849 ppb	05:31:45
1	Mn 257.610†	1697.0	1002.9	1.4653 ug/L	1.4653 ppb	05:32:05
1	Mo 202.031†	17.6	-1.9	-0.1916 ug/L	-0.1916 ppb	05:32:05
1	Ni 231.604†	108.8	9.0	0.3237 ug/L	0.3237 ppb	05:32:05
1	P 214.914†	173.5	-42.4	-33.795 ug/L	-33.795 ppb	05:32:05
1	Pb 220.353†	-40.4	15.1	2.6222 ug/L	2.6222 ppb	05:32:05
1	S 181.975 Axial†	38.5	5.3	10.309 ug/L	10.309 ppb	05:32:05
1	Sb 206.836†	20.6	-8.3	-3.8442 ug/L	-3.8442 ppb	05:32:05
1	Se 196.026†	-20.1	4.8	4.3836 ug/L	4.3836 ppb	05:32:05
1	Si 251.611†	1665.8	946.4	39.101 ug/L	39.101 ppb	05:32:05
1	Sn 189.927†	20.1	3.3	0.8416 ug/L	0.8416 ppb	05:32:05
1	Ti 334.940†	-793.0	376.8	0.7199 ug/L	0.7199 ppb	05:31:45
1	Tl 190.801†	-29.6	-2.7	-1.1548 ug/L	-1.1548 ppb	05:32:05
1	U 409.014†	-1886.9	245.7	8.3519 ug/L	8.3519 ppb	05:31:40
1	V 292.402†	-1362.2	234.0	2.1106 ug/L	2.1106 ppb	05:31:45
1	Zn 213.857†	844.7	51.2	0.6827 ug/L	0.6827 ppb	05:32:05
1	SiO2†	1544.0	835.6	73.552 ug/L	73.552 ppb	05:33:11
2	Sc Radial	4558.0	4558.0	120 %		05:30:49
2	Y RADIAL	4852.5	4852.5	118.9 %		05:30:49
2	Al 396.153Radial†	-46.0	34.6	41.139 ug/L	41.139 ppb	05:31:09
2	Ca 317.933Radial†	37.7	9.4	21.005 ug/L	21.005 ppb	05:31:09
2	Fe 238.204 Radial†	13.3	2.6	34.210 ug/L	34.210 ppb	05:31:09
2	K 766.490 Radial†	2519.5	-384.6	-84.898 ug/L	-84.898 ppb	05:30:49
2	Mg 279.077 IEC†	0.7	-2.2	-105.38 ug/L	-105.38 ppb	05:31:09
2	Na 589.592 Radial†	-676.9	-176.2	-70.864 ug/L	-70.864 ppb	05:30:49
2	Sr 421.552†	45.8	-1.2	-0.0111 ug/L	-0.0111 ppb	05:30:49
2	Sc 361.383	864467.8	864467.8	117.97 %		05:32:11
2	Y 371.029	710279.0	710279.0	117.51 %		05:32:11
2	Ag 328.068†	286.9	91.1	0.5267 ug/L	0.5267 ppb	05:32:16
2	As 188.979†	-21.7	3.9	2.4001 ug/L	2.4001 ppb	05:32:36
2	B 249.677†	-337.0	49.3	1.4763 ug/L	1.4763 ppb	05:32:36
2	Ba 233.527†	92.9	76.2	0.8019 ug/L	0.8019 ppb	05:32:36
2	Be 313.107†	-3996.5	503.8	0.2368 ug/L	0.2368 ppb	05:32:16
2	Cd 226.502†	-173.5	24.1	0.3901 ug/L	0.3901 ppb	05:32:36
2	Co 228.616†	-21.1	28.8	0.8283 ug/L	0.8283 ppb	05:32:36
2	Cr 267.716†	192.6	68.2	1.0469 ug/L	1.0469 ppb	05:32:36
2	Cu 324.752†	6049.0	-589.2	-2.1058 ug/L	-2.1058 ppb	05:32:16
2	Mn 257.610†	1671.7	991.6	1.4549 ug/L	1.4549 ppb	05:32:36
2	Mo 202.031†	28.3	7.2	0.7323 ug/L	0.7323 ppb	05:32:36
2	Ni 231.604†	112.3	12.7	0.4546 ug/L	0.4546 ppb	05:32:36

2	P 214.914†	171.2	-43.3	-34.593 ug/L	-34.593 ppb	05:32:36
2	Pb 220.353†	-55.0	2.5	0.4375 ug/L	0.4375 ppb	05:32:36
2	S 181.975 Axial†	34.6	2.2	4.3091 ug/L	4.3091 ppb	05:32:36
2	Sb 206.836†	18.6	-9.8	-4.5559 ug/L	-4.5559 ppb	05:32:36
2	Se 196.026†	-16.3	7.9	7.2530 ug/L	7.2530 ppb	05:32:36
2	Si 251.611†	1508.3	822.9	33.986 ug/L	33.986 ppb	05:32:36
2	Sn 189.927†	15.2	-0.7	-0.1841 ug/L	-0.1841 ppb	05:32:36
2	Ti 334.940†	-807.7	359.6	0.6954 ug/L	0.6954 ppb	05:32:16
2	Tl 190.801†	-27.9	-1.4	-0.6046 ug/L	-0.6046 ppb	05:32:36
2	U 409.014†	-1898.9	224.3	7.6219 ug/L	7.6219 ppb	05:32:11
2	V 292.402†	-1480.2	125.8	1.1464 ug/L	1.1464 ppb	05:32:16
2	Zn 213.857†	846.1	57.4	0.7618 ug/L	0.7618 ppb	05:32:36
2	SiO2†	1571.3	868.0	76.375 ug/L	76.375 ppb	05:33:16
3	Sc Radial	4606.7	4606.7	122 %		05:31:14
3	Y RADIAL	4923.9	4923.9	120.6 %		05:31:14
3	Al 396.153Radial†	-44.1	36.6	43.595 ug/L	43.595 ppb	05:31:34
3	Ca 317.933Radial†	40.2	11.2	25.016 ug/L	25.016 ppb	05:31:34
3	Fe 238.204 Radial†	15.3	4.1	54.437 ug/L	54.437 ppb	05:31:34
3	K 766.490 Radial†	2634.1	-312.5	-68.985 ug/L	-68.985 ppb	05:31:14
3	Mg 279.077 IEC†	1.6	-1.5	-70.431 ug/L	-70.431 ppb	05:31:34
3	Na 589.592 Radial†	-660.6	-156.9	-63.083 ug/L	-63.083 ppb	05:31:14
3	Sr 421.552†	73.7	21.4	0.1936 ug/L	0.1936 ppb	05:31:14
3	Sc 361.383	875306.1	875306.1	119.45 %		05:32:41
3	Y 371.029	719837.6	719837.6	119.09 %		05:32:41
3	Ag 328.068†	339.8	132.3	0.7657 ug/L	0.7657 ppb	05:32:46
3	As 188.979†	-23.8	2.4	1.4628 ug/L	1.4628 ppb	05:33:06
3	B 249.677†	-333.2	56.0	1.6751 ug/L	1.6751 ppb	05:33:06
3	Ba 233.527†	90.2	73.0	0.7711 ug/L	0.7711 ppb	05:33:06
3	Be 313.107†	-3942.8	590.7	0.2780 ug/L	0.2780 ppb	05:32:46
3	Cd 226.502†	-162.2	35.4	0.5721 ug/L	0.5721 ppb	05:33:06
3	Co 228.616†	-38.6	14.4	0.4119 ug/L	0.4119 ppb	05:33:06
3	Cr 267.716†	198.3	71.0	1.0894 ug/L	1.0894 ppb	05:33:06
3	Cu 324.752†	6096.7	-612.8	-2.1926 ug/L	-2.1926 ppb	05:32:46
3	Mn 257.610†	1426.0	768.3	1.1297 ug/L	1.1297 ppb	05:33:06
3	Mo 202.031†	21.4	1.1	0.1199 ug/L	0.1199 ppb	05:33:06
3	Ni 231.604†	106.9	7.0	0.2494 ug/L	0.2494 ppb	05:33:06
3	P 214.914†	175.7	-41.3	-33.017 ug/L	-33.017 ppb	05:33:06
3	Pb 220.353†	-39.4	16.1	2.7926 ug/L	2.7926 ppb	05:33:06
3	S 181.975 Axial†	30.8	-1.3	-2.5419 ug/L	-2.5419 ppb	05:33:06
3	Sb 206.836†	15.5	-12.6	-5.8708 ug/L	-5.8708 ppb	05:33:06
3	Se 196.026†	-12.1	11.6	10.577 ug/L	10.577 ppb	05:33:06
3	Si 251.611†	1503.3	802.9	33.168 ug/L	33.168 ppb	05:33:06
3	Sn 189.927†	12.7	-3.0	-0.7671 ug/L	-0.7671 ppb	05:33:06
3	Ti 334.940†	-629.9	517.0	0.9911 ug/L	0.9911 ppb	05:32:46
3	Tl 190.801†	-29.2	-2.2	-0.9281 ug/L	-0.9281 ppb	05:33:06
3	U 409.014†	-1687.9	420.9	14.304 ug/L	14.304 ppb	05:32:41
3	V 292.402†	-1386.8	219.5	1.9894 ug/L	1.9894 ppb	05:32:46
3	Zn 213.857†	832.6	37.2	0.4902 ug/L	0.4902 ppb	05:33:06
3	SiO2†	1523.4	811.4	71.411 ug/L	71.411 ppb	05:33:21

Mean Data: 1202056854|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	870122.3	118.74 %		0.742			0.62%
Sc Radial	4575.1	121 %		0.7			0.60%
Y 371.029	715530.1	118.38 %		0.802			0.68%
Y RADIAL	4888.4	119.7 %		0.88			0.73%
Ag 328.068†	96.9	0.5598 ug/L		0.19147	0.5598 ppb	0.19147	34.20%
Al 396.153Radial†	37.3	44.418 ug/L		3.7583	44.418 ppb	3.7583	8.46%
As 188.979†	4.3	2.6016 ug/L		1.25178	2.6016 ppb	1.25178	48.12%
B 249.677†	57.2	1.7156 ug/L		0.26188	1.7156 ppb	0.26188	15.26%
Ba 233.527†	72.3	0.7628 ug/L		0.04382	0.7628 ppb	0.04382	5.74%
Be 313.107†	563.8	0.2650 ug/L		0.02448	0.2650 ppb	0.02448	9.24%
Ca 317.933Radial†	9.8	21.860 ug/L		2.8273	21.860 ppb	2.8273	12.93%
Cd 226.502†	26.1	0.4236 ug/L		0.13491	0.4236 ppb	0.13491	31.85%
Co 228.616†	22.3	0.6386 ug/L		0.21069	0.6386 ppb	0.21069	32.99%
Cr 267.716†	76.5	1.1739 ug/L		0.18437	1.1739 ppb	0.18437	15.71%
Cu 324.752†	-613.7	-2.1944 ug/L		0.08957	-2.1944 ppb	0.08957	4.08%
Fe 238.204 Radial†	2.5	33.436 ug/L		21.3982	33.436 ppb	21.3982	64.00%
K 766.490 Radial†	-350.4	-77.350 ug/L		7.9879	-77.350 ppb	7.9879	10.33%

Mg 279.077 IEC†	-1.3	-61.840 ug/L	48.4156	-61.840 ppb	48.4156	78.29%
Mn 257.610†	920.9	1.3500 ug/L	0.19084	1.3500 ppb	0.19084	14.14%
Mo 202.031†	2.2	0.2202 ug/L	0.47004	0.2202 ppb	0.47004	213.45%
Na 589.592 Radial†	-173.6	-69.819 ug/L	6.2795	-69.819 ppb	6.2795	8.99%
Ni 231.604†	9.6	0.3426 ug/L	0.10389	0.3426 ppb	0.10389	30.33%
P 214.914†	-42.3	-33.801 ug/L	0.7882	-33.801 ppb	0.7882	2.33%
Pb 220.353†	11.2	1.9508 ug/L	1.31325	1.9508 ppb	1.31325	67.32%
S 181.975 Axial†	2.1	4.0255 ug/L	6.43027	4.0255 ppb	6.43027	159.74%
Sb 206.836†	-10.3	-4.7569 ug/L	1.02816	-4.7569 ppb	1.02816	21.61%
Se 196.026†	8.1	7.4045 ug/L	3.09939	7.4045 ppb	3.09939	41.86%
Si 251.611†	857.4	35.418 ug/L	3.2153	35.418 ppb	3.2153	9.08%
Sn 189.927†	-0.2	-0.0365 ug/L	0.81444	-0.0365 ppb	0.81444	>999.9%
Sr 421.552†	11.5	0.1041 ug/L	0.10474	0.1041 ppb	0.10474	100.64%
Ti 334.940†	417.8	0.8021 ug/L	0.16410	0.8021 ppb	0.16410	20.46%
Tl 190.801†	-2.1	-0.8958 ug/L	0.27655	-0.8958 ppb	0.27655	30.87%
U 409.014†	297.0	10.093 ug/L	3.6656	10.093 ppb	3.6656	36.32%
V 292.402†	193.1	1.7488 ug/L	0.52523	1.7488 ppb	0.52523	30.03%
Zn 213.857†	48.6	0.6449 ug/L	0.13968	0.6449 ppb	0.13968	21.66%
Sio2†	838.3	73.779 ug/L	2.4896	73.779 ppb	2.4896	3.37%

Sequence No.: 92

Sample ID: 1202056859|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 97

Date Collected: 3/27/2010 05:35:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056859|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4761.0	4761.0	126 %		05:37:47
1	Y RADIAL	5542.1	5542.1	135.7 %		05:37:47
1	Al 396.153Radial†	98015.9	78058.4	92859 ug/L	92859 ppb	05:37:27
1	Ca 317.933Radial†	54948.8	43697.6	97900 ug/L	97900 ppb	05:37:27
1	Fe 238.204 Radial†	16591.3	13192.3	174420 ug/L	174420 ppb	05:37:27
1	K 766.490 Radial†	218198.2	171128.9	37743 ug/L	37743 ppb	05:37:27
1	Mg 279.077 IEC†	1035.5	821.1	38657 ug/L	38657 ppb	05:37:47
1	Na 589.592 Radial†	29641.1	23970.0	9639.0 ug/L	9639.0 ppb	05:37:27
1	Sr 421.552†	299583.1	238321.4	2162.9 ug/L	2162.9 ppb	05:37:27
1	Sc 361.383	863841.4	863841.4	117.88 %		05:38:46
1	Y 371.029	756657.5	756657.5	125.19 %		05:38:51
1	Ag 328.068†	52980.5	44791.7	312.75 ug/L	312.75 ppb	05:38:51
1	As 188.979†	2051.8	1762.8	1159.8 ug/L	1159.8 ppb	05:39:11
1	B 249.677†	60304.2	51491.6	1518.8 ug/L	1518.8 ppb	05:38:51
1	Ba 233.527†	218191.0	185091.1	1948.1 ug/L	1948.1 ppb	05:38:51
1	Be 313.107†	2095406.7	1781446.4	844.80 ug/L	844.80 ppb	05:38:46
1	Cd 226.502†	45115.8	38443.3	607.49 ug/L	607.49 ppb	05:39:11
1	Co 228.616†	38733.1	32904.4	931.97 ug/L	931.97 ppb	05:39:11
1	Cr 267.716†	186368.5	158003.3	2439.4 ug/L	2439.4 ppb	05:38:51
1	Cu 324.752†	638215.5	535687.7	1921.6 ug/L	1921.6 ppb	05:38:51
1	Mn 257.610†	4384612.4	3719085.7	5443.8 ug/L	5443.8 ppb	05:38:46
1	Mo 202.031†	5925.7	5010.1	520.63 ug/L	520.63 ppb	05:39:11
1	Ni 231.604†	46230.0	39134.8	1403.5 ug/L	1403.5 ppb	05:38:51
1	P 214.914†	12130.3	10101.8	7677.7 ug/L	7677.7 ppb	05:39:11
1	Pb 220.353†	5641.3	4834.7	833.54 ug/L	833.54 ppb	05:39:11
1	S 181.975 Axial†	2506.6	2099.3	4064.7 ug/L	4064.7 ppb	05:39:11
1	Sb 206.836†	3137.8	2636.3	1229.8 ug/L	1229.8 ppb	05:39:11
1	Se 196.026†	3183.7	2722.5	2940.4 ug/L	2940.4 ppb	05:39:11
1	Si 251.611†	1107838.8	939335.2	38800 ug/L	38800 ppb	05:38:46
1	Sn 189.927†	4675.3	3952.5	1009.4 ug/L	1009.4 ppb	05:39:11
1	Ti 334.940†	3549679.4	3012273.5	5769.7 ug/L	5769.7 ppb	05:38:46
1	Tl 190.801†	3221.0	2754.7	1255.1 ug/L	1255.1 ppb	05:39:11
1	U 409.014†	-7749.8	-4740.2	-186.48 ug/L	-186.48 ppb	05:38:51
1	V 292.402†	166631.3	142735.6	1256.7 ug/L	1256.7 ppb	05:38:51
1	Zn 213.857†	538203.2	455903.5	6050.0 ug/L	6050.0 ppb	05:38:51
1	SiO2†	1109430.1	940676.8	82778 ug/L	82778 ppb	05:40:22
2	Sc Radial	4610.9	4610.9	122 %		05:38:12
2	Y RADIAL	5357.9	5357.9	131.2 %		05:38:12
2	Al 396.153Radial†	100817.4	82898.7	98620 ug/L	98620 ppb	05:37:52
2	Ca 317.933Radial†	56832.4	46668.3	104560 ug/L	104560 ppb	05:37:52
2	Fe 238.204 Radial†	17118.8	14055.4	185830 ug/L	185830 ppb	05:37:52
2	K 766.490 Radial†	225850.9	183067.6	40376 ug/L	40376 ppb	05:37:52
2	Mg 279.077 IEC†	1011.4	828.1	38974 ug/L	38974 ppb	05:38:12
2	Na 589.592 Radial†	30575.1	25505.1	10256 ug/L	10256 ppb	05:37:52
2	Sr 421.552†	308365.7	253296.3	2298.8 ug/L	2298.8 ppb	05:37:52
2	Sc 361.383	881314.0	881314.0	120.27 %		05:39:18
2	Y 371.029	766419.1	766419.1	126.80 %		05:39:23
2	Ag 328.068†	53848.9	44622.8	315.20 ug/L	315.20 ppb	05:39:23
2	As 188.979†	2041.1	1719.4	1136.2 ug/L	1136.2 ppb	05:39:43
2	B 249.677†	61556.8	51519.0	1517.8 ug/L	1517.8 ppb	05:39:23
2	Ba 233.527†	221469.9	184147.8	1938.5 ug/L	1938.5 ppb	05:39:23
2	Be 313.107†	2135318.3	1779391.4	843.84 ug/L	843.84 ppb	05:39:18
2	Cd 226.502†	45028.1	37611.7	592.79 ug/L	592.79 ppb	05:39:43
2	Co 228.616†	38612.6	32152.8	910.17 ug/L	910.17 ppb	05:39:43
2	Cr 267.716†	189655.5	157602.0	2434.5 ug/L	2434.5 ppb	05:39:23
2	Cu 324.752†	649939.9	534702.8	1918.7 ug/L	1918.7 ppb	05:39:23
2	Mn 257.610†	4472040.6	3718039.9	5443.4 ug/L	5443.4 ppb	05:39:18
2	Mo 202.031†	5893.3	4883.5	508.80 ug/L	508.80 ppb	05:39:43
2	Ni 231.604†	47059.3	39046.9	1400.4 ug/L	1400.4 ppb	05:39:23

2	P 214.914†	12059.0	9838.5	7457.5 ug/L	7457.5 ppb	05:39:43
2	Pb 220.353†	5621.1	4723.0	813.94 ug/L	813.94 ppb	05:39:43
2	S 181.975 Axial†	2485.8	2039.9	3948.1 ug/L	3948.1 ppb	05:39:43
2	Sb 206.836†	3129.0	2576.1	1201.0 ug/L	1201.0 ppb	05:39:43
2	Se 196.026†	3200.6	2683.0	2936.7 ug/L	2936.7 ppb	05:39:43
2	Si 251.611†	1134176.4	942602.7	38936 ug/L	38936 ppb	05:39:18
2	Sn 189.927†	4658.0	3859.4	986.37 ug/L	986.37 ppb	05:39:43
2	Ti 334.940†	3623217.1	3013719.9	5773.3 ug/L	5773.3 ppb	05:39:18
2	Tl 190.801†	3190.1	2674.8	1220.8 ug/L	1220.8 ppb	05:39:43
2	U 409.014†	-7725.3	-4589.5	-182.65 ug/L	-182.65 ppb	05:39:23
2	V 292.402†	169175.5	142048.7	1248.7 ug/L	1248.7 ppb	05:39:23
2	Zn 213.857†	547292.7	454409.6	6028.4 ug/L	6028.4 ppb	05:39:23
2	SiO2†	1127563.7	937096.1	82463 ug/L	82463 ppb	05:40:28
3	Sc Radial	4698.3	4698.3	124 %		05:38:37
3	Y RADIAL	5473.9	5473.9	134.1 %		05:38:37
3	Al 396.153Radial†	99308.2	80140.4	95338 ug/L	95338 ppb	05:38:17
3	Ca 317.933Radial†	55771.7	44944.1	100690 ug/L	100690 ppb	05:38:17
3	Fe 238.204 Radial†	16801.3	13537.6	178990 ug/L	178990 ppb	05:38:17
3	K 766.490 Radial†	221689.8	176259.5	38874 ug/L	38874 ppb	05:38:17
3	Mg 279.077 IEC†	1028.8	826.7	38914 ug/L	38914 ppb	05:38:37
3	Na 589.592 Radial†	30016.8	24587.4	9887.3 ug/L	9887.3 ppb	05:38:17
3	Sr 421.552†	303277.1	244478.8	2218.8 ug/L	2218.8 ppb	05:38:17
3	Sc 361.383	895349.5	895349.5	122.18 %		05:39:50
3	Y 371.029	757275.1	757275.1	125.29 %		05:39:56
3	Ag 328.068†	53032.7	43252.8	305.20 ug/L	305.20 ppb	05:39:56
3	As 188.979†	2033.0	1686.2	1114.4 ug/L	1114.4 ppb	05:40:16
3	B 249.677†	60216.8	49619.9	1461.8 ug/L	1461.8 ppb	05:39:56
3	Ba 233.527†	219702.5	179814.6	1892.8 ug/L	1892.8 ppb	05:39:56
3	Be 313.107†	2167342.1	1777768.7	843.09 ug/L	843.09 ppb	05:39:50
3	Cd 226.502†	44990.4	36993.9	583.44 ug/L	583.44 ppb	05:40:16
3	Co 228.616†	38636.7	31669.2	896.36 ug/L	896.36 ppb	05:40:16
3	Cr 267.716†	187725.3	153550.1	2371.7 ug/L	2371.7 ppb	05:39:56
3	Cu 324.752†	638164.5	516593.5	1853.7 ug/L	1853.7 ppb	05:39:56
3	Mn 257.610†	4535763.5	3711903.5	5433.8 ug/L	5433.8 ppb	05:39:50
3	Mo 202.031†	5923.2	4831.1	502.94 ug/L	502.94 ppb	05:40:16
3	Ni 231.604†	46564.1	38028.2	1363.8 ug/L	1363.8 ppb	05:39:56
3	P 214.914†	12105.3	9719.2	7378.6 ug/L	7378.6 ppb	05:40:16
3	Pb 220.353†	5624.8	4652.7	802.01 ug/L	802.01 ppb	05:40:16
3	S 181.975 Axial†	2501.2	2020.0	3910.2 ug/L	3910.2 ppb	05:40:16
3	Sb 206.836†	3118.1	2526.4	1177.6 ug/L	1177.6 ppb	05:40:16
3	Se 196.026†	3187.2	2630.3	2870.2 ug/L	2870.2 ppb	05:40:16
3	Si 251.611†	1152433.8	942762.2	38942 ug/L	38942 ppb	05:39:50
3	Sn 189.927†	4667.2	3806.2	972.60 ug/L	972.60 ppb	05:40:16
3	Ti 334.940†	3681582.3	3014262.5	5773.9 ug/L	5773.9 ppb	05:39:50
3	Tl 190.801†	3198.8	2640.3	1206.0 ug/L	1206.0 ppb	05:40:16
3	U 409.014†	-7828.9	-4573.6	-181.19 ug/L	-181.19 ppb	05:39:56
3	V 292.402†	167236.9	138256.9	1215.6 ug/L	1215.6 ppb	05:39:56
3	Zn 213.857†	541449.5	442493.5	5870.6 ug/L	5870.6 ppb	05:39:56
3	SiO2†	1133208.3	927018.7	81576 ug/L	81576 ppb	05:40:34

Mean Data: 1202056859|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	880168.3	120.11 %		2.154			1.79%
Sc Radial	4690.0	124 %		2.0			1.61%
Y 371.029	760117.3	125.76 %		0.904			0.72%
Y RADIAL	5458.0	133.7 %		2.28			1.71%
Ag 328.068†	44222.4	311.05 ug/L		5.211	311.05 ppb	5.211	1.68%
Al 396.153Radial†	80365.8	95606 ug/L		2889.5	95606 ppb	2889.5	3.02%
As 188.979†	1722.8	1136.8 ug/L		22.70	1136.8 ppb	22.70	2.00%
B 249.677†	50876.8	1499.5 ug/L		32.62	1499.5 ppb	32.62	2.18%
Ba 233.527†	183017.9	1926.5 ug/L		29.53	1926.5 ppb	29.53	1.53%
Be 313.107†	1779535.5	843.91 ug/L		0.856	843.91 ppb	0.856	0.10%
Ca 317.933Radial†	45103.3	101050 ug/L		3342.1	101050 ppb	3342.1	3.31%
Cd 226.502†	37683.0	594.57 ug/L		12.122	594.57 ppb	12.122	2.04%
Co 228.616†	32242.1	912.83 ug/L		17.952	912.83 ppb	17.952	1.97%
Cr 267.716†	156385.1	2415.2 ug/L		37.77	2415.2 ppb	37.77	1.56%
Cu 324.752†	528994.7	1898.0 ug/L		38.40	1898.0 ppb	38.40	2.02%
Fe 238.204 Radial†	13595.1	179750 ug/L		5742.4	179750 ppb	5742.4	3.19%
K 766.490 Radial†	176818.7	38998 ug/L		1321.0	38998 ppb	1321.0	3.39%



Mg 279.077 IEC†	825.3	38848 ug/L	168.5	38848 ppb	168.5	0.43%
Mn 257.610†	3716343.1	5440.3 ug/L	5.68	5440.3 ppb	5.68	0.10%
Mo 202.031†	4908.2	510.79 ug/L	9.008	510.79 ppb	9.008	1.76%
Na 589.592 Radial†	24687.5	9927.6 ug/L	310.61	9927.6 ppb	310.61	3.13%
Ni 231.604†	38736.6	1389.2 ug/L	22.06	1389.2 ppb	22.06	1.59%
P 214.914†	9886.5	7504.6 ug/L	154.99	7504.6 ppb	154.99	2.07%
Pb 220.353†	4736.8	816.50 ug/L	15.923	816.50 ppb	15.923	1.95%
S 181.975 Axial†	2053.1	3974.3 ug/L	80.54	3974.3 ppb	80.54	2.03%
Sb 206.836†	2579.6	1202.8 ug/L	26.14	1202.8 ppb	26.14	2.17%
Se 196.026†	2678.6	2915.7 ug/L	39.51	2915.7 ppb	39.51	1.36%
Si 251.611†	941566.7	38893 ug/L	80.0	38893 ppb	80.0	0.21%
Sn 189.927†	3872.7	989.47 ug/L	18.614	989.47 ppb	18.614	1.88%
Sr 421.552†	245365.5	2226.8 ug/L	68.31	2226.8 ppb	68.31	3.07%
Ti 334.940†	3013418.6	5772.3 ug/L	2.27	5772.3 ppb	2.27	0.04%
Tl 190.801†	2689.9	1227.3 ug/L	25.20	1227.3 ppb	25.20	2.05%
U 409.014†	-4634.4	-183.44 ug/L	2.736	-183.44 ppb	2.736	1.49%
V 292.402†	141013.7	1240.3 ug/L	21.79	1240.3 ppb	21.79	1.76%
Zn 213.857†	450935.5	5983.0 ug/L	97.93	5983.0 ppb	97.93	1.64%
SiO2†	934930.5	82272 ug/L	623.1	82272 ppb	623.1	0.76%

Sequence No.: 93

Sample ID: 248045001|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 98

Date Collected: 3/27/2010 05:42:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045001|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4184.6	4184.6	110 %		05:44:58
1	Y RADIAL	6144.0	6144.0	150.5 %		05:44:38
1	Al 396.153Radial†	33404.5	30311.3	36068 ug/L	36068 ppb	05:44:38
1	Ca 317.933Radial†	3974.3	3575.7	8011.0 ug/L	8011.0 ppb	05:44:38
1	Fe 238.204 Radial†	7248.6	6553.1	86630 ug/L	86630 ppb	05:44:38
1	K 766.490 Radial†	50426.0	43168.2	9525.9 ug/L	9525.9 ppb	05:44:38
1	Mg 279.077 IEC†	136.5	120.7	5619.7 ug/L	5619.7 ppb	05:44:58
1	Na 589.592 Radial†	8141.5	7756.2	3119.0 ug/L	3119.0 ppb	05:44:38
1	Sr 421.552†	7051.5	6343.9	57.534 ug/L	57.534 ppb	05:44:38
1	Sc 361.383	859380.0	859380.0	117.27 %		05:45:56
1	Y 371.029	878892.2	878892.2	145.41 %		05:45:56
1	Ag 328.068†	-4809.6	-4253.4	3.0795 ug/L	3.0795 ppb	05:46:01
1	As 188.979†	-24.2	1.6	40.997 ug/L	40.997 ppb	05:46:21
1	B 249.677†	672.8	908.6	13.227 ug/L	13.227 ppb	05:46:01
1	Ba 233.527†	40380.5	34430.5	363.71 ug/L	363.71 ppb	05:46:01
1	Be 313.107†	-2659.5	1623.8	5.9227 ug/L	5.9227 ppb	05:46:01
1	Cd 226.502†	556.0	645.3	1.5208 ug/L	1.5208 ppb	05:46:21
1	Co 228.616†	718.5	659.4	13.071 ug/L	13.071 ppb	05:46:21
1	Cr 267.716†	6164.9	5161.8	88.443 ug/L	88.443 ppb	05:46:21
1	Cu 324.752†	61071.8	46359.8	170.22 ug/L	170.22 ppb	05:46:01
1	Mn 257.610†	1744134.2	1486822.2	2178.4 ug/L	2178.4 ppb	05:45:56
1	Mo 202.031†	32.0	10.6	7.8864 ug/L	7.8864 ppb	05:46:21
1	Ni 231.604†	1808.1	1459.2	52.344 ug/L	52.344 ppb	05:46:21
1	P 214.914†	943.8	616.3	404.44 ug/L	404.44 ppb	05:46:21
1	Pb 220.353†	695.5	642.1	106.75 ug/L	106.75 ppb	05:46:21
1	S 181.975 Axial†	162.4	111.4	209.84 ug/L	209.84 ppb	05:46:21
1	Sb 206.836†	51.6	18.4	-0.7345 ug/L	-0.7345 ppb	05:46:21
1	Se 196.026†	-399.5	-319.0	-46.766 ug/L	-46.766 ppb	05:46:21
1	Si 251.611†	953706.7	812783.4	33578 ug/L	33578 ppb	05:45:56
1	Sn 189.927†	-28.0	-37.5	-13.055 ug/L	-13.055 ppb	05:46:21
1	Ti 334.940†	1393812.4	1189567.8	2275.6 ug/L	2275.6 ppb	05:45:56
1	Tl 190.801†	-99.8	-62.9	1.8786 ug/L	1.8786 ppb	05:46:21
1	U 409.014†	-10905.3	-7465.1	-263.90 ug/L	-263.90 ppb	05:45:56
1	V 292.402†	10990.9	10752.7	81.123 ug/L	81.123 ppb	05:46:01
1	Zn 213.857†	47460.2	39810.2	518.06 ug/L	518.06 ppb	05:46:01
1	SiO2†	945352.1	805651.1	70908 ug/L	70908 ppb	05:47:30
2	Sc Radial	4244.7	4244.7	112 %		05:45:23
2	Y RADIAL	5930.2	5930.2	145.3 %		05:45:03
2	Al 396.153Radial†	32312.0	28908.5	34399 ug/L	34399 ppb	05:45:03
2	Ca 317.933Radial†	3847.4	3411.6	7643.2 ug/L	7643.2 ppb	05:45:03
2	Fe 238.204 Radial†	6998.4	6237.0	82451 ug/L	82451 ppb	05:45:03
2	K 766.490 Radial†	49258.8	41480.6	9153.6 ug/L	9153.6 ppb	05:45:03
2	Mg 279.077 IEC†	140.4	122.4	5704.5 ug/L	5704.5 ppb	05:45:23
2	Na 589.592 Radial†	7818.3	7363.5	2961.1 ug/L	2961.1 ppb	05:45:03
2	Sr 421.552†	6854.5	6077.7	55.120 ug/L	55.120 ppb	05:45:03
2	Sc 361.383	873814.9	873814.9	119.24 %		05:46:27
2	Y 371.029	889265.7	889265.7	147.13 %		05:46:27
2	Ag 328.068†	-4717.5	-4108.4	2.6038 ug/L	2.6038 ppb	05:46:32
2	As 188.979†	-21.2	4.5	41.413 ug/L	41.413 ppb	05:46:52
2	B 249.677†	738.3	954.1	15.274 ug/L	15.274 ppb	05:46:32
2	Ba 233.527†	39938.3	33490.8	353.73 ug/L	353.73 ppb	05:46:32
2	Be 313.107†	-2686.5	1638.7	5.8401 ug/L	5.8401 ppb	05:46:32
2	Cd 226.502†	566.6	646.3	1.9698 ug/L	1.9698 ppb	05:46:52
2	Co 228.616†	715.1	646.4	12.839 ug/L	12.839 ppb	05:46:52
2	Cr 267.716†	6243.1	5140.6	87.670 ug/L	87.670 ppb	05:46:52
2	Cu 324.752†	60898.3	45354.0	166.40 ug/L	166.40 ppb	05:46:32
2	Mn 257.610†	1741690.1	1460204.2	2139.1 ug/L	2139.1 ppb	05:46:27
2	Mo 202.031†	35.3	12.8	7.7875 ug/L	7.7875 ppb	05:46:52
2	Ni 231.604†	1814.8	1439.4	51.633 ug/L	51.633 ppb	05:46:52

2	P 214.914†	966.9	622.4	413.01 ug/L	413.01 ppb	05:46:52
2	Pb 220.353†	711.3	645.6	107.58 ug/L	107.58 ppb	05:46:52
2	S 181.975 Axial†	162.6	109.2	205.99 ug/L	205.99 ppb	05:46:52
2	Sb 206.836†	50.6	16.9	-1.2068 ug/L	-1.2068 ppb	05:46:52
2	Se 196.026†	-398.3	-312.3	-52.305 ug/L	-52.305 ppb	05:46:52
2	Si 251.611†	954904.8	800354.0	33065 ug/L	33065 ppb	05:46:27
2	Sn 189.927†	-23.3	-33.2	-11.796 ug/L	-11.796 ppb	05:46:52
2	Ti 334.940†	1392628.2	1168941.0	2236.1 ug/L	2236.1 ppb	05:46:27
2	Tl 190.801†	-103.1	-64.2	0.8033 ug/L	0.8033 ppb	05:46:52
2	U 409.014†	-10900.1	-7307.1	-258.05 ug/L	-258.05 ppb	05:46:27
2	V 292.402†	10893.7	10516.4	79.667 ug/L	79.667 ppb	05:46:32
2	Zn 213.857†	47046.9	38795.0	505.14 ug/L	505.14 ppb	05:46:32
2	SiO2†	954595.7	800086.5	70418 ug/L	70418 ppb	05:47:36
3	Sc Radial	4178.8	4178.8	110 %		05:45:49
3	Y RADIAL	6273.4	6273.4	153.7 %		05:45:29
3	Al 396.153Radial†	30450.2	27675.5	32932 ug/L	32932 ppb	05:45:29
3	Ca 317.933Radial†	3642.7	3280.1	7348.8 ug/L	7348.8 ppb	05:45:29
3	Fe 238.204 Radial†	6615.4	5988.3	79163 ug/L	79163 ppb	05:45:29
3	K 766.490 Radial†	47054.6	40175.7	8865.6 ug/L	8865.6 ppb	05:45:29
3	Mg 279.077 IEC†	137.9	122.2	5696.8 ug/L	5696.8 ppb	05:45:49
3	Na 589.592 Radial†	7441.5	7131.9	2867.9 ug/L	2867.9 ppb	05:45:29
3	Sr 421.552†	6483.9	5838.3	52.949 ug/L	52.949 ppb	05:45:29
3	Sc 361.383	875656.0	875656.0	119.49 %		05:46:58
3	Y 371.029	892761.4	892761.4	147.70 %		05:46:58
3	Ag 328.068†	-4584.1	-3988.4	2.2693 ug/L	2.2693 ppb	05:47:03
3	As 188.979†	-17.6	7.6	42.581 ug/L	42.581 ppb	05:47:23
3	B 249.677†	690.3	912.7	14.561 ug/L	14.561 ppb	05:47:03
3	Ba 233.527†	39298.0	32884.6	347.28 ug/L	347.28 ppb	05:47:03
3	Be 313.107†	-2644.5	1678.5	5.8763 ug/L	5.8763 ppb	05:47:03
3	Cd 226.502†	566.9	645.6	2.2973 ug/L	2.2973 ppb	05:47:23
3	Co 228.616†	734.1	661.1	13.287 ug/L	13.287 ppb	05:47:23
3	Cr 267.716†	6279.2	5159.8	87.615 ug/L	87.615 ppb	05:47:23
3	Cu 324.752†	59815.2	44340.2	162.61 ug/L	162.61 ppb	05:47:03
3	Mn 257.610†	1750561.8	1464557.5	2145.2 ug/L	2145.2 ppb	05:46:58
3	Mo 202.031†	30.3	8.6	7.1021 ug/L	7.1021 ppb	05:47:23
3	Ni 231.604†	1818.0	1438.9	51.613 ug/L	51.613 ppb	05:47:23
3	P 214.914†	969.7	623.0	416.52 ug/L	416.52 ppb	05:47:23
3	Pb 220.353†	706.4	640.3	106.79 ug/L	106.79 ppb	05:47:23
3	S 181.975 Axial†	165.0	111.0	209.68 ug/L	209.68 ppb	05:47:23
3	Sb 206.836†	57.0	22.1	1.2443 ug/L	1.2443 ppb	05:47:23
3	Se 196.026†	-404.4	-316.7	-65.472 ug/L	-65.472 ppb	05:47:23
3	Si 251.611†	958465.1	801649.7	33118 ug/L	33118 ppb	05:46:58
3	Sn 189.927†	-29.5	-38.3	-12.950 ug/L	-12.950 ppb	05:47:23
3	Ti 334.940†	1400414.3	1173001.3	2243.8 ug/L	2243.8 ppb	05:46:58
3	Tl 190.801†	-110.7	-70.4	-1.7791 ug/L	-1.7791 ppb	05:47:23
3	U 409.014†	-10997.8	-7369.7	-259.80 ug/L	-259.80 ppb	05:46:58
3	V 292.402†	10711.5	10344.7	78.586 ug/L	78.586 ppb	05:47:03
3	Zn 213.857†	46318.1	38102.2	496.39 ug/L	496.39 ppb	05:47:03
3	SiO2†	968351.5	809915.1	71283 ug/L	71283 ppb	05:47:41

Mean Data: 248045001|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	869616.9	118.67 %	1.216			1.02%
Sc Radial	4202.7	111 %	1.0			0.87%
Y 371.029	886973.1	146.75 %	1.193			0.81%
Y RADIAL	6115.9	149.8 %	4.25			2.83%
Ag 328.068†	-4116.7	2.6509 ug/L	0.40715	2.6509 ppb	0.40715	15.36%
Al 396.153Radial†	28965.1	34466 ug/L	1569.3	34466 ppb	1569.3	4.55%
As 188.979†	4.6	41.664 ug/L	0.8214	41.664 ppb	0.8214	1.97%
B 249.677†	925.1	14.354 ug/L	1.0394	14.354 ppb	1.0394	7.24%
Ba 233.527†	33601.9	354.91 ug/L	8.282	354.91 ppb	8.282	2.33%
Be 313.107†	1647.0	5.8797 ug/L	0.04141	5.8797 ppb	0.04141	0.70%
Ca 317.933Radial†	3422.5	7667.7 ug/L	331.81	7667.7 ppb	331.81	4.33%
Cd 226.502†	645.8	1.9293 ug/L	0.38982	1.9293 ppb	0.38982	20.21%
Co 228.616†	655.6	13.066 ug/L	0.2240	13.066 ppb	0.2240	1.71%
Cr 267.716†	5154.1	87.910 ug/L	0.4632	87.910 ppb	0.4632	0.53%
Cu 324.752†	45351.3	166.41 ug/L	3.803	166.41 ppb	3.803	2.29%
Fe 238.204 Radial†	6259.5	82748 ug/L	3742.4	82748 ppb	3742.4	4.52%
K 766.490 Radial†	41608.2	9181.7 ug/L	331.08	9181.7 ppb	331.08	3.61%

Mg 279.077 IEC†	121.8	5673.7 ug/L	46.89	5673.7 ppb	46.89	0.83%
Mn 257.610†	1470528.0	2154.2 ug/L	21.15	2154.2 ppb	21.15	0.98%
Mo 202.031†	10.7	7.5920 ug/L	0.42715	7.5920 ppb	0.42715	5.63%
Na 589.592 Radial†	7417.2	2982.7 ug/L	126.92	2982.7 ppb	126.92	4.26%
Ni 231.604†	1445.9	51.863 ug/L	0.4163	51.863 ppb	0.4163	0.80%
P 214.914†	620.6	411.32 ug/L	6.218	411.32 ppb	6.218	1.51%
Pb 220.353†	642.7	107.04 ug/L	0.468	107.04 ppb	0.468	0.44%
S 181.975 Axial†	110.5	208.51 ug/L	2.179	208.51 ppb	2.179	1.05%
Sb 206.836†	19.1	-0.2323 ug/L	1.30043	-0.2323 ppb	1.30043	559.77%
Se 196.026†	-316.0	-54.848 ug/L	9.6086	-54.848 ppb	9.6086	17.52%
Si 251.611†	804929.0	33254 ug/L	282.3	33254 ppb	282.3	0.85%
Sn 189.927†	-36.3	-12.601 ug/L	0.6984	-12.601 ppb	0.6984	5.54%
Sr 421.552†	6086.6	55.201 ug/L	2.2936	55.201 ppb	2.2936	4.16%
Ti 334.940†	1177170.0	2251.8 ug/L	20.94	2251.8 ppb	20.94	0.93%
Tl 190.801†	-65.8	0.3009 ug/L	1.87985	0.3009 ppb	1.87985	624.67%
U 409.014†	-7380.6	-260.59 ug/L	3.002	-260.59 ppb	3.002	1.15%
V 292.402†	10537.9	79.792 ug/L	1.2731	79.792 ppb	1.2731	1.60%
Zn 213.857†	38902.4	506.53 ug/L	10.904	506.53 ppb	10.904	2.15%
SiO2†	805217.5	70870 ug/L	433.8	70870 ppb	433.8	0.61%

Sequence No.: 94

Sample ID: 1202056855|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 99

Date Collected: 3/27/2010 05:49:53

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056855|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4839.2	4839.2	128 %		05:51:46
1	Y RADIAL	6540.0	6540.0	160.2 %		05:51:46
1	Al 396.153Radial†	21850.6	17177.1	20439 ug/L	20439 ppb	05:51:46
1	Ca 317.933Radial†	2800.7	2170.4	4862.6 ug/L	4862.6 ppb	05:52:06
1	Fe 238.204 Radial†	5855.4	4575.0	60480 ug/L	60480 ppb	05:51:46
1	K 766.490 Radial†	36887.3	26396.1	5824.1 ug/L	5824.1 ppb	05:51:46
1	Mg 279.077 IEC†	102.1	77.1	3585.0 ug/L	3585.0 ppb	05:52:06
1	Na 589.592 Radial†	6977.2	5847.9	2351.6 ug/L	2351.6 ppb	05:51:46
1	Sr 421.552†	5170.4	4008.0	36.351 ug/L	36.351 ppb	05:51:46
1	Sc 361.383	861904.2	861904.2	117.62 %		05:53:04
1	Y 371.029	902501.3	902501.3	149.32 %		05:53:04
1	Ag 328.068†	-3670.6	-3273.0	0.4948 ug/L	0.4948 ppb	05:53:09
1	As 188.979†	-26.7	-0.4	33.305 ug/L	33.305 ppb	05:53:29
1	B 249.677†	338.8	623.0	8.8870 ug/L	8.8870 ppb	05:53:09
1	Ba 233.527†	33528.1	28503.6	300.73 ug/L	300.73 ppb	05:53:09
1	Be 313.107†	-6419.0	-1565.9	4.3556 ug/L	4.3556 ppb	05:53:09
1	Cd 226.502†	525.1	617.6	3.7778 ug/L	3.7778 ppb	05:53:29
1	Co 228.616†	572.0	533.0	9.8606 ug/L	9.8606 ppb	05:53:29
1	Cr 267.716†	6955.4	5818.5	95.687 ug/L	95.687 ppb	05:53:29
1	Cu 324.752†	70198.8	53967.3	196.00 ug/L	196.00 ppb	05:53:09
1	Mn 257.610†	2153225.4	1830282.8	2677.2 ug/L	2677.2 ppb	05:53:04
1	Mo 202.031†	59.7	34.0	8.1880 ug/L	8.1880 ppb	05:53:29
1	Ni 231.604†	2252.7	1832.7	65.745 ug/L	65.745 ppb	05:53:29
1	P 214.914†	951.3	620.4	419.51 ug/L	419.51 ppb	05:53:29
1	Pb 220.353†	902.3	816.2	137.07 ug/L	137.07 ppb	05:53:29
1	S 181.975 Axial†	138.1	90.4	171.86 ug/L	171.86 ppb	05:53:29
1	Sb 206.836†	50.4	17.3	-0.3879 ug/L	-0.3879 ppb	05:53:29
1	Se 196.026†	-362.2	-286.3	-91.158 ug/L	-91.158 ppb	05:53:29
1	Si 251.611†	753378.4	640079.3	26443 ug/L	26443 ppb	05:53:04
1	Sn 189.927†	-8.1	-20.6	-7.8240 ug/L	-7.8240 ppb	05:53:29
1	Ti 334.940†	1376815.6	1171636.0	2241.0 ug/L	2241.0 ppb	05:53:04
1	Tl 190.801†	-128.7	-87.1	-6.4041 ug/L	-6.4041 ppb	05:53:29
1	U 409.014†	-11276.9	-7753.8	-270.76 ug/L	-270.76 ppb	05:53:04
1	V 292.402†	6915.9	7260.6	53.587 ug/L	53.587 ppb	05:53:09
1	Zn 213.857†	54619.1	45778.3	601.55 ug/L	601.55 ppb	05:53:09
1	SiO2†	767867.0	652389.4	57419 ug/L	57419 ppb	05:54:37
2	Sc Radial	4666.2	4666.2	123 %		05:52:11
2	Y RADIAL	6387.1	6387.1	156.4 %		05:52:11
2	Al 396.153Radial†	22218.0	18109.6	21549 ug/L	21549 ppb	05:52:11
2	Ca 317.933Radial†	2818.7	2266.3	5077.5 ug/L	5077.5 ppb	05:52:31
2	Fe 238.204 Radial†	5906.1	4786.1	63270 ug/L	63270 ppb	05:52:11
2	K 766.490 Radial†	37169.4	27695.8	6111.0 ug/L	6111.0 ppb	05:52:11
2	Mg 279.077 IEC†	99.3	77.8	3614.9 ug/L	3614.9 ppb	05:52:31
2	Na 589.592 Radial†	6976.1	6049.6	2432.7 ug/L	2432.7 ppb	05:52:11
2	Sr 421.552†	5229.6	4206.1	38.148 ug/L	38.148 ppb	05:52:11
2	Sc 361.383	854202.4	854202.4	116.57 %		05:53:35
2	Y 371.029	892455.8	892455.8	147.65 %		05:53:35
2	Ag 328.068†	-3785.0	-3399.3	0.6375 ug/L	0.6375 ppb	05:53:40
2	As 188.979†	-21.7	3.7	36.528 ug/L	36.528 ppb	05:54:00
2	B 249.677†	333.2	620.9	8.3676 ug/L	8.3676 ppb	05:53:40
2	Ba 233.527†	33648.9	28864.2	304.59 ug/L	304.59 ppb	05:53:40
2	Be 313.107†	-6455.9	-1646.8	4.3325 ug/L	4.3325 ppb	05:53:40
2	Cd 226.502†	498.0	598.4	3.1769 ug/L	3.1769 ppb	05:54:00
2	Co 228.616†	579.9	544.2	10.130 ug/L	10.130 ppb	05:54:00
2	Cr 267.716†	6885.6	5812.0	95.883 ug/L	95.883 ppb	05:54:00
2	Cu 324.752†	70029.2	54359.9	197.55 ug/L	197.55 ppb	05:53:40
2	Mn 257.610†	2141861.5	1837040.4	2687.3 ug/L	2687.3 ppb	05:53:35
2	Mo 202.031†	58.6	33.5	8.3548 ug/L	8.3548 ppb	05:54:00
2	Ni 231.604†	2202.0	1806.5	64.804 ug/L	64.804 ppb	05:54:00

2	P 214.914†	945.0	622.2	418.76 ug/L	418.76 ppb	05:54:00
2	Pb 220.353†	895.9	817.6	137.16 ug/L	137.16 ppb	05:54:00
2	S 181.975 Axial†	137.3	90.7	172.37 ug/L	172.37 ppb	05:54:00
2	Sb 206.836†	38.1	7.1	-5.2117 ug/L	-5.2117 ppb	05:54:00
2	Se 196.026†	-340.2	-270.1	-68.925 ug/L	-68.925 ppb	05:54:00
2	Si 251.611†	748448.6	641625.4	26507 ug/L	26507 ppb	05:53:35
2	Sn 189.927†	-15.7	-27.1	-9.6102 ug/L	-9.6102 ppb	05:54:00
2	Ti 334.940†	1368434.6	1175000.7	2247.5 ug/L	2247.5 ppb	05:53:35
2	Tl 190.801†	-110.9	-72.9	-0.1743 ug/L	-0.1743 ppb	05:54:00
2	U 409.014†	-11240.4	-7808.9	-272.95 ug/L	-272.95 ppb	05:53:35
2	V 292.402†	6851.8	7258.7	53.153 ug/L	53.153 ppb	05:53:40
2	Zn 213.857†	54624.8	46201.8	606.79 ug/L	606.79 ppb	05:53:40
2	SiO2†	761320.4	652659.6	57442 ug/L	57442 ppb	05:54:42
3	Sc Radial	4496.1	4496.1	119 %		05:52:36
3	Y RADIAL	6198.3	6198.3	151.8 %		05:52:36
3	Al 396.153Radial†	21915.6	18537.0	22058 ug/L	22058 ppb	05:52:36
3	Ca 317.933Radial†	2859.6	2387.4	5348.6 ug/L	5348.6 ppb	05:52:56
3	Fe 238.204 Radial†	5862.7	4930.9	65185 ug/L	65185 ppb	05:52:36
3	K 766.490 Radial†	36642.8	28393.5	6264.9 ug/L	6264.9 ppb	05:52:36
3	Mg 279.077 IEC†	101.7	82.8	3850.1 ug/L	3850.1 ppb	05:52:56
3	Na 589.592 Radial†	6826.5	6137.7	2468.2 ug/L	2468.2 ppb	05:52:36
3	Sr 421.552†	5117.0	4271.9	38.743 ug/L	38.743 ppb	05:52:36
3	Sc 361.383	881693.7	881693.7	120.32 %		05:54:06
3	Y 371.029	922126.7	922126.7	152.56 %		05:54:06
3	Ag 328.068†	-3816.8	-3324.4	1.6493 ug/L	1.6493 ppb	05:54:11
3	As 188.979†	-24.9	1.6	35.660 ug/L	35.660 ppb	05:54:31
3	B 249.677†	283.9	570.9	6.5547 ug/L	6.5547 ppb	05:54:11
3	Ba 233.527†	34327.8	28528.4	301.13 ug/L	301.13 ppb	05:54:11
3	Be 313.107†	-6682.2	-1662.2	4.3127 ug/L	4.3127 ppb	05:54:11
3	Cd 226.502†	528.9	610.7	3.1801 ug/L	3.1801 ppb	05:54:31
3	Co 228.616†	572.3	522.4	9.4876 ug/L	9.4876 ppb	05:54:31
3	Cr 267.716†	6979.9	5706.1	94.464 ug/L	94.464 ppb	05:54:31
3	Cu 324.752†	71978.4	54106.7	196.74 ug/L	196.74 ppb	05:54:11
3	Mn 257.610†	2198048.4	1826446.6	2672.1 ug/L	2672.1 ppb	05:54:06
3	Mo 202.031†	66.4	38.4	9.0015 ug/L	9.0015 ppb	05:54:31
3	Ni 231.604†	2252.2	1789.3	64.189 ug/L	64.189 ppb	05:54:31
3	P 214.914†	960.2	609.6	407.36 ug/L	407.36 ppb	05:54:31
3	Pb 220.353†	896.2	794.0	132.92 ug/L	132.92 ppb	05:54:31
3	S 181.975 Axial†	139.6	89.0	168.83 ug/L	168.83 ppb	05:54:31
3	Sb 206.836†	52.9	18.4	0.0467 ug/L	0.0467 ppb	05:54:31
3	Se 196.026†	-358.5	-276.3	-69.203 ug/L	-69.203 ppb	05:54:31
3	Si 251.611†	770231.9	639710.0	26428 ug/L	26428 ppb	05:54:06
3	Sn 189.927†	-5.7	-18.4	-7.4594 ug/L	-7.4594 ppb	05:54:31
3	Ti 334.940†	1408992.7	1172105.7	2242.0 ug/L	2242.0 ppb	05:54:06
3	Tl 190.801†	-113.9	-72.4	-0.0730 ug/L	-0.0730 ppb	05:54:31
3	U 409.014†	-11398.8	-7639.9	-267.42 ug/L	-267.42 ppb	05:54:06
3	V 292.402†	7144.1	7318.3	53.438 ug/L	53.438 ppb	05:54:11
3	Zn 213.857†	55904.9	45804.6	601.20 ug/L	601.20 ppb	05:54:11
3	SiO2†	736525.8	611687.4	53836 ug/L	53836 ppb	05:54:48

Mean Data: 1202056855|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	865933.4	118.17 %		1.935			1.64%
Sc Radial	4667.2	123 %		4.5			3.68%
Y 371.029	905694.6	149.84 %		2.497			1.67%
Y RADIAL	6375.1	156.1 %		4.19			2.69%
Ag 328.068†	-3332.2	0.9272 ug/L		0.62941	0.9272 ppb	0.62941	67.89%
Al 396.153Radial†	17941.2	21349 ug/L		827.5	21349 ppb	827.5	3.88%
As 188.979†	1.6	35.164 ug/L		1.6677	35.164 ppb	1.6677	4.74%
B 249.677†	604.9	7.9364 ug/L		1.22448	7.9364 ppb	1.22448	15.43%
Ba 233.527†	28632.1	302.15 ug/L		2.124	302.15 ppb	2.124	0.70%
Be 313.107†	-1625.0	4.3336 ug/L		0.02147	4.3336 ppb	0.02147	0.50%
Ca 317.933Radial†	2274.7	5096.2 ug/L		243.52	5096.2 ppb	243.52	4.78%
Cd 226.502†	608.9	3.3783 ug/L		0.34603	3.3783 ppb	0.34603	10.24%
Co 228.616†	533.2	9.8262 ug/L		0.32273	9.8262 ppb	0.32273	3.28%
Cr 267.716†	5778.9	95.345 ug/L		0.7689	95.345 ppb	0.7689	0.81%
Cu 324.752†	54144.6	196.76 ug/L		0.775	196.76 ppb	0.775	0.39%
Fe 238.204 Radial†	4764.0	62978 ug/L		2365.8	62978 ppb	2365.8	3.76%
K 766.490 Radial†	27495.1	6066.7 ug/L		223.70	6066.7 ppb	223.70	3.69%

Mg 279.077 IEC†	79.3	3683.3 ug/L	145.19	3683.3 ppb	145.19	3.94%
Mn 257.610†	1831256.6	2678.9 ug/L	7.78	2678.9 ppb	7.78	0.29%
Mo 202.031†	35.3	8.5148 ug/L	0.42972	8.5148 ppb	0.42972	5.05%
Na 589.592 Radial†	6011.7	2417.5 ug/L	59.74	2417.5 ppb	59.74	2.47%
Ni 231.604†	1809.5	64.913 ug/L	0.7833	64.913 ppb	0.7833	1.21%
P 214.914†	617.4	415.21 ug/L	6.809	415.21 ppb	6.809	1.64%
Pb 220.353†	809.3	135.72 ug/L	2.426	135.72 ppb	2.426	1.79%
S 181.975 Axial†	90.0	171.02 ug/L	1.911	171.02 ppb	1.911	1.12%
Sb 206.836†	14.3	-1.8509 ug/L	2.91859	-1.8509 ppb	2.91859	157.68%
Se 196.026†	-277.6	-76.429 ug/L	12.7567	-76.429 ppb	12.7567	16.69%
Si 251.611†	640471.5	26460 ug/L	42.0	26460 ppb	42.0	0.16%
Sn 189.927†	-22.0	-8.2978 ug/L	1.15102	-8.2978 ppb	1.15102	13.87%
Sr 421.552†	4162.0	37.747 ug/L	1.2452	37.747 ppb	1.2452	3.30%
Ti 334.940†	1172914.2	2243.5 ug/L	3.49	2243.5 ppb	3.49	0.16%
Tl 190.801†	-77.5	-2.2171 ug/L	3.62637	-2.2171 ppb	3.62637	163.56%
U 409.014†	-7734.2	-270.38 ug/L	2.785	-270.38 ppb	2.785	1.03%
V 292.402†	7279.2	53.393 ug/L	0.2209	53.393 ppb	0.2209	0.41%
Zn 213.857†	45928.2	603.18 ug/L	3.130	603.18 ppb	3.130	0.52%
SiO2†	638912.2	56232 ug/L	2075.1	56232 ppb	2075.1	3.69%

Sequence No.: 95

Sample ID: 1202056857|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 100

Date Collected: 3/27/2010 05:57:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056857|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4447.7	4447.7	117 %		05:58:53
1	Y RADIAL	6077.6	6077.6	148.9 %		05:58:53
1	Al 396.153Radial†	43013.2	36706.0	43654 ug/L	43654 ppb	05:58:53
1	Ca 317.933Radial†	5369.3	4551.0	10196 ug/L	10196 ppb	05:58:53
1	Fe 238.204 Radial†	5843.8	4968.5	65696 ug/L	65696 ppb	05:58:53
1	K 766.490 Radial†	66093.8	53811.7	11873 ug/L	11873 ppb	05:58:53
1	Mg 279.077 IEC†	261.7	220.1	10345 ug/L	10345 ppb	05:59:13
1	Na 589.592 Radial†	20332.9	17703.3	7119.0 ug/L	7119.0 ppb	05:58:53
1	Sr 421.552†	62906.3	53536.2	485.96 ug/L	485.96 ppb	05:58:53
1	Sc 361.383	825076.6	825076.6	112.59 %		06:00:12
1	Y 371.029	869294.2	869294.2	143.82 %		06:00:12
1	Ag 328.068†	93588.6	82970.1	494.29 ug/L	494.29 ppb	06:00:12
1	As 188.979†	927.3	845.9	552.56 ug/L	552.56 ppb	06:00:32
1	B 249.677†	18658.4	16906.7	496.76 ug/L	496.76 ppb	06:00:12
1	Ba 233.527†	82117.9	72931.8	767.63 ug/L	767.63 ppb	06:00:12
1	Be 313.107†	1253536.1	1117240.4	528.11 ug/L	528.11 ppb	06:00:12
1	Cd 226.502†	34459.6	30777.1	493.69 ug/L	493.69 ppb	06:00:32
1	Co 228.616†	19727.2	17567.8	499.13 ug/L	499.13 ppb	06:00:32
1	Cr 267.716†	42180.6	37368.4	579.77 ug/L	579.77 ppb	06:00:12
1	Cu 324.752†	259831.4	225056.6	806.73 ug/L	806.73 ppb	06:00:12
1	Mn 257.610†	1967550.5	1747087.0	2556.0 ug/L	2556.0 ppb	06:00:12
1	Mo 202.031†	5507.8	4875.1	497.52 ug/L	497.52 ppb	06:00:32
1	Ni 231.604†	17533.9	15490.5	555.47 ug/L	555.47 ppb	06:00:32
1	P 214.914†	1750.5	1366.3	907.34 ug/L	907.34 ppb	06:00:32
1	Pb 220.353†	4141.8	3727.7	646.03 ug/L	646.03 ppb	06:00:32
1	S 181.975 Axial†	3170.8	2789.1	5415.3 ug/L	5415.3 ppb	06:00:32
1	Sb 206.836†	1171.9	1015.2	479.09 ug/L	479.09 ppb	06:00:32
1	Se 196.026†	318.2	304.4	462.04 ug/L	462.04 ppb	06:00:32
1	Si 251.611†	853577.8	757663.6	31295 ug/L	31295 ppb	06:00:12
1	Sn 189.927†	2160.1	1904.9	480.98 ug/L	480.98 ppb	06:00:32
1	Ti 334.940†	1682936.3	1495772.0	2860.7 ug/L	2860.7 ppb	06:00:12
1	Tl 190.801†	1191.4	1080.4	498.57 ug/L	498.57 ppb	06:00:32
1	U 409.014†	5823.1	7005.9	229.47 ug/L	229.47 ppb	06:00:12
1	V 292.402†	68643.2	62347.2	554.57 ug/L	554.57 ppb	06:00:12
1	Zn 213.857†	91572.3	80671.6	1062.8 ug/L	1062.8 ppb	06:00:12
1	SiO2†	880340.7	781425.2	68762 ug/L	68762 ppb	06:01:33
2	Sc Radial	4584.7	4584.7	121 %		05:59:18
2	Y RADIAL	6279.0	6279.0	153.8 %		05:59:18
2	Al 396.153Radial†	45028.8	37276.9	44335 ug/L	44335 ppb	05:59:18
2	Ca 317.933Radial†	5571.3	4581.2	10264 ug/L	10264 ppb	05:59:18
2	Fe 238.204 Radial†	6065.7	5003.2	66153 ug/L	66153 ppb	05:59:18
2	K 766.490 Radial†	68776.8	54346.8	11991 ug/L	11991 ppb	05:59:18
2	Mg 279.077 IEC†	260.8	212.7	9993.4 ug/L	9993.4 ppb	05:59:38
2	Na 589.592 Radial†	20996.1	17733.8	7131.3 ug/L	7131.3 ppb	05:59:18
2	Sr 421.552†	65528.2	54101.9	491.09 ug/L	491.09 ppb	05:59:18
2	Sc 361.383	906236.4	906236.4	123.67 %		06:00:40
2	Y 371.029	942501.1	942501.1	155.93 %		06:00:40
2	Ag 328.068†	97444.8	78644.2	469.68 ug/L	469.68 ppb	06:00:40
2	As 188.979†	930.3	774.5	507.95 ug/L	507.95 ppb	06:01:00
2	B 249.677†	19669.4	16240.1	476.75 ug/L	476.75 ppb	06:00:40
2	Ba 233.527†	84467.7	68300.1	719.03 ug/L	719.03 ppb	06:00:40
2	Be 313.107†	1302561.5	1057175.5	499.68 ug/L	499.68 ppb	06:00:40
2	Cd 226.502†	34538.2	28099.6	450.11 ug/L	450.11 ppb	06:01:00
2	Co 228.616†	19805.6	16062.0	456.11 ug/L	456.11 ppb	06:01:00
2	Cr 267.716†	43372.1	34976.7	543.15 ug/L	543.15 ppb	06:00:40
2	Cu 324.752†	270305.5	212858.9	763.22 ug/L	763.22 ppb	06:00:40
2	Mn 257.610†	2025924.8	1637788.0	2396.5 ug/L	2396.5 ppb	06:00:40
2	Mo 202.031†	5518.8	4445.9	454.21 ug/L	454.21 ppb	06:01:00
2	Ni 231.604†	17591.7	14142.5	507.13 ug/L	507.13 ppb	06:01:00



2	P 214.914†	1758.6	1233.6	808.11 ug/L	808.11 ppb	06:01:00
2	Pb 220.353†	4146.7	3402.2	589.73 ug/L	589.73 ppb	06:01:00
2	S 181.975 Axial†	3191.5	2553.6	4957.3 ug/L	4957.3 ppb	06:01:00
2	Sb 206.836†	1185.2	932.8	439.72 ug/L	439.72 ppb	06:01:00
2	Se 196.026†	309.9	272.3	434.49 ug/L	434.49 ppb	06:01:00
2	Si 251.611†	886474.1	716369.4	29590 ug/L	29590 ppb	06:00:40
2	Sn 189.927†	2168.7	1740.0	439.17 ug/L	439.17 ppb	06:01:00
2	Ti 334.940†	1738220.4	1406612.9	2690.2 ug/L	2690.2 ppb	06:00:40
2	Tl 190.801†	1190.0	984.5	455.28 ug/L	455.28 ppb	06:01:00
2	U 409.014†	6401.0	7010.0	229.63 ug/L	229.63 ppb	06:00:40
2	V 292.402†	70699.0	58549.6	519.99 ug/L	519.99 ppb	06:00:40
2	Zn 213.857†	95374.4	76462.3	1006.8 ug/L	1006.8 ppb	06:00:40
2	SiO2†	856764.1	692337.0	60922 ug/L	60922 ppb	06:01:39
3	Sc Radial	4436.2	4436.2	117 %		05:59:44
3	Y RADIAL	6107.1	6107.1	149.6 %		05:59:44
3	Al 396.153Radial†	45078.5	38565.1	45867 ug/L	45867 ppb	05:59:44
3	Ca 317.933Radial†	5594.1	4754.9	10653 ug/L	10653 ppb	05:59:44
3	Fe 238.204 Radial†	6090.5	5192.2	68652 ug/L	68652 ppb	05:59:44
3	K 766.490 Radial†	68609.7	56106.9	12379 ug/L	12379 ppb	05:59:44
3	Mg 279.077 IEC†	261.7	220.6	10367 ug/L	10367 ppb	06:00:04
3	Na 589.592 Radial†	20861.0	18199.4	7318.5 ug/L	7318.5 ppb	05:59:44
3	Sr 421.552†	65525.9	55913.0	507.53 ug/L	507.53 ppb	05:59:44
3	Sc 361.383	874539.2	874539.2	119.34 %		06:01:07
3	Y 371.029	913909.0	913909.0	151.20 %		06:01:07
3	Ag 328.068†	96163.0	80426.0	480.63 ug/L	480.63 ppb	06:01:07
3	As 188.979†	921.6	794.5	521.20 ug/L	521.20 ppb	06:01:27
3	B 249.677†	19298.1	16505.5	484.30 ug/L	484.30 ppb	06:01:07
3	Ba 233.527†	83625.5	70070.0	737.68 ug/L	737.68 ppb	06:01:07
3	Be 313.107†	1286320.2	1081742.0	511.29 ug/L	511.29 ppb	06:01:07
3	Cd 226.502†	34073.5	28722.5	459.98 ug/L	459.98 ppb	06:01:27
3	Co 228.616†	19547.2	16426.0	466.43 ug/L	466.43 ppb	06:01:27
3	Cr 267.716†	42881.0	35836.3	556.59 ug/L	556.59 ppb	06:01:07
3	Cu 324.752†	266219.5	217357.2	779.40 ug/L	779.40 ppb	06:01:07
3	Mn 257.610†	2004205.6	1678964.9	2456.9 ug/L	2456.9 ppb	06:01:07
3	Mo 202.031†	5449.7	4549.7	464.89 ug/L	464.89 ppb	06:01:27
3	Ni 231.604†	17344.4	14450.9	518.19 ug/L	518.19 ppb	06:01:27
3	P 214.914†	1700.5	1236.4	805.68 ug/L	805.68 ppb	06:01:27
3	Pb 220.353†	4106.7	3490.2	604.96 ug/L	604.96 ppb	06:01:27
3	S 181.975 Axial†	3127.3	2593.4	5034.4 ug/L	5034.4 ppb	06:01:27
3	Sb 206.836†	1174.7	958.7	451.87 ug/L	451.87 ppb	06:01:27
3	Se 196.026†	302.8	275.5	444.41 ug/L	444.41 ppb	06:01:27
3	Si 251.611†	877049.3	734453.1	30337 ug/L	30337 ppb	06:01:07
3	Sn 189.927†	2138.8	1778.5	448.85 ug/L	448.85 ppb	06:01:27
3	Ti 334.940†	1716311.5	1439198.7	2752.5 ug/L	2752.5 ppb	06:01:07
3	Tl 190.801†	1170.7	1003.3	464.11 ug/L	464.11 ppb	06:01:27
3	U 409.014†	6338.5	7145.3	233.92 ug/L	233.92 ppb	06:01:07
3	V 292.402†	69767.0	59840.7	531.31 ug/L	531.31 ppb	06:01:07
3	Zn 213.857†	94415.7	78454.2	1033.0 ug/L	1033.0 ppb	06:01:07
3	SiO2†	875473.2	733124.1	64512 ug/L	64512 ppb	06:01:45

Mean Data: 1202056857|959105|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Units			Conc. Units		
Sc 361.383	868617.4	118.53 %		5.582			4.71%
Sc Radial	4489.5	119 %		2.2			1.84%
Y 371.029	908568.1	150.32 %		6.104			4.06%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 150.3%							
Y RADIAL	6154.6	150.7 %		2.66			1.77%
Ag 328.068†	80680.1	481.54 ug/L		12.329	481.54 ppb	12.329	2.56%
Al 396.153Radial†	37516.0	44619 ug/L		1133.8	44619 ppb	1133.8	2.54%
As 188.979†	805.0	527.23 ug/L		22.910	527.23 ppb	22.910	4.35%
B 249.677†	16550.8	485.93 ug/L		10.107	485.93 ppb	10.107	2.08%
Ba 233.527†	70434.0	741.44 ug/L		24.521	741.44 ppb	24.521	3.31%
Be 313.107†	1085386.0	513.03 ug/L		14.294	513.03 ppb	14.294	2.79%
Ca 317.933Radial†	4629.0	10371 ug/L		246.5	10371 ppb	246.5	2.38%
Cd 226.502†	29199.7	467.93 ug/L		22.852	467.93 ppb	22.852	4.88%
Co 228.616†	16685.2	473.89 ug/L		22.463	473.89 ppb	22.463	4.74%
Cr 267.716†	36060.5	559.84 ug/L		18.523	559.84 ppb	18.523	3.31%
Cu 324.752†	218424.2	783.12 ug/L		21.996	783.12 ppb	21.996	2.81%
Fe 238.204 Radial†	5054.6	66834 ug/L		1591.0	66834 ppb	1591.0	2.38%

K 766.490 Radial†	54755.1	12081 ug/L	265.0	12081 ppb	265.0	2.19%
Mg 279.077 IEC†	217.8	10235 ug/L	209.5	10235 ppb	209.5	2.05%
Mn 257.610†	1687946.6	2469.8 ug/L	80.52	2469.8 ppb	80.52	3.26%
Mo 202.031†	4623.6	472.21 ug/L	22.560	472.21 ppb	22.560	4.78%
Na 589.592 Radial†	17878.8	7189.6 ug/L	111.80	7189.6 ppb	111.80	1.56%
Ni 231.604†	14694.6	526.93 ug/L	25.326	526.93 ppb	25.326	4.81%
P 214.914†	1278.8	840.38 ug/L	58.006	840.38 ppb	58.006	6.90%
Pb 220.353†	3540.0	613.57 ug/L	29.121	613.57 ppb	29.121	4.75%
S 181.975 Axial†	2645.4	5135.7 ug/L	245.22	5135.7 ppb	245.22	4.77%
Sb 206.836†	968.9	456.89 ug/L	20.159	456.89 ppb	20.159	4.41%
Se 196.026†	284.1	446.98 ug/L	13.955	446.98 ppb	13.955	3.12%
Si 251.611†	736162.0	30407 ug/L	854.9	30407 ppb	854.9	2.81%
Sn 189.927†	1807.8	456.33 ug/L	21.891	456.33 ppb	21.891	4.80%
Sr 421.552†	54517.0	494.86 ug/L	11.270	494.86 ppb	11.270	2.28%
Ti 334.940†	1447194.5	2767.8 ug/L	86.25	2767.8 ppb	86.25	3.12%
Tl 190.801†	1022.7	472.66 ug/L	22.875	472.66 ppb	22.875	4.84%
U 409.014†	7053.7	231.01 ug/L	2.524	231.01 ppb	2.524	1.09%
V 292.402†	60245.8	535.29 ug/L	17.634	535.29 ppb	17.634	3.29%
Zn 213.857†	78529.4	1034.2 ug/L	27.97	1034.2 ppb	27.97	2.70%
SiO2†	735628.8	64732 ug/L	3924.5	64732 ppb	3924.5	6.06%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 96

Sample ID: 1202056858|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/27/2010 06:03:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056858|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4386.0	4386.0	116 %		06:05:50
1	Y RADIAL	6143.7	6143.7	150.5 %		06:05:50
1	Al 396.153Radial†	41077.4	35549.9	42279 ug/L	42279 ppb	06:05:50
1	Ca 317.933Radial†	5339.7	4589.8	10283 ug/L	10283 ppb	06:05:50
1	Fe 238.204 Radial†	6066.9	5231.3	69169 ug/L	69169 ppb	06:05:50
1	K 766.490 Radial†	65215.1	53845.3	11880 ug/L	11880 ppb	06:05:50
1	Mg 279.077 IEC†	252.9	215.6	10130 ug/L	10130 ppb	06:06:10
1	Na 589.592 Radial†	21393.3	18862.9	7585.3 ug/L	7585.3 ppb	06:05:50
1	Sr 421.552†	64449.4	55623.2	504.91 ug/L	504.91 ppb	06:05:50
1	Sc 361.383	865037.6	865037.6	118.04 %		06:07:09
1	Y 371.029	924939.1	924939.1	153.03 %		06:07:09
1	Ag 328.068†	94776.8	80136.8	479.19 ug/L	479.19 ppb	06:07:09
1	As 188.979†	930.2	810.3	533.11 ug/L	533.11 ppb	06:07:30
1	B 249.677†	19162.4	16568.2	486.06 ug/L	486.06 ppb	06:07:09
1	Ba 233.527†	81659.3	69174.1	728.32 ug/L	728.32 ppb	06:07:09
1	Be 313.107†	1267092.9	1077293.0	509.80 ug/L	509.80 ppb	06:07:09
1	Cd 226.502†	34468.0	29370.3	470.45 ug/L	470.45 ppb	06:07:30
1	Co 228.616†	19843.1	16856.6	478.27 ug/L	478.27 ppb	06:07:30
1	Cr 267.716†	42310.8	35748.0	555.31 ug/L	555.31 ppb	06:07:09
1	Cu 324.752†	252012.8	207772.4	745.23 ug/L	745.23 ppb	06:07:09
1	Mn 257.610†	1909521.5	1617200.9	2366.8 ug/L	2366.8 ppb	06:07:09
1	Mo 202.031†	5517.1	4657.0	475.76 ug/L	475.76 ppb	06:07:30
1	Ni 231.604†	17430.2	14683.2	526.52 ug/L	526.52 ppb	06:07:30
1	P 214.914†	1733.6	1280.2	846.64 ug/L	846.64 ppb	06:07:30
1	Pb 220.353†	4106.7	3528.0	610.67 ug/L	610.67 ppb	06:07:30
1	S 181.975 Axial†	3181.4	2668.0	5180.1 ug/L	5180.1 ppb	06:07:30
1	Sb 206.836†	1188.7	981.3	462.06 ug/L	462.06 ppb	06:07:30
1	Se 196.026†	303.9	279.2	448.15 ug/L	448.15 ppb	06:07:30
1	Si 251.611†	848420.2	718272.5	29668 ug/L	29668 ppb	06:07:09
1	Sn 189.927†	2174.8	1828.7	461.49 ug/L	461.49 ppb	06:07:30
1	Ti 334.940†	1858106.6	1575115.3	3012.4 ug/L	3012.4 ppb	06:07:09
1	Tl 190.801†	1194.4	1034.1	479.07 ug/L	479.07 ppb	06:07:30
1	U 409.014†	5596.6	6575.1	214.47 ug/L	214.47 ppb	06:07:09
1	V 292.402†	69792.3	60504.2	537.03 ug/L	537.03 ppb	06:07:09
1	Zn 213.857†	89181.5	74889.1	985.28 ug/L	985.28 ppb	06:07:09
1	SiO2†	854698.3	723582.6	63672 ug/L	63672 ppb	06:08:31
2	Sc Radial	4426.0	4426.0	117 %		06:06:16
2	Y RADIAL	6271.5	6271.5	153.6 %		06:06:16
2	Al 396.153Radial†	42412.8	36372.2	43258 ug/L	43258 ppb	06:06:16
2	Ca 317.933Radial†	5469.3	4659.0	10438 ug/L	10438 ppb	06:06:16
2	Fe 238.204 Radial†	6239.5	5331.6	70496 ug/L	70496 ppb	06:06:16
2	K 766.490 Radial†	66714.7	54619.7	12051 ug/L	12051 ppb	06:06:16
2	Mg 279.077 IEC†	251.7	212.6	9987.7 ug/L	9987.7 ppb	06:06:36
2	Na 589.592 Radial†	21787.5	19033.3	7653.9 ug/L	7653.9 ppb	06:06:16
2	Sr 421.552†	66285.7	56691.8	514.61 ug/L	514.61 ppb	06:06:16
2	Sc 361.383	872150.4	872150.4	119.02 %		06:07:37
2	Y 371.029	927951.1	927951.1	153.53 %		06:07:37
2	Ag 328.068†	94444.0	79202.4	474.26 ug/L	474.26 ppb	06:07:37
2	As 188.979†	926.4	800.7	527.32 ug/L	527.32 ppb	06:07:57
2	B 249.677†	19015.0	16311.9	478.15 ug/L	478.15 ppb	06:07:37
2	Ba 233.527†	81422.9	68411.2	720.34 ug/L	720.34 ppb	06:07:37
2	Be 313.107†	1258925.6	1061676.5	502.44 ug/L	502.44 ppb	06:07:37
2	Cd 226.502†	34443.6	29111.6	466.11 ug/L	466.11 ppb	06:07:57
2	Co 228.616†	19806.7	16688.9	473.49 ug/L	473.49 ppb	06:07:57
2	Cr 267.716†	42032.1	35221.5	547.38 ug/L	547.38 ppb	06:07:37
2	Cu 324.752†	251093.4	205258.8	736.33 ug/L	736.33 ppb	06:07:37
2	Mn 257.610†	1903850.1	1599243.2	2340.7 ug/L	2340.7 ppb	06:07:37
2	Mo 202.031†	5505.8	4609.4	471.06 ug/L	471.06 ppb	06:07:57
2	Ni 231.604†	17362.8	14506.2	520.17 ug/L	520.17 ppb	06:07:57

2	P 214.914†	1722.2	1258.6	830.13 ug/L	830.13 ppb	06:07:57
2	Pb 220.353†	4108.7	3501.3	606.08 ug/L	606.08 ppb	06:07:57
2	S 181.975 Axial†	3174.8	2640.4	5126.3 ug/L	5126.3 ppb	06:07:57
2	Sb 206.836†	1191.9	975.9	459.40 ug/L	459.40 ppb	06:07:57
2	Se 196.026†	305.5	278.4	451.22 ug/L	451.22 ppb	06:07:57
2	Si 251.611†	846413.9	710725.2	29356 ug/L	29356 ppb	06:07:37
2	Sn 189.927†	2176.3	1814.9	457.95 ug/L	457.95 ppb	06:07:57
2	Ti 334.940†	1853159.0	1558121.0	2980.0 ug/L	2980.0 ppb	06:07:37
2	Tl 190.801†	1197.5	1028.4	476.26 ug/L	476.26 ppb	06:07:57
2	U 409.014†	5426.0	6393.1	208.15 ug/L	208.15 ppb	06:07:37
2	V 292.402†	69298.5	59607.1	528.73 ug/L	528.73 ppb	06:07:37
2	Zn 213.857†	88611.2	73793.8	970.51 ug/L	970.51 ppb	06:07:37
2	SiO2†	871605.2	731883.3	64403 ug/L	64403 ppb	06:08:36
3	Sc Radial	4326.5	4326.5	114 %		06:06:41
3	Y RADIAL	6164.1	6164.1	151.0 %		06:06:41
3	Al 396.153Radial†	42374.5	37173.8	44211 ug/L	44211 ppb	06:06:41
3	Ca 317.933Radial†	5508.2	4800.8	10756 ug/L	10756 ppb	06:06:41
3	Fe 238.204 Radial†	6219.7	5437.2	71891 ug/L	71891 ppb	06:06:41
3	K 766.490 Radial†	66724.4	55941.9	12343 ug/L	12343 ppb	06:06:41
3	Mg 279.077 IEC†	254.5	220.0	10334 ug/L	10334 ppb	06:07:01
3	Na 589.592 Radial†	21771.2	19448.0	7820.6 ug/L	7820.6 ppb	06:06:41
3	Sr 421.552†	66177.0	57901.8	525.59 ug/L	525.59 ppb	06:06:41
3	Sc 361.383	866029.1	866029.1	118.18 %		06:08:04
3	Y 371.029	927556.0	927556.0	153.46 %		06:08:04
3	Ag 328.068†	94913.7	80160.7	480.17 ug/L	480.17 ppb	06:08:04
3	As 188.979†	921.9	802.4	528.97 ug/L	528.97 ppb	06:08:24
3	B 249.677†	19127.4	16520.0	484.17 ug/L	484.17 ppb	06:08:04
3	Ba 233.527†	81829.2	69238.6	729.07 ug/L	729.07 ppb	06:08:04
3	Be 313.107†	1269932.5	1078466.9	510.36 ug/L	510.36 ppb	06:08:04
3	Cd 226.502†	34468.5	29337.3	469.63 ug/L	469.63 ppb	06:08:24
3	Co 228.616†	19851.5	16844.4	477.87 ug/L	477.87 ppb	06:08:24
3	Cr 267.716†	42304.1	35701.3	554.89 ug/L	554.89 ppb	06:08:04
3	Cu 324.752†	252440.8	207890.2	745.79 ug/L	745.79 ppb	06:08:04
3	Mn 257.610†	1912415.6	1617797.9	2367.9 ug/L	2367.9 ppb	06:08:04
3	Mo 202.031†	5512.2	4647.5	475.01 ug/L	475.01 ppb	06:08:24
3	Ni 231.604†	17384.3	14627.5	524.52 ug/L	524.52 ppb	06:08:24
3	P 214.914†	1711.4	1259.6	828.27 ug/L	828.27 ppb	06:08:24
3	Pb 220.353†	4116.3	3532.1	611.43 ug/L	611.43 ppb	06:08:24
3	S 181.975 Axial†	3173.6	2658.3	5160.8 ug/L	5160.8 ppb	06:08:24
3	Sb 206.836†	1188.4	979.9	461.28 ug/L	461.28 ppb	06:08:24
3	Se 196.026†	302.0	277.3	454.22 ug/L	454.22 ppb	06:08:24
3	Si 251.611†	849706.2	718537.8	29679 ug/L	29679 ppb	06:08:04
3	Sn 189.927†	2176.6	1828.1	461.27 ug/L	461.27 ppb	06:08:24
3	Ti 334.940†	1862773.0	1577261.8	3016.6 ug/L	3016.6 ppb	06:08:04
3	Tl 190.801†	1209.6	1045.8	484.16 ug/L	484.16 ppb	06:08:24
3	U 409.014†	5463.8	6457.3	210.16 ug/L	210.16 ppb	06:08:04
3	V 292.402†	69849.2	60484.7	536.43 ug/L	536.43 ppb	06:08:04
3	Zn 213.857†	89107.9	74740.3	982.90 ug/L	982.90 ppb	06:08:04
3	SiO2†	872545.7	737855.6	64928 ug/L	64928 ppb	06:08:42

Mean Data: 1202056858|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	867739.0	118.41 %		0.526			0.44%
Sc Radial	4379.5	116 %		1.3			1.14%
Y 371.029	926815.4	153.34 %		0.271			0.18%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 153.3%							
Y RADIAL	6193.1	151.7 %		1.68			1.11%
Ag 328.068†	79833.3	477.87 ug/L		3.168	477.87 ppb	3.168	0.66%
Al 396.153Radial†	36365.3	43249 ug/L		966.2	43249 ppb	966.2	2.23%
As 188.979†	804.4	529.80 ug/L		2.985	529.80 ppb	2.985	0.56%
B 249.677†	16466.7	482.79 ug/L		4.133	482.79 ppb	4.133	0.86%
Ba 233.527†	68941.3	725.91 ug/L		4.837	725.91 ppb	4.837	0.67%
Be 313.107†	1072478.8	507.53 ug/L		4.422	507.53 ppb	4.422	0.87%
Ca 317.933Radial†	4683.2	10492 ug/L		240.9	10492 ppb	240.9	2.30%
Cd 226.502†	29273.1	468.73 ug/L		2.309	468.73 ppb	2.309	0.49%
Co 228.616†	16796.6	476.54 ug/L		2.653	476.54 ppb	2.653	0.56%
Cr 267.716†	35556.9	552.53 ug/L		4.460	552.53 ppb	4.460	0.81%
Cu 324.752†	206973.8	742.45 ug/L		5.309	742.45 ppb	5.309	0.72%
Fe 238.204 Radial†	5333.4	70519 ug/L		1360.8	70519 ppb	1360.8	1.93%

K 766.490 Radial†	54802.3	12091 ug/L	233.9	12091 ppb	233.9	1.93%
Mg 279.077 IEC†	216.1	10151 ug/L	174.2	10151 ppb	174.2	1.72%
Mn 257.610†	1611414.0	2358.5 ug/L	15.39	2358.5 ppb	15.39	0.65%
Mo 202.031†	4637.9	473.94 ug/L	2.527	473.94 ppb	2.527	0.53%
Na 589.592 Radial†	19114.8	7686.6 ug/L	121.02	7686.6 ppb	121.02	1.57%
Ni 231.604†	14605.6	523.73 ug/L	3.246	523.73 ppb	3.246	0.62%
P 214.914†	1266.1	835.01 ug/L	10.112	835.01 ppb	10.112	1.21%
Pb 220.353†	3520.5	609.39 ug/L	2.895	609.39 ppb	2.895	0.48%
S 181.975 Axial†	2655.6	5155.8 ug/L	27.23	5155.8 ppb	27.23	0.53%
Sb 206.836†	979.1	460.91 ug/L	1.364	460.91 ppb	1.364	0.30%
Se 196.026†	278.3	451.20 ug/L	3.032	451.20 ppb	3.032	0.67%
Si 251.611†	715845.2	29568 ug/L	183.2	29568 ppb	183.2	0.62%
Sn 189.927†	1823.9	460.23 ug/L	1.985	460.23 ppb	1.985	0.43%
Sr 421.552†	56739.0	515.03 ug/L	10.348	515.03 ppb	10.348	2.01%
Ti 334.940†	1570166.0	3003.0 ug/L	20.05	3003.0 ppb	20.05	0.67%
Tl 190.801†	1036.1	479.83 ug/L	4.003	479.83 ppb	4.003	0.83%
U 409.014†	6475.2	210.93 ug/L	3.230	210.93 ppb	3.230	1.53%
V 292.402†	60198.7	534.06 ug/L	4.626	534.06 ppb	4.626	0.87%
Zn 213.857†	74474.4	979.57 ug/L	7.931	979.57 ppb	7.931	0.81%
SiO2†	731107.2	64334 ug/L	630.9	64334 ppb	630.9	0.98%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 97

Sample ID: 1202056856|959105|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 102

Date Collected: 3/27/2010 06:10:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056856|959105|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4488.5	4488.5	118 %		06:12:48
1	Y RADIAL	5030.5	5030.5	123.2 %		06:12:48
1	Al 396.153Radial†	6403.9	5477.4	6517.7 ug/L	6517.7 ppb	06:12:48
1	Ca 317.933Radial†	807.2	659.3	1477.1 ug/L	1477.1 ppb	06:13:08
1	Fe 238.204 Radial†	1454.2	1218.8	16112 ug/L	16112 ppb	06:13:08
1	K 766.490 Radial†	11786.0	7468.2	1648.0 ug/L	1648.0 ppb	06:12:48
1	Mg 279.077 IEC†	27.0	20.0	927.00 ug/L	927.00 ppb	06:13:08
1	Na 589.592 Radial†	880.4	1129.3	454.13 ug/L	454.13 ppb	06:12:48
1	Sr 421.552†	1372.2	1118.8	10.146 ug/L	10.146 ppb	06:12:48
1	Sc 361.383	881875.2	881875.2	120.34 %		06:14:05
1	Y 371.029	756962.9	756962.9	125.24 %		06:14:05
1	Ag 328.068†	-567.2	-623.5	1.5297 ug/L	1.5297 ppb	06:14:10
1	As 188.979†	-24.3	2.1	9.0009 ug/L	9.0009 ppb	06:14:30
1	B 249.677†	28.1	358.3	8.1564 ug/L	8.1564 ppb	06:14:10
1	Ba 233.527†	7920.4	6579.0	69.488 ug/L	69.488 ppb	06:14:10
1	Be 313.107†	-3897.5	652.9	1.3426 ug/L	1.3426 ppb	06:14:10
1	Cd 226.502†	-0.8	170.5	1.1042 ug/L	1.1042 ppb	06:14:30
1	Co 228.616†	131.6	156.0	3.3211 ug/L	3.3211 ppb	06:14:30
1	Cr 267.716†	1337.6	1016.5	17.314 ug/L	17.314 ppb	06:14:30
1	Cu 324.752†	16426.5	7932.8	29.195 ug/L	29.195 ppb	06:14:10
1	Mn 257.610†	366790.8	304364.0	445.78 ug/L	445.78 ppb	06:14:05
1	Mo 202.031†	26.2	5.0	1.7737 ug/L	1.7737 ppb	06:14:30
1	Ni 231.604†	438.7	282.0	10.115 ug/L	10.115 ppb	06:14:30
1	P 214.914†	338.9	93.2	58.315 ug/L	58.315 ppb	06:14:30
1	Pb 220.353†	98.1	130.6	21.748 ug/L	21.748 ppb	06:14:30
1	S 181.975 Axial†	51.5	15.7	29.347 ug/L	29.347 ppb	06:14:30
1	Sb 206.836†	26.2	-3.9	-3.6170 ug/L	-3.6170 ppb	06:14:30
1	Se 196.026†	-98.5	-60.1	-9.4322 ug/L	-9.4322 ppb	06:14:30
1	Si 251.611†	197236.4	163440.4	6752.2 ug/L	6752.2 ppb	06:14:05
1	Sn 189.927†	7.9	-7.1	-2.4686 ug/L	-2.4686 ppb	06:14:30
1	Ti 334.940†	286384.4	239019.1	457.23 ug/L	457.23 ppb	06:14:05
1	Tl 190.801†	-39.3	-10.4	1.3707 ug/L	1.3707 ppb	06:14:30
1	U 409.014†	-3758.2	-1288.9	-45.700 ug/L	-45.700 ppb	06:14:05
1	V 292.402†	945.9	2166.6	16.557 ug/L	16.557 ppb	06:14:10
1	Zn 213.857†	9817.9	7498.5	97.613 ug/L	97.613 ppb	06:14:10
1	SiO2†	199858.1	165610.7	14576 ug/L	14576 ppb	06:15:37
2	Sc Radial	4233.5	4233.5	112 %		06:13:13
2	Y RADIAL	4789.1	4789.1	117.3 %		06:13:13
2	Al 396.153Radial†	6314.2	5722.6	6809.5 ug/L	6809.5 ppb	06:13:13
2	Ca 317.933Radial†	811.6	704.2	1577.7 ug/L	1577.7 ppb	06:13:33
2	Fe 238.204 Radial†	1456.9	1295.1	17121 ug/L	17121 ppb	06:13:33
2	K 766.490 Radial†	11719.3	8007.5	1767.0 ug/L	1767.0 ppb	06:13:13
2	Mg 279.077 IEC†	30.1	24.1	1121.5 ug/L	1121.5 ppb	06:13:33
2	Na 589.592 Radial†	788.3	1091.6	438.98 ug/L	438.98 ppb	06:13:13
2	Sr 421.552†	1362.8	1180.1	10.702 ug/L	10.702 ppb	06:13:13
2	Sc 361.383	849728.7	849728.7	115.96 %		06:14:36
2	Y 371.029	731049.4	731049.4	120.95 %		06:14:36
2	Ag 328.068†	-673.0	-732.5	1.2214 ug/L	1.2214 ppb	06:14:41
2	As 188.979†	-25.2	0.6	8.3098 ug/L	8.3098 ppb	06:15:01
2	B 249.677†	15.5	348.3	7.6915 ug/L	7.6915 ppb	06:14:41
2	Ba 233.527†	7976.9	6876.7	72.639 ug/L	72.639 ppb	06:14:41
2	Be 313.107†	-3887.2	539.3	1.2887 ug/L	1.2887 ppb	06:14:41
2	Cd 226.502†	-21.0	153.1	0.7165 ug/L	0.7165 ppb	06:15:01
2	Co 228.616†	110.0	141.6	2.8915 ug/L	2.8915 ppb	06:15:01
2	Cr 267.716†	1335.2	1056.4	18.034 ug/L	18.034 ppb	06:15:01
2	Cu 324.752†	16512.5	8523.4	31.357 ug/L	31.357 ppb	06:14:41
2	Mn 257.610†	353093.6	304082.1	445.47 ug/L	445.47 ppb	06:14:36
2	Mo 202.031†	20.9	1.3	1.4791 ug/L	1.4791 ppb	06:15:01
2	Ni 231.604†	430.1	288.3	10.343 ug/L	10.343 ppb	06:15:01

2	P 214.914†	337.7	102.7	64.886 ug/L	64.886 ppb	06:15:01
2	Pb 220.353†	86.5	123.6	20.464 ug/L	20.464 ppb	06:15:01
2	S 181.975 Axial†	52.1	17.8	33.310 ug/L	33.310 ppb	06:15:01
2	Sb 206.836†	24.9	-4.2	-3.7860 ug/L	-3.7860 ppb	06:15:01
2	Se 196.026†	-95.2	-60.4	-6.9408 ug/L	-6.9408 ppb	06:15:01
2	Si 251.611†	189875.5	163292.7	6746.1 ug/L	6746.1 ppb	06:14:36
2	Sn 189.927†	2.9	-11.1	-3.5209 ug/L	-3.5209 ppb	06:15:01
2	Ti 334.940†	275724.5	238828.9	456.86 ug/L	456.86 ppb	06:14:36
2	Tl 190.801†	-36.7	-9.4	1.8023 ug/L	1.8023 ppb	06:15:01
2	U 409.014†	-3631.6	-1297.9	-46.121 ug/L	-46.121 ppb	06:14:36
2	V 292.402†	959.1	2207.8	16.778 ug/L	16.778 ppb	06:14:41
2	Zn 213.857†	9880.2	7860.9	102.30 ug/L	102.30 ppb	06:14:41
2	SiO2†	188533.5	162127.2	14269 ug/L	14269 ppb	06:15:42
3	Sc Radial	4597.8	4597.8	121 %		06:13:38
3	Y RADIAL	5137.9	5137.9	125.8 %		06:13:38
3	Al 396.153Radial†	6586.3	5499.2	6543.7 ug/L	6543.7 ppb	06:13:38
3	Ca 317.933Radial†	798.6	636.0	1424.9 ug/L	1424.9 ppb	06:13:58
3	Fe 238.204 Radial†	1439.5	1177.5	15567 ug/L	15567 ppb	06:13:58
3	K 766.490 Radial†	12273.2	7633.1	1684.4 ug/L	1684.4 ppb	06:13:38
3	Mg 279.077 IEC†	27.2	19.6	909.70 ug/L	909.70 ppb	06:13:58
3	Na 589.592 Radial†	958.8	1176.3	473.01 ug/L	473.01 ppb	06:13:38
3	Sr 421.552†	1457.2	1161.3	10.532 ug/L	10.532 ppb	06:13:38
3	Sc 361.383	871658.0	871658.0	118.95 %		06:15:06
3	Y 371.029	748853.6	748853.6	123.90 %		06:15:06
3	Ag 328.068†	-692.4	-734.3	0.7290 ug/L	0.7290 ppb	06:15:11
3	As 188.979†	-21.2	4.4	10.306 ug/L	10.306 ppb	06:15:31
3	B 249.677†	-20.8	317.4	7.0148 ug/L	7.0148 ppb	06:15:11
3	Ba 233.527†	7851.6	6598.3	69.674 ug/L	69.674 ppb	06:15:11
3	Be 313.107†	-3810.1	688.5	1.3596 ug/L	1.3596 ppb	06:15:11
3	Cd 226.502†	-4.3	167.5	1.1125 ug/L	1.1125 ppb	06:15:31
3	Co 228.616†	119.1	146.8	3.0615 ug/L	3.0615 ppb	06:15:31
3	Cr 267.716†	1309.7	1006.0	17.095 ug/L	17.095 ppb	06:15:31
3	Cu 324.752†	16247.6	7942.4	29.199 ug/L	29.199 ppb	06:15:11
3	Mn 257.610†	362706.7	304503.0	445.93 ug/L	445.93 ppb	06:15:06
3	Mo 202.031†	14.8	-4.3	0.7917 ug/L	0.7917 ppb	06:15:31
3	Ni 231.604†	425.8	275.5	9.8803 ug/L	9.8803 ppb	06:15:31
3	P 214.914†	325.9	85.5	52.556 ug/L	52.556 ppb	06:15:31
3	Pb 220.353†	107.0	139.1	23.289 ug/L	23.289 ppb	06:15:31
3	S 181.975 Axial†	51.1	15.8	29.578 ug/L	29.578 ppb	06:15:31
3	Sb 206.836†	29.1	-1.2	-2.4054 ug/L	-2.4054 ppb	06:15:31
3	Se 196.026†	-90.2	-54.1	-5.4859 ug/L	-5.4859 ppb	06:15:31
3	Si 251.611†	194979.0	163463.7	6753.2 ug/L	6753.2 ppb	06:15:06
3	Sn 189.927†	-2.9	-16.1	-4.7108 ug/L	-4.7108 ppb	06:15:31
3	Ti 334.940†	283177.6	239112.6	457.40 ug/L	457.40 ppb	06:15:06
3	Tl 190.801†	-46.7	-17.0	-1.4478 ug/L	-1.4478 ppb	06:15:31
3	U 409.014†	-3601.6	-1193.8	-42.405 ug/L	-42.405 ppb	06:15:06
3	V 292.402†	945.7	2175.7	16.710 ug/L	16.710 ppb	06:15:11
3	Zn 213.857†	9667.1	7467.3	97.280 ug/L	97.280 ppb	06:15:11
3	SiO2†	189663.9	158987.0	13993 ug/L	13993 ppb	06:15:47

Mean Data: 1202056856|959105|5

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	867754.0	118.42 %	2.241			1.89%
Sc Radial	4439.9	117 %	4.9			4.21%
Y 371.029	745622.0	123.36 %	2.193			1.78%
Y RADIAL	4985.8	122.1 %	4.38			3.58%
Ag 328.068†	-696.8	1.1601 ug/L	0.40386	1.1601 ppb	0.40386	34.81%
Al 396.153Radial†	5566.4	6623.6 ug/L	161.51	6623.6 ppb	161.51	2.44%
As 188.979†	2.4	9.2057 ug/L	1.01399	9.2057 ppb	1.01399	11.01%
B 249.677†	341.4	7.6209 ug/L	0.57407	7.6209 ppb	0.57407	7.53%
Ba 233.527†	6684.7	70.600 ug/L	1.7683	70.600 ppb	1.7683	2.50%
Be 313.107†	626.9	1.3303 ug/L	0.03701	1.3303 ppb	0.03701	2.78%
Ca 317.933Radial†	666.5	1493.3 ug/L	77.68	1493.3 ppb	77.68	5.20%
Cd 226.502†	163.7	0.9777 ug/L	0.22625	0.9777 ppb	0.22625	23.14%
Co 228.616†	148.1	3.0914 ug/L	0.21635	3.0914 ppb	0.21635	7.00%
Cr 267.716†	1026.3	17.481 ug/L	0.4910	17.481 ppb	0.4910	2.81%
Cu 324.752†	8132.9	29.917 ug/L	1.2470	29.917 ppb	1.2470	4.17%
Fe 238.204 Radial†	1230.5	16266 ug/L	788.4	16266 ppb	788.4	4.85%
K 766.490 Radial†	7702.9	1699.8 ug/L	61.00	1699.8 ppb	61.00	3.59%

Mg 279.077 IEC†	21.2	986.07 ug/L	117.611	986.07 ppb	117.611	11.93%
Mn 257.610†	304316.4	445.73 ug/L	0.240	445.73 ppb	0.240	0.05%
Mo 202.031†	0.7	1.3482 ug/L	0.50393	1.3482 ppb	0.50393	37.38%
Na 589.592 Radial†	1132.4	455.37 ug/L	17.052	455.37 ppb	17.052	3.74%
Ni 231.604†	281.9	10.113 ug/L	0.2311	10.113 ppb	0.2311	2.29%
P 214.914†	93.8	58.586 ug/L	6.1694	58.586 ppb	6.1694	10.53%
Pb 220.353†	131.1	21.833 ug/L	1.4144	21.833 ppb	1.4144	6.48%
S 181.975 Axial†	16.4	30.745 ug/L	2.2245	30.745 ppb	2.2245	7.24%
Sb 206.836†	-3.1	-3.2695 ug/L	0.75306	-3.2695 ppb	0.75306	23.03%
Se 196.026†	-58.2	-7.2863 ug/L	1.99573	-7.2863 ppb	1.99573	27.39%
Si 251.611†	163399.0	6750.5 ug/L	3.83	6750.5 ppb	3.83	0.06%
Sn 189.927†	-11.4	-3.5668 ug/L	1.12180	-3.5668 ppb	1.12180	31.45%
Sr 421.552†	1153.4	10.460 ug/L	0.2849	10.460 ppb	0.2849	2.72%
Ti 334.940†	238986.9	457.16 ug/L	0.275	457.16 ppb	0.275	0.06%
Tl 190.801†	-12.3	0.5751 ug/L	1.76509	0.5751 ppb	1.76509	306.94%
U 409.014†	-1260.2	-44.742 ug/L	2.0346	-44.742 ppb	2.0346	4.55%
V 292.402†	2183.3	16.682 ug/L	0.1130	16.682 ppb	0.1130	0.68%
Zn 213.857†	7608.9	99.064 ug/L	2.8051	99.064 ppb	2.8051	2.83%
SiO2†	162241.6	14279 ug/L	291.6	14279 ppb	291.6	2.04%



Sequence No.: 98

Sample ID: 248045002|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/27/2010 06:17:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045002|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4684.0	4684.0	124 %			06:19:52
1	Y RADIAL	5344.0	5344.0	130.9 %			06:19:52
1	Al 396.153Radial†	23564.3	19129.6	22763 ug/L		22763 ppb	06:19:52
1	Ca 317.933Radial†	8681.8	6999.2	15681 ug/L		15681 ppb	06:19:52
1	Fe 238.204 Radial†	6345.4	5123.2	67727 ug/L		67727 ppb	06:19:52
1	K 766.490 Radial†	38926.7	29002.0	6396.5 ug/L		6396.5 ppb	06:19:52
1	Mg 279.077 IEC†	223.9	178.2	8358.7 ug/L		8358.7 ppb	06:20:12
1	Na 589.592 Radial†	5336.8	4702.2	1890.9 ug/L		1890.9 ppb	06:19:52
1	Sr 421.552†	10207.7	8215.8	74.471 ug/L		74.471 ppb	06:19:52
1	Sc 361.383	817855.6	817855.6	111.61 %			06:21:10
1	Y 371.029	714993.8	714993.8	118.29 %			06:21:10
1	Ag 328.068†	-3986.1	-3723.7	0.2389 ug/L		0.2389 ppb	06:21:15
1	As 188.979†	-34.6	-8.7	29.865 ug/L		29.865 ppb	06:21:35
1	B 249.677†	382.1	677.3	9.2817 ug/L		9.2817 ppb	06:21:15
1	Ba 233.527†	40500.4	36286.1	382.72 ug/L		382.72 ppb	06:21:15
1	Be 313.107†	-12672.1	-7462.7	1.5690 ug/L		1.5690 ppb	06:21:15
1	Cd 226.502†	555.9	669.2	4.0200 ug/L		4.0200 ppb	06:21:35
1	Co 228.616†	1393.4	1295.2	31.540 ug/L		31.540 ppb	06:21:35
1	Cr 267.716†	36164.6	32308.7	502.08 ug/L		502.08 ppb	06:21:15
1	Cu 324.752†	245575.3	214320.6	768.69 ug/L		768.69 ppb	06:21:15
1	Mn 257.610†	1077349.3	964888.4	1414.6 ug/L		1414.6 ppb	06:21:10
1	Mo 202.031†	17.0	-1.5	5.2938 ug/L		5.2938 ppb	06:21:35
1	Ni 231.604†	7727.8	6841.6	245.44 ug/L		245.44 ppb	06:21:35
1	P 214.914†	5537.5	4773.2	3657.2 ug/L		3657.2 ppb	06:21:35
1	Pb 220.353†	2286.0	2097.3	357.97 ug/L		357.97 ppb	06:21:35
1	S 181.975 Axial†	269.6	214.5	412.85 ug/L		412.85 ppb	06:21:35
1	Sb 206.836†	74.9	41.5	10.780 ug/L		10.780 ppb	06:21:35
1	Se 196.026†	-362.3	-302.9	-86.214 ug/L		-86.214 ppb	06:21:35
1	Si 251.611†	539077.6	482562.3	19936 ug/L		19936 ppb	06:21:10
1	Sn 189.927†	-98.4	-101.8	-26.918 ug/L		-26.918 ppb	06:21:35
1	Ti 334.940†	1297834.7	1163915.0	2227.1 ug/L		2227.1 ppb	06:21:10
1	Tl 190.801†	-94.5	-62.4	-2.1750 ug/L		-2.1750 ppb	06:21:35
1	U 409.014†	-4502.2	-2200.0	-83.637 ug/L		-83.637 ppb	06:21:15
1	V 292.402†	17912.2	17430.1	144.10 ug/L		144.10 ppb	06:21:15
1	Zn 213.857†	81264.0	72153.4	950.73 ug/L		950.73 ppb	06:21:15
1	SiO2†	548487.7	490985.5	43213 ug/L		43213 ppb	06:22:43
2	Sc Radial	4589.7	4589.7	121 %			06:20:17
2	Y RADIAL	5247.7	5247.7	128.5 %			06:20:17
2	Al 396.153Radial†	24530.7	20318.8	24178 ug/L		24178 ppb	06:20:17
2	Ca 317.933Radial†	8955.4	7369.3	16510 ug/L		16510 ppb	06:20:17
2	Fe 238.204 Radial†	6580.3	5422.5	71684 ug/L		71684 ppb	06:20:17
2	K 766.490 Radial†	39972.5	30512.1	6729.6 ug/L		6729.6 ppb	06:20:17
2	Mg 279.077 IEC†	224.1	182.2	8541.2 ug/L		8541.2 ppb	06:20:37
2	Na 589.592 Radial†	5598.9	5007.3	2013.6 ug/L		2013.6 ppb	06:20:17
2	Sr 421.552†	10641.9	8743.9	79.259 ug/L		79.259 ppb	06:20:17
2	Sc 361.383	850330.1	850330.1	116.04 %			06:21:41
2	Y 371.029	742352.8	742352.8	122.82 %			06:21:41
2	Ag 328.068†	-3850.4	-3470.4	2.8657 ug/L		2.8657 ppb	06:21:46
2	As 188.979†	-35.6	-8.4	30.524 ug/L		30.524 ppb	06:22:06
2	B 249.677†	362.6	647.4	7.7394 ug/L		7.7394 ppb	06:21:46
2	Ba 233.527†	40357.1	34776.7	367.01 ug/L		367.01 ppb	06:21:46
2	Be 313.107†	-12753.2	-7099.0	1.6167 ug/L		1.6167 ppb	06:21:46
2	Cd 226.502†	582.9	673.5	3.6796 ug/L		3.6796 ppb	06:22:06
2	Co 228.616†	1445.9	1292.8	31.527 ug/L		31.527 ppb	06:22:06
2	Cr 267.716†	35971.8	30905.0	481.00 ug/L		481.00 ppb	06:21:46
2	Cu 324.752†	243949.9	204516.4	733.90 ug/L		733.90 ppb	06:21:46
2	Mn 257.610†	1090793.0	939608.3	1378.1 ug/L		1378.1 ppb	06:21:41
2	Mo 202.031†	9.9	-8.2	4.9292 ug/L		4.9292 ppb	06:22:06
2	Ni 231.604†	7958.3	6775.8	243.08 ug/L		243.08 ppb	06:22:06

2	P 214.914†	5676.5	4703.5	3604.9 ug/L	3604.9 ppb	06:22:06
2	Pb 220.353†	2347.9	2072.5	353.45 ug/L	353.45 ppb	06:22:06
2	S 181.975 Axial†	273.2	208.4	400.67 ug/L	400.67 ppb	06:22:06
2	Sb 206.836†	77.5	41.2	10.753 ug/L	10.753 ppb	06:22:06
2	Se 196.026†	-375.4	-301.8	-74.309 ug/L	-74.309 ppb	06:22:06
2	Si 251.611†	546948.6	470898.8	19454 ug/L	19454 ppb	06:21:41
2	Sn 189.927†	-85.7	-87.5	-23.357 ug/L	-23.357 ppb	06:22:06
2	Ti 334.940†	1316725.5	1135784.3	2173.4 ug/L	2173.4 ppb	06:21:41
2	Tl 190.801†	-86.7	-52.5	1.5055 ug/L	1.5055 ppb	06:22:06
2	U 409.014†	-4556.4	-2092.7	-80.391 ug/L	-80.391 ppb	06:21:46
2	V 292.402†	17859.0	16771.3	137.68 ug/L	137.68 ppb	06:21:46
2	Zn 213.857†	80742.0	68922.8	907.06 ug/L	907.06 ppb	06:21:46
2	SiO2†	553462.3	476503.9	41939 ug/L	41939 ppb	06:22:49
3	Sc Radial	4595.8	4595.8	121 %		06:20:42
3	Y RADIAL	5266.7	5266.7	129.0 %		06:20:42
3	Al 396.153Radial†	24104.0	19940.2	23727 ug/L	23727 ppb	06:20:42
3	Ca 317.933Radial†	8841.0	7265.2	16277 ug/L	16277 ppb	06:20:42
3	Fe 238.204 Radial†	6479.0	5331.8	70484 ug/L	70484 ppb	06:20:42
3	K 766.490 Radial†	39679.3	30226.5	6666.7 ug/L	6666.7 ppb	06:20:42
3	Mg 279.077 IEC†	224.9	182.6	8562.0 ug/L	8562.0 ppb	06:21:03
3	Na 589.592 Radial†	5458.4	4885.3	1964.5 ug/L	1964.5 ppb	06:20:42
3	Sr 421.552†	10405.3	8537.1	77.384 ug/L	77.384 ppb	06:20:42
3	Sc 361.383	870555.3	870555.3	118.80 %		06:22:12
3	Y 371.029	759232.3	759232.3	125.61 %		06:22:12
3	Ag 328.068†	-3970.6	-3494.5	2.3570 ug/L	2.3570 ppb	06:22:17
3	As 188.979†	-40.8	-12.1	27.966 ug/L	27.966 ppb	06:22:37
3	B 249.677†	364.0	641.4	7.7572 ug/L	7.7572 ppb	06:22:17
3	Ba 233.527†	40870.7	34401.1	363.03 ug/L	363.03 ppb	06:22:17
3	Be 313.107†	-12749.1	-6840.2	1.7270 ug/L	1.7270 ppb	06:22:17
3	Cd 226.502†	560.3	642.8	3.2984 ug/L	3.2984 ppb	06:22:37
3	Co 228.616†	1428.7	1249.3	30.305 ug/L	30.305 ppb	06:22:37
3	Cr 267.716†	36493.1	30623.6	476.56 ug/L	476.56 ppb	06:22:17
3	Cu 324.752†	246352.9	201654.9	723.62 ug/L	723.62 ppb	06:22:17
3	Mn 257.610†	1112685.4	936197.1	1373.0 ug/L	1373.0 ppb	06:22:12
3	Mo 202.031†	8.6	-9.5	4.7021 ug/L	4.7021 ppb	06:22:37
3	Ni 231.604†	7824.1	6503.5	233.31 ug/L	233.31 ppb	06:22:37
3	P 214.914†	5570.6	4500.7	3443.9 ug/L	3443.9 ppb	06:22:37
3	Pb 220.353†	2306.2	1990.4	339.32 ug/L	339.32 ppb	06:22:37
3	S 181.975 Axial†	271.8	201.7	387.81 ug/L	387.81 ppb	06:22:37
3	Sb 206.836†	61.6	26.2	3.8220 ug/L	3.8220 ppb	06:22:37
3	Se 196.026†	-363.4	-284.1	-61.773 ug/L	-61.773 ppb	06:22:37
3	Si 251.611†	560252.1	471146.4	19464 ug/L	19464 ppb	06:22:12
3	Sn 189.927†	-91.0	-90.2	-24.033 ug/L	-24.033 ppb	06:22:37
3	Ti 334.940†	1345150.7	1133348.8	2168.7 ug/L	2168.7 ppb	06:22:12
3	Tl 190.801†	-82.7	-47.4	3.6453 ug/L	3.6453 ppb	06:22:37
3	U 409.014†	-4772.9	-2183.7	-83.339 ug/L	-83.339 ppb	06:22:17
3	V 292.402†	18072.4	16593.4	136.26 ug/L	136.26 ppb	06:22:17
3	Zn 213.857†	81915.4	68293.9	898.92 ug/L	898.92 ppb	06:22:17
3	SiO2†	566937.7	476765.9	41962 ug/L	41962 ppb	06:22:54

Mean Data: 248045002|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	846247.0	115.48 %		3.628			3.14%
Sc Radial	4623.2	122 %		1.4			1.14%
Y 371.029	738859.6	122.24 %		3.694			3.02%
Y RADIAL	5286.1	129.5 %		1.25			0.97%
Ag 328.068†	-3562.9	1.8205 ug/L		1.39316	1.8205 ppb	1.39316	76.53%
Al 396.153Radial†	19796.2	23556 ug/L		722.9	23556 ppb	722.9	3.07%
As 188.979†	-9.7	29.452 ug/L		1.3281	29.452 ppb	1.3281	4.51%
B 249.677†	655.4	8.2595 ug/L		0.88536	8.2595 ppb	0.88536	10.72%
Ba 233.527†	35154.6	370.92 ug/L		10.411	370.92 ppb	10.411	2.81%
Be 313.107†	-7134.0	1.6376 ug/L		0.08102	1.6376 ppb	0.08102	4.95%
Ca 317.933Radial†	7211.2	16156 ug/L		427.6	16156 ppb	427.6	2.65%
Cd 226.502†	661.9	3.6660 ug/L		0.36099	3.6660 ppb	0.36099	9.85%
Co 228.616†	1279.1	31.124 ug/L		0.7094	31.124 ppb	0.7094	2.28%
Cr 267.716†	31279.1	486.55 ug/L		13.634	486.55 ppb	13.634	2.80%
Cu 324.752†	206830.7	742.07 ug/L		23.619	742.07 ppb	23.619	3.18%
Fe 238.204 Radial†	5292.5	69965 ug/L		2028.9	69965 ppb	2028.9	2.90%
K 766.490 Radial†	29913.5	6597.6 ug/L		176.95	6597.6 ppb	176.95	2.68%

Mg 279.077 IEC†	181.0	8487.3 ug/L	111.88	8487.3 ppb	111.88	1.32%
Mn 257.610†	946897.9	1388.6 ug/L	22.70	1388.6 ppb	22.70	1.63%
Mo 202.031†	-6.4	4.9750 ug/L	0.29853	4.9750 ppb	0.29853	6.00%
Na 589.592 Radial†	4864.9	1956.3 ug/L	61.74	1956.3 ppb	61.74	3.16%
Ni 231.604†	6707.0	240.61 ug/L	6.431	240.61 ppb	6.431	2.67%
P 214.914†	4659.1	3568.7 ug/L	111.15	3568.7 ppb	111.15	3.11%
Pb 220.353†	2053.4	350.25 ug/L	9.727	350.25 ppb	9.727	2.78%
S 181.975 Axial†	208.2	400.44 ug/L	12.522	400.44 ppb	12.522	3.13%
Sb 206.836†	36.3	8.4519 ug/L	4.00964	8.4519 ppb	4.00964	47.44%
Se 196.026†	-296.3	-74.099 ug/L	12.2222	-74.099 ppb	12.2222	16.49%
Si 251.611†	474869.2	19618 ug/L	275.3	19618 ppb	275.3	1.40%
Sn 189.927†	-93.2	-24.769 ug/L	1.8915	-24.769 ppb	1.8915	7.64%
Sr 421.552†	8498.9	77.038 ug/L	2.4124	77.038 ppb	2.4124	3.13%
Ti 334.940†	1144349.4	2189.7 ug/L	32.44	2189.7 ppb	32.44	1.48%
Tl 190.801†	-54.1	0.9919 ug/L	2.94392	0.9919 ppb	2.94392	296.78%
U 409.014†	-2158.8	-82.456 ug/L	1.7940	-82.456 ppb	1.7940	2.18%
V 292.402†	16931.6	139.35 ug/L	4.182	139.35 ppb	4.182	3.00%
Zn 213.857†	69790.0	918.90 ug/L	27.861	918.90 ppb	27.861	3.03%
SiO2†	481418.5	42371 ug/L	729.3	42371 ppb	729.3	1.72%

Sequence No.: 99

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/27/2010 06:25:06

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	4369.2	4369.2	115 %		06:26:58
1	Y RADIAL	4682.9	4682.9	114.7 %		06:26:58
1	Al 396.153Radial†	5001.7	4409.3	5222.4 ug/L	5222.4 ppb	06:26:58
1	Ca 317.933Radial†	2673.9	2296.3	5144.6 ug/L	5144.6 ppb	06:27:18
1	Fe 238.204 Radial†	446.3	378.5	5018.4 ug/L	5018.4 ppb	06:27:18
1	K 766.490 Radial†	27594.2	21445.1	4728.6 ug/L	4728.6 ppb	06:26:58
1	Mg 279.077 IEC†	131.0	110.8	5238.4 ug/L	5238.4 ppb	06:27:18
1	Na 589.592 Radial†	25964.5	22897.1	9207.6 ug/L	9207.6 ppb	06:26:58
1	Sr 421.552†	60475.5	52391.8	475.61 ug/L	475.61 ppb	06:26:58
1	Sc 361.383	856341.7	856341.7	116.86 %		06:28:15
1	Y 371.029	697905.6	697905.6	115.47 %		06:28:15
1	Ag 328.068†	105095.2	89781.9	513.93 ug/L	513.93 ppb	06:28:21
1	As 188.979†	955.4	839.9	514.22 ug/L	514.22 ppb	06:28:41
1	B 249.677†	19415.6	16949.7	507.87 ug/L	507.87 ppb	06:28:21
1	Ba 233.527†	56491.5	48339.5	507.92 ug/L	507.92 ppb	06:28:21
1	Be 313.107†	1285543.2	1103981.7	516.56 ug/L	516.56 ppb	06:28:15
1	Cd 226.502†	36379.7	31302.7	508.53 ug/L	508.53 ppb	06:28:21
1	Co 228.616†	20917.7	17946.8	515.77 ug/L	515.77 ppb	06:28:21
1	Cr 267.716†	39069.5	33338.2	511.46 ug/L	511.46 ppb	06:28:21
1	Cu 324.752†	172501.4	141899.3	506.52 ug/L	506.52 ppb	06:28:21
1	Mn 257.610†	400907.7	342647.0	500.39 ug/L	500.39 ppb	06:28:21
1	Mo 202.031†	5828.7	4971.1	502.43 ug/L	502.43 ppb	06:28:41
1	Ni 231.604†	16944.1	14417.2	516.95 ug/L	516.95 ppb	06:28:21
1	P 214.914†	3800.7	3063.9	2377.9 ug/L	2377.9 ppb	06:28:41
1	Pb 220.353†	3302.5	2875.2	498.82 ug/L	498.82 ppb	06:28:41
1	S 181.975 Axial†	642.8	523.0	1015.9 ug/L	1015.9 ppb	06:28:41
1	Sb 206.836†	1264.3	1056.3	507.89 ug/L	507.89 ppb	06:28:41
1	Se 196.026†	640.9	570.2	529.30 ug/L	529.30 ppb	06:28:41
1	Si 251.611†	73405.7	62360.4	2570.1 ug/L	2570.1 ppb	06:28:21
1	Sn 189.927†	2299.1	1953.8	495.97 ug/L	495.97 ppb	06:28:41
1	Ti 334.940†	304492.1	261610.3	500.15 ug/L	500.15 ppb	06:28:21
1	Tl 190.801†	1329.0	1159.6	503.36 ug/L	503.36 ppb	06:28:41
1	U 409.014†	15315.7	14940.3	506.33 ug/L	506.33 ppb	06:28:21
1	V 292.402†	64752.3	56791.7	516.61 ug/L	516.61 ppb	06:28:21
1	Zn 213.857†	45848.2	38574.3	510.35 ug/L	510.35 ppb	06:28:21
1	SiO2†	69759.7	59232.2	5199.5 ug/L	5199.5 ppb	06:29:48
2	Sc Radial	4241.9	4241.9	112 %		06:27:23
2	Y RADIAL	4539.3	4539.3	111.2 %		06:27:23
2	Al 396.153Radial†	4828.6	4384.8	5193.2 ug/L	5193.2 ppb	06:27:23
2	Ca 317.933Radial†	2624.3	2321.6	5201.2 ug/L	5201.2 ppb	06:27:43
2	Fe 238.204 Radial†	430.5	376.0	4985.1 ug/L	4985.1 ppb	06:27:43
2	K 766.490 Radial†	26909.3	21551.8	4752.1 ug/L	4752.1 ppb	06:27:23
2	Mg 279.077 IEC†	126.0	109.7	5187.7 ug/L	5187.7 ppb	06:27:43
2	Na 589.592 Radial†	24964.2	22679.6	9120.1 ug/L	9120.1 ppb	06:27:23
2	Sr 421.552†	58500.1	52201.9	473.88 ug/L	473.88 ppb	06:27:23
2	Sc 361.383	850180.2	850180.2	116.02 %		06:28:46
2	Y 371.029	693799.1	693799.1	114.79 %		06:28:46
2	Ag 328.068†	103880.8	89387.0	511.66 ug/L	511.66 ppb	06:28:51
2	As 188.979†	958.9	848.8	519.61 ug/L	519.61 ppb	06:29:11
2	B 249.677†	19228.1	16908.4	506.66 ug/L	506.66 ppb	06:28:51
2	Ba 233.527†	55638.0	47954.1	503.87 ug/L	503.87 ppb	06:28:51
2	Be 313.107†	1279129.9	1106426.5	517.70 ug/L	517.70 ppb	06:28:46
2	Cd 226.502†	35691.7	30935.3	502.56 ug/L	502.56 ppb	06:28:51
2	Co 228.616†	20412.2	17640.8	506.99 ug/L	506.99 ppb	06:28:51
2	Cr 267.716†	38533.5	33118.5	508.09 ug/L	508.09 ppb	06:28:51
2	Cu 324.752†	170701.6	141417.8	504.80 ug/L	504.80 ppb	06:28:51
2	Mn 257.610†	395380.8	340369.5	497.06 ug/L	497.06 ppb	06:28:51
2	Mo 202.031†	5805.4	4987.2	504.06 ug/L	504.06 ppb	06:29:11
2	Ni 231.604†	16664.4	14281.2	512.08 ug/L	512.08 ppb	06:28:51

2	P 214.914†	3795.7	3083.2	2393.9 ug/L	2393.9 ppb	06:29:11
2	Pb 220.353†	3296.3	2890.3	501.44 ug/L	501.44 ppb	06:29:11
2	S 181.975 Axial†	640.9	525.3	1020.5 ug/L	1020.5 ppb	06:29:11
2	Sb 206.836†	1258.3	1058.9	509.18 ug/L	509.18 ppb	06:29:11
2	Se 196.026†	623.2	558.9	519.07 ug/L	519.07 ppb	06:29:11
2	Si 251.611†	72384.6	61935.5	2552.5 ug/L	2552.5 ppb	06:28:51
2	Sn 189.927†	2297.2	1966.4	499.17 ug/L	499.17 ppb	06:29:11
2	Ti 334.940†	300629.1	260168.9	497.40 ug/L	497.40 ppb	06:28:51
2	Tl 190.801†	1341.0	1178.2	511.39 ug/L	511.39 ppb	06:29:11
2	U 409.014†	15252.8	14981.0	507.72 ug/L	507.72 ppb	06:28:51
2	V 292.402†	63827.3	56396.0	513.09 ug/L	513.09 ppb	06:28:51
2	Zn 213.857†	45277.0	38366.3	507.61 ug/L	507.61 ppb	06:28:51
2	SiO2†	72266.4	61825.4	5427.7 ug/L	5427.7 ppb	06:29:53
3	Sc Radial	4329.2	4329.2	114 %		06:27:48
3	Y RADIAL	4657.4	4657.4	114.1 %		06:27:48
3	Al 396.153Radial†	4962.7	4415.2	5228.9 ug/L	5228.9 ppb	06:27:48
3	Ca 317.933Radial†	2699.8	2340.4	5243.3 ug/L	5243.3 ppb	06:28:08
3	Fe 238.204 Radial†	446.1	381.9	5064.4 ug/L	5064.4 ppb	06:28:08
3	K 766.490 Radial†	27826.0	21869.1	4822.1 ug/L	4822.1 ppb	06:27:48
3	Mg 279.077 IEC†	130.0	110.9	5247.2 ug/L	5247.2 ppb	06:28:08
3	Na 589.592 Radial†	25940.9	23084.4	9282.9 ug/L	9282.9 ppb	06:27:48
3	Sr 421.552†	60382.4	52795.0	479.27 ug/L	479.27 ppb	06:27:48
3	Sc 361.383	828605.7	828605.7	113.07 %		06:29:17
3	Y 371.029	676120.2	676120.2	111.86 %		06:29:17
3	Ag 328.068†	103945.1	91775.2	525.31 ug/L	525.31 ppb	06:29:22
3	As 188.979†	955.8	867.6	531.11 ug/L	531.11 ppb	06:29:42
3	B 249.677†	19180.0	17297.5	518.30 ug/L	518.30 ppb	06:29:22
3	Ba 233.527†	56063.2	49578.8	520.94 ug/L	520.94 ppb	06:29:22
3	Be 313.107†	1250588.7	1109891.9	519.34 ug/L	519.34 ppb	06:29:17
3	Cd 226.502†	36002.1	32010.9	520.04 ug/L	520.04 ppb	06:29:22
3	Co 228.616†	20675.3	18331.6	526.83 ug/L	526.83 ppb	06:29:22
3	Cr 267.716†	38754.4	34178.7	524.34 ug/L	524.34 ppb	06:29:22
3	Cu 324.752†	170379.8	144964.1	517.46 ug/L	517.46 ppb	06:29:22
3	Mn 257.610†	397460.7	351082.2	512.70 ug/L	512.70 ppb	06:29:22
3	Mo 202.031†	5763.1	5080.0	513.44 ug/L	513.44 ppb	06:29:42
3	Ni 231.604†	16793.1	14769.0	529.57 ug/L	529.57 ppb	06:29:22
3	P 214.914†	3754.9	3132.4	2431.1 ug/L	2431.1 ppb	06:29:42
3	Pb 220.353†	3285.6	2954.8	512.61 ug/L	512.61 ppb	06:29:42
3	S 181.975 Axial†	639.2	538.2	1045.6 ug/L	1045.6 ppb	06:29:42
3	Sb 206.836†	1245.2	1075.6	517.22 ug/L	517.22 ppb	06:29:42
3	Se 196.026†	633.6	582.1	540.17 ug/L	540.17 ppb	06:29:42
3	Si 251.611†	72584.6	63736.9	2626.8 ug/L	2626.8 ppb	06:29:22
3	Sn 189.927†	2274.3	1997.7	507.10 ug/L	507.10 ppb	06:29:42
3	Ti 334.940†	301251.9	267466.6	511.35 ug/L	511.35 ppb	06:29:22
3	Tl 190.801†	1326.4	1195.3	518.86 ug/L	518.86 ppb	06:29:42
3	U 409.014†	15451.4	15499.0	525.29 ug/L	525.29 ppb	06:29:22
3	V 292.402†	63951.4	57938.2	527.07 ug/L	527.07 ppb	06:29:22
3	Zn 213.857†	45468.2	39551.5	523.30 ug/L	523.30 ppb	06:29:22
3	SiO2†	72363.7	63533.3	5577.8 ug/L	5577.8 ppb	06:29:58

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	845042.5	115.32 %		1.987			1.72%
Sc Radial	4313.4	114 %		1.7			1.51%
Y 371.029	689274.9	114.04 %		1.915			1.68%
Y RADIAL	4626.5	113.3 %		1.88			1.66%
Ag 328.068†	90314.7	516.97 ug/L		7.315	516.97 ppb	7.315	1.42%
QC value within limits for Ag 328.068 Recovery = 103.39%							
Al 396.153Radial†	4403.1	5214.8 ug/L		19.01	5214.8 ppb	19.01	0.36%
QC value within limits for Al 396.153Radial Recovery = 104.30%							
As 188.979†	852.1	521.65 ug/L		8.625	521.65 ppb	8.625	1.65%
QC value within limits for As 188.979 Recovery = 104.33%							
B 249.677†	17051.9	510.95 ug/L		6.399	510.95 ppb	6.399	1.25%
QC value within limits for B 249.677 Recovery = 102.19%							
Ba 233.527†	48624.1	510.91 ug/L		8.915	510.91 ppb	8.915	1.74%
QC value within limits for Ba 233.527 Recovery = 102.18%							
Be 313.107†	1106766.7	517.87 ug/L		1.400	517.87 ppb	1.400	0.27%
QC value within limits for Be 313.107 Recovery = 103.57%							
Ca 317.933Radial†	2319.4	5196.4 ug/L		49.56	5196.4 ppb	49.56	0.95%

QC value within limits for Ca 317.933 Radial Recovery = 103.93%							
Cd 226.502†	31416.3	510.38 ug/L	8.887	510.38 ppb	8.887	1.74%	
QC value within limits for Cd 226.502 Recovery = 102.08%							
Co 228.616†	17973.1	516.53 ug/L	9.942	516.53 ppb	9.942	1.92%	
QC value within limits for Co 228.616 Recovery = 103.31%							
Cr 267.716†	33545.1	514.63 ug/L	8.577	514.63 ppb	8.577	1.67%	
QC value within limits for Cr 267.716 Recovery = 102.93%							
Cu 324.752†	142760.4	509.59 ug/L	6.863	509.59 ppb	6.863	1.35%	
QC value within limits for Cu 324.752 Recovery = 101.92%							
Fe 238.204 Radial†	378.8	5022.7 ug/L	39.81	5022.7 ppb	39.81	0.79%	
QC value within limits for Fe 238.204 Radial Recovery = 100.45%							
K 766.490 Radial†	21622.0	4767.6 ug/L	48.65	4767.6 ppb	48.65	1.02%	
QC value within limits for K 766.490 Radial Recovery = 95.35%							
Mg 279.077 IEC†	110.5	5224.4 ug/L	32.09	5224.4 ppb	32.09	0.61%	
QC value within limits for Mg 279.077 IEC Recovery = 104.49%							
Mn 257.610†	344699.6	503.38 ug/L	8.240	503.38 ppb	8.240	1.64%	
QC value within limits for Mn 257.610 Recovery = 100.68%							
Mo 202.031†	5012.8	506.64 ug/L	5.942	506.64 ppb	5.942	1.17%	
QC value within limits for Mo 202.031 Recovery = 101.33%							
Na 589.592 Radial†	22887.0	9203.6 ug/L	81.47	9203.6 ppb	81.47	0.89%	
QC value within limits for Na 589.592 Radial Recovery = 92.04%							
Ni 231.604†	14489.1	519.53 ug/L	9.026	519.53 ppb	9.026	1.74%	
QC value within limits for Ni 231.604 Recovery = 103.91%							
P 214.914†	3093.2	2401.0 ug/L	27.29	2401.0 ppb	27.29	1.14%	
QC value within limits for P 214.914 Recovery = 96.04%							
Pb 220.353†	2906.8	504.29 ug/L	7.323	504.29 ppb	7.323	1.45%	
QC value within limits for Pb 220.353 Recovery = 100.86%							
S 181.975 Axial†	528.8	1027.4 ug/L	15.99	1027.4 ppb	15.99	1.56%	
QC value within limits for S 181.975 Axial Recovery = 102.74%							
Sb 206.836†	1063.6	511.43 ug/L	5.059	511.43 ppb	5.059	0.99%	
QC value within limits for Sb 206.836 Recovery = 102.29%							
Se 196.026†	570.4	529.51 ug/L	10.551	529.51 ppb	10.551	1.99%	
QC value within limits for Se 196.026 Recovery = 105.90%							
Si 251.611†	62677.6	2583.2 ug/L	38.83	2583.2 ppb	38.83	1.50%	
QC value within limits for Si 251.611 Recovery = 103.33%							
Sn 189.927†	1972.6	500.75 ug/L	5.732	500.75 ppb	5.732	1.14%	
QC value within limits for Sn 189.927 Recovery = 100.15%							
Sr 421.552†	52462.9	476.25 ug/L	2.749	476.25 ppb	2.749	0.58%	
QC value within limits for Sr 421.552 Recovery = 95.25%							
Ti 334.940†	263081.9	502.97 ug/L	7.386	502.97 ppb	7.386	1.47%	
QC value within limits for Ti 334.940 Recovery = 100.59%							
Tl 190.801†	1177.7	511.20 ug/L	7.751	511.20 ppb	7.751	1.52%	
QC value within limits for Tl 190.801 Recovery = 102.24%							
U 409.014†	15140.1	513.11 ug/L	10.569	513.11 ppb	10.569	2.06%	
QC value within limits for U 409.014 Recovery = 102.62%							
V 292.402†	57041.9	518.92 ug/L	7.272	518.92 ppb	7.272	1.40%	
QC value within limits for V 292.402 Recovery = 103.78%							
Zn 213.857†	38830.7	513.76 ug/L	8.378	513.76 ppb	8.378	1.63%	
QC value within limits for Zn 213.857 Recovery = 102.75%							
SiO2†	61530.3	5401.7 ug/L	190.47	5401.7 ppb	190.47	3.53%	
QC value within limits for SiO2 Recovery = 101.01%							
All analyte(s) passed QC.							

Sequence No.: 100

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/27/2010 06:32:08

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	4255.9	4255.9	112 %		06:34:01
1	Y RADIAL	4568.9	4568.9	111.9 %		06:34:01
1	Al 396.153Radial†	-76.9	4.4	5.2730 ug/L	5.2730 ppb	06:34:21
1	Ca 317.933Radial†	23.5	-1.0	-2.2786 ug/L	-2.2786 ppb	06:34:21
1	Fe 238.204 Radial†	5.0	-4.0	-53.185 ug/L	-53.185 ppb	06:34:21
1	K 766.490 Radial†	2564.1	-196.3	-43.281 ug/L	-43.281 ppb	06:34:01
1	Mg 279.077 IEC†	1.4	-1.5	-72.014 ug/L	-72.014 ppb	06:34:21
1	Na 589.592 Radial†	-808.9	-333.6	-134.16 ug/L	-134.16 ppb	06:34:01
1	Sr 421.552†	55.4	10.0	0.0909 ug/L	0.0909 ppb	06:34:01
1	Sc 361.383	841973.3	841973.3	114.90 %		06:35:17
1	Y 371.029	692197.8	692197.8	114.52 %		06:35:17
1	Ag 328.068†	269.6	82.5	0.4557 ug/L	0.4557 ppb	06:35:22
1	As 188.979†	-29.2	-3.1	-1.8996 ug/L	-1.8996 ppb	06:35:42
1	B 249.677†	-142.2	211.2	6.3638 ug/L	6.3638 ppb	06:35:42
1	Ba 233.527†	43.7	35.5	0.3726 ug/L	0.3726 ppb	06:35:42
1	Be 313.107†	-4022.8	390.4	0.1834 ug/L	0.1834 ppb	06:35:22
1	Cd 226.502†	-169.5	23.6	0.3897 ug/L	0.3897 ppb	06:35:42
1	Co 228.616†	-27.8	22.5	0.6453 ug/L	0.6453 ppb	06:35:42
1	Cr 267.716†	119.6	9.0	0.1331 ug/L	0.1331 ppb	06:35:42
1	Cu 324.752†	6175.9	-341.8	-1.2243 ug/L	-1.2243 ppb	06:35:22
1	Mn 257.610†	585.5	84.0	0.1203 ug/L	0.1203 ppb	06:35:42
1	Mo 202.031†	9.4	-8.6	-0.8703 ug/L	-0.8703 ppb	06:35:42
1	Ni 231.604†	93.1	-1.6	-0.0563 ug/L	-0.0563 ppb	06:35:42
1	P 214.914†	176.2	-35.1	-28.111 ug/L	-28.111 ppb	06:35:42
1	Pb 220.353†	-57.0	-0.6	-0.0892 ug/L	-0.0892 ppb	06:35:42
1	S 181.975 Axial†	24.5	-5.7	-11.179 ug/L	-11.179 ppb	06:35:42
1	Sb 206.836†	20.8	-7.5	-3.5343 ug/L	-3.5343 ppb	06:35:42
1	Se 196.026†	-19.9	4.4	3.8215 ug/L	3.8215 ppb	06:35:42
1	Si 251.611†	697.3	151.2	6.2571 ug/L	6.2571 ppb	06:35:42
1	Sn 189.927†	9.7	-5.2	-1.3170 ug/L	-1.3170 ppb	06:35:42
1	Ti 334.940†	-896.6	264.0	0.5093 ug/L	0.5093 ppb	06:35:22
1	Tl 190.801†	-24.8	0.7	0.3020 ug/L	0.3020 ppb	06:35:42
1	U 409.014†	-2029.9	67.3	2.2951 ug/L	2.2951 ppb	06:35:17
1	V 292.402†	-1438.1	128.9	1.1554 ug/L	1.1554 ppb	06:35:22
1	Zn 213.857†	719.3	-33.8	-0.4416 ug/L	-0.4416 ppb	06:35:42
1	SiO2†	672.5	121.3	10.702 ug/L	10.702 ppb	06:36:48
2	Sc Radial	4429.7	4429.7	117 %		06:34:26
2	Y RADIAL	4765.8	4765.8	116.7 %		06:34:26
2	Al 396.153Radial†	-82.0	2.7	3.2653 ug/L	3.2653 ppb	06:34:46
2	Ca 317.933Radial†	26.6	0.8	1.7759 ug/L	1.7759 ppb	06:34:46
2	Fe 238.204 Radial†	9.6	-0.3	-3.6135 ug/L	-3.6135 ppb	06:34:46
2	K 766.490 Radial†	2438.2	-393.5	-86.840 ug/L	-86.840 ppb	06:34:26
2	Mg 279.077 IEC†	1.6	-1.4	-68.117 ug/L	-68.117 ppb	06:34:46
2	Na 589.592 Radial†	-781.4	-281.9	-113.36 ug/L	-113.36 ppb	06:34:26
2	Sr 421.552†	17.9	-24.0	-0.2177 ug/L	-0.2177 ppb	06:34:26
2	Sc 361.383	823960.7	823960.7	112.44 %		06:35:48
2	Y 371.029	678103.5	678103.5	112.19 %		06:35:48
2	Ag 328.068†	167.6	-3.1	-0.0196 ug/L	-0.0196 ppb	06:35:53
2	As 188.979†	-25.5	-0.4	-0.2326 ug/L	-0.2326 ppb	06:36:13
2	B 249.677†	-183.9	171.4	5.1582 ug/L	5.1582 ppb	06:36:13
2	Ba 233.527†	14.6	10.4	0.1096 ug/L	0.1096 ppb	06:36:13
2	Be 313.107†	-3931.8	394.8	0.1850 ug/L	0.1850 ppb	06:35:53
2	Cd 226.502†	-158.1	30.5	0.4968 ug/L	0.4968 ppb	06:36:13
2	Co 228.616†	-35.8	14.9	0.4264 ug/L	0.4264 ppb	06:36:13
2	Cr 267.716†	123.1	14.4	0.2197 ug/L	0.2197 ppb	06:36:13
2	Cu 324.752†	6072.2	-316.5	-1.1316 ug/L	-1.1316 ppb	06:35:53
2	Mn 257.610†	702.9	199.6	0.2937 ug/L	0.2937 ppb	06:36:13
2	Mo 202.031†	17.6	-1.1	-0.1143 ug/L	-0.1143 ppb	06:36:13
2	Ni 231.604†	103.4	9.4	0.3381 ug/L	0.3381 ppb	06:36:13

2	P 214.914†	182.0	-26.6	-21.288 ug/L	-21.288 ppb	06:36:13
2	Pb 220.353†	-60.8	-5.0	-0.8662 ug/L	-0.8662 ppb	06:36:13
2	S 181.975 Axial†	27.8	-2.4	-4.6298 ug/L	-4.6298 ppb	06:36:13
2	Sb 206.836†	20.4	-7.5	-3.4804 ug/L	-3.4804 ppb	06:36:13
2	Se 196.026†	-16.9	6.7	6.0059 ug/L	6.0059 ppb	06:36:13
2	Si 251.611†	755.2	215.9	8.9217 ug/L	8.9217 ppb	06:36:13
2	Sn 189.927†	9.3	-5.4	-1.3638 ug/L	-1.3638 ppb	06:36:13
2	Ti 334.940†	-1009.0	146.9	0.2855 ug/L	0.2855 ppb	06:35:53
2	Tl 190.801†	-20.2	4.3	1.8500 ug/L	1.8500 ppb	06:36:13
2	U 409.014†	-1968.6	83.2	2.8282 ug/L	2.8282 ppb	06:35:48
2	V 292.402†	-1504.6	42.5	0.3839 ug/L	0.3839 ppb	06:35:53
2	Zn 213.857†	726.4	-13.8	-0.1843 ug/L	-0.1843 ppb	06:36:13
2	SiO2†	629.7	96.1	8.4596 ug/L	8.4596 ppb	06:36:53
3	Sc Radial	4396.9	4396.9	116 %		06:34:51
3	Y RADIAL	4707.1	4707.1	115.3 %		06:34:51
3	Al 396.153Radial†	-68.8	13.6	16.228 ug/L	16.228 ppb	06:35:11
3	Ca 317.933Radial†	23.6	-1.6	-3.5224 ug/L	-3.5224 ppb	06:35:11
3	Fe 238.204 Radial†	8.9	-0.8	-10.474 ug/L	-10.474 ppb	06:35:11
3	K 766.490 Radial†	2530.2	-298.7	-65.906 ug/L	-65.906 ppb	06:34:51
3	Mg 279.077 IEC†	1.0	-2.0	-92.432 ug/L	-92.432 ppb	06:35:11
3	Na 589.592 Radial†	-821.4	-321.3	-129.21 ug/L	-129.21 ppb	06:34:51
3	Sr 421.552†	7.8	-32.5	-0.2954 ug/L	-0.2954 ppb	06:34:51
3	Sc 361.383	858721.7	858721.7	117.18 %		06:36:18
3	Y 371.029	705656.4	705656.4	116.75 %		06:36:18
3	Ag 328.068†	262.3	71.7	0.4039 ug/L	0.4039 ppb	06:36:23
3	As 188.979†	-22.6	3.0	1.8019 ug/L	1.8019 ppb	06:36:43
3	B 249.677†	-199.5	164.7	4.9587 ug/L	4.9587 ppb	06:36:43
3	Ba 233.527†	25.8	19.5	0.2062 ug/L	0.2062 ppb	06:36:43
3	Be 313.107†	-3814.6	636.3	0.2984 ug/L	0.2984 ppb	06:36:23
3	Cd 226.502†	-158.9	35.5	0.5796 ug/L	0.5796 ppb	06:36:43
3	Co 228.616†	-39.0	13.4	0.3833 ug/L	0.3833 ppb	06:36:43
3	Cr 267.716†	94.4	-14.5	-0.2237 ug/L	-0.2237 ppb	06:36:43
3	Cu 324.752†	6074.1	-533.5	-1.9082 ug/L	-1.9082 ppb	06:36:23
3	Mn 257.610†	636.5	117.6	0.1745 ug/L	0.1745 ppb	06:36:43
3	Mo 202.031†	13.2	-5.5	-0.5574 ug/L	-0.5574 ppb	06:36:43
3	Ni 231.604†	94.0	-2.3	-0.0829 ug/L	-0.0829 ppb	06:36:43
3	P 214.914†	175.5	-38.7	-30.887 ug/L	-30.887 ppb	06:36:43
3	Pb 220.353†	-62.3	-4.1	-0.7084 ug/L	-0.7084 ppb	06:36:43
3	S 181.975 Axial†	26.1	-4.9	-9.4574 ug/L	-9.4574 ppb	06:36:43
3	Sb 206.836†	22.5	-6.4	-3.0325 ug/L	-3.0325 ppb	06:36:43
3	Se 196.026†	-23.9	1.3	1.1626 ug/L	1.1626 ppb	06:36:43
3	Si 251.611†	666.6	113.1	4.6800 ug/L	4.6800 ppb	06:36:43
3	Sn 189.927†	4.7	-9.7	-2.4519 ug/L	-2.4519 ppb	06:36:43
3	Ti 334.940†	-874.3	298.2	0.5750 ug/L	0.5750 ppb	06:36:23
3	Tl 190.801†	-28.8	-2.3	-0.9784 ug/L	-0.9784 ppb	06:36:43
3	U 409.014†	-1950.3	169.7	5.7733 ug/L	5.7733 ppb	06:36:18
3	V 292.402†	-1493.7	106.0	0.9537 ug/L	0.9537 ppb	06:36:23
3	Zn 213.857†	746.0	-23.2	-0.3052 ug/L	-0.3052 ppb	06:36:43
3	SiO2†	625.9	70.2	6.1915 ug/L	6.1915 ppb	06:36:58

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	841551.9	114.84 %		2.372				2.07%
Sc Radial	4360.8	115 %		2.4				2.12%
Y 371.029	691985.9	114.49 %		2.279				1.99%
Y RADIAL	4680.6	114.6 %		2.48				2.16%
Ag 328.068†	50.4	0.2800 ug/L		0.26077	0.2800 ppb		0.26077	93.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.9	8.2553 ug/L		6.97684	8.2553 ppb		6.97684	84.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.1101 ug/L		1.85378	-0.1101 ppb		1.85378	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	182.4	5.4935 ug/L		0.76021	5.4935 ppb		0.76021	13.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.8	0.2295 ug/L		0.13302	0.2295 ppb		0.13302	57.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	473.9	0.2223 ug/L		0.06594	0.2223 ppb		0.06594	29.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-1.3417 ug/L		2.77063	-1.3417 ppb		2.77063	206.50%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	29.9	0.4887 ug/L	0.09521	0.4887 ppb	0.09521	19.48%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	16.9	0.4850 ug/L	0.14049	0.4850 ppb	0.14049	28.97%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	3.0	0.0430 ug/L	0.23501	0.0430 ppb	0.23501	546.15%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-397.3	-1.4214 ug/L	0.42417	-1.4214 ppb	0.42417	29.84%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.7	-22.424 ug/L	26.8594	-22.424 ppb	26.8594	119.78%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-296.2	-65.342 ug/L	21.7847	-65.342 ppb	21.7847	33.34%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.6	-77.521 ug/L	13.0593	-77.521 ppb	13.0593	16.85%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	133.7	0.1962 ug/L	0.08870	0.1962 ppb	0.08870	45.22%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-5.1	-0.5140 ug/L	0.37991	-0.5140 ppb	0.37991	73.91%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-312.3	-125.57 ug/L	10.866	-125.57 ppb	10.866	8.65%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.9	0.0663 ug/L	0.23578	0.0663 ppb	0.23578	355.48%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-33.5	-26.762 ug/L	4.9398	-26.762 ppb	4.9398	18.46%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-3.2	-0.5546 ug/L	0.41073	-0.5546 ppb	0.41073	74.06%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-4.3	-8.4221 ug/L	3.39515	-8.4221 ppb	3.39515	40.31%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-7.1	-3.3491 ug/L	0.27545	-3.3491 ppb	0.27545	8.22%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.1	3.6633 ug/L	2.42553	3.6633 ppb	2.42553	66.21%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	160.1	6.6196 ug/L	2.14394	6.6196 ppb	2.14394	32.39%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-6.8	-1.7109 ug/L	0.64217	-1.7109 ppb	0.64217	37.53%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-15.5	-0.1407 ug/L	0.20431	-0.1407 ppb	0.20431	145.17%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	236.4	0.4566 ug/L	0.15177	0.4566 ppb	0.15177	33.24%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.9	0.3912 ug/L	1.41631	0.3912 ppb	1.41631	362.02%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	106.7	3.6322 ug/L	1.87329	3.6322 ppb	1.87329	51.57%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	92.4	0.8310 ug/L	0.40008	0.8310 ppb	0.40008	48.15%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-23.6	-0.3104 ug/L	0.12871	-0.3104 ppb	0.12871	41.47%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	95.9	8.4509 ug/L	2.25511	8.4509 ppb	2.25511	26.68%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 101  
 Sample ID: 248045003|959105|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 104  
 Date Collected: 3/27/2010 06:39:09  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 248045003|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4480.9	4480.9	118 %			06:41:03
1	Y RADIAL	5807.6	5807.6	142.2 %			06:41:03
1	Al 396.153Radial†	38845.7	32912.0	39163 ug/L		39163 ppb	06:41:03
1	Ca 317.933Radial†	7551.1	6361.6	14252 ug/L		14252 ppb	06:41:03
1	Fe 238.204 Radial†	7596.0	6413.0	84777 ug/L		84777 ppb	06:41:03
1	K 766.490 Radial†	30032.9	22910.5	5051.4 ug/L		5051.4 ppb	06:41:03
1	Mg 279.077 IEC†	180.9	150.1	7009.3 ug/L		7009.3 ppb	06:41:23
1	Na 589.592 Radial†	8054.3	7195.2	2893.4 ug/L		2893.4 ppb	06:41:03
1	Sr 421.552†	10911.7	9185.2	83.282 ug/L		83.282 ppb	06:41:03
1	Sc 361.383	870736.5	870736.5	118.82 %			06:42:21
1	Y 371.029	856373.0	856373.0	141.68 %			06:42:21
1	Ag 328.068†	-5046.5	-4399.3	1.6676 ug/L		1.6676 ppb	06:42:26
1	As 188.979†	-33.3	-5.7	39.868 ug/L		39.868 ppb	06:42:46
1	B 249.677†	563.3	809.0	10.513 ug/L		10.513 ppb	06:42:26
1	Ba 233.527†	49519.3	41672.5	439.61 ug/L		439.61 ppb	06:42:26
1	Be 313.107†	-8176.4	-2989.6	4.7633 ug/L		4.7633 ppb	06:42:26
1	Cd 226.502†	627.5	699.2	2.6008 ug/L		2.6008 ppb	06:42:46
1	Co 228.616†	959.6	854.3	17.825 ug/L		17.825 ppb	06:42:46
1	Cr 267.716†	7681.1	6369.3	106.76 ug/L		106.76 ppb	06:42:46
1	Cu 324.752†	1342423.3	1124056.6	4017.2 ug/L		4017.2 ppb	06:42:21
1	Mn 257.610†	1798322.2	1513029.1	2216.4 ug/L		2216.4 ppb	06:42:21
1	Mo 202.031†	101.9	69.0	13.723 ug/L		13.723 ppb	06:42:46
1	Ni 231.604†	2227.1	1791.8	64.271 ug/L		64.271 ppb	06:42:46
1	P 214.914†	2686.5	2072.5	819.59 ug/L		819.59 ppb	06:42:46
1	Pb 220.353†	2349.9	2026.7	345.08 ug/L		345.08 ppb	06:42:46
1	S 181.975 Axial†	325.9	247.1	473.24 ug/L		473.24 ppb	06:42:46
1	Sb 206.836†	46.6	13.6	-4.3380 ug/L		-4.3380 ppb	06:42:46
1	Se 196.026†	-459.4	-364.9	-92.172 ug/L		-92.172 ppb	06:42:46
1	Si 251.611†	876497.2	737197.9	30456 ug/L		30456 ppb	06:42:21
1	Sn 189.927†	-47.1	-53.3	-15.840 ug/L		-15.840 ppb	06:42:46
1	Ti 334.940†	1684414.8	1418635.3	2714.3 ug/L		2714.3 ppb	06:42:21
1	Tl 190.801†	-113.3	-73.1	1.1974 ug/L		1.1974 ppb	06:42:46
1	U 409.014†	-10155.2	-6712.5	-238.14 ug/L		-238.14 ppb	06:42:21
1	V 292.402†	14313.5	13426.7	105.09 ug/L		105.09 ppb	06:42:26
1	Zn 213.857†	162484.0	136085.5	1798.6 ug/L		1798.6 ppb	06:42:26
1	SiO2†	879700.1	739885.2	65119 ug/L		65119 ppb	06:43:55
2	Sc Radial	4517.1	4517.1	119 %			06:41:28
2	Y RADIAL	5796.8	5796.8	142.0 %			06:41:28
2	Al 396.153Radial†	39032.2	32804.9	39035 ug/L		39035 ppb	06:41:28
2	Ca 317.933Radial†	7583.9	6337.9	14199 ug/L		14199 ppb	06:41:28
2	Fe 238.204 Radial†	7714.4	6460.8	85409 ug/L		85409 ppb	06:41:28
2	K 766.490 Radial†	30312.4	22941.1	5058.2 ug/L		5058.2 ppb	06:41:28
2	Mg 279.077 IEC†	184.2	151.7	7083.2 ug/L		7083.2 ppb	06:41:48
2	Na 589.592 Radial†	8176.3	7242.9	2912.6 ug/L		2912.6 ppb	06:41:28
2	Sr 421.552†	10971.3	9161.2	83.065 ug/L		83.065 ppb	06:41:28
2	Sc 361.383	880008.4	880008.4	120.09 %			06:42:52
2	Y 371.029	864699.8	864699.8	143.06 %			06:42:52
2	Ag 328.068†	-4918.1	-4247.6	2.7222 ug/L		2.7222 ppb	06:42:57
2	As 188.979†	-38.6	-9.9	37.529 ug/L		37.529 ppb	06:43:17
2	B 249.677†	612.5	845.0	11.498 ug/L		11.498 ppb	06:42:57
2	Ba 233.527†	49647.1	41339.9	436.15 ug/L		436.15 ppb	06:42:57
2	Be 313.107†	-8105.6	-2858.2	4.8319 ug/L		4.8319 ppb	06:42:57
2	Cd 226.502†	602.5	672.9	2.1077 ug/L		2.1077 ppb	06:43:17
2	Co 228.616†	923.4	815.6	16.695 ug/L		16.695 ppb	06:43:17
2	Cr 267.716†	7577.7	6215.1	104.46 ug/L		104.46 ppb	06:43:17
2	Cu 324.752†	1355912.7	1123386.1	4014.8 ug/L		4014.8 ppb	06:42:52
2	Mn 257.610†	1819872.8	1515029.0	2219.4 ug/L		2219.4 ppb	06:42:52
2	Mo 202.031†	95.2	62.5	13.111 ug/L		13.111 ppb	06:43:17
2	Ni 231.604†	2213.0	1760.3	63.143 ug/L		63.143 ppb	06:43:17

2	P 214.914†	2635.5	2006.2	765.92 ug/L	765.92 ppb	06:43:17
2	Pb 220.353†	2288.2	1954.5	332.47 ug/L	332.47 ppb	06:43:17
2	S 181.975 Axial†	301.8	224.2	428.65 ug/L	428.65 ppb	06:43:17
2	Sb 206.836†	49.8	15.9	-3.3410 ug/L	-3.3410 ppb	06:43:17
2	Se 196.026†	-447.7	-351.1	-78.054 ug/L	-78.054 ppb	06:43:17
2	Si 251.611†	886750.2	737963.8	30487 ug/L	30487 ppb	06:42:52
2	Sn 189.927†	-55.7	-60.0	-17.594 ug/L	-17.594 ppb	06:43:17
2	Ti 334.940†	1704353.4	1420302.8	2717.5 ug/L	2717.5 ppb	06:42:52
2	Tl 190.801†	-130.5	-86.4	-4.4807 ug/L	-4.4807 ppb	06:43:17
2	U 409.014†	-10107.7	-6582.9	-233.80 ug/L	-233.80 ppb	06:42:52
2	V 292.402†	14433.6	13399.8	104.75 ug/L	104.75 ppb	06:42:57
2	Zn 213.857†	163273.0	135301.8	1788.1 ug/L	1788.1 ppb	06:42:57
2	SiO2†	886340.6	737614.5	64919 ug/L	64919 ppb	06:44:00
3	Sc Radial	4531.3	4531.3	120 %		06:41:53
3	Y RADIAL	5874.2	5874.2	143.9 %		06:41:53
3	Al 396.153Radial†	39262.2	32894.6	39142 ug/L	39142 ppb	06:41:53
3	Ca 317.933Radial†	7612.4	6341.7	14208 ug/L	14208 ppb	06:41:53
3	Fe 238.204 Radial†	7743.9	6465.2	85467 ug/L	85467 ppb	06:41:53
3	K 766.490 Radial†	30382.6	22920.2	5053.6 ug/L	5053.6 ppb	06:41:53
3	Mg 279.077 IEC†	184.7	151.6	7080.9 ug/L	7080.9 ppb	06:42:13
3	Na 589.592 Radial†	8159.2	7207.1	2898.2 ug/L	2898.2 ppb	06:41:53
3	Sr 421.552†	11054.2	9201.7	83.432 ug/L	83.432 ppb	06:41:53
3	Sc 361.383	879406.1	879406.1	120.01 %		06:43:23
3	Y 371.029	863748.4	863748.4	142.90 %		06:43:23
3	Ag 328.068†	-4989.3	-4309.7	2.4011 ug/L	2.4011 ppb	06:43:28
3	As 188.979†	-21.4	4.5	46.267 ug/L	46.267 ppb	06:43:48
3	B 249.677†	539.5	784.6	9.6668 ug/L	9.6668 ppb	06:43:28
3	Ba 233.527†	50419.5	42011.8	443.20 ug/L	443.20 ppb	06:43:28
3	Be 313.107†	-8186.7	-2930.4	4.8040 ug/L	4.8040 ppb	06:43:28
3	Cd 226.502†	627.7	694.3	2.4472 ug/L	2.4472 ppb	06:43:48
3	Co 228.616†	938.6	828.9	17.074 ug/L	17.074 ppb	06:43:48
3	Cr 267.716†	7574.1	6216.4	104.49 ug/L	104.49 ppb	06:43:48
3	Cu 324.752†	1351576.6	1120546.1	4004.7 ug/L	4004.7 ppb	06:43:23
3	Mn 257.610†	1823691.7	1519249.0	2225.6 ug/L	2225.6 ppb	06:43:23
3	Mo 202.031†	104.3	70.2	13.890 ug/L	13.890 ppb	06:43:48
3	Ni 231.604†	2203.1	1753.3	62.891 ug/L	62.891 ppb	06:43:48
3	P 214.914†	2653.1	2022.3	780.97 ug/L	780.97 ppb	06:43:48
3	Pb 220.353†	2311.1	1974.9	336.03 ug/L	336.03 ppb	06:43:48
3	S 181.975 Axial†	313.4	234.0	447.78 ug/L	447.78 ppb	06:43:48
3	Sb 206.836†	62.0	26.0	1.4326 ug/L	1.4326 ppb	06:43:48
3	Se 196.026†	-455.3	-357.6	-83.779 ug/L	-83.779 ppb	06:43:48
3	Si 251.611†	886561.9	738312.6	30502 ug/L	30502 ppb	06:43:23
3	Sn 189.927†	-42.2	-48.8	-14.757 ug/L	-14.757 ppb	06:43:48
3	Ti 334.940†	1704785.8	1421635.1	2720.1 ug/L	2720.1 ppb	06:43:23
3	Tl 190.801†	-114.6	-73.2	1.2555 ug/L	1.2555 ppb	06:43:48
3	U 409.014†	-10390.1	-6824.1	-242.01 ug/L	-242.01 ppb	06:43:23
3	V 292.402†	14677.8	13611.5	106.64 ug/L	106.64 ppb	06:43:28
3	Zn 213.857†	165722.8	137436.3	1816.6 ug/L	1816.6 ppb	06:43:28
3	SiO2†	886149.1	737960.3	64950 ug/L	64950 ppb	06:44:06

Mean Data: 248045003|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	876717.0	119.64 %		0.708			0.59%
Sc Radial	4509.8	119 %		0.7			0.58%
Y 371.029	861607.0	142.55 %		0.754			0.53%
Y RADIAL	5826.2	142.7 %		1.03			0.72%
Ag 328.068†	-4318.9	2.2637 ug/L		0.54058	2.2637 ppb	0.54058	23.88%
Al 396.153Radial†	32870.5	39113 ug/L		68.3	39113 ppb	68.3	0.17%
As 188.979†	-3.7	41.221 ug/L		4.5233	41.221 ppb	4.5233	10.97%
B 249.677†	812.9	10.559 ug/L		0.9164	10.559 ppb	0.9164	8.68%
Ba 233.527†	41674.7	439.65 ug/L		3.524	439.65 ppb	3.524	0.80%
Be 313.107†	-2926.1	4.7997 ug/L		0.03450	4.7997 ppb	0.03450	0.72%
Ca 317.933Radial†	6347.1	14220 ug/L		28.5	14220 ppb	28.5	0.20%
Cd 226.502†	688.8	2.3852 ug/L		0.25231	2.3852 ppb	0.25231	10.58%
Co 228.616†	833.0	17.198 ug/L		0.5752	17.198 ppb	0.5752	3.34%
Cr 267.716†	6266.9	105.24 ug/L		1.316	105.24 ppb	1.316	1.25%
Cu 324.752†	1122662.9	4012.2 ug/L		6.64	4012.2 ppb	6.64	0.17%
Fe 238.204 Radial†	6446.3	85218 ug/L		382.4	85218 ppb	382.4	0.45%
K 766.490 Radial†	22923.9	5054.4 ug/L		3.47	5054.4 ppb	3.47	0.07%

Mg 279.077 IEC†	151.1	7057.8 ug/L	42.02	7057.8 ppb	42.02	0.60%
Mn 257.610†	1515769.0	2220.5 ug/L	4.66	2220.5 ppb	4.66	0.21%
Mo 202.031†	67.2	13.575 ug/L	0.4106	13.575 ppb	0.4106	3.02%
Na 589.592 Radial†	7215.1	2901.4 ug/L	9.97	2901.4 ppb	9.97	0.34%
Ni 231.604†	1768.5	63.435 ug/L	0.7347	63.435 ppb	0.7347	1.16%
P 214.914†	2033.7	788.83 ug/L	27.683	788.83 ppb	27.683	3.51%
Pb 220.353†	1985.4	337.86 ug/L	6.502	337.86 ppb	6.502	1.92%
S 181.975 Axial†	235.1	449.89 ug/L	22.370	449.89 ppb	22.370	4.97%
Sb 206.836†	18.5	-2.0821 ug/L	3.08438	-2.0821 ppb	3.08438	148.14%
Se 196.026†	-357.9	-84.669 ug/L	7.1008	-84.669 ppb	7.1008	8.39%
Si 251.611†	737824.8	30482 ug/L	23.6	30482 ppb	23.6	0.08%
Sn 189.927†	-54.0	-16.064 ug/L	1.4318	-16.064 ppb	1.4318	8.91%
Sr 421.552†	9182.7	83.260 ug/L	0.1848	83.260 ppb	0.1848	0.22%
Ti 334.940†	1420191.1	2717.3 ug/L	2.87	2717.3 ppb	2.87	0.11%
Tl 190.801†	-77.6	-0.6760 ug/L	3.29516	-0.6760 ppb	3.29516	487.48%
U 409.014†	-6706.5	-237.98 ug/L	4.105	-237.98 ppb	4.105	1.72%
V 292.402†	13479.4	105.49 ug/L	1.005	105.49 ppb	1.005	0.95%
Zn 213.857†	136274.5	1801.1 ug/L	14.41	1801.1 ppb	14.41	0.80%
Sio2†	738486.7	64996 ug/L	107.7	64996 ppb	107.7	0.17%

Sequence No.: 102

Sample ID: 248045004|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 3/27/2010 06:46:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045004|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4552.8	4552.8	120 %		06:48:11
1	Y RADIAL	5324.6	5324.6	130.4 %		06:48:11
1	Al 396.153Radial†	20437.1	17076.9	20320 ug/L	20320 ppb	06:48:11
1	Ca 317.933Radial†	8436.1	6997.1	15676 ug/L	15676 ppb	06:48:11
1	Fe 238.204 Radial†	5538.6	4599.8	60808 ug/L	60808 ppb	06:48:11
1	K 766.490 Radial†	55431.5	43641.6	9628.4 ug/L	9628.4 ppb	06:48:11
1	Mg 279.077 IEC†	212.1	173.6	8148.9 ug/L	8148.9 ppb	06:48:32
1	Na 589.592 Radial†	7592.1	6703.1	2695.5 ug/L	2695.5 ppb	06:48:11
1	Sr 421.552†	12550.7	10403.1	94.329 ug/L	94.329 ppb	06:48:11
1	Sc 361.383	875336.6	875336.6	119.45 %		06:49:29
1	Y 371.029	782772.6	782772.6	129.51 %		06:49:29
1	Ag 328.068†	-3540.2	-3115.9	1.4597 ug/L	1.4597 ppb	06:49:34
1	As 188.979†	-33.3	-5.6	31.362 ug/L	31.362 ppb	06:49:54
1	B 249.677†	233.7	530.6	6.0073 ug/L	6.0073 ppb	06:49:34
1	Ba 233.527†	37181.1	31124.3	328.32 ug/L	328.32 ppb	06:49:34
1	Be 313.107†	-14413.2	-8174.7	1.5644 ug/L	1.5644 ppb	06:49:34
1	Cd 226.502†	512.3	600.1	3.4945 ug/L	3.4945 ppb	06:49:54
1	Co 228.616†	1237.8	1082.9	25.386 ug/L	25.386 ppb	06:49:54
1	Cr 267.716†	8808.0	7278.7	118.11 ug/L	118.11 ppb	06:49:34
1	Cu 324.752†	110546.6	86829.3	313.26 ug/L	313.26 ppb	06:49:34
1	Mn 257.610†	1141243.3	954989.0	1399.5 ug/L	1399.5 ppb	06:49:29
1	Mo 202.031†	37.5	14.6	6.3832 ug/L	6.3832 ppb	06:49:54
1	Ni 231.604†	2967.7	2401.9	86.158 ug/L	86.158 ppb	06:49:54
1	P 214.914†	6863.8	5557.7	4386.8 ug/L	4386.8 ppb	06:49:54
1	Pb 220.353†	3739.8	3179.9	545.94 ug/L	545.94 ppb	06:49:54
1	S 181.975 Axial†	421.8	326.0	630.15 ug/L	630.15 ppb	06:49:54
1	Sb 206.836†	39.0	7.0	-5.4575 ug/L	-5.4575 ppb	06:49:54
1	Se 196.026†	-342.5	-265.0	-71.185 ug/L	-71.185 ppb	06:49:54
1	Si 251.611†	521813.3	436390.7	18029 ug/L	18029 ppb	06:49:29
1	Sn 189.927†	-9.7	-21.8	-6.2285 ug/L	-6.2285 ppb	06:49:54
1	Ti 334.940†	1479215.8	1239399.3	2371.6 ug/L	2371.6 ppb	06:49:29
1	Tl 190.801†	-96.6	-58.6	0.6884 ug/L	0.6884 ppb	06:49:54
1	U 409.014†	-7471.8	-4421.2	-157.52 ug/L	-157.52 ppb	06:49:29
1	V 292.402†	13925.5	13038.6	105.55 ug/L	105.55 ppb	06:49:34
1	Zn 213.857†	61456.8	50789.9	668.13 ug/L	668.13 ppb	06:49:34
1	SiO2†	506953.4	423942.1	37312 ug/L	37312 ppb	06:51:02
2	Sc Radial	4552.0	4552.0	120 %		06:48:37
2	Y RADIAL	5371.4	5371.4	131.6 %		06:48:37
2	Al 396.153Radial†	20514.7	17144.5	20401 ug/L	20401 ppb	06:48:37
2	Ca 317.933Radial†	8461.0	7019.0	15725 ug/L	15725 ppb	06:48:37
2	Fe 238.204 Radial†	5582.6	4637.2	61302 ug/L	61302 ppb	06:48:37
2	K 766.490 Radial†	55650.1	43831.4	9670.2 ug/L	9670.2 ppb	06:48:37
2	Mg 279.077 IEC†	209.5	171.5	8047.6 ug/L	8047.6 ppb	06:48:57
2	Na 589.592 Radial†	7660.2	6760.9	2718.7 ug/L	2718.7 ppb	06:48:37
2	Sr 421.552†	12594.8	10441.7	94.679 ug/L	94.679 ppb	06:48:37
2	Sc 361.383	886310.2	886310.2	120.95 %		06:50:00
2	Y 371.029	790831.9	790831.9	130.84 %		06:50:00
2	Ag 328.068†	-3563.0	-3098.1	1.7164 ug/L	1.7164 ppb	06:50:05
2	As 188.979†	-32.5	-4.6	32.143 ug/L	32.143 ppb	06:50:25
2	B 249.677†	270.5	558.6	6.7707 ug/L	6.7707 ppb	06:50:05
2	Ba 233.527†	38176.4	31561.8	332.93 ug/L	332.93 ppb	06:50:05
2	Be 313.107†	-14651.0	-8221.9	1.5519 ug/L	1.5519 ppb	06:50:05
2	Cd 226.502†	493.2	578.9	3.0999 ug/L	3.0999 ppb	06:50:25
2	Co 228.616†	1245.3	1076.3	25.183 ug/L	25.183 ppb	06:50:25
2	Cr 267.716†	8985.0	7333.7	119.00 ug/L	119.00 ppb	06:50:05
2	Cu 324.752†	114143.0	88657.0	319.81 ug/L	319.81 ppb	06:50:05
2	Mn 257.610†	1157298.1	956433.9	1401.7 ug/L	1401.7 ppb	06:50:00
2	Mo 202.031†	47.0	22.1	7.1789 ug/L	7.1789 ppb	06:50:25
2	Ni 231.604†	2911.2	2324.5	83.379 ug/L	83.379 ppb	06:50:25

2	P 214.914†	6782.8	5419.6	4273.5 ug/L	4273.5 ppb	06:50:25
2	Pb 220.353†	3711.1	3117.4	535.07 ug/L	535.07 ppb	06:50:25
2	S 181.975 Axial†	417.5	318.1	614.72 ug/L	614.72 ppb	06:50:25
2	Sb 206.836†	48.8	14.7	-1.8629 ug/L	-1.8629 ppb	06:50:25
2	Se 196.026†	-329.4	-250.6	-56.915 ug/L	-56.915 ppb	06:50:25
2	Si 251.611†	529684.3	437489.7	18074 ug/L	18074 ppb	06:50:00
2	Sn 189.927†	-4.4	-17.3	-5.1124 ug/L	-5.1124 ppb	06:50:25
2	Ti 334.940†	1500417.6	1241596.6	2375.8 ug/L	2375.8 ppb	06:50:00
2	Tl 190.801†	-103.8	-63.6	-1.3919 ug/L	-1.3919 ppb	06:50:25
2	U 409.014†	-7340.3	-4235.0	-151.25 ug/L	-151.25 ppb	06:50:00
2	V 292.402†	14373.7	13264.8	107.52 ug/L	107.52 ppb	06:50:05
2	Zn 213.857†	63353.8	51721.4	680.50 ug/L	680.50 ppb	06:50:05
2	SiO2†	517707.0	427578.6	37632 ug/L	37632 ppb	06:51:08
3	Sc Radial	4511.1	4511.1	119 %		06:49:02
3	Y RADIAL	5317.6	5317.6	130.2 %		06:49:02
3	Al 396.153Radial†	20408.2	17209.8	20478 ug/L	20478 ppb	06:49:02
3	Ca 317.933Radial†	8421.5	7049.7	15794 ug/L	15794 ppb	06:49:02
3	Fe 238.204 Radial†	5522.3	4628.7	61190 ug/L	61190 ppb	06:49:02
3	K 766.490 Radial†	55248.1	43913.9	9688.4 ug/L	9688.4 ppb	06:49:02
3	Mg 279.077 IEC†	212.4	175.6	8240.2 ug/L	8240.2 ppb	06:49:22
3	Na 589.592 Radial†	7679.4	6834.8	2748.5 ug/L	2748.5 ppb	06:49:02
3	Sr 421.552†	12565.2	10511.9	95.315 ug/L	95.315 ppb	06:49:02
3	Sc 361.383	842867.4	842867.4	115.02 %		06:50:31
3	Y 371.029	754030.4	754030.4	124.75 %		06:50:31
3	Ag 328.068†	-3469.9	-3169.0	1.2879 ug/L	1.2879 ppb	06:50:36
3	As 188.979†	-39.4	-11.9	27.960 ug/L	27.960 ppb	06:50:56
3	B 249.677†	286.4	584.0	7.5507 ug/L	7.5507 ppb	06:50:36
3	Ba 233.527†	36674.5	31883.0	336.29 ug/L	336.29 ppb	06:50:36
3	Be 313.107†	-14088.7	-8357.4	1.5671 ug/L	1.5671 ppb	06:50:36
3	Cd 226.502†	513.8	617.9	3.7448 ug/L	3.7448 ppb	06:50:56
3	Co 228.616†	1201.3	1091.2	25.538 ug/L	25.538 ppb	06:50:56
3	Cr 267.716†	8722.7	7488.6	121.37 ug/L	121.37 ppb	06:50:36
3	Cu 324.752†	109166.5	89194.5	321.72 ug/L	321.72 ppb	06:50:36
3	Mn 257.610†	1120125.9	973433.9	1426.5 ug/L	1426.5 ppb	06:50:31
3	Mo 202.031†	36.4	14.9	6.4428 ug/L	6.4428 ppb	06:50:56
3	Ni 231.604†	2892.8	2432.5	87.256 ug/L	87.256 ppb	06:50:56
3	P 214.914†	6672.6	5612.8	4429.4 ug/L	4429.4 ppb	06:50:56
3	Pb 220.353†	3667.4	3237.6	555.89 ug/L	555.89 ppb	06:50:56
3	S 181.975 Axial†	418.3	336.5	650.60 ug/L	650.60 ppb	06:50:56
3	Sb 206.836†	39.8	9.0	-4.6503 ug/L	-4.6503 ppb	06:50:56
3	Se 196.026†	-313.3	-250.6	-57.215 ug/L	-57.215 ppb	06:50:56
3	Si 251.611†	510677.6	443537.4	18324 ug/L	18324 ppb	06:50:31
3	Sn 189.927†	-7.8	-20.4	-5.8836 ug/L	-5.8836 ppb	06:50:56
3	Ti 334.940†	1447684.4	1259689.5	2410.4 ug/L	2410.4 ppb	06:50:31
3	Tl 190.801†	-107.1	-70.9	-4.1420 ug/L	-4.1420 ppb	06:50:56
3	U 409.014†	-7299.3	-4512.1	-160.66 ug/L	-160.66 ppb	06:50:31
3	V 292.402†	13760.3	13344.1	108.19 ug/L	108.19 ppb	06:50:36
3	Zn 213.857†	60786.3	52189.0	686.73 ug/L	686.73 ppb	06:50:36
3	SiO2†	521496.0	452934.9	39864 ug/L	39864 ppb	06:51:13

Mean Data: 248045004|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	868171.4	118.47 %		3.083			2.60%
Sc Radial	4538.6	120 %		0.6			0.53%
Y 371.029	775878.3	128.37 %		3.201			2.49%
Y RADIAL	5337.9	130.7 %		0.72			0.55%
Ag 328.068†	-3127.7	1.4880 ug/L		0.21565	1.4880 ppb	0.21565	14.49%
Al 396.153Radial†	17143.8	20400 ug/L		79.1	20400 ppb	79.1	0.39%
As 188.979†	-7.4	30.488 ug/L		2.2240	30.488 ppb	2.2240	7.29%
B 249.677†	557.7	6.7762 ug/L		0.77173	6.7762 ppb	0.77173	11.39%
Ba 233.527†	31523.0	332.51 ug/L		4.001	332.51 ppb	4.001	1.20%
Be 313.107†	-8251.3	1.5611 ug/L		0.00814	1.5611 ppb	0.00814	0.52%
Ca 317.933Radial†	7021.9	15732 ug/L		59.2	15732 ppb	59.2	0.38%
Cd 226.502†	599.0	3.4464 ug/L		0.32511	3.4464 ppb	0.32511	9.43%
Co 228.616†	1083.5	25.369 ug/L		0.1782	25.369 ppb	0.1782	0.70%
Cr 267.716†	7367.0	119.49 ug/L		1.684	119.49 ppb	1.684	1.41%
Cu 324.752†	88227.0	318.26 ug/L		4.438	318.26 ppb	4.438	1.39%
Fe 238.204 Radial†	4621.9	61100 ug/L		259.0	61100 ppb	259.0	0.42%
K 766.490 Radial†	43795.6	9662.3 ug/L		30.80	9662.3 ppb	30.80	0.32%

Mg 279.077 IEC†	173.6	8145.6 ug/L	96.30	8145.6 ppb	96.30	1.18%
Mn 257.610†	961618.9	1409.2 ug/L	14.98	1409.2 ppb	14.98	1.06%
Mo 202.031†	17.2	6.6683 ug/L	0.44318	6.6683 ppb	0.44318	6.65%
Na 589.592 Radial†	6766.3	2720.9 ug/L	26.54	2720.9 ppb	26.54	0.98%
Ni 231.604†	2386.3	85.598 ug/L	1.9983	85.598 ppb	1.9983	2.33%
P 214.914†	5530.0	4363.3 ug/L	80.58	4363.3 ppb	80.58	1.85%
Pb 220.353†	3178.3	545.63 ug/L	10.413	545.63 ppb	10.413	1.91%
S 181.975 Axial†	326.9	631.82 ug/L	17.999	631.82 ppb	17.999	2.85%
Sb 206.836†	10.3	-3.9902 ug/L	1.88605	-3.9902 ppb	1.88605	47.27%
Se 196.026†	-255.4	-61.772 ug/L	8.1537	-61.772 ppb	8.1537	13.20%
Si 251.611†	439139.3	18142 ug/L	159.0	18142 ppb	159.0	0.88%
Sn 189.927†	-19.8	-5.7415 ug/L	0.57146	-5.7415 ppb	0.57146	9.95%
Sr 421.552†	10452.2	94.774 ug/L	0.5000	94.774 ppb	0.5000	0.53%
Ti 334.940†	1246895.2	2386.0 ug/L	21.30	2386.0 ppb	21.30	0.89%
Tl 190.801†	-64.3	-1.6152 ug/L	2.42295	-1.6152 ppb	2.42295	150.01%
U 409.014†	-4389.4	-156.48 ug/L	4.794	-156.48 ppb	4.794	3.06%
V 292.402†	13215.8	107.09 ug/L	1.374	107.09 ppb	1.374	1.28%
Zn 213.857†	51566.8	678.46 ug/L	9.470	678.46 ppb	9.470	1.40%
SiO2†	434818.5	38270 ug/L	1390.1	38270 ppb	1390.1	3.63%

Sequence No.: 103

Sample ID: 248045005|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 106

Date Collected: 3/27/2010 06:53:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045005|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4704.3	4704.3	124 %		06:55:19
1	Y RADIAL	5601.3	5601.3	137.2 %		06:55:19
1	Al 396.153Radial†	36545.5	29500.5	35103 ug/L	35103 ppb	06:55:19
1	Ca 317.933Radial†	27432.9	22068.0	49441 ug/L	49441 ppb	06:55:19
1	Fe 238.204 Radial†	4873.1	3915.5	51762 ug/L	51762 ppb	06:55:19
1	K 766.490 Radial†	65689.2	50416.5	11113 ug/L	11113 ppb	06:55:19
1	Mg 279.077 IEC†	280.1	222.8	10481 ug/L	10481 ppb	06:55:39
1	Na 589.592 Radial†	2083.0	2063.6	829.84 ug/L	829.84 ppb	06:55:19
1	Sr 421.552†	47763.8	38421.7	348.45 ug/L	348.45 ppb	06:55:19
1	Sc 361.383	888226.0	888226.0	121.21 %		06:56:36
1	Y 371.029	798817.8	798817.8	132.16 %		06:56:36
1	Ag 328.068†	-2348.0	-2089.3	3.8824 ug/L	3.8824 ppb	06:56:42
1	As 188.979†	-12.8	11.7	32.160 ug/L	32.160 ppb	06:57:02
1	B 249.677†	3359.7	3106.8	85.053 ug/L	85.053 ppb	06:56:42
1	Ba 233.527†	106462.4	87831.2	922.32 ug/L	922.32 ppb	06:56:42
1	Be 313.107†	-1712.8	2478.5	4.5444 ug/L	4.5444 ppb	06:56:42
1	Cd 226.502†	394.9	497.0	2.7527 ug/L	2.7527 ppb	06:57:02
1	Co 228.616†	721.8	642.2	14.982 ug/L	14.982 ppb	06:57:02
1	Cr 267.716†	9293.1	7572.0	121.58 ug/L	121.58 ppb	06:56:42
1	Cu 324.752†	40007.7	27290.3	100.22 ug/L	100.22 ppb	06:56:42
1	Mn 257.610†	3307004.4	2727923.7	3986.2 ug/L	3986.2 ppb	06:56:36
1	Mo 202.031†	72.6	43.2	8.9638 ug/L	8.9638 ppb	06:57:02
1	Ni 231.604†	2539.1	2012.3	72.186 ug/L	72.186 ppb	06:57:02
1	P 214.914†	3253.8	2496.0	1964.8 ug/L	1964.8 ppb	06:57:02
1	Pb 220.353†	982.4	859.6	149.74 ug/L	149.74 ppb	06:57:02
1	S 181.975 Axial†	1157.2	927.6	1797.2 ug/L	1797.2 ppb	06:57:02
1	Sb 206.836†	52.3	17.6	1.4226 ug/L	1.4226 ppb	06:57:02
1	Se 196.026†	-281.7	-210.7	-42.299 ug/L	-42.299 ppb	06:57:02
1	Si 251.611†	833061.2	686837.5	28375 ug/L	28375 ppb	06:56:36
1	Sn 189.927†	-185.8	-167.0	-36.514 ug/L	-36.514 ppb	06:57:02
1	Ti 334.940†	944406.5	780199.9	1497.8 ug/L	1497.8 ppb	06:56:36
1	Tl 190.801†	-131.0	-85.8	-5.8294 ug/L	-5.8294 ppb	06:57:02
1	U 409.014†	-6230.9	-3306.6	-118.60 ug/L	-118.60 ppb	06:56:42
1	V 292.402†	9760.2	9432.9	75.579 ug/L	75.579 ppb	06:56:42
1	Zn 213.857†	35012.8	28226.5	368.57 ug/L	368.57 ppb	06:56:42
1	SiO2†	838570.6	691374.7	60850 ug/L	60850 ppb	06:58:10
2	Sc Radial	4495.6	4495.6	119 %		06:55:44
2	Y RADIAL	5357.4	5357.4	131.2 %		06:55:44
2	Al 396.153Radial†	34965.7	29535.2	35145 ug/L	35145 ppb	06:55:44
2	Ca 317.933Radial†	26152.3	22014.2	49320 ug/L	49320 ppb	06:55:44
2	Fe 238.204 Radial†	4653.6	3912.7	51725 ug/L	51725 ppb	06:55:44
2	K 766.490 Radial†	62806.4	50442.6	11118 ug/L	11118 ppb	06:55:44
2	Mg 279.077 IEC†	282.4	235.2	11068 ug/L	11068 ppb	06:56:04
2	Na 589.592 Radial†	1829.2	1927.6	775.14 ug/L	775.14 ppb	06:55:44
2	Sr 421.552†	45455.6	38262.0	347.00 ug/L	347.00 ppb	06:55:44
2	Sc 361.383	867503.5	867503.5	118.38 %		06:57:07
2	Y 371.029	780623.4	780623.4	129.15 %		06:57:07
2	Ag 328.068†	-2557.4	-2312.4	2.6156 ug/L	2.6156 ppb	06:57:13
2	As 188.979†	-10.4	13.5	33.266 ug/L	33.266 ppb	06:57:33
2	B 249.677†	3404.0	3210.4	88.174 ug/L	88.174 ppb	06:57:13
2	Ba 233.527†	107874.7	91122.3	956.82 ug/L	956.82 ppb	06:57:13
2	Be 313.107†	-1718.8	2439.7	4.5306 ug/L	4.5306 ppb	06:57:13
2	Cd 226.502†	391.6	502.0	2.8385 ug/L	2.8385 ppb	06:57:33
2	Co 228.616†	737.9	670.1	15.795 ug/L	15.795 ppb	06:57:33
2	Cr 267.716†	9420.8	7862.9	126.03 ug/L	126.03 ppb	06:57:13
2	Cu 324.752†	40405.8	28415.0	104.23 ug/L	104.23 ppb	06:57:13
2	Mn 257.610†	3244598.2	2740380.9	4004.4 ug/L	4004.4 ppb	06:57:07
2	Mo 202.031†	72.4	44.4	9.0839 ug/L	9.0839 ppb	06:57:33
2	Ni 231.604†	2532.2	2056.5	73.772 ug/L	73.772 ppb	06:57:33



2	P 214.914†	3246.9	2554.3	2011.2 ug/L	2011.2 ppb	06:57:33
2	Pb 220.353†	974.2	872.0	151.90 ug/L	151.90 ppb	06:57:33
2	S 181.975 Axial†	1153.0	946.9	1834.7 ug/L	1834.7 ppb	06:57:33
2	Sb 206.836†	41.4	9.4	-2.3952 ug/L	-2.3952 ppb	06:57:33
2	Se 196.026†	-276.5	-211.9	-43.420 ug/L	-43.420 ppb	06:57:33
2	Si 251.611†	815896.9	688756.2	28454 ug/L	28454 ppb	06:57:07
2	Sn 189.927†	-190.4	-174.5	-38.449 ug/L	-38.449 ppb	06:57:33
2	Ti 334.940†	923537.1	781183.0	1499.6 ug/L	1499.6 ppb	06:57:07
2	Tl 190.801†	-139.9	-95.9	-10.081 ug/L	-10.081 ppb	06:57:33
2	U 409.014†	-6106.6	-3324.4	-119.21 ug/L	-119.21 ppb	06:57:13
2	V 292.402†	9931.5	9770.1	78.619 ug/L	78.619 ppb	06:57:13
2	Zn 213.857†	35391.4	29236.3	382.04 ug/L	382.04 ppb	06:57:13
2	SiO2†	828531.7	699420.9	61558 ug/L	61558 ppb	06:58:15
3	Sc Radial	4658.6	4658.6	123 %		06:56:09
3	Y RADIAL	5499.6	5499.6	134.7 %		06:56:09
3	Al 396.153Radial†	36463.1	29721.7	35367 ug/L	35367 ppb	06:56:09
3	Ca 317.933Radial†	27222.0	22112.8	49541 ug/L	49541 ppb	06:56:09
3	Fe 238.204 Radial†	4829.7	3918.6	51803 ug/L	51803 ppb	06:56:09
3	K 766.490 Radial†	65356.8	50664.4	11167 ug/L	11167 ppb	06:56:09
3	Mg 279.077 IEC†	279.4	224.4	10558 ug/L	10558 ppb	06:56:29
3	Na 589.592 Radial†	1956.9	1977.5	795.22 ug/L	795.22 ppb	06:56:09
3	Sr 421.552†	47555.1	38628.8	350.33 ug/L	350.33 ppb	06:56:09
3	Sc 361.383	878096.7	878096.7	119.83 %		06:57:39
3	Y 371.029	788571.6	788571.6	130.47 %		06:57:39
3	Ag 328.068†	-2263.3	-2041.0	4.1717 ug/L	4.1717 ppb	06:57:44
3	As 188.979†	-3.7	19.2	36.668 ug/L	36.668 ppb	06:58:04
3	B 249.677†	3394.6	3167.9	86.884 ug/L	86.884 ppb	06:57:44
3	Ba 233.527†	105089.0	87698.3	920.93 ug/L	920.93 ppb	06:57:44
3	Be 313.107†	-1635.3	2526.9	4.5564 ug/L	4.5564 ppb	06:57:44
3	Cd 226.502†	406.8	510.7	2.9704 ug/L	2.9704 ppb	06:58:04
3	Co 228.616†	707.4	637.1	14.844 ug/L	14.844 ppb	06:58:04
3	Cr 267.716†	9225.5	7604.0	122.07 ug/L	122.07 ppb	06:57:44
3	Cu 324.752†	39510.1	27255.7	100.10 ug/L	100.10 ppb	06:57:44
3	Mn 257.610†	3263251.5	2722883.2	3978.8 ug/L	3978.8 ppb	06:57:39
3	Mo 202.031†	72.6	43.8	9.0361 ug/L	9.0361 ppb	06:58:04
3	Ni 231.604†	2518.7	2019.4	72.441 ug/L	72.441 ppb	06:58:04
3	P 214.914†	3223.6	2501.8	1969.6 ug/L	1969.6 ppb	06:58:04
3	Pb 220.353†	973.8	861.8	150.17 ug/L	150.17 ppb	06:58:04
3	S 181.975 Axial†	1142.4	926.3	1794.6 ug/L	1794.6 ppb	06:58:04
3	Sb 206.836†	53.5	19.0	2.1515 ug/L	2.1515 ppb	06:58:04
3	Se 196.026†	-267.8	-201.7	-34.029 ug/L	-34.029 ppb	06:58:04
3	Si 251.611†	822177.2	685682.7	28327 ug/L	28327 ppb	06:57:39
3	Sn 189.927†	-175.5	-160.1	-34.762 ug/L	-34.762 ppb	06:58:04
3	Ti 334.940†	930700.6	777749.8	1493.1 ug/L	1493.1 ppb	06:57:39
3	Tl 190.801†	-142.7	-96.8	-10.664 ug/L	-10.664 ppb	06:58:04
3	U 409.014†	-6230.6	-3365.6	-120.61 ug/L	-120.61 ppb	06:57:44
3	V 292.402†	9700.1	9475.7	75.960 ug/L	75.960 ppb	06:57:44
3	Zn 213.857†	34519.0	28147.6	367.51 ug/L	367.51 ppb	06:57:44
3	SiO2†	829240.5	691569.1	60867 ug/L	60867 ppb	06:58:21

Mean Data: 248045005|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	877942.0	119.81	%	1.414			1.18%
Sc Radial	4619.5	122	%	2.9			2.37%
Y 371.029	789337.6	130.59	%	1.509			1.16%
Y RADIAL	5486.1	134.4	%	3.00			2.23%
Ag 328.068†	-2147.6	3.5566	ug/L	0.82762	3.5566 ppb	0.82762	23.27%
Al 396.153Radial†	29585.8	35205	ug/L	141.6	35205 ppb	141.6	0.40%
As 188.979†	14.8	34.032	ug/L	2.3495	34.032 ppb	2.3495	6.90%
B 249.677†	3161.7	86.703	ug/L	1.5683	86.703 ppb	1.5683	1.81%
Ba 233.527†	88883.9	933.36	ug/L	20.332	933.36 ppb	20.332	2.18%
Be 313.107†	2481.7	4.5438	ug/L	0.01290	4.5438 ppb	0.01290	0.28%
Ca 317.933Radial†	22065.0	49434	ug/L	110.6	49434 ppb	110.6	0.22%
Cd 226.502†	503.2	2.8538	ug/L	0.10964	2.8538 ppb	0.10964	3.84%
Co 228.616†	649.8	15.207	ug/L	0.5137	15.207 ppb	0.5137	3.38%
Cr 267.716†	7679.6	123.23	ug/L	2.442	123.23 ppb	2.442	1.98%
Cu 324.752†	27653.7	101.52	ug/L	2.352	101.52 ppb	2.352	2.32%
Fe 238.204 Radial†	3915.6	51763	ug/L	39.1	51763 ppb	39.1	0.08%
K 766.490 Radial†	50507.9	11133	ug/L	30.1	11133 ppb	30.1	0.27%

Mg 279.077 IEC†	227.4	10702 ug/L	318.9	10702 ppb	318.9	2.98%
Mn 257.610†	2730396.0	3989.8 ug/L	13.13	3989.8 ppb	13.13	0.33%
Mo 202.031†	43.8	9.0280 ug/L	0.06046	9.0280 ppb	0.06046	0.67%
Na 589.592 Radial†	1989.6	800.07 ug/L	27.670	800.07 ppb	27.670	3.46%
Ni 231.604†	2029.4	72.800 ug/L	0.8518	72.800 ppb	0.8518	1.17%
P 214.914†	2517.4	1981.9 ug/L	25.53	1981.9 ppb	25.53	1.29%
Pb 220.353†	864.5	150.60 ug/L	1.144	150.60 ppb	1.144	0.76%
S 181.975 Axial†	933.6	1808.8 ug/L	22.46	1808.8 ppb	22.46	1.24%
Sb 206.836†	15.3	0.3930 ug/L	2.44195	0.3930 ppb	2.44195	621.39%
Se 196.026†	-208.1	-39.916 ug/L	5.1287	-39.916 ppb	5.1287	12.85%
Si 251.611†	687092.1	28386 ug/L	64.1	28386 ppb	64.1	0.23%
Sn 189.927†	-167.2	-36.575 ug/L	1.8443	-36.575 ppb	1.8443	5.04%
Sr 421.552†	38437.5	348.59 ug/L	1.669	348.59 ppb	1.669	0.48%
Ti 334.940†	779710.9	1496.8 ug/L	3.35	1496.8 ppb	3.35	0.22%
Tl 190.801†	-92.8	-8.8580 ug/L	2.63898	-8.8580 ppb	2.63898	29.79%
U 409.014†	-3332.2	-119.48 ug/L	1.032	-119.48 ppb	1.032	0.86%
V 292.402†	9559.6	76.720 ug/L	1.6563	76.720 ppb	1.6563	2.16%
Zn 213.857†	28536.8	372.71 ug/L	8.103	372.71 ppb	8.103	2.17%
SiO2†	694121.5	61092 ug/L	404.0	61092 ppb	404.0	0.66%

Sequence No.: 104

Sample ID: 248045006|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 107

Date Collected: 3/27/2010 07:00:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045006|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc Radial	4642.8	4642.8	123 %			07:02:26
1	Y RADIAL	6357.9	6357.9	155.7 %			07:02:26
1	Al 396.153Radial†	12863.7	10568.2	12575 ug/L		12575 ppb	07:02:26
1	Ca 317.933Radial†	2622.4	2117.6	4744.3 ug/L		4744.3 ppb	07:02:46
1	Fe 238.204 Radial†	6919.6	5637.2	74522 ug/L		74522 ppb	07:02:26
1	K 766.490 Radial†	25010.9	17927.7	3955.0 ug/L		3955.0 ppb	07:02:26
1	Mg 279.077 IEC†	94.0	73.9	3416.7 ug/L		3416.7 ppb	07:02:46
1	Na 589.592 Radial†	4042.3	3684.4	1481.6 ug/L		1481.6 ppb	07:02:26
1	Sr 421.552†	3649.2	2938.1	26.638 ug/L		26.638 ppb	07:02:26
1	Sc 361.383	843814.4	843814.4	115.15 %			07:03:43
1	Y 371.029	897378.3	897378.3	148.47 %			07:03:43
1	Ag 328.068†	-4491.0	-4052.3	0.4519 ug/L		0.4519 ppb	07:03:48
1	As 188.979†	-29.5	-3.3	36.275 ug/L		36.275 ppb	07:04:09
1	B 249.677†	159.0	473.1	2.0570 ug/L		2.0570 ppb	07:03:48
1	Ba 233.527†	33410.7	29012.8	306.54 ug/L		306.54 ppb	07:03:48
1	Be 313.107†	-11717.2	-6284.1	2.5271 ug/L		2.5271 ppb	07:03:48
1	Cd 226.502†	667.6	750.9	4.7083 ug/L		4.7083 ppb	07:04:09
1	Co 228.616†	1075.1	980.4	21.902 ug/L		21.902 ppb	07:04:09
1	Cr 267.716†	53229.0	46131.4	714.38 ug/L		714.38 ppb	07:03:48
1	Cu 324.752†	82628.1	66040.9	239.81 ug/L		239.81 ppb	07:03:48
1	Mn 257.610†	1828707.0	1587703.8	2324.5 ug/L		2324.5 ppb	07:03:43
1	Mo 202.031†	83.8	56.0	11.501 ug/L		11.501 ppb	07:04:09
1	Ni 231.604†	12592.7	10853.5	389.39 ug/L		389.39 ppb	07:03:48
1	P 214.914†	1732.6	1316.3	960.83 ug/L		960.83 ppb	07:04:09
1	Pb 220.353†	1280.8	1161.4	193.02 ug/L		193.02 ppb	07:04:09
1	S 181.975 Axial†	225.6	168.8	325.98 ug/L		325.98 ppb	07:04:09
1	Sb 206.836†	67.8	33.3	7.9907 ug/L		7.9907 ppb	07:04:09
1	Se 196.026†	-413.9	-337.7	-102.30 ug/L		-102.30 ppb	07:04:09
1	Si 251.611†	495307.9	429691.4	17752 ug/L		17752 ppb	07:03:43
1	Sn 189.927†	306.8	252.8	60.657 ug/L		60.657 ppb	07:04:09
1	Ti 334.940†	1447186.1	1257844.2	2405.6 ug/L		2405.6 ppb	07:03:43
1	Tl 190.801†	-94.8	-60.1	4.8533 ug/L		4.8533 ppb	07:04:09
1	U 409.014†	-9616.7	-6517.6	-231.70 ug/L		-231.70 ppb	07:03:43
1	V 292.402†	9367.8	9516.0	71.498 ug/L		71.498 ppb	07:03:48
1	Zn 213.857†	62156.3	53319.4	698.02 ug/L		698.02 ppb	07:03:48
1	SiO2†	480050.7	416433.1	36651 ug/L		36651 ppb	07:05:17
2	Sc Radial	4585.9	4585.9	121 %			07:02:51
2	Y RADIAL	6293.5	6293.5	154.1 %			07:02:51
2	Al 396.153Radial†	12709.7	10571.2	12579 ug/L		12579 ppb	07:02:51
2	Ca 317.933Radial†	2591.8	2118.9	4747.1 ug/L		4747.1 ppb	07:03:11
2	Fe 238.204 Radial†	6859.7	5657.8	74793 ug/L		74793 ppb	07:02:51
2	K 766.490 Radial†	24741.2	17958.0	3961.8 ug/L		3961.8 ppb	07:02:51
2	Mg 279.077 IEC†	96.8	77.1	3570.5 ug/L		3570.5 ppb	07:03:11
2	Na 589.592 Radial†	3980.5	3674.3	1477.5 ug/L		1477.5 ppb	07:02:51
2	Sr 421.552†	3590.7	2926.7	26.535 ug/L		26.535 ppb	07:02:51
2	Sc 361.383	882348.5	882348.5	120.41 %			07:04:14
2	Y 371.029	921572.1	921572.1	152.47 %			07:04:14
2	Ag 328.068†	-4377.1	-3787.4	2.0193 ug/L		2.0193 ppb	07:04:20
2	As 188.979†	-30.3	-2.9	35.193 ug/L		35.193 ppb	07:04:40
2	B 249.677†	159.5	467.4	1.8463 ug/L		1.8463 ppb	07:04:20
2	Ba 233.527†	33405.8	27741.5	293.22 ug/L		293.22 ppb	07:04:20
2	Be 313.107†	-11713.3	-5836.5	2.3701 ug/L		2.3701 ppb	07:04:20
2	Cd 226.502†	663.4	722.1	4.2033 ug/L		4.2033 ppb	07:04:40
2	Co 228.616†	1063.3	929.8	20.786 ug/L		20.786 ppb	07:04:40
2	Cr 267.716†	53092.6	43999.3	681.76 ug/L		681.76 ppb	07:04:20
2	Cu 324.752†	82833.0	63077.2	229.24 ug/L		229.24 ppb	07:04:20
2	Mn 257.610†	1786400.1	1483210.1	2172.0 ug/L		2172.0 ppb	07:04:14
2	Mo 202.031†	69.7	41.1	10.018 ug/L		10.018 ppb	07:04:40
2	Ni 231.604†	12564.7	10352.7	371.42 ug/L		371.42 ppb	07:04:20

2	P 214.914†	1702.2	1225.3	889.11 ug/L	889.11 ppb	07:04:40
2	Pb 220.353†	1259.6	1095.2	181.52 ug/L	181.52 ppb	07:04:40
2	S 181.975 Axial†	215.2	151.6	292.52 ug/L	292.52 ppb	07:04:40
2	Sb 206.836†	76.3	37.8	10.461 ug/L	10.461 ppb	07:04:40
2	Se 196.026†	-409.9	-318.7	-84.507 ug/L	-84.507 ppb	07:04:40
2	Si 251.611†	484879.4	402244.9	16618 ug/L	16618 ppb	07:04:14
2	Sn 189.927†	293.0	229.7	54.774 ug/L	54.774 ppb	07:04:40
2	Ti 334.940†	1411770.6	1173543.8	2244.4 ug/L	2244.4 ppb	07:04:14
2	Tl 190.801†	-100.8	-61.5	2.1884 ug/L	2.1884 ppb	07:04:40
2	U 409.014†	-9469.1	-6030.2	-215.09 ug/L	-215.09 ppb	07:04:14
2	V 292.402†	9451.6	9230.3	69.090 ug/L	69.090 ppb	07:04:20
2	Zn 213.857†	62077.8	50896.8	665.76 ug/L	665.76 ppb	07:04:20
2	SiO2†	484027.1	401528.7	35340 ug/L	35340 ppb	07:05:22
3	Sc Radial	4556.3	4556.3	120 %		07:03:16
3	Y RADIAL	6207.3	6207.3	152.0 %		07:03:16
3	Al 396.153Radial†	12644.1	10585.0	12595 ug/L	12595 ppb	07:03:16
3	Ca 317.933Radial†	2625.1	2160.5	4840.4 ug/L	4840.4 ppb	07:03:36
3	Fe 238.204 Radial†	6803.1	5647.5	74658 ug/L	74658 ppb	07:03:16
3	K 766.490 Radial†	24648.8	18014.2	3974.1 ug/L	3974.1 ppb	07:03:16
3	Mg 279.077 IEC†	98.6	79.2	3667.0 ug/L	3667.0 ppb	07:03:36
3	Na 589.592 Radial†	3894.4	3624.1	1457.4 ug/L	1457.4 ppb	07:03:16
3	Sr 421.552†	3524.6	2891.1	26.211 ug/L	26.211 ppb	07:03:16
3	Sc 361.383	845500.1	845500.1	115.38 %		07:04:46
3	Y 371.029	892290.5	892290.5	147.63 %		07:04:46
3	Ag 328.068†	-4395.7	-3962.0	1.0023 ug/L	1.0023 ppb	07:04:51
3	As 188.979†	-29.5	-3.3	35.677 ug/L	35.677 ppb	07:05:11
3	B 249.677†	184.7	495.1	2.6971 ug/L	2.6971 ppb	07:04:51
3	Ba 233.527†	33365.4	28915.6	305.52 ug/L	305.52 ppb	07:04:51
3	Be 313.107†	-11761.4	-6302.1	2.3545 ug/L	2.3545 ppb	07:04:51
3	Cd 226.502†	673.1	754.6	4.7521 ug/L	4.7521 ppb	07:05:11
3	Co 228.616†	1079.8	982.6	22.117 ug/L	22.117 ppb	07:05:11
3	Cr 267.716†	53049.2	45883.3	710.60 ug/L	710.60 ppb	07:04:51
3	Cu 324.752†	82376.9	65680.1	238.53 ug/L	238.53 ppb	07:04:51
3	Mn 257.610†	1780054.6	1542369.8	2258.4 ug/L	2258.4 ppb	07:04:46
3	Mo 202.031†	89.0	60.4	11.949 ug/L	11.949 ppb	07:05:11
3	Ni 231.604†	12537.5	10783.9	386.89 ug/L	386.89 ppb	07:04:51
3	P 214.914†	1707.1	1291.1	940.62 ug/L	940.62 ppb	07:05:11
3	Pb 220.353†	1289.0	1166.3	193.85 ug/L	193.85 ppb	07:05:11
3	S 181.975 Axial†	222.7	165.9	320.29 ug/L	320.29 ppb	07:05:11
3	Sb 206.836†	77.4	41.5	12.020 ug/L	12.020 ppb	07:05:11
3	Se 196.026†	-417.1	-339.8	-103.77 ug/L	-103.77 ppb	07:05:11
3	Si 251.611†	482004.8	417303.9	17240 ug/L	17240 ppb	07:04:46
3	Sn 189.927†	301.1	247.3	59.279 ug/L	59.279 ppb	07:05:11
3	Ti 334.940†	1406445.0	1220027.7	2333.3 ug/L	2333.3 ppb	07:04:46
3	Tl 190.801†	-105.8	-69.4	-0.0943 ug/L	-0.0943 ppb	07:05:11
3	U 409.014†	-9568.7	-6459.3	-229.73 ug/L	-229.73 ppb	07:04:46
3	V 292.402†	9285.9	9428.8	70.789 ug/L	70.789 ppb	07:04:51
3	Zn 213.857†	61811.6	52913.0	692.59 ug/L	692.59 ppb	07:04:51
3	SiO2†	494957.6	428521.9	37715 ug/L	37715 ppb	07:05:27

Mean Data: 248045006|959105|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Units	Units		Conc. Units		
Sc 361.383	857221.0	116.98	%	2.972			2.54%
Sc Radial	4595.0	121	%	1.2			0.96%
Y 371.029	903747.0	149.52	%	2.588			1.73%
Y RADIAL	6286.2	154.0	%	1.85			1.20%
Ag 328.068†	-3933.9	1.1578	ug/L	0.79518	1.1578 ppb	0.79518	68.68%
Al 396.153Radial†	10574.8	12583	ug/L	10.6	12583 ppb	10.6	0.08%
As 188.979†	-3.2	35.715	ug/L	0.5419	35.715 ppb	0.5419	1.52%
B 249.677†	478.5	2.2001	ug/L	0.44311	2.2001 ppb	0.44311	20.14%
Ba 233.527†	28556.6	301.76	ug/L	7.415	301.76 ppb	7.415	2.46%
Be 313.107†	-6140.9	2.4172	ug/L	0.09548	2.4172 ppb	0.09548	3.95%
Ca 317.933Radial†	2132.4	4777.3	ug/L	54.68	4777.3 ppb	54.68	1.14%
Cd 226.502†	742.5	4.5546	ug/L	0.30498	4.5546 ppb	0.30498	6.70%
Co 228.616†	964.3	21.602	ug/L	0.7145	21.602 ppb	0.7145	3.31%
Cr 267.716†	45338.0	702.25	ug/L	17.843	702.25 ppb	17.843	2.54%
Cu 324.752†	64932.8	235.86	ug/L	5.771	235.86 ppb	5.771	2.45%
Fe 238.204 Radial†	5647.5	74658	ug/L	135.8	74658 ppb	135.8	0.18%
K 766.490 Radial†	17966.6	3963.6	ug/L	9.69	3963.6 ppb	9.69	0.24%

Mg 279.077 IEC†	76.7	3551.4 ug/L	126.25	3551.4 ppb	126.25	3.55%
Mn 257.610†	1537761.2	2251.7 ug/L	76.47	2251.7 ppb	76.47	3.40%
Mo 202.031†	52.5	11.156 ug/L	1.0108	11.156 ppb	1.0108	9.06%
Na 589.592 Radial†	3660.9	1472.2 ug/L	12.99	1472.2 ppb	12.99	0.88%
Ni 231.604†	10663.4	382.57 ug/L	9.734	382.57 ppb	9.734	2.54%
P 214.914†	1277.5	930.19 ug/L	36.979	930.19 ppb	36.979	3.98%
Pb 220.353†	1140.9	189.47 ug/L	6.890	189.47 ppb	6.890	3.64%
S 181.975 Axial†	162.1	312.93 ug/L	17.900	312.93 ppb	17.900	5.72%
Sb 206.836†	37.5	10.157 ug/L	2.0316	10.157 ppb	2.0316	20.00%
Se 196.026†	-332.1	-96.860 ug/L	10.7240	-96.860 ppb	10.7240	11.07%
Si 251.611†	416413.4	17203 ug/L	567.8	17203 ppb	567.8	3.30%
Sn 189.927†	243.3	58.237 ug/L	3.0771	58.237 ppb	3.0771	5.28%
Sr 421.552†	2918.6	26.461 ug/L	0.2231	26.461 ppb	0.2231	0.84%
Ti 334.940†	1217138.5	2327.8 ug/L	80.75	2327.8 ppb	80.75	3.47%
Tl 190.801†	-63.6	2.3158 ug/L	2.47623	2.3158 ppb	2.47623	106.93%
U 409.014†	-6335.7	-225.51 ug/L	9.076	-225.51 ppb	9.076	4.02%
V 292.402†	9391.7	70.459 ug/L	1.2373	70.459 ppb	1.2373	1.76%
Zn 213.857†	52376.4	685.46 ug/L	17.273	685.46 ppb	17.273	2.52%
SiO2†	415494.6	36569 ug/L	1190.0	36569 ppb	1190.0	3.25%



Sequence No.: 105

Sample ID: 248045007|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/27/2010 07:07:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045007|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4277.7	4277.7	113 %			07:09:52
1	Y RADIAL	6007.5	6007.5	147.1 %			07:09:32
1	Al 396.153Radial†	19202.4	17077.2	20321 ug/L		20321 ppb	07:09:32
1	Ca 317.933Radial†	2123.1	1858.1	4163.0 ug/L		4163.0 ppb	07:09:52
1	Fe 238.204 Radial†	5025.9	4442.2	58723 ug/L		58723 ppb	07:09:32
1	K 766.490 Radial†	33383.6	27083.8	5976.4 ug/L		5976.4 ppb	07:09:32
1	Mg 279.077 IEC†	96.7	82.8	3856.6 ug/L		3856.6 ppb	07:09:52
1	Na 589.592 Radial†	4130.5	4044.0	1626.2 ug/L		1626.2 ppb	07:09:32
1	Sr 421.552†	3658.8	3200.8	29.027 ug/L		29.027 ppb	07:09:32
1	Sc 361.383	904081.3	904081.3	123.37 %			07:10:50
1	Y 371.029	954454.5	954454.5	157.91 %			07:10:50
1	Ag 328.068†	-3130.4	-2689.5	3.2111 ug/L		3.2111 ppb	07:10:55
1	As 188.979†	-23.0	3.7	32.643 ug/L		32.643 ppb	07:11:15
1	B 249.677†	143.8	451.5	4.0198 ug/L		4.0198 ppb	07:10:55
1	Ba 233.527†	30476.4	24700.1	260.78 ug/L		260.78 ppb	07:10:55
1	Be 313.107†	-6008.8	-978.8	3.9119 ug/L		3.9119 ppb	07:10:55
1	Cd 226.502†	474.6	555.8	2.9389 ug/L		2.9389 ppb	07:11:15
1	Co 228.616†	444.3	406.9	6.9240 ug/L		6.9240 ppb	07:11:15
1	Cr 267.716†	3116.5	2431.0	43.612 ug/L		43.612 ppb	07:10:55
1	Cu 324.752†	43675.0	29683.9	109.21 ug/L		109.21 ppb	07:10:55
1	Mn 257.610†	2370964.9	1921366.1	2810.0 ug/L		2810.0 ppb	07:10:50
1	Mo 202.031†	41.6	17.0	6.3239 ug/L		6.3239 ppb	07:11:15
1	Ni 231.604†	1262.8	941.0	33.756 ug/L		33.756 ppb	07:11:15
1	P 214.914†	856.0	505.4	345.18 ug/L		345.18 ppb	07:11:15
1	Pb 220.353†	564.8	506.9	83.825 ug/L		83.825 ppb	07:11:15
1	S 181.975 Axial†	95.0	49.9	93.217 ug/L		93.217 ppb	07:11:15
1	Sb 206.836†	37.3	4.6	-5.2745 ug/L		-5.2745 ppb	07:11:15
1	Se 196.026†	-295.5	-217.8	-34.221 ug/L		-34.221 ppb	07:11:15
1	Si 251.611†	699138.4	566232.7	23393 ug/L		23393 ppb	07:10:50
1	Sn 189.927†	-3.7	-16.7	-6.8620 ug/L		-6.8620 ppb	07:11:15
1	Ti 334.940†	1240208.7	1006298.7	1924.7 ug/L		1924.7 ppb	07:10:50
1	Tl 190.801†	-103.9	-62.0	2.4929 ug/L		2.4929 ppb	07:11:15
1	U 409.014†	-11292.4	-7319.0	-255.66 ug/L		-255.66 ppb	07:10:50
1	V 292.402†	5298.7	5675.5	39.974 ug/L		39.974 ppb	07:10:55
1	Zn 213.857†	39089.0	31023.9	405.11 ug/L		405.11 ppb	07:10:55
1	SiO2†	675025.8	546679.9	48115 ug/L		48115 ppb	07:12:23
2	Sc Radial	4366.4	4366.4	115 %			07:10:17
2	Y RADIAL	6382.7	6382.7	156.3 %			07:09:57
2	Al 396.153Radial†	19564.3	17045.7	20283 ug/L		20283 ppb	07:09:57
2	Ca 317.933Radial†	2098.6	1798.7	4029.8 ug/L		4029.8 ppb	07:10:17
2	Fe 238.204 Radial†	5076.9	4396.0	58113 ug/L		58113 ppb	07:09:57
2	K 766.490 Radial†	33563.8	26639.4	5878.4 ug/L		5878.4 ppb	07:09:57
2	Mg 279.077 IEC†	91.3	76.4	3553.8 ug/L		3553.8 ppb	07:10:17
2	Na 589.592 Radial†	4226.8	4053.3	1629.9 ug/L		1629.9 ppb	07:09:57
2	Sr 421.552†	3794.0	3252.2	29.495 ug/L		29.495 ppb	07:09:57
2	Sc 361.383	879799.6	879799.6	120.06 %			07:11:21
2	Y 371.029	931075.0	931075.0	154.04 %			07:11:21
2	Ag 328.068†	-2968.9	-2625.0	3.3971 ug/L		3.3971 ppb	07:11:26
2	As 188.979†	-20.0	5.7	33.813 ug/L		33.813 ppb	07:11:46
2	B 249.677†	115.4	431.1	3.5045 ug/L		3.5045 ppb	07:11:26
2	Ba 233.527†	29798.5	24817.3	261.99 ug/L		261.99 ppb	07:11:26
2	Be 313.107†	-5917.3	-1037.0	3.9095 ug/L		3.9095 ppb	07:11:26
2	Cd 226.502†	480.5	571.4	3.2542 ug/L		3.2542 ppb	07:11:46
2	Co 228.616†	439.5	412.8	7.0825 ug/L		7.0825 ppb	07:11:46
2	Cr 267.716†	3070.3	2462.3	44.029 ug/L		44.029 ppb	07:11:26
2	Cu 324.752†	42484.2	29669.1	109.13 ug/L		109.13 ppb	07:11:26
2	Mn 257.610†	2327889.7	1938527.6	2835.0 ug/L		2835.0 ppb	07:11:21
2	Mo 202.031†	48.3	23.5	6.9294 ug/L		6.9294 ppb	07:11:46
2	Ni 231.604†	1290.9	992.7	35.609 ug/L		35.609 ppb	07:11:46

2	P 214.914†	845.4	515.7	354.02 ug/L	354.02 ppb	07:11:46
2	Pb 220.353†	555.6	511.9	84.761 ug/L	84.761 ppb	07:11:46
2	S 181.975 Axial†	95.8	52.7	98.631 ug/L	98.631 ppb	07:11:46
2	Sb 206.836†	36.3	4.6	-5.2797 ug/L	-5.2797 ppb	07:11:46
2	Se 196.026†	-297.1	-225.8	-43.055 ug/L	-43.055 ppb	07:11:46
2	Si 251.611†	683398.4	568762.6	23497 ug/L	23497 ppb	07:11:21
2	Sn 189.927†	1.7	-12.3	-5.7316 ug/L	-5.7316 ppb	07:11:46
2	Ti 334.940†	1213747.1	1012002.3	1935.7 ug/L	1935.7 ppb	07:11:21
2	Tl 190.801†	-120.8	-78.3	-4.3460 ug/L	-4.3460 ppb	07:11:46
2	U 409.014†	-11254.4	-7540.0	-263.10 ug/L	-263.10 ppb	07:11:21
2	V 292.402†	5161.6	5679.8	40.080 ug/L	40.080 ppb	07:11:26
2	Zn 213.857†	38080.5	31058.3	405.65 ug/L	405.65 ppb	07:11:26
2	SiO2†	692403.7	576255.1	50718 ug/L	50718 ppb	07:12:28
3	Sc Radial	4308.8	4308.8	114 %		07:10:43
3	Y RADIAL	6029.3	6029.3	147.7 %		07:10:22
3	Al 396.153Radial†	19430.8	17155.2	20413 ug/L	20413 ppb	07:10:22
3	Ca 317.933Radial†	2123.0	1844.5	4132.4 ug/L	4132.4 ppb	07:10:43
3	Fe 238.204 Radial†	5037.2	4419.9	58430 ug/L	58430 ppb	07:10:22
3	K 766.490 Radial†	33393.4	26879.0	5931.2 ug/L	5931.2 ppb	07:10:22
3	Mg 279.077 IEC†	95.4	81.0	3771.7 ug/L	3771.7 ppb	07:10:43
3	Na 589.592 Radial†	4090.0	3982.0	1601.3 ug/L	1601.3 ppb	07:10:22
3	Sr 421.552†	3730.3	3240.2	29.385 ug/L	29.385 ppb	07:10:22
3	Sc 361.383	892639.1	892639.1	121.81 %		07:11:52
3	Y 371.029	940517.8	940517.8	155.61 %		07:11:52
3	Ag 328.068†	-3039.1	-2647.1	3.3609 ug/L	3.3609 ppb	07:11:57
3	As 188.979†	-22.9	3.5	32.223 ug/L	32.223 ppb	07:12:17
3	B 249.677†	96.2	413.9	2.9358 ug/L	2.9358 ppb	07:11:57
3	Ba 233.527†	30068.1	24681.6	260.58 ug/L	260.58 ppb	07:11:57
3	Be 313.107†	-6031.4	-1059.8	3.8135 ug/L	3.8135 ppb	07:11:57
3	Cd 226.502†	474.5	560.7	3.0490 ug/L	3.0490 ppb	07:12:17
3	Co 228.616†	450.6	416.6	7.2672 ug/L	7.2672 ppb	07:12:17
3	Cr 267.716†	3153.9	2494.1	44.545 ug/L	44.545 ppb	07:11:57
3	Cu 324.752†	43205.9	29752.6	109.44 ug/L	109.44 ppb	07:11:57
3	Mn 257.610†	2319911.7	1904088.7	2784.7 ug/L	2784.7 ppb	07:11:52
3	Mo 202.031†	58.3	31.1	7.7241 ug/L	7.7241 ppb	07:12:17
3	Ni 231.604†	1277.2	966.0	34.651 ug/L	34.651 ppb	07:12:17
3	P 214.914†	856.5	514.7	352.94 ug/L	352.94 ppb	07:12:17
3	Pb 220.353†	565.5	513.3	84.994 ug/L	84.994 ppb	07:12:17
3	S 181.975 Axial†	93.8	49.9	93.214 ug/L	93.214 ppb	07:12:17
3	Sb 206.836†	38.6	6.0	-4.4958 ug/L	-4.4958 ppb	07:12:17
3	Se 196.026†	-305.0	-228.7	-44.787 ug/L	-44.787 ppb	07:12:17
3	Si 251.611†	680810.0	558450.1	23071 ug/L	23071 ppb	07:11:52
3	Sn 189.927†	-3.4	-16.4	-6.7809 ug/L	-6.7809 ppb	07:12:17
3	Ti 334.940†	1207503.8	992335.6	1898.0 ug/L	1898.0 ppb	07:11:52
3	Tl 190.801†	-125.5	-80.7	-5.9400 ug/L	-5.9400 ppb	07:12:17
3	U 409.014†	-11064.4	-7249.3	-253.25 ug/L	-253.25 ppb	07:11:52
3	V 292.402†	5258.8	5697.7	40.268 ug/L	40.268 ppb	07:11:57
3	Zn 213.857†	38518.8	30961.9	404.33 ug/L	404.33 ppb	07:11:57
3	SiO2†	698734.5	573156.9	50445 ug/L	50445 ppb	07:12:34

Mean Data: 248045007|959105|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	892173.3	121.75 %		1.658			1.36%
Sc Radial	4317.6	114 %		1.2			1.04%
Y 371.029	942015.8	155.85 %		1.946			1.25%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 155.9%							
Y RADIAL	6139.8	150.4 %		5.16			3.43%
Ag 328.068†	-2653.8	3.3230 ug/L		0.09863	3.3230 ppb	0.09863	2.97%
Al 396.153Radial†	17092.7	20339 ug/L		67.1	20339 ppb	67.1	0.33%
As 188.979†	4.3	32.893 ug/L		0.8240	32.893 ppb	0.8240	2.51%
B 249.677†	432.2	3.4867 ug/L		0.54222	3.4867 ppb	0.54222	15.55%
Ba 233.527†	24733.0	261.12 ug/L		0.764	261.12 ppb	0.764	0.29%
Be 313.107†	-1025.2	3.8783 ug/L		0.05614	3.8783 ppb	0.05614	1.45%
Ca 317.933Radial†	1833.8	4108.4 ug/L		69.76	4108.4 ppb	69.76	1.70%
Cd 226.502†	562.6	3.0807 ug/L		0.16003	3.0807 ppb	0.16003	5.19%
Co 228.616†	412.1	7.0912 ug/L		0.17178	7.0912 ppb	0.17178	2.42%
Cr 267.716†	2462.5	44.062 ug/L		0.4678	44.062 ppb	0.4678	1.06%
Cu 324.752†	29701.9	109.26 ug/L		0.160	109.26 ppb	0.160	0.15%
Fe 238.204 Radial†	4419.4	58422 ug/L		305.5	58422 ppb	305.5	0.52%





K 766.490 Radial†	26867.4	5928.7 ug/L	49.09	5928.7 ppb	49.09	0.83%
Mg 279.077 IEC†	80.1	3727.4 ug/L	156.20	3727.4 ppb	156.20	4.19%
Mn 257.610†	1921327.5	2809.9 ug/L	25.12	2809.9 ppb	25.12	0.89%
Mo 202.031†	23.8	6.9924 ug/L	0.70224	6.9924 ppb	0.70224	10.04%
Na 589.592 Radial†	4026.4	1619.1 ug/L	15.58	1619.1 ppb	15.58	0.96%
Ni 231.604†	966.6	34.672 ug/L	0.9270	34.672 ppb	0.9270	2.67%
P 214.914†	511.9	350.71 ug/L	4.821	350.71 ppb	4.821	1.37%
Pb 220.353†	510.7	84.526 ug/L	0.6187	84.526 ppb	0.6187	0.73%
S 181.975 Axial†	50.8	95.020 ug/L	3.1267	95.020 ppb	3.1267	3.29%
Sb 206.836†	5.1	-5.0167 ug/L	0.45106	-5.0167 ppb	0.45106	8.99%
Se 196.026†	-224.1	-40.688 ug/L	5.6667	-40.688 ppb	5.6667	13.93%
Si 251.611†	564481.8	23320 ug/L	222.0	23320 ppb	222.0	0.95%
Sn 189.927†	-15.1	-6.4582 ug/L	0.63057	-6.4582 ppb	0.63057	9.76%
Sr 421.552†	3231.0	29.303 ug/L	0.2446	29.303 ppb	0.2446	0.83%
Ti 334.940†	1003545.5	1919.5 ug/L	19.35	1919.5 ppb	19.35	1.01%
Tl 190.801†	-73.7	-2.5977 ug/L	4.48005	-2.5977 ppb	4.48005	172.46%
U 409.014†	-7369.4	-257.34 ug/L	5.135	-257.34 ppb	5.135	2.00%
V 292.402†	5684.3	40.107 ug/L	0.1487	40.107 ppb	0.1487	0.37%
Zn 213.857†	31014.7	405.03 ug/L	0.668	405.03 ppb	0.668	0.16%
SiO2†	565364.0	49759 ug/L	1430.6	49759 ppb	1430.6	2.88%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 106

Sample ID: 248045008|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 109

Date Collected: 3/27/2010 07:14:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045008|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4547.9	4547.9	120 %		07:16:38
1	Y RADIAL	5479.3	5479.3	134.2 %		07:16:38
1	Al 396.153Radial†	29837.7	24925.3	29659 ug/L	29659 ppb	07:16:38
1	Ca 317.933Radial†	11301.0	9390.9	21039 ug/L	21039 ppb	07:16:38
1	Fe 238.204 Radial†	4787.6	3979.2	52603 ug/L	52603 ppb	07:16:38
1	K 766.490 Radial†	40508.2	31261.5	6893.9 ug/L	6893.9 ppb	07:16:38
1	Mg 279.077 IEC†	213.4	174.9	8219.1 ug/L	8219.1 ppb	07:16:58
1	Na 589.592 Radial†	2120.5	2152.5	865.59 ug/L	865.59 ppb	07:16:38
1	Sr 421.552†	14747.2	12244.0	111.00 ug/L	111.00 ppb	07:16:38
1	Sc 361.383	876188.6	876188.6	119.57 %		07:17:56
1	Y 371.029	806672.0	806672.0	133.46 %		07:17:56
1	Ag 328.068†	-2787.6	-2483.6	2.2588 ug/L	2.2588 ppb	07:17:56
1	As 188.979†	-23.9	2.3	28.131 ug/L	28.131 ppb	07:18:16
1	B 249.677†	690.4	912.4	18.870 ug/L	18.870 ppb	07:17:56
1	Ba 233.527†	47281.2	39541.4	416.20 ug/L	416.20 ppb	07:17:56
1	Be 313.107†	-5393.5	-619.3	3.4827 ug/L	3.4827 ppb	07:17:56
1	Cd 226.502†	697.2	754.2	6.8341 ug/L	6.8341 ppb	07:18:16
1	Co 228.616†	650.4	590.7	12.901 ug/L	12.901 ppb	07:18:16
1	Cr 267.716†	5320.1	4354.4	72.395 ug/L	72.395 ppb	07:18:16
1	Cu 324.752†	44445.8	31455.6	115.14 ug/L	115.14 ppb	07:17:56
1	Mn 257.610†	1462595.3	1222824.5	1789.6 ug/L	1789.6 ppb	07:17:56
1	Mo 202.031†	6.5	-11.3	3.1940 ug/L	3.1940 ppb	07:18:16
1	Ni 231.604†	1940.9	1540.9	55.268 ug/L	55.268 ppb	07:18:16
1	P 214.914†	2118.9	1583.7	1222.6 ug/L	1222.6 ppb	07:18:16
1	Pb 220.353†	2774.1	2369.2	409.12 ug/L	409.12 ppb	07:18:16
1	S 181.975 Axial†	471.5	367.2	708.55 ug/L	708.55 ppb	07:18:16
1	Sb 206.836†	26.2	-3.7	-8.7260 ug/L	-8.7260 ppb	07:18:16
1	Se 196.026†	-298.3	-227.8	-56.947 ug/L	-56.947 ppb	07:18:16
1	Si 251.611†	837119.3	699673.9	28906 ug/L	28906 ppb	07:17:56
1	Sn 189.927†	-103.9	-100.5	-24.768 ug/L	-24.768 ppb	07:18:16
1	Ti 334.940†	1037527.0	868786.0	1663.6 ug/L	1663.6 ppb	07:17:56
1	Tl 190.801†	-89.3	-52.4	-0.5193 ug/L	-0.5193 ppb	07:18:16
1	U 409.014†	-6272.7	-3412.2	-122.18 ug/L	-122.18 ppb	07:17:56
1	V 292.402†	8662.0	8625.1	67.914 ug/L	67.914 ppb	07:17:56
1	Zn 213.857†	34123.2	27879.3	363.90 ug/L	363.90 ppb	07:17:56
1	SiO2†	860471.7	719196.5	63299 ug/L	63299 ppb	07:19:13
2	Sc Radial	4777.5	4777.5	126 %		07:17:03
2	Y RADIAL	5738.7	5738.7	140.6 %		07:17:03
2	Al 396.153Radial†	31067.6	24705.7	29398 ug/L	29398 ppb	07:17:03
2	Ca 317.933Radial†	11709.1	9262.0	20750 ug/L	20750 ppb	07:17:03
2	Fe 238.204 Radial†	4911.2	3885.5	51365 ug/L	51365 ppb	07:17:03
2	K 766.490 Radial†	41841.3	30696.6	6769.2 ug/L	6769.2 ppb	07:17:03
2	Mg 279.077 IEC†	213.3	166.3	7811.3 ug/L	7811.3 ppb	07:17:23
2	Na 589.592 Radial†	2189.1	2122.0	853.33 ug/L	853.33 ppb	07:17:03
2	Sr 421.552†	15309.8	12099.5	109.69 ug/L	109.69 ppb	07:17:03
2	Sc 361.383	872288.8	872288.8	119.03 %		07:18:22
2	Y 371.029	804040.8	804040.8	133.03 %		07:18:22
2	Ag 328.068†	-2777.6	-2485.6	1.8697 ug/L	1.8697 ppb	07:18:22
2	As 188.979†	-25.7	0.7	26.848 ug/L	26.848 ppb	07:18:42
2	B 249.677†	760.7	974.0	20.926 ug/L	20.926 ppb	07:18:22
2	Ba 233.527†	47084.4	39552.8	416.29 ug/L	416.29 ppb	07:18:22
2	Be 313.107†	-5523.0	-748.3	3.4168 ug/L	3.4168 ppb	07:18:22
2	Cd 226.502†	689.4	750.3	6.8988 ug/L	6.8988 ppb	07:18:42
2	Co 228.616†	668.0	607.9	13.422 ug/L	13.422 ppb	07:18:42
2	Cr 267.716†	5298.0	4355.8	72.285 ug/L	72.285 ppb	07:18:42
2	Cu 324.752†	44081.7	31315.8	114.57 ug/L	114.57 ppb	07:18:22
2	Mn 257.610†	1455266.4	1222136.4	1788.5 ug/L	1788.5 ppb	07:18:22
2	Mo 202.031†	21.0	0.9	4.3211 ug/L	4.3211 ppb	07:18:42
2	Ni 231.604†	1947.2	1553.3	55.720 ug/L	55.720 ppb	07:18:42

2	P 214.914†	2103.7	1578.9	1219.8 ug/L	1219.8 ppb	07:18:42
2	Pb 220.353†	2755.9	2364.3	408.39 ug/L	408.39 ppb	07:18:42
2	S 181.975 Axial†	469.1	367.0	708.08 ug/L	708.08 ppb	07:18:42
2	Sb 206.836†	37.6	5.9	-4.1734 ug/L	-4.1734 ppb	07:18:42
2	Se 196.026†	-286.5	-219.0	-52.388 ug/L	-52.388 ppb	07:18:42
2	Si 251.611†	831678.3	698233.0	28846 ug/L	28846 ppb	07:18:22
2	Sn 189.927†	-89.4	-88.8	-21.769 ug/L	-21.769 ppb	07:18:42
2	Ti 334.940†	1031322.6	867453.2	1661.1 ug/L	1661.1 ppb	07:18:22
2	Tl 190.801†	-88.3	-51.9	-0.3049 ug/L	-0.3049 ppb	07:18:42
2	U 409.014†	-6269.7	-3433.1	-122.75 ug/L	-122.75 ppb	07:18:22
2	V 292.402†	8651.4	8648.6	68.316 ug/L	68.316 ppb	07:18:22
2	Zn 213.857†	33903.7	27822.5	363.32 ug/L	363.32 ppb	07:18:22
2	SiO2†	854206.2	717150.3	63119 ug/L	63119 ppb	07:19:19
3	Sc Radial	4786.2	4786.2	126 %		07:17:28
3	Y RADIAL	5774.2	5774.2	141.4 %		07:17:28
3	Al 396.153Radial†	31367.7	24898.6	29628 ug/L	29628 ppb	07:17:28
3	Ca 317.933Radial†	11851.7	9358.0	20966 ug/L	20966 ppb	07:17:28
3	Fe 238.204 Radial†	4971.1	3925.9	51899 ug/L	51899 ppb	07:17:28
3	K 766.490 Radial†	42171.0	30897.4	6813.5 ug/L	6813.5 ppb	07:17:28
3	Mg 279.077 IEC†	212.2	165.2	7756.6 ug/L	7756.6 ppb	07:17:49
3	Na 589.592 Radial†	2221.1	2144.2	862.25 ug/L	862.25 ppb	07:17:28
3	Sr 421.552†	15471.1	12205.2	110.65 ug/L	110.65 ppb	07:17:28
3	Sc 361.383	885275.7	885275.7	120.81 %		07:18:48
3	Y 371.029	816078.1	816078.1	135.02 %		07:18:48
3	Ag 328.068†	-2818.3	-2485.1	2.0308 ug/L	2.0308 ppb	07:18:48
3	As 188.979†	-19.5	6.2	30.301 ug/L	30.301 ppb	07:19:08
3	B 249.677†	710.6	923.2	19.309 ug/L	19.309 ppb	07:18:48
3	Ba 233.527†	47736.4	39512.2	415.88 ug/L	415.88 ppb	07:18:48
3	Be 313.107†	-5569.6	-718.7	3.4372 ug/L	3.4372 ppb	07:18:48
3	Cd 226.502†	694.4	746.0	6.7730 ug/L	6.7730 ppb	07:19:08
3	Co 228.616†	670.4	601.7	13.229 ug/L	13.229 ppb	07:19:08
3	Cr 267.716†	5331.6	4318.3	71.766 ug/L	71.766 ppb	07:19:08
3	Cu 324.752†	45026.3	31554.5	115.45 ug/L	115.45 ppb	07:18:48
3	Mn 257.610†	1474390.6	1220031.9	1785.5 ug/L	1785.5 ppb	07:18:48
3	Mo 202.031†	21.5	1.1	4.3868 ug/L	4.3868 ppb	07:19:08
3	Ni 231.604†	1938.4	1522.0	54.596 ug/L	54.596 ppb	07:19:08
3	P 214.914†	2119.0	1565.6	1208.5 ug/L	1208.5 ppb	07:19:08
3	Pb 220.353†	2796.7	2364.1	408.34 ug/L	408.34 ppb	07:19:08
3	S 181.975 Axial†	465.1	357.9	690.33 ug/L	690.33 ppb	07:19:08
3	Sb 206.836†	34.0	2.5	-5.8183 ug/L	-5.8183 ppb	07:19:08
3	Se 196.026†	-292.8	-220.7	-52.428 ug/L	-52.428 ppb	07:19:08
3	Si 251.611†	846009.0	699845.8	28913 ug/L	28913 ppb	07:18:48
3	Sn 189.927†	-106.1	-101.5	-24.976 ug/L	-24.976 ppb	07:19:08
3	Ti 334.940†	1048517.2	868976.2	1664.0 ug/L	1664.0 ppb	07:18:48
3	Tl 190.801†	-85.8	-48.8	1.0488 ug/L	1.0488 ppb	07:19:08
3	U 409.014†	-6171.5	-3274.6	-117.42 ug/L	-117.42 ppb	07:18:48
3	V 292.402†	8783.2	8651.0	68.267 ug/L	68.267 ppb	07:18:48
3	Zn 213.857†	34327.9	27755.8	362.36 ug/L	362.36 ppb	07:18:48
3	SiO2†	838578.7	693687.0	61053 ug/L	61053 ppb	07:19:24

Mean Data: 248045008|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	877917.7	119.80 %		0.909				0.76%
Sc Radial	4703.9	124 %		3.6				2.87%
Y 371.029	808930.3	133.83 %		1.047				0.78%
Y RADIAL	5664.1	138.7 %		3.94				2.84%
Ag 328.068†	-2484.8	2.0531 ug/L		0.19553	2.0531 ppb		0.19553	9.52%
Al 396.153Radial†	24843.2	29562 ug/L		142.6	29562 ppb		142.6	0.48%
As 188.979†	3.1	28.427 ug/L		1.7457	28.427 ppb		1.7457	6.14%
B 249.677†	936.5	19.701 ug/L		1.0828	19.701 ppb		1.0828	5.50%
Ba 233.527†	39535.5	416.12 ug/L		0.216	416.12 ppb		0.216	0.05%
Be 313.107†	-695.4	3.4456 ug/L		0.03378	3.4456 ppb		0.03378	0.98%
Ca 317.933Radial†	9337.0	20918 ug/L		150.1	20918 ppb		150.1	0.72%
Cd 226.502†	750.2	6.8353 ug/L		0.06293	6.8353 ppb		0.06293	0.92%
Co 228.616†	600.1	13.184 ug/L		0.2637	13.184 ppb		0.2637	2.00%
Cr 267.716†	4342.8	72.149 ug/L		0.3359	72.149 ppb		0.3359	0.47%
Cu 324.752†	31442.0	115.05 ug/L		0.445	115.05 ppb		0.445	0.39%
Fe 238.204 Radial†	3930.2	51956 ug/L		621.3	51956 ppb		621.3	1.20%
K 766.490 Radial†	30951.8	6825.5 ug/L		63.18	6825.5 ppb		63.18	0.93%

Mg 279.077 IEC†	168.8	7929.0 ug/L	252.69	7929.0 ppb	252.69	3.19%
Mn 257.610†	1221664.3	1787.9 ug/L	2.14	1787.9 ppb	2.14	0.12%
Mo 202.031†	-3.1	3.9673 ug/L	0.67050	3.9673 ppb	0.67050	16.90%
Na 589.592 Radial†	2139.6	860.39 ug/L	6.338	860.39 ppb	6.338	0.74%
Ni 231.604†	1538.7	55.195 ug/L	0.5654	55.195 ppb	0.5654	1.02%
P 214.914†	1576.0	1216.9 ug/L	7.48	1216.9 ppb	7.48	0.61%
Pb 220.353†	2365.9	408.62 ug/L	0.439	408.62 ppb	0.439	0.11%
S 181.975 Axial†	364.0	702.32 ug/L	10.382	702.32 ppb	10.382	1.48%
Sb 206.836†	1.6	-6.2393 ug/L	2.30531	-6.2393 ppb	2.30531	36.95%
Se 196.026†	-222.5	-53.921 ug/L	2.6210	-53.921 ppb	2.6210	4.86%
Si 251.611†	699250.9	28888 ug/L	36.6	28888 ppb	36.6	0.13%
Sn 189.927†	-96.9	-23.838 ug/L	1.7945	-23.838 ppb	1.7945	7.53%
Sr 421.552†	12182.9	110.45 ug/L	0.678	110.45 ppb	0.678	0.61%
Ti 334.940†	868405.1	1662.9 ug/L	1.60	1662.9 ppb	1.60	0.10%
Tl 190.801†	-51.0	0.0749 ug/L	0.85026	0.0749 ppb	0.85026	>999.9%
U 409.014†	-3373.3	-120.78 ug/L	2.928	-120.78 ppb	2.928	2.42%
V 292.402†	8641.6	68.166 ug/L	0.2192	68.166 ppb	0.2192	0.32%
Zn 213.857†	27819.2	363.19 ug/L	0.778	363.19 ppb	0.778	0.21%
SiO2†	710011.3	62490 ug/L	1247.5	62490 ppb	1247.5	2.00%

Sequence No.: 107

Sample ID: 248045009|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 110

Date Collected: 3/27/2010 07:21:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045009|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4671.7	4671.7	123 %		07:23:50
1	Y RADIAL	6087.8	6087.8	149.1 %		07:23:50
1	Al 396.153Radial†	82823.0	67228.9	79998 ug/L	79998 ppb	07:23:30
1	Ca 317.933Radial†	11878.6	9609.7	21529 ug/L	21529 ppb	07:23:30
1	Fe 238.204 Radial†	10502.2	8507.1	112460 ug/L	112460 ppb	07:23:30
1	K 766.490 Radial†	61339.4	47257.8	10425 ug/L	10425 ppb	07:23:30
1	Mg 279.077 IEC†	370.2	297.4	13948 ug/L	13948 ppb	07:23:50
1	Na 589.592 Radial†	2344.7	2287.5	919.88 ug/L	919.88 ppb	07:23:30
1	Sr 421.552†	20945.3	16944.0	153.67 ug/L	153.67 ppb	07:23:30
1	Sc 361.383	888423.9	888423.9	121.24 %		07:24:47
1	Y 371.029	886741.3	886741.3	146.71 %		07:24:47
1	Ag 328.068†	-7306.1	-6178.5	0.2542 ug/L	0.2542 ppb	07:24:52
1	As 188.979†	-11.5	12.8	57.091 ug/L	57.091 ppb	07:25:12
1	B 249.677†	870.1	1052.6	13.342 ug/L	13.342 ppb	07:24:52
1	Ba 233.527†	78668.9	64886.5	683.88 ug/L	683.88 ppb	07:24:52
1	Be 313.107†	4071.0	7249.5	9.4024 ug/L	9.4024 ppb	07:24:52
1	Cd 226.502†	812.1	841.0	2.0539 ug/L	2.0539 ppb	07:25:12
1	Co 228.616†	1094.1	949.2	20.355 ug/L	20.355 ppb	07:25:12
1	Cr 267.716†	11530.0	9415.3	156.42 ug/L	156.42 ppb	07:24:52
1	Cu 324.752†	29014.0	18214.9	71.127 ug/L	71.127 ppb	07:24:52
1	Mn 257.610†	1990932.3	1641770.3	2406.8 ug/L	2406.8 ppb	07:24:47
1	Mo 202.031†	-5.2	-21.1	6.8589 ug/L	6.8589 ppb	07:25:12
1	Ni 231.604†	3235.9	2586.6	92.785 ug/L	92.785 ppb	07:25:12
1	P 214.914†	1382.6	951.9	685.70 ug/L	685.70 ppb	07:25:12
1	Pb 220.353†	720.3	643.2	113.23 ug/L	113.23 ppb	07:25:12
1	S 181.975 Axial†	392.1	296.3	561.25 ug/L	561.25 ppb	07:25:12
1	Sb 206.836†	55.2	19.9	-2.7814 ug/L	-2.7814 ppb	07:25:12
1	Se 196.026†	-635.6	-502.5	-131.14 ug/L	-131.14 ppb	07:25:12
1	Si 251.611†	1241116.0	1023263.4	42274 ug/L	42274 ppb	07:24:47
1	Sn 189.927†	-94.7	-91.8	-25.902 ug/L	-25.902 ppb	07:25:12
1	Ti 334.940†	1679172.8	1386089.2	2652.5 ug/L	2652.5 ppb	07:24:47
1	Tl 190.801†	-125.8	-81.5	-2.1305 ug/L	-2.1305 ppb	07:25:12
1	U 409.014†	-12034.0	-8092.1	-288.31 ug/L	-288.31 ppb	07:24:47
1	V 292.402†	21573.5	19175.2	152.63 ug/L	152.63 ppb	07:24:52
1	Zn 213.857†	42672.4	34538.0	443.68 ug/L	443.68 ppb	07:24:52
1	SiO2†	1254793.7	1034537.1	91053 ug/L	91053 ppb	07:26:21
2	Sc Radial	4643.9	4643.9	123 %		07:24:15
2	Y RADIAL	6038.3	6038.3	147.9 %		07:24:15
2	Al 396.153Radial†	85201.5	69570.8	82784 ug/L	82784 ppb	07:23:55
2	Ca 317.933Radial†	12196.4	9926.5	22239 ug/L	22239 ppb	07:23:55
2	Fe 238.204 Radial†	10808.2	8807.6	116430 ug/L	116430 ppb	07:23:55
2	K 766.490 Radial†	62968.9	48884.6	10784 ug/L	10784 ppb	07:23:55
2	Mg 279.077 IEC†	369.0	298.2	13979 ug/L	13979 ppb	07:24:15
2	Na 589.592 Radial†	2344.5	2298.7	924.39 ug/L	924.39 ppb	07:23:55
2	Sr 421.552†	21495.9	17494.7	158.66 ug/L	158.66 ppb	07:23:55
2	Sc 361.383	884967.7	884967.7	120.76 %		07:25:18
2	Y 371.029	884258.4	884258.4	146.30 %		07:25:18
2	Ag 328.068†	-7328.8	-6220.9	1.2318 ug/L	1.2318 ppb	07:25:23
2	As 188.979†	-15.6	9.4	55.980 ug/L	55.980 ppb	07:25:44
2	B 249.677†	840.6	1031.1	12.046 ug/L	12.046 ppb	07:25:23
2	Ba 233.527†	79008.2	65420.9	689.60 ug/L	689.60 ppb	07:25:23
2	Be 313.107†	3960.4	7171.1	9.3793 ug/L	9.3793 ppb	07:25:23
2	Cd 226.502†	821.9	851.7	1.8192 ug/L	1.8192 ppb	07:25:44
2	Co 228.616†	1105.9	962.5	20.673 ug/L	20.673 ppb	07:25:44
2	Cr 267.716†	11599.0	9509.6	158.28 ug/L	158.28 ppb	07:25:23
2	Cu 324.752†	29148.3	18419.5	72.064 ug/L	72.064 ppb	07:25:23
2	Mn 257.610†	1982360.2	1641085.6	2406.2 ug/L	2406.2 ppb	07:25:18
2	Mo 202.031†	5.8	-12.0	8.0965 ug/L	8.0965 ppb	07:25:44
2	Ni 231.604†	3213.0	2578.0	92.476 ug/L	92.476 ppb	07:25:44

2	P 214.914†	1369.1	945.3	677.66 ug/L	677.66 ppb	07:25:44
2	Pb 220.353†	700.6	629.2	110.87 ug/L	110.87 ppb	07:25:44
2	S 181.975 Axial†	384.0	290.9	550.11 ug/L	550.11 ppb	07:25:44
2	Sb 206.836†	56.4	21.1	-2.3755 ug/L	-2.3755 ppb	07:25:44
2	Se 196.026†	-630.6	-500.5	-117.94 ug/L	-117.94 ppb	07:25:44
2	Si 251.611†	1237977.5	1024662.7	42332 ug/L	42332 ppb	07:25:18
2	Sn 189.927†	-99.0	-95.7	-26.984 ug/L	-26.984 ppb	07:25:44
2	Ti 334.940†	1676391.9	1389195.7	2658.5 ug/L	2658.5 ppb	07:25:18
2	Tl 190.801†	-118.7	-76.0	0.2634 ug/L	0.2634 ppb	07:25:44
2	U 409.014†	-11730.5	-7879.5	-281.54 ug/L	-281.54 ppb	07:25:18
2	V 292.402†	21682.7	19335.2	153.51 ug/L	153.51 ppb	07:25:23
2	Zn 213.857†	42996.6	34943.9	448.50 ug/L	448.50 ppb	07:25:23
2	SiO2†	1226483.4	1015136.6	89345 ug/L	89345 ppb	07:26:27
3	Sc Radial	4653.0	4653.0	123 %		07:24:40
3	Y RADIAL	6045.7	6045.7	148.1 %		07:24:40
3	Al 396.153Radial†	85473.4	69656.6	82886 ug/L	82886 ppb	07:24:20
3	Ca 317.933Radial†	12184.9	9897.8	22175 ug/L	22175 ppb	07:24:20
3	Fe 238.204 Radial†	10767.5	8757.3	115770 ug/L	115770 ppb	07:24:20
3	K 766.490 Radial†	63140.5	48924.0	10793 ug/L	10793 ppb	07:24:20
3	Mg 279.077 IEC†	367.5	296.3	13894 ug/L	13894 ppb	07:24:40
3	Na 589.592 Radial†	2352.3	2301.4	925.44 ug/L	925.44 ppb	07:24:20
3	Sr 421.552†	21570.8	17521.5	158.91 ug/L	158.91 ppb	07:24:20
3	Sc 361.383	906421.8	906421.8	123.69 %		07:25:49
3	Y 371.029	906751.2	906751.2	150.02 %		07:25:49
3	Ag 328.068†	-7425.5	-6155.4	1.3874 ug/L	1.3874 ppb	07:25:55
3	As 188.979†	-13.6	11.3	56.997 ug/L	56.997 ppb	07:26:15
3	B 249.677†	850.1	1022.2	11.890 ug/L	11.890 ppb	07:25:55
3	Ba 233.527†	79181.9	64012.9	674.82 ug/L	674.82 ppb	07:25:55
3	Be 313.107†	3847.2	7001.9	9.3004 ug/L	9.3004 ppb	07:25:55
3	Cd 226.502†	806.4	823.1	1.4204 ug/L	1.4204 ppb	07:26:15
3	Co 228.616†	1099.5	935.6	19.902 ug/L	19.902 ppb	07:26:15
3	Cr 267.716†	11653.4	9326.2	155.40 ug/L	155.40 ppb	07:25:55
3	Cu 324.752†	29305.2	17975.1	70.443 ug/L	70.443 ppb	07:25:55
3	Mn 257.610†	2022036.9	1634309.7	2396.2 ug/L	2396.2 ppb	07:25:49
3	Mo 202.031†	-1.1	-17.7	7.4679 ug/L	7.4679 ppb	07:26:15
3	Ni 231.604†	3210.0	2512.6	90.133 ug/L	90.133 ppb	07:26:15
3	P 214.914†	1359.4	910.6	650.48 ug/L	650.48 ppb	07:26:15
3	Pb 220.353†	696.2	611.9	107.99 ug/L	107.99 ppb	07:26:15
3	S 181.975 Axial†	382.6	282.2	533.27 ug/L	533.27 ppb	07:26:15
3	Sb 206.836†	42.7	8.9	-8.0458 ug/L	-8.0458 ppb	07:26:15
3	Se 196.026†	-625.7	-484.2	-105.02 ug/L	-105.02 ppb	07:26:15
3	Si 251.611†	1267831.7	1024535.1	42327 ug/L	42327 ppb	07:25:49
3	Sn 189.927†	-108.4	-101.2	-28.376 ug/L	-28.376 ppb	07:26:15
3	Ti 334.940†	1717065.1	1389222.2	2658.6 ug/L	2658.6 ppb	07:25:49
3	Tl 190.801†	-127.6	-80.9	-1.8722 ug/L	-1.8722 ppb	07:26:15
3	U 409.014†	-12089.2	-7939.6	-283.50 ug/L	-283.50 ppb	07:25:49
3	V 292.402†	21741.5	18957.7	150.21 ug/L	150.21 ppb	07:25:55
3	Zn 213.857†	43170.0	34241.4	439.24 ug/L	439.24 ppb	07:25:55
3	SiO2†	1253106.7	1012622.2	89124 ug/L	89124 ppb	07:26:33

Mean Data: 248045009|959105|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	893271.1	121.90	%	1.572				1.29%
Sc Radial	4656.2	123	%	0.4				0.30%
Y 371.029	892583.6	147.67	%	2.040				1.38%
Y RADIAL	6057.3	148.4	%	0.65				0.44%
Ag 328.068†	-6184.9	0.9578	ug/L	0.61431	0.9578	ppb	0.61431	64.14%
Al 396.153Radial†	68818.8	81890	ug/L	1639.2	81890	ppb	1639.2	2.00%
As 188.979†	11.2	56.689	ug/L	0.6160	56.689	ppb	0.6160	1.09%
B 249.677†	1035.3	12.426	ug/L	0.7972	12.426	ppb	0.7972	6.42%
Ba 233.527†	64773.4	682.77	ug/L	7.455	682.77	ppb	7.455	1.09%
Be 313.107†	7140.8	9.3607	ug/L	0.05348	9.3607	ppb	0.05348	0.57%
Ca 317.933Radial†	9811.3	21981	ug/L	392.5	21981	ppb	392.5	1.79%
Cd 226.502†	838.6	1.7645	ug/L	0.32025	1.7645	ppb	0.32025	18.15%
Co 228.616†	949.1	20.310	ug/L	0.3874	20.310	ppb	0.3874	1.91%
Cr 267.716†	9417.0	156.70	ug/L	1.461	156.70	ppb	1.461	0.93%
Cu 324.752†	18203.2	71.211	ug/L	0.8136	71.211	ppb	0.8136	1.14%
Fe 238.204 Radial†	8690.7	114890	ug/L	2127.9	114890	ppb	2127.9	1.85%
K 766.490 Radial†	48355.4	10667	ug/L	209.8	10667	ppb	209.8	1.97%

Mg 279.077 IEC†	297.3	13940 ug/L	43.1	13940 ppb	43.1	0.31%
Mn 257.610†	1639055.2	2403.0 ug/L	5.93	2403.0 ppb	5.93	0.25%
Mo 202.031†	-16.9	7.4744 ug/L	0.61883	7.4744 ppb	0.61883	8.28%
Na 589.592 Radial†	2295.9	923.24 ug/L	2.957	923.24 ppb	2.957	0.32%
Ni 231.604†	2559.1	91.798 ug/L	1.4504	91.798 ppb	1.4504	1.58%
P 214.914†	935.9	671.28 ug/L	18.458	671.28 ppb	18.458	2.75%
Pb 220.353†	628.1	110.69 ug/L	2.621	110.69 ppb	2.621	2.37%
S 181.975 Axial†	289.8	548.21 ug/L	14.087	548.21 ppb	14.087	2.57%
Sb 206.836†	16.6	-4.4009 ug/L	3.16307	-4.4009 ppb	3.16307	71.87%
Se 196.026†	-495.7	-118.03 ug/L	13.063	-118.03 ppb	13.063	11.07%
Si 251.611†	1024153.7	42311 ug/L	32.0	42311 ppb	32.0	0.08%
Sn 189.927†	-96.2	-27.087 ug/L	1.2401	-27.087 ppb	1.2401	4.58%
Sr 421.552†	17320.1	157.08 ug/L	2.956	157.08 ppb	2.956	1.88%
Ti 334.940†	1388169.0	2656.5 ug/L	3.50	2656.5 ppb	3.50	0.13%
Tl 190.801†	-79.5	-1.2464 ug/L	1.31389	-1.2464 ppb	1.31389	105.41%
U 409.014†	-7970.4	-284.45 ug/L	3.484	-284.45 ppb	3.484	1.22%
V 292.402†	19156.0	152.12 ug/L	1.712	152.12 ppb	1.712	1.13%
Zn 213.857†	34574.4	443.81 ug/L	4.634	443.81 ppb	4.634	1.04%
SiO2†	1020765.3	89841 ug/L	1055.5	89841 ppb	1055.5	1.17%

Sequence No.: 108

Sample ID: 248045010|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 111

Date Collected: 3/27/2010 07:28:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045010|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4579.6	4579.6	121 %		07:30:38
1	Y RADIAL	5992.3	5992.3	146.8 %		07:30:38
1	Al 396.153Radial†	53612.9	44418.7	52855 ug/L	52855 ppb	07:30:38
1	Ca 317.933Radial†	11659.9	9622.6	21558 ug/L	21558 ppb	07:30:38
1	Fe 238.204 Radial†	9735.5	8044.3	106340 ug/L	106340 ppb	07:30:38
1	K 766.490 Radial†	51834.5	40396.3	8909.9 ug/L	8909.9 ppb	07:30:38
1	Mg 279.077 IEC†	274.5	224.2	10493 ug/L	10493 ppb	07:30:58
1	Na 589.592 Radial†	3137.6	2981.6	1199.0 ug/L	1199.0 ppb	07:30:38
1	Sr 421.552†	20155.1	16632.0	150.83 ug/L	150.83 ppb	07:30:38
1	Sc 361.383	877885.4	877885.4	119.80 %		07:31:55
1	Y 371.029	871981.0	871981.0	144.27 %		07:31:55
1	Ag 328.068†	-6497.5	-5575.9	1.6695 ug/L	1.6695 ppb	07:32:00
1	As 188.979†	-35.4	-7.3	47.035 ug/L	47.035 ppb	07:32:20
1	B 249.677†	930.7	1111.8	16.118 ug/L	16.118 ppb	07:32:00
1	Ba 233.527†	89631.5	74816.3	787.72 ug/L	787.72 ppb	07:32:00
1	Be 313.107†	-7957.0	-2750.5	5.6695 ug/L	5.6695 ppb	07:32:00
1	Cd 226.502†	761.7	807.0	2.1105 ug/L	2.1105 ppb	07:32:20
1	Co 228.616†	1082.2	950.1	19.705 ug/L	19.705 ppb	07:32:20
1	Cr 267.716†	3822.6	3095.8	58.971 ug/L	58.971 ppb	07:32:20
1	Cu 324.752†	41599.8	29008.0	109.31 ug/L	109.31 ppb	07:32:00
1	Mn 257.610†	2315348.5	1932286.7	2830.3 ug/L	2830.3 ppb	07:31:55
1	Mo 202.031†	23.8	3.1	8.8264 ug/L	8.8264 ppb	07:32:20
1	Ni 231.604†	1661.1	1304.0	46.769 ug/L	46.769 ppb	07:32:20
1	P 214.914†	2318.6	1747.0	1318.9 ug/L	1318.9 ppb	07:32:20
1	Pb 220.353†	1551.7	1344.3	229.34 ug/L	229.34 ppb	07:32:20
1	S 181.975 Axial†	502.7	392.5	753.34 ug/L	753.34 ppb	07:32:20
1	Sb 206.836†	47.3	13.9	-6.1760 ug/L	-6.1760 ppb	07:32:20
1	Se 196.026†	-572.4	-456.1	-113.09 ug/L	-113.09 ppb	07:32:20
1	Si 251.611†	971575.8	810556.7	33486 ug/L	33486 ppb	07:31:55
1	Sn 189.927†	-88.4	-87.5	-24.452 ug/L	-24.452 ppb	07:32:20
1	Ti 334.940†	1917482.4	1601642.2	3065.0 ug/L	3065.0 ppb	07:31:55
1	Tl 190.801†	-138.1	-93.0	-1.6233 ug/L	-1.6233 ppb	07:32:20
1	U 409.014†	-10710.8	-7106.8	-253.89 ug/L	-253.89 ppb	07:31:55
1	V 292.402†	18251.6	16615.9	130.18 ug/L	130.18 ppb	07:32:00
1	Zn 213.857†	48371.8	39718.0	514.00 ug/L	514.00 ppb	07:32:00
1	SiO2†	971385.8	810389.9	71325 ug/L	71325 ppb	07:33:29
2	Sc Radial	4720.7	4720.7	125 %		07:31:03
2	Y RADIAL	6106.9	6106.9	149.6 %		07:31:03
2	Al 396.153Radial†	53967.3	43377.3	51616 ug/L	51616 ppb	07:31:03
2	Ca 317.933Radial†	11700.3	9366.6	20985 ug/L	20985 ppb	07:31:03
2	Fe 238.204 Radial†	9789.8	7847.0	103730 ug/L	103730 ppb	07:31:03
2	K 766.490 Radial†	52583.4	39715.5	8759.8 ug/L	8759.8 ppb	07:31:03
2	Mg 279.077 IEC†	282.7	224.0	10486 ug/L	10486 ppb	07:31:23
2	Na 589.592 Radial†	3145.8	2910.5	1170.4 ug/L	1170.4 ppb	07:31:03
2	Sr 421.552†	20339.7	16281.7	147.66 ug/L	147.66 ppb	07:31:03
2	Sc 361.383	910465.7	910465.7	124.24 %		07:32:26
2	Y 371.029	903380.6	903380.6	149.46 %		07:32:26
2	Ag 328.068†	-6473.4	-5362.4	2.0617 ug/L	2.0617 ppb	07:32:31
2	As 188.979†	-32.9	-4.2	48.031 ug/L	48.031 ppb	07:32:51
2	B 249.677†	908.1	1065.9	15.159 ug/L	15.159 ppb	07:32:31
2	Ba 233.527†	89248.8	71831.0	756.33 ug/L	756.33 ppb	07:32:31
2	Be 313.107†	-7932.5	-2493.0	5.7184 ug/L	5.7184 ppb	07:32:31
2	Cd 226.502†	763.6	785.8	2.0339 ug/L	2.0339 ppb	07:32:51
2	Co 228.616†	1086.5	921.2	18.965 ug/L	18.965 ppb	07:32:51
2	Cr 267.716†	3816.3	2976.6	56.860 ug/L	56.860 ppb	07:32:51
2	Cu 324.752†	41509.6	27692.8	104.48 ug/L	104.48 ppb	07:32:31
2	Mn 257.610†	2364713.2	1902858.3	2787.1 ug/L	2787.1 ppb	07:32:26
2	Mo 202.031†	30.0	7.4	9.0516 ug/L	9.0516 ppb	07:32:51
2	Ni 231.604†	1655.5	1249.9	44.830 ug/L	44.830 ppb	07:32:51



2	P 214.914†	2288.7	1653.6	1246.1 ug/L	1246.1 ppb	07:32:51
2	Pb 220.353†	1544.9	1292.5	220.47 ug/L	220.47 ppb	07:32:51
2	S 181.975 Axial†	512.3	385.3	739.51 ug/L	739.51 ppb	07:32:51
2	Sb 206.836†	51.4	15.8	-5.0726 ug/L	-5.0726 ppb	07:32:51
2	Se 196.026†	-574.1	-440.4	-106.23 ug/L	-106.23 ppb	07:32:51
2	Si 251.611†	997565.6	802453.7	33152 ug/L	33152 ppb	07:32:26
2	Sn 189.927†	-74.3	-73.5	-20.858 ug/L	-20.858 ppb	07:32:51
2	Ti 334.940†	1968244.2	1585222.7	3033.6 ug/L	3033.6 ppb	07:32:26
2	Tl 190.801†	-150.4	-98.8	-4.5560 ug/L	-4.5560 ppb	07:32:51
2	U 409.014†	-11077.3	-7081.8	-252.74 ug/L	-252.74 ppb	07:32:26
2	V 292.402†	18130.8	15973.5	124.83 ug/L	124.83 ppb	07:32:31
2	Zn 213.857†	48147.1	38092.3	492.70 ug/L	492.70 ppb	07:32:31
2	SiO2†	974962.0	784252.5	69024 ug/L	69024 ppb	07:33:35
3	Sc Radial	4571.4	4571.4	121 %		07:31:28
3	Y RADIAL	5973.5	5973.5	146.3 %		07:31:28
3	Al 396.153Radial†	53158.2	44121.4	52501 ug/L	52501 ppb	07:31:28
3	Ca 317.933Radial†	11544.3	9544.0	21382 ug/L	21382 ppb	07:31:28
3	Fe 238.204 Radial†	9675.1	8008.6	105870 ug/L	105870 ppb	07:31:28
3	K 766.490 Radial†	51626.4	40300.7	8888.9 ug/L	8888.9 ppb	07:31:28
3	Mg 279.077 IEC†	280.6	229.7	10753 ug/L	10753 ppb	07:31:48
3	Na 589.592 Radial†	3109.2	2962.7	1191.4 ug/L	1191.4 ppb	07:31:28
3	Sr 421.552†	19971.7	16509.9	149.73 ug/L	149.73 ppb	07:31:28
3	Sc 361.383	875842.1	875842.1	119.52 %		07:32:57
3	Y 371.029	870778.8	870778.8	144.07 %		07:32:57
3	Ag 328.068†	-6392.0	-5500.3	1.9522 ug/L	1.9522 ppb	07:33:02
3	As 188.979†	-30.3	-3.0	49.438 ug/L	49.438 ppb	07:33:23
3	B 249.677†	902.6	1090.1	15.541 ug/L	15.541 ppb	07:33:02
3	Ba 233.527†	88427.5	73983.5	778.97 ug/L	778.97 ppb	07:33:02
3	Be 313.107†	-8060.9	-2852.9	5.6066 ug/L	5.6066 ppb	07:33:02
3	Cd 226.502†	777.3	821.5	2.3949 ug/L	2.3949 ppb	07:33:23
3	Co 228.616†	1073.1	944.5	19.560 ug/L	19.560 ppb	07:33:23
3	Cr 267.716†	3863.6	3137.6	59.559 ug/L	59.559 ppb	07:33:23
3	Cu 324.752†	41119.3	28687.0	108.14 ug/L	108.14 ppb	07:33:02
3	Mn 257.610†	2305854.6	1928852.3	2825.3 ug/L	2825.3 ppb	07:32:57
3	Mo 202.031†	10.2	-8.2	7.6402 ug/L	7.6402 ppb	07:33:23
3	Ni 231.604†	1644.8	1293.7	46.398 ug/L	46.398 ppb	07:33:23
3	P 214.914†	2272.6	1713.0	1291.9 ug/L	1291.9 ppb	07:33:23
3	Pb 220.353†	1551.1	1346.9	229.77 ug/L	229.77 ppb	07:33:23
3	S 181.975 Axial†	490.2	383.0	734.97 ug/L	734.97 ppb	07:33:23
3	Sb 206.836†	48.8	15.2	-5.5680 ug/L	-5.5680 ppb	07:33:23
3	Se 196.026†	-572.8	-457.5	-115.77 ug/L	-115.77 ppb	07:33:23
3	Si 251.611†	967131.1	808730.0	33411 ug/L	33411 ppb	07:32:57
3	Sn 189.927†	-91.7	-90.4	-25.189 ug/L	-25.189 ppb	07:33:23
3	Ti 334.940†	1908868.6	1598169.3	3058.3 ug/L	3058.3 ppb	07:32:57
3	Tl 190.801†	-140.8	-95.6	-2.7992 ug/L	-2.7992 ppb	07:33:23
3	U 409.014†	-10808.0	-7208.9	-257.31 ug/L	-257.31 ppb	07:32:57
3	V 292.402†	17975.7	16420.6	128.48 ug/L	128.48 ppb	07:33:02
3	Zn 213.857†	47866.8	39389.7	509.69 ug/L	509.69 ppb	07:33:02
3	SiO2†	985750.2	824300.1	72549 ug/L	72549 ppb	07:33:41

Mean Data: 248045010|959105|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	888064.4	121.19 %		2.651				2.19%
Sc Radial	4623.9	122 %		2.2				1.82%
Y 371.029	882046.8	145.93 %		3.058				2.10%
Y RADIAL	6024.2	147.6 %		1.77				1.20%
Ag 328.068†	-5479.5	1.8945 ug/L		0.20242	1.8945 ppb		0.20242	10.68%
Al 396.153Radial†	43972.5	52324 ug/L		638.3	52324 ppb		638.3	1.22%
As 188.979†	-4.8	48.168 ug/L		1.2073	48.168 ppb		1.2073	2.51%
B 249.677†	1089.3	15.606 ug/L		0.4825	15.606 ppb		0.4825	3.09%
Ba 233.527†	73543.6	774.34 ug/L		16.195	774.34 ppb		16.195	2.09%
Be 313.107†	-2698.8	5.6648 ug/L		0.05605	5.6648 ppb		0.05605	0.99%
Ca 317.933Radial†	9511.1	21308 ug/L		293.7	21308 ppb		293.7	1.38%
Cd 226.502†	804.8	2.1798 ug/L		0.19021	2.1798 ppb		0.19021	8.73%
Co 228.616†	938.6	19.410 ug/L		0.3921	19.410 ppb		0.3921	2.02%
Cr 267.716†	3070.0	58.463 ug/L		1.4194	58.463 ppb		1.4194	2.43%
Cu 324.752†	28462.6	107.31 ug/L		2.522	107.31 ppb		2.522	2.35%
Fe 238.204 Radial†	7966.6	105320 ug/L		1389.4	105320 ppb		1389.4	1.32%
K 766.490 Radial†	40137.5	8852.9 ug/L		81.27	8852.9 ppb		81.27	0.92%

Mg 279.077 IEC†	226.0	10577 ug/L	152.0	10577 ppb	152.0	1.44%
Mn 257.610†	1921332.5	2814.2 ug/L	23.62	2814.2 ppb	23.62	0.84%
Mo 202.031†	0.8	8.5061 ug/L	0.75830	8.5061 ppb	0.75830	8.91%
Na 589.592 Radial†	2951.6	1186.9 ug/L	14.80	1186.9 ppb	14.80	1.25%
Ni 231.604†	1282.5	45.999 ug/L	1.0295	45.999 ppb	1.0295	2.24%
P 214.914†	1704.5	1285.6 ug/L	36.76	1285.6 ppb	36.76	2.86%
Pb 220.353†	1327.9	226.53 ug/L	5.252	226.53 ppb	5.252	2.32%
S 181.975 Axial†	386.9	742.61 ug/L	9.568	742.61 ppb	9.568	1.29%
Sb 206.836†	15.0	-5.6055 ug/L	0.55265	-5.6055 ppb	0.55265	9.86%
Se 196.026†	-451.3	-111.70 ug/L	4.921	-111.70 ppb	4.921	4.41%
Si 251.611†	807246.8	33350 ug/L	175.6	33350 ppb	175.6	0.53%
Sn 189.927†	-83.8	-23.500 ug/L	2.3175	-23.500 ppb	2.3175	9.86%
Sr 421.552†	16474.5	149.41 ug/L	1.612	149.41 ppb	1.612	1.08%
Ti 334.940†	1595011.4	3052.3 ug/L	16.58	3052.3 ppb	16.58	0.54%
Tl 190.801†	-95.8	-2.9928 ug/L	1.47592	-2.9928 ppb	1.47592	49.31%
U 409.014†	-7132.5	-254.65 ug/L	2.377	-254.65 ppb	2.377	0.93%
V 292.402†	16336.7	127.83 ug/L	2.732	127.83 ppb	2.732	2.14%
Zn 213.857†	39066.6	505.47 ug/L	11.261	505.47 ppb	11.261	2.23%
SiO2†	806314.1	70966 ug/L	1789.5	70966 ppb	1789.5	2.52%

Sequence No.: 109  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 3/27/2010 07:35:52  
 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	4139.1	4139.1	109 %		07:37:44
1	Y RADIAL	4425.3	4425.3	108.4 %		07:37:44
1	Al 396.153Radial†	5037.2	4682.8	5547.4 ug/L	5547.4 ppb	07:37:44
1	Ca 317.933Radial†	2600.9	2358.3	5283.5 ug/L	5283.5 ppb	07:38:04
1	Fe 238.204 Radial†	430.2	385.3	5108.9 ug/L	5108.9 ppb	07:38:04
1	K 766.490 Radial†	27601.9	22781.9	5023.5 ug/L	5023.5 ppb	07:37:44
1	Mg 279.077 IEC†	123.3	110.1	5204.9 ug/L	5204.9 ppb	07:38:04
1	Na 589.592 Radial†	25883.3	24073.9	9680.8 ug/L	9680.8 ppb	07:37:44
1	Sr 421.552†	60579.4	55401.2	502.93 ug/L	502.93 ppb	07:37:44
1	Sc 361.383	845749.7	845749.7	115.41 %		07:39:01
1	Y 371.029	690481.7	690481.7	114.24 %		07:39:01
1	Ag 328.068†	105103.7	90915.6	520.43 ug/L	520.43 ppb	07:39:07
1	As 188.979†	972.6	865.0	529.53 ug/L	529.53 ppb	07:39:27
1	B 249.677†	19205.7	16975.9	508.63 ug/L	508.63 ppb	07:39:07
1	Ba 233.527†	56546.3	48992.4	514.78 ug/L	514.78 ppb	07:39:07
1	Be 313.107†	1277188.4	1110519.9	519.63 ug/L	519.63 ppb	07:39:01
1	Cd 226.502†	36324.3	31644.6	514.08 ug/L	514.08 ppb	07:39:07
1	Co 228.616†	20913.8	18167.6	522.12 ug/L	522.12 ppb	07:39:07
1	Cr 267.716†	39116.2	33797.5	518.51 ug/L	518.51 ppb	07:39:07
1	Cu 324.752†	172574.0	143810.9	513.35 ug/L	513.35 ppb	07:39:07
1	Mn 257.610†	401280.2	347266.3	507.14 ug/L	507.14 ppb	07:39:07
1	Mo 202.031†	5852.3	5054.0	510.81 ug/L	510.81 ppb	07:39:27
1	Ni 231.604†	16999.9	14647.1	525.20 ug/L	525.20 ppb	07:39:07
1	P 214.914†	3820.4	3121.8	2423.4 ug/L	2423.4 ppb	07:39:27
1	Pb 220.353†	3313.3	2919.9	506.63 ug/L	506.63 ppb	07:39:27
1	S 181.975 Axial†	651.3	537.2	1043.5 ug/L	1043.5 ppb	07:39:27
1	Sb 206.836†	1268.5	1073.5	516.14 ug/L	516.14 ppb	07:39:27
1	Se 196.026†	634.8	571.7	531.06 ug/L	531.06 ppb	07:39:27
1	Si 251.611†	73522.1	63248.0	2606.7 ug/L	2606.7 ppb	07:39:07
1	Sn 189.927†	2305.0	1983.5	503.52 ug/L	503.52 ppb	07:39:27
1	Ti 334.940†	304692.1	265046.8	506.73 ug/L	506.73 ppb	07:39:07
1	Tl 190.801†	1347.2	1189.5	516.33 ug/L	516.33 ppb	07:39:27
1	U 409.014†	15372.1	15153.3	513.54 ug/L	513.54 ppb	07:39:07
1	V 292.402†	64735.9	57471.5	522.82 ug/L	522.82 ppb	07:39:07
1	Zn 213.857†	45887.1	39099.3	517.29 ug/L	517.29 ppb	07:39:07
1	SiO2†	72992.0	62780.4	5511.6 ug/L	5511.6 ppb	07:40:34
2	Sc Radial	4493.9	4493.9	119 %		07:38:09
2	Y RADIAL	4769.0	4769.0	116.8 %		07:38:09
2	Al 396.153Radial†	4958.2	4252.2	5035.3 ug/L	5035.3 ppb	07:38:09
2	Ca 317.933Radial†	2615.0	2182.3	4889.2 ug/L	4889.2 ppb	07:38:29
2	Fe 238.204 Radial†	433.5	357.0	4733.7 ug/L	4733.7 ppb	07:38:29
2	K 766.490 Radial†	27532.2	20728.9	4570.7 ug/L	4570.7 ppb	07:38:09
2	Mg 279.077 IEC†	127.7	104.8	4957.1 ug/L	4957.1 ppb	07:38:29
2	Na 589.592 Radial†	25424.9	21817.5	8773.5 ug/L	8773.5 ppb	07:38:09
2	Sr 421.552†	59714.6	50295.4	456.58 ug/L	456.58 ppb	07:38:09
2	Sc 361.383	841313.4	841313.4	114.81 %		07:39:32
2	Y 371.029	687286.3	687286.3	113.71 %		07:39:32
2	Ag 328.068†	101366.0	88140.2	504.47 ug/L	504.47 ppb	07:39:37
2	As 188.979†	951.9	851.4	521.02 ug/L	521.02 ppb	07:39:57
2	B 249.677†	18512.3	16459.7	493.21 ug/L	493.21 ppb	07:39:37
2	Ba 233.527†	54341.9	47330.6	497.32 ug/L	497.32 ppb	07:39:37
2	Be 313.107†	1255091.6	1097108.4	513.33 ug/L	513.33 ppb	07:39:32
2	Cd 226.502†	34951.8	30615.1	497.38 ug/L	497.38 ppb	07:39:37
2	Co 228.616†	19971.8	17442.7	501.32 ug/L	501.32 ppb	07:39:37
2	Cr 267.716†	37693.0	32736.5	502.21 ug/L	502.21 ppb	07:39:37
2	Cu 324.752†	165799.9	138699.0	495.09 ug/L	495.09 ppb	07:39:37
2	Mn 257.610†	386290.0	336042.9	490.73 ug/L	490.73 ppb	07:39:37
2	Mo 202.031†	5776.1	5014.4	506.78 ug/L	506.78 ppb	07:39:57
2	Ni 231.604†	16315.5	14128.7	506.61 ug/L	506.61 ppb	07:39:37

2	P 214.914†	3776.1	3100.7	2410.1 ug/L	2410.1 ppb	07:39:57
2	Pb 220.353†	3295.6	2919.6	506.51 ug/L	506.51 ppb	07:39:57
2	S 181.975 Axial†	632.8	524.1	1018.2 ug/L	1018.2 ppb	07:39:57
2	Sb 206.836†	1247.2	1060.7	510.08 ug/L	510.08 ppb	07:39:57
2	Se 196.026†	622.0	563.5	522.56 ug/L	522.56 ppb	07:39:57
2	Si 251.611†	70379.7	60846.8	2507.5 ug/L	2507.5 ppb	07:39:37
2	Sn 189.927†	2280.5	1972.7	500.73 ug/L	500.73 ppb	07:39:57
2	Ti 334.940†	292317.5	255660.3	488.76 ug/L	488.76 ppb	07:39:37
2	Tl 190.801†	1342.2	1191.3	517.01 ug/L	517.01 ppb	07:39:57
2	U 409.014†	14773.8	14702.4	498.29 ug/L	498.29 ppb	07:39:37
2	V 292.402†	62279.9	55628.0	506.26 ug/L	506.26 ppb	07:39:37
2	Zn 213.857†	44224.3	37860.7	500.95 ug/L	500.95 ppb	07:39:37
2	SiO2†	70920.4	61309.5	5382.2 ug/L	5382.2 ppb	07:40:39
3	Sc Radial	4222.2	4222.2	111 %		07:38:34
3	Y RADIAL	4501.6	4501.6	110.3 %		07:38:34
3	Al 396.153Radial†	4831.6	4407.6	5220.7 ug/L	5220.7 ppb	07:38:34
3	Ca 317.933Radial†	2631.6	2339.0	5240.3 ug/L	5240.3 ppb	07:38:54
3	Fe 238.204 Radial†	432.4	379.5	5031.9 ug/L	5031.9 ppb	07:38:54
3	K 766.490 Radial†	26832.7	21595.0	4761.7 ug/L	4761.7 ppb	07:38:34
3	Mg 279.077 IEC†	131.2	114.9	5434.4 ug/L	5434.4 ppb	07:38:54
3	Na 589.592 Radial†	24684.4	22532.4	9061.0 ug/L	9061.0 ppb	07:38:34
3	Sr 421.552†	57995.3	51992.5	471.98 ug/L	471.98 ppb	07:38:34
3	Sc 361.383	844554.8	844554.8	115.25 %		07:40:03
3	Y 371.029	688658.5	688658.5	113.94 %		07:40:03
3	Ag 328.068†	102455.8	88747.0	508.02 ug/L	508.02 ppb	07:40:08
3	As 188.979†	932.5	831.4	509.04 ug/L	509.04 ppb	07:40:28
3	B 249.677†	18786.6	16635.8	498.45 ug/L	498.45 ppb	07:40:08
3	Ba 233.527†	55124.2	47827.8	502.55 ug/L	502.55 ppb	07:40:08
3	Be 313.107†	1267104.3	1103335.8	516.24 ug/L	516.24 ppb	07:40:03
3	Cd 226.502†	35496.9	30971.2	503.14 ug/L	503.14 ppb	07:40:08
3	Co 228.616†	20356.7	17709.9	508.96 ug/L	508.96 ppb	07:40:08
3	Cr 267.716†	38212.3	33061.0	507.21 ug/L	507.21 ppb	07:40:08
3	Cu 324.752†	167717.1	139808.2	499.06 ug/L	499.06 ppb	07:40:08
3	Mn 257.610†	392031.6	339733.4	496.13 ug/L	496.13 ppb	07:40:08
3	Mo 202.031†	5678.4	4910.3	496.30 ug/L	496.30 ppb	07:40:28
3	Ni 231.604†	16587.4	14310.0	513.11 ug/L	513.11 ppb	07:40:08
3	P 214.914†	3708.0	3029.0	2351.1 ug/L	2351.1 ppb	07:40:28
3	Pb 220.353†	3230.5	2852.1	494.82 ug/L	494.82 ppb	07:40:28
3	S 181.975 Axial†	618.3	509.3	989.46 ug/L	989.46 ppb	07:40:28
3	Sb 206.836†	1220.2	1033.1	496.91 ug/L	496.91 ppb	07:40:28
3	Se 196.026†	626.2	565.1	524.74 ug/L	524.74 ppb	07:40:28
3	Si 251.611†	71436.8	61528.7	2535.8 ug/L	2535.8 ppb	07:40:08
3	Sn 189.927†	2245.2	1934.5	491.09 ug/L	491.09 ppb	07:40:28
3	Ti 334.940†	296447.5	258266.6	493.75 ug/L	493.75 ppb	07:40:08
3	Tl 190.801†	1299.1	1149.5	498.99 ug/L	498.99 ppb	07:40:28
3	U 409.014†	15014.1	14861.5	503.66 ug/L	503.66 ppb	07:40:08
3	V 292.402†	63096.8	56128.6	510.57 ug/L	510.57 ppb	07:40:08
3	Zn 213.857†	44862.7	38266.7	506.28 ug/L	506.28 ppb	07:40:08
3	SiO2†	71845.5	61875.1	5432.3 ug/L	5432.3 ppb	07:40:44

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	843872.6	115.16 %	0.313			0.27%
Sc Radial	4285.1	113 %	4.9			4.33%
Y 371.029	688808.8	113.96 %	0.265			0.23%
Y RADIAL	4565.3	111.8 %	4.42			3.95%
Ag 328.068†	89267.6	510.97 ug/L	8.377	510.97 ppb	8.377	1.64%
QC value within limits for Ag 328.068 Recovery = 102.19%						
Al 396.153Radial†	4447.5	5267.8 ug/L	259.29	5267.8 ppb	259.29	4.92%
QC value within limits for Al 396.153Radial Recovery = 105.36%						
As 188.979†	849.3	519.87 ug/L	10.294	519.87 ppb	10.294	1.98%
QC value within limits for As 188.979 Recovery = 103.97%						
B 249.677†	16690.5	500.10 ug/L	7.840	500.10 ppb	7.840	1.57%
QC value within limits for B 249.677 Recovery = 100.02%						
Ba 233.527†	48050.2	504.88 ug/L	8.964	504.88 ppb	8.964	1.78%
QC value within limits for Ba 233.527 Recovery = 100.98%						
Be 313.107†	1103654.7	516.40 ug/L	3.154	516.40 ppb	3.154	0.61%
QC value within limits for Be 313.107 Recovery = 103.28%						
Ca 317.933Radial†	2293.2	5137.7 ug/L	216.27	5137.7 ppb	216.27	4.21%

QC value within limits for Ca 317.933 Radial Recovery = 102.75%							
Cd	226.502†	31076.9	504.86 ug/L	8.485	504.86 ppb	8.485	1.68%
QC value within limits for Cd 226.502 Recovery = 100.97%							
Co	228.616†	17773.4	510.80 ug/L	10.521	510.80 ppb	10.521	2.06%
QC value within limits for Co 228.616 Recovery = 102.16%							
Cr	267.716†	33198.3	509.31 ug/L	8.350	509.31 ppb	8.350	1.64%
QC value within limits for Cr 267.716 Recovery = 101.86%							
Cu	324.752†	140772.7	502.50 ug/L	9.603	502.50 ppb	9.603	1.91%
QC value within limits for Cu 324.752 Recovery = 100.50%							
Fe	238.204 Radial†	373.9	4958.2 ug/L	198.17	4958.2 ppb	198.17	4.00%
QC value within limits for Fe 238.204 Radial Recovery = 99.16%							
K	766.490 Radial†	21702.0	4785.3 ug/L	227.30	4785.3 ppb	227.30	4.75%
QC value within limits for K 766.490 Radial Recovery = 95.71%							
Mg	279.077 IEC†	109.9	5198.8 ug/L	238.74	5198.8 ppb	238.74	4.59%
QC value within limits for Mg 279.077 IEC Recovery = 103.98%							
Mn	257.610†	341014.2	498.00 ug/L	8.363	498.00 ppb	8.363	1.68%
QC value within limits for Mn 257.610 Recovery = 99.60%							
Mo	202.031†	4992.9	504.63 ug/L	7.495	504.63 ppb	7.495	1.49%
QC value within limits for Mo 202.031 Recovery = 100.93%							
Na	589.592 Radial†	22808.0	9171.8 ug/L	463.71	9171.8 ppb	463.71	5.06%
QC value within limits for Na 589.592 Radial Recovery = 91.72%							
Ni	231.604†	14361.9	514.97 ug/L	9.433	514.97 ppb	9.433	1.83%
QC value within limits for Ni 231.604 Recovery = 102.99%							
P	214.914†	3083.8	2394.9 ug/L	38.50	2394.9 ppb	38.50	1.61%
QC value within limits for P 214.914 Recovery = 95.79%							
Pb	220.353†	2897.2	502.65 ug/L	6.787	502.65 ppb	6.787	1.35%
QC value within limits for Pb 220.353 Recovery = 100.53%							
S	181.975 Axial†	523.5	1017.0 ug/L	27.05	1017.0 ppb	27.05	2.66%
QC value within limits for S 181.975 Axial Recovery = 101.70%							
Sb	206.836†	1055.8	507.71 ug/L	9.828	507.71 ppb	9.828	1.94%
QC value within limits for Sb 206.836 Recovery = 101.54%							
Se	196.026†	566.8	526.12 ug/L	4.415	526.12 ppb	4.415	0.84%
QC value within limits for Se 196.026 Recovery = 105.22%							
Si	251.611†	61874.5	2550.0 ug/L	51.08	2550.0 ppb	51.08	2.00%
QC value within limits for Si 251.611 Recovery = 102.00%							
Sn	189.927†	1963.6	498.45 ug/L	6.521	498.45 ppb	6.521	1.31%
QC value within limits for Sn 189.927 Recovery = 99.69%							
Sr	421.552†	52563.0	477.16 ug/L	23.605	477.16 ppb	23.605	4.95%
QC value within limits for Sr 421.552 Recovery = 95.43%							
Ti	334.940†	259657.9	496.42 ug/L	9.277	496.42 ppb	9.277	1.87%
QC value within limits for Ti 334.940 Recovery = 99.28%							
Tl	190.801†	1176.8	510.77 ug/L	10.213	510.77 ppb	10.213	2.00%
QC value within limits for Tl 190.801 Recovery = 102.15%							
U	409.014†	14905.7	505.16 ug/L	7.739	505.16 ppb	7.739	1.53%
QC value within limits for U 409.014 Recovery = 101.03%							
V	292.402†	56409.3	513.22 ug/L	8.592	513.22 ppb	8.592	1.67%
QC value within limits for V 292.402 Recovery = 102.64%							
Zn	213.857†	38408.9	508.17 ug/L	8.333	508.17 ppb	8.333	1.64%
QC value within limits for Zn 213.857 Recovery = 101.63%							
SiO2†		61988.3	5442.0 ug/L	65.23	5442.0 ppb	65.23	1.20%
QC value within limits for SiO2 Recovery = 101.77%							
All analyte(s) passed QC.							

Sequence No.: 110

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/27/2010 07:42:54

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	4346.9	4346.9	115 %		07:44:47
1	Y RADIAL	4668.7	4668.7	114.4 %		07:44:47
1	Al 396.153Radial†	-74.5	8.0	9.4928 ug/L	9.4928 ppb	07:45:07
1	Ca 317.933Radial†	26.8	1.4	3.1627 ug/L	3.1627 ppb	07:45:07
1	Fe 238.204 Radial†	9.7	0.0	0.1661 ug/L	0.1661 ppb	07:45:07
1	K 766.490 Radial†	2547.4	-258.7	-57.047 ug/L	-57.047 ppb	07:44:47
1	Mg 279.077 IEC†	2.7	-0.5	-21.989 ug/L	-21.989 ppb	07:45:07
1	Na 589.592 Radial†	-880.9	-381.3	-153.35 ug/L	-153.35 ppb	07:44:47
1	Sr 421.552†	33.3	-10.3	-0.0934 ug/L	-0.0934 ppb	07:44:47
1	Sc 361.383	821807.9	821807.9	112.15 %		07:46:03
1	Y 371.029	678834.3	678834.3	112.31 %		07:46:03
1	Ag 328.068†	224.7	48.2	0.2747 ug/L	0.2747 ppb	07:46:03
1	As 188.979†	-23.8	1.1	0.6751 ug/L	0.6751 ppb	07:46:23
1	B 249.677†	-268.7	95.4	2.8696 ug/L	2.8696 ppb	07:46:23
1	Ba 233.527†	36.0	29.6	0.3117 ug/L	0.3117 ppb	07:46:23
1	Be 313.107†	-3930.5	386.8	0.1814 ug/L	0.1814 ppb	07:46:03
1	Cd 226.502†	-153.8	34.0	0.5538 ug/L	0.5538 ppb	07:46:23
1	Co 228.616†	-32.6	17.7	0.5077 ug/L	0.5077 ppb	07:46:23
1	Cr 267.716†	108.2	1.4	0.0221 ug/L	0.0221 ppb	07:46:23
1	Cu 324.752†	6075.0	-299.9	-1.0723 ug/L	-1.0723 ppb	07:46:03
1	Mn 257.610†	828.0	312.8	0.4574 ug/L	0.4574 ppb	07:46:23
1	Mo 202.031†	20.1	1.2	0.1169 ug/L	0.1169 ppb	07:46:23
1	Ni 231.604†	98.9	5.7	0.2035 ug/L	0.2035 ppb	07:46:23
1	P 214.914†	167.6	-39.0	-31.299 ug/L	-31.299 ppb	07:46:23
1	Pb 220.353†	-59.8	-4.2	-0.7298 ug/L	-0.7298 ppb	07:46:23
1	S 181.975 Axial†	34.0	3.2	6.2750 ug/L	6.2750 ppb	07:46:23
1	Sb 206.836†	19.5	-8.2	-3.8446 ug/L	-3.8446 ppb	07:46:23
1	Se 196.026†	-23.1	1.2	1.0600 ug/L	1.0600 ppb	07:46:23
1	Si 251.611†	627.4	103.7	4.2827 ug/L	4.2827 ppb	07:46:23
1	Sn 189.927†	6.5	-7.8	-1.9833 ug/L	-1.9833 ppb	07:46:23
1	Ti 334.940†	-964.9	183.9	0.3526 ug/L	0.3526 ppb	07:46:03
1	Tl 190.801†	-21.0	3.5	1.5184 ug/L	1.5184 ppb	07:46:23
1	U 409.014†	-1956.1	89.8	3.0520 ug/L	3.0520 ppb	07:46:03
1	V 292.402†	-1453.1	84.9	0.7685 ug/L	0.7685 ppb	07:46:03
1	Zn 213.857†	731.1	-7.9	-0.1050 ug/L	-0.1050 ppb	07:46:23
1	SiO2†	704.0	163.8	14.410 ug/L	14.410 ppb	07:47:34
2	Sc Radial	4346.4	4346.4	115 %		07:45:12
2	Y RADIAL	4691.6	4691.6	114.9 %		07:45:12
2	Al 396.153Radial†	-81.5	1.8	2.1142 ug/L	2.1142 ppb	07:45:32
2	Ca 317.933Radial†	25.3	0.1	0.3098 ug/L	0.3098 ppb	07:45:32
2	Fe 238.204 Radial†	12.4	2.3	30.558 ug/L	30.558 ppb	07:45:32
2	K 766.490 Radial†	2647.9	-170.8	-37.659 ug/L	-37.659 ppb	07:45:12
2	Mg 279.077 IEC†	1.3	-1.7	-80.397 ug/L	-80.397 ppb	07:45:32
2	Na 589.592 Radial†	-891.7	-390.8	-157.15 ug/L	-157.15 ppb	07:45:12
2	Sr 421.552†	36.4	-7.5	-0.0682 ug/L	-0.0682 ppb	07:45:12
2	Sc 361.383	819517.0	819517.0	111.83 %		07:46:29
2	Y 371.029	677804.7	677804.7	112.14 %		07:46:29
2	Ag 328.068†	269.4	88.8	0.5115 ug/L	0.5115 ppb	07:46:29
2	As 188.979†	-17.5	6.6	4.0181 ug/L	4.0181 ppb	07:46:49
2	B 249.677†	-276.6	87.7	2.6318 ug/L	2.6318 ppb	07:46:49
2	Ba 233.527†	25.9	20.6	0.2182 ug/L	0.2182 ppb	07:46:49
2	Be 313.107†	-3867.4	433.4	0.2028 ug/L	0.2028 ppb	07:46:29
2	Cd 226.502†	-159.0	29.0	0.4695 ug/L	0.4695 ppb	07:46:49
2	Co 228.616†	-23.5	25.7	0.7404 ug/L	0.7404 ppb	07:46:49
2	Cr 267.716†	110.7	3.9	0.0613 ug/L	0.0613 ppb	07:46:49
2	Cu 324.752†	6039.3	-316.7	-1.1330 ug/L	-1.1330 ppb	07:46:29
2	Mn 257.610†	740.0	236.1	0.3509 ug/L	0.3509 ppb	07:46:49
2	Mo 202.031†	26.0	6.5	0.6582 ug/L	0.6582 ppb	07:46:49
2	Ni 231.604†	116.8	21.9	0.7843 ug/L	0.7843 ppb	07:46:49

2	P 214.914†	172.4	-34.3	-27.579 ug/L	-27.579 ppb	07:46:49
2	Pb 220.353†	-52.6	2.0	0.3481 ug/L	0.3481 ppb	07:46:49
2	S 181.975 Axial†	28.2	-1.9	-3.7182 ug/L	-3.7182 ppb	07:46:49
2	Sb 206.836†	26.3	-2.1	-0.9950 ug/L	-0.9950 ppb	07:46:49
2	Se 196.026†	-19.8	4.0	3.6961 ug/L	3.6961 ppb	07:46:49
2	Si 251.611†	608.9	88.8	3.6595 ug/L	3.6595 ppb	07:46:49
2	Sn 189.927†	3.9	-10.1	-2.5675 ug/L	-2.5675 ppb	07:46:49
2	Ti 334.940†	-1060.4	96.1	0.1870 ug/L	0.1870 ppb	07:46:29
2	Tl 190.801†	-17.6	6.5	2.8081 ug/L	2.8081 ppb	07:46:49
2	U 409.014†	-1801.2	223.4	7.5938 ug/L	7.5938 ppb	07:46:29
2	V 292.402†	-1446.2	87.5	0.8027 ug/L	0.8027 ppb	07:46:29
2	Zn 213.857†	738.7	0.7	0.0014 ug/L	0.0014 ppb	07:46:49
2	SiO2†	639.6	107.9	9.4811 ug/L	9.4811 ppb	07:47:54
3	Sc Radial	4146.4	4146.4	109 %		07:45:37
3	Y RADIAL	4443.9	4443.9	108.8 %		07:45:37
3	Al 396.153Radial†	-73.6	5.6	6.6978 ug/L	6.6978 ppb	07:45:57
3	Ca 317.933Radial†	27.4	3.1	6.8696 ug/L	6.8696 ppb	07:45:57
3	Fe 238.204 Radial†	8.0	-1.2	-15.339 ug/L	-15.339 ppb	07:45:57
3	K 766.490 Radial†	2615.9	-88.7	-19.533 ug/L	-19.533 ppb	07:45:37
3	Mg 279.077 IEC†	1.1	-1.9	-87.506 ug/L	-87.506 ppb	07:45:57
3	Na 589.592 Radial†	-858.6	-398.1	-160.09 ug/L	-160.09 ppb	07:45:37
3	Sr 421.552†	21.8	-19.4	-0.1758 ug/L	-0.1758 ppb	07:45:37
3	Sc 361.383	811195.3	811195.3	110.70 %		07:46:54
3	Y 371.029	669264.3	669264.3	110.73 %		07:46:54
3	Ag 328.068†	304.4	122.8	0.6954 ug/L	0.6954 ppb	07:46:54
3	As 188.979†	-25.5	-0.8	-0.4613 ug/L	-0.4613 ppb	07:47:14
3	B 249.677†	-264.6	95.9	2.8885 ug/L	2.8885 ppb	07:47:14
3	Ba 233.527†	31.2	25.6	0.2693 ug/L	0.2693 ppb	07:47:14
3	Be 313.107†	-3946.9	326.1	0.1526 ug/L	0.1526 ppb	07:46:54
3	Cd 226.502†	-169.6	17.9	0.2936 ug/L	0.2936 ppb	07:47:14
3	Co 228.616†	-29.6	19.9	0.5735 ug/L	0.5735 ppb	07:47:14
3	Cr 267.716†	112.6	6.7	0.1014 ug/L	0.1014 ppb	07:47:14
3	Cu 324.752†	6011.7	-286.2	-1.0226 ug/L	-1.0226 ppb	07:46:54
3	Mn 257.610†	797.3	294.7	0.4322 ug/L	0.4322 ppb	07:47:14
3	Mo 202.031†	19.5	0.9	0.0856 ug/L	0.0856 ppb	07:47:14
3	Ni 231.604†	102.1	9.7	0.3462 ug/L	0.3462 ppb	07:47:14
3	P 214.914†	173.5	-31.7	-25.421 ug/L	-25.421 ppb	07:47:14
3	Pb 220.353†	-73.6	-17.4	-3.0071 ug/L	-3.0071 ppb	07:47:14
3	S 181.975 Axial†	27.7	-2.1	-3.9977 ug/L	-3.9977 ppb	07:47:14
3	Sb 206.836†	17.7	-9.6	-4.4927 ug/L	-4.4927 ppb	07:47:14
3	Se 196.026†	-18.2	5.2	4.6835 ug/L	4.6835 ppb	07:47:14
3	Si 251.611†	617.5	102.1	4.2188 ug/L	4.2188 ppb	07:47:14
3	Sn 189.927†	3.2	-10.7	-2.7167 ug/L	-2.7167 ppb	07:47:14
3	Ti 334.940†	-1082.5	66.4	0.1348 ug/L	0.1348 ppb	07:46:54
3	Tl 190.801†	-13.4	10.2	4.3967 ug/L	4.3967 ppb	07:47:14
3	U 409.014†	-2011.0	17.3	0.5902 ug/L	0.5902 ppb	07:46:54
3	V 292.402†	-1465.5	56.7	0.5117 ug/L	0.5117 ppb	07:46:54
3	Zn 213.857†	740.8	9.4	0.1263 ug/L	0.1263 ppb	07:47:14
3	SiO2†	609.3	86.5	7.6080 ug/L	7.6080 ppb	07:48:14

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	817506.7	111.56 %		0.762			0.68%
Sc Radial	4279.9	113 %		3.1			2.70%
Y 371.029	675301.1	111.73 %		0.869			0.78%
Y RADIAL	4601.4	112.7 %		3.35			2.98%
Ag 328.068†	86.6	0.4939 ug/L		0.21092	0.4939 ppb	0.21092	42.71%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.1	6.1016 ug/L		3.72526	6.1016 ppb	3.72526	61.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	2.3	1.4106 ug/L		2.32849	1.4106 ppb	2.32849	165.07%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	93.0	2.7966 ug/L		0.14307	2.7966 ppb	0.14307	5.12%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	25.3	0.2664 ug/L		0.04680	0.2664 ppb	0.04680	17.57%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	382.1	0.1789 ug/L		0.02520	0.1789 ppb	0.02520	14.08%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	1.5	3.4474 ug/L		3.28912	3.4474 ppb	3.28912	95.41%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	27.0	0.4390 ug/L	0.13278	0.4390 ppb	0.13278	30.25%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	21.1	0.6072 ug/L	0.11998	0.6072 ppb	0.11998	19.76%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	4.0	0.0616 ug/L	0.03966	0.0616 ppb	0.03966	64.38%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-300.9	-1.0760 ug/L	0.05529	-1.0760 ppb	0.05529	5.14%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.4	5.1284 ug/L	23.34722	5.1284 ppb	23.34722	455.26%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-172.7	-38.080 ug/L	18.7604	-38.080 ppb	18.7604	49.27%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-1.3	-63.298 ug/L	35.9502	-63.298 ppb	35.9502	56.80%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	281.2	0.4135 ug/L	0.05564	0.4135 ppb	0.05564	13.45%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	2.8	0.2869 ug/L	0.32195	0.2869 ppb	0.32195	112.21%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-390.1	-156.86 ug/L	3.379	-156.86 ppb	3.379	2.15%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	12.4	0.4446 ug/L	0.30266	0.4446 ppb	0.30266	68.07%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-35.0	-28.100 ug/L	2.9729	-28.100 ppb	2.9729	10.58%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-6.5	-1.1296 ug/L	1.71299	-1.1296 ppb	1.71299	151.64%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-0.2	-0.4803 ug/L	5.85197	-0.4803 ppb	5.85197	>999.9%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-6.6	-3.1108 ug/L	1.86078	-3.1108 ppb	1.86078	59.82%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	3.5	3.1466 ug/L	1.87322	3.1466 ppb	1.87322	59.53%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	98.2	4.0537 ug/L	0.34283	4.0537 ppb	0.34283	8.46%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-9.6	-2.4225 ug/L	0.38759	-2.4225 ppb	0.38759	16.00%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-12.4	-0.1125 ug/L	0.05626	-0.1125 ppb	0.05626	50.03%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	115.5	0.2248 ug/L	0.11368	0.2248 ppb	0.11368	50.57%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	6.7	2.9077 ug/L	1.44171	2.9077 ppb	1.44171	49.58%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	110.2	3.7454 ug/L	3.55290	3.7454 ppb	3.55290	94.86%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	76.3	0.6943 ug/L	0.15910	0.6943 ppb	0.15910	22.92%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	0.7	0.0076 ug/L	0.11578	0.0076 ppb	0.11578	>999.9%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		119.4	10.500 ug/L	3.5138	10.500 ppb	3.5138	33.47%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 111  
 Sample ID: 248045011|959105|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 112  
 Date Collected: 3/27/2010 07:50:25  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 248045011|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4582.7	4582.7	121 %		07:52:18
1	Y RADIAL	5781.8	5781.8	141.6 %		07:52:18
1	Al 396.153Radial†	24659.8	20456.4	24341 ug/L	24341 ppb	07:52:18
1	Ca 317.933Radial†	4964.0	4081.3	9143.6 ug/L	9143.6 ppb	07:52:18
1	Fe 238.204 Radial†	5391.7	4448.2	58804 ug/L	58804 ppb	07:52:18
1	K 766.490 Radial†	31202.9	23313.5	5141.3 ug/L	5141.3 ppb	07:52:18
1	Mg 279.077 IEC†	151.4	122.3	5724.2 ug/L	5724.2 ppb	07:52:39
1	Na 589.592 Radial†	12531.9	10745.1	4320.9 ug/L	4320.9 ppb	07:52:18
1	Sr 421.552†	8289.5	6812.8	61.783 ug/L	61.783 ppb	07:52:18
1	Sc 361.383	873921.1	873921.1	119.26 %		07:53:36
1	Y 371.029	846018.3	846018.3	139.97 %		07:53:36
1	Ag 328.068†	-3082.8	-2737.2	2.9891 ug/L	2.9891 ppb	07:53:41
1	As 188.979†	-21.8	4.0	32.062 ug/L	32.062 ppb	07:54:01
1	B 249.677†	479.5	737.0	12.577 ug/L	12.577 ppb	07:53:41
1	Ba 233.527†	52708.7	44195.0	465.18 ug/L	465.18 ppb	07:53:41
1	Be 313.107†	-6498.6	-1557.7	3.4343 ug/L	3.4343 ppb	07:53:41
1	Cd 226.502†	546.9	629.7	4.1439 ug/L	4.1439 ppb	07:54:01
1	Co 228.616†	777.2	698.4	15.592 ug/L	15.592 ppb	07:54:01
1	Cr 267.716†	4181.1	3410.9	58.651 ug/L	58.651 ppb	07:54:01
1	Cu 324.752†	232256.3	189035.9	678.04 ug/L	678.04 ppb	07:53:41
1	Mn 257.610†	2303591.6	1931195.5	2824.2 ug/L	2824.2 ppb	07:53:36
1	Mo 202.031†	80.3	50.6	9.7855 ug/L	9.7855 ppb	07:54:01
1	Ni 231.604†	1557.2	1223.2	43.875 ug/L	43.875 ppb	07:54:01
1	P 214.914†	1571.4	1129.2	737.37 ug/L	737.37 ppb	07:54:01
1	Pb 220.353†	2070.1	1784.9	305.52 ug/L	305.52 ppb	07:54:01
1	S 181.975 Axial†	362.0	276.4	532.99 ug/L	532.99 ppb	07:54:01
1	Sb 206.836†	51.3	17.4	0.9538 ug/L	0.9538 ppb	07:54:01
1	Se 196.026†	-330.7	-255.6	-66.902 ug/L	-66.902 ppb	07:54:01
1	Si 251.611†	760816.9	637508.9	26337 ug/L	26337 ppb	07:53:36
1	Sn 189.927†	-13.5	-25.0	-8.0818 ug/L	-8.0818 ppb	07:54:01
1	Ti 334.940†	1141871.7	958533.2	1833.9 ug/L	1833.9 ppb	07:53:36
1	Tl 190.801†	-119.2	-77.7	-5.0558 ug/L	-5.0558 ppb	07:54:01
1	U 409.014†	-9765.3	-6354.5	-222.90 ug/L	-222.90 ppb	07:53:36
1	V 292.402†	9028.2	8951.0	69.609 ug/L	69.609 ppb	07:53:41
1	Zn 213.857†	89108.6	74060.0	978.93 ug/L	978.93 ppb	07:53:41
1	SiO2†	769358.5	644663.0	56739 ug/L	56739 ppb	07:55:09
2	Sc Radial	4687.1	4687.1	124 %		07:52:44
2	Y RADIAL	5930.8	5930.8	145.3 %		07:52:44
2	Al 396.153Radial†	25239.1	20470.5	24358 ug/L	24358 ppb	07:52:44
2	Ca 317.933Radial†	5080.1	4083.7	9149.0 ug/L	9149.0 ppb	07:52:44
2	Fe 238.204 Radial†	5523.4	4455.4	58899 ug/L	58899 ppb	07:52:44
2	K 766.490 Radial†	31724.1	23160.0	5107.4 ug/L	5107.4 ppb	07:52:44
2	Mg 279.077 IEC†	149.0	117.6	5500.4 ug/L	5500.4 ppb	07:53:04
2	Na 589.592 Radial†	12736.6	10679.7	4294.6 ug/L	4294.6 ppb	07:52:44
2	Sr 421.552†	8484.6	6817.8	61.828 ug/L	61.828 ppb	07:52:44
2	Sc 361.383	876181.8	876181.8	119.57 %		07:54:07
2	Y 371.029	847511.6	847511.6	140.22 %		07:54:07
2	Ag 328.068†	-3108.2	-2751.8	2.9330 ug/L	2.9330 ppb	07:54:12
2	As 188.979†	-24.9	1.5	30.614 ug/L	30.614 ppb	07:54:32
2	B 249.677†	459.0	718.8	12.016 ug/L	12.016 ppb	07:54:12
2	Ba 233.527†	52429.8	43847.8	461.54 ug/L	461.54 ppb	07:54:12
2	Be 313.107†	-6282.3	-1362.7	3.5383 ug/L	3.5383 ppb	07:54:12
2	Cd 226.502†	569.0	647.1	4.4163 ug/L	4.4163 ppb	07:54:32
2	Co 228.616†	756.4	679.3	15.027 ug/L	15.027 ppb	07:54:32
2	Cr 267.716†	4167.2	3390.3	58.344 ug/L	58.344 ppb	07:54:32
2	Cu 324.752†	231077.7	187547.7	672.73 ug/L	672.73 ppb	07:54:12
2	Mn 257.610†	2314461.0	1935302.3	2830.2 ug/L	2830.2 ppb	07:54:07
2	Mo 202.031†	75.1	46.1	9.3319 ug/L	9.3319 ppb	07:54:32
2	Ni 231.604†	1574.5	1234.3	44.272 ug/L	44.272 ppb	07:54:32

2	P 214.914†	1572.5	1126.7	736.30 ug/L	736.30 ppb	07:54:32
2	Pb 220.353†	2076.3	1785.6	305.63 ug/L	305.63 ppb	07:54:32
2	S 181.975 Axial†	354.5	269.4	519.23 ug/L	519.23 ppb	07:54:32
2	Sb 206.836†	36.7	5.1	-4.8136 ug/L	-4.8136 ppb	07:54:32
2	Se 196.026†	-320.4	-246.2	-58.232 ug/L	-58.232 ppb	07:54:32
2	Si 251.611†	764715.1	639123.1	26404 ug/L	26404 ppb	07:54:07
2	Sn 189.927†	-27.6	-36.7	-11.065 ug/L	-11.065 ppb	07:54:32
2	Ti 334.940†	1148398.3	961521.3	1839.6 ug/L	1839.6 ppb	07:54:07
2	Tl 190.801†	-108.2	-68.2	-0.8974 ug/L	-0.8974 ppb	07:54:32
2	U 409.014†	-9750.6	-6321.1	-221.78 ug/L	-221.78 ppb	07:54:07
2	V 292.402†	9009.3	8915.6	69.263 ug/L	69.263 ppb	07:54:12
2	Zn 213.857†	88913.4	73704.0	974.17 ug/L	974.17 ppb	07:54:12
2	SiO2†	768443.4	642233.0	56525 ug/L	56525 ppb	07:55:15
3	Sc Radial	4620.0	4620.0	122 %		07:53:09
3	Y RADIAL	5832.0	5832.0	142.8 %		07:53:09
3	Al 396.153Radial†	24949.9	20529.6	24428 ug/L	24428 ppb	07:53:09
3	Ca 317.933Radial†	5015.3	4090.2	9163.6 ug/L	9163.6 ppb	07:53:09
3	Fe 238.204 Radial†	5409.6	4426.9	58522 ug/L	58522 ppb	07:53:09
3	K 766.490 Radial†	31385.2	23254.5	5128.3 ug/L	5128.3 ppb	07:53:09
3	Mg 279.077 IEC†	151.0	121.0	5663.0 ug/L	5663.0 ppb	07:53:29
3	Na 589.592 Radial†	12547.4	10674.0	4292.3 ug/L	4292.3 ppb	07:53:09
3	Sr 421.552†	8400.2	6848.1	62.103 ug/L	62.103 ppb	07:53:09
3	Sc 361.383	886493.4	886493.4	120.97 %		07:54:38
3	Y 371.029	860533.8	860533.8	142.37 %		07:54:38
3	Ag 328.068†	-3186.1	-2785.9	2.6193 ug/L	2.6193 ppb	07:54:43
3	As 188.979†	-23.5	2.9	31.343 ug/L	31.343 ppb	07:55:03
3	B 249.677†	430.8	691.1	11.243 ug/L	11.243 ppb	07:54:43
3	Ba 233.527†	51915.0	42912.1	451.72 ug/L	451.72 ppb	07:54:43
3	Be 313.107†	-6497.4	-1479.4	3.4736 ug/L	3.4736 ppb	07:54:43
3	Cd 226.502†	557.7	632.1	4.2106 ug/L	4.2106 ppb	07:55:03
3	Co 228.616†	760.1	675.0	14.915 ug/L	14.915 ppb	07:55:03
3	Cr 267.716†	4125.8	3315.4	57.158 ug/L	57.158 ppb	07:55:03
3	Cu 324.752†	230930.8	185178.2	664.25 ug/L	664.25 ppb	07:54:43
3	Mn 257.610†	2328016.7	1923991.7	2813.7 ug/L	2813.7 ppb	07:54:38
3	Mo 202.031†	78.3	48.0	9.4956 ug/L	9.4956 ppb	07:55:03
3	Ni 231.604†	1551.9	1200.3	43.052 ug/L	43.052 ppb	07:55:03
3	P 214.914†	1539.6	1084.2	703.99 ug/L	703.99 ppb	07:55:03
3	Pb 220.353†	2047.6	1741.7	298.11 ug/L	298.11 ppb	07:55:03
3	S 181.975 Axial†	356.4	267.5	515.53 ug/L	515.53 ppb	07:55:03
3	Sb 206.836†	35.4	3.6	-5.4352 ug/L	-5.4352 ppb	07:55:03
3	Se 196.026†	-325.2	-247.1	-60.018 ug/L	-60.018 ppb	07:55:03
3	Si 251.611†	772793.7	638361.6	26372 ug/L	26372 ppb	07:54:38
3	Sn 189.927†	-16.1	-26.9	-8.5635 ug/L	-8.5635 ppb	07:55:03
3	Ti 334.940†	1159054.8	959158.2	1835.1 ug/L	1835.1 ppb	07:54:38
3	Tl 190.801†	-115.1	-72.9	-3.0209 ug/L	-3.0209 ppb	07:55:03
3	U 409.014†	-10074.0	-6493.5	-227.59 ug/L	-227.59 ppb	07:54:38
3	V 292.402†	8867.9	8711.1	67.481 ug/L	67.481 ppb	07:54:43
3	Zn 213.857†	88230.0	72274.1	955.15 ug/L	955.15 ppb	07:54:43
3	SiO2†	764018.8	631099.7	55545 ug/L	55545 ppb	07:55:20

Mean Data: 248045011|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	878865.5	119.93	%	0.915			0.76%
Sc Radial	4630.0	122	%	1.4			1.14%
Y 371.029	851354.6	140.85	%	1.321			0.94%
Y RADIAL	5848.2	143.2	%	1.86			1.30%
Ag 328.068†	-2758.3	2.8471	ug/L	0.19930	2.8471	0.19930	7.00%
Al 396.153Radial†	20485.5	24376	ug/L	46.2	24376	46.2	0.19%
As 188.979†	2.8	31.340	ug/L	0.7237	31.340	0.7237	2.31%
B 249.677†	715.7	11.945	ug/L	0.6699	11.945	0.6699	5.61%
Ba 233.527†	43651.6	459.48	ug/L	6.963	459.48	6.963	1.52%
Be 313.107†	-1466.6	3.4820	ug/L	0.05252	3.4820	0.05252	1.51%
Ca 317.933Radial†	4085.0	9152.1	ug/L	10.34	9152.1	10.34	0.11%
Cd 226.502†	636.3	4.2569	ug/L	0.14199	4.2569	0.14199	3.34%
Co 228.616†	684.3	15.178	ug/L	0.3632	15.178	0.3632	2.39%
Cr 267.716†	3372.2	58.051	ug/L	0.7883	58.051	0.7883	1.36%
Cu 324.752†	187254.0	671.67	ug/L	6.952	671.67	6.952	1.04%
Fe 238.204 Radial†	4443.5	58742	ug/L	195.9	58742	195.9	0.33%
K 766.490 Radial†	23242.7	5125.7	ug/L	17.09	5125.7	17.09	0.33%

Mg 279.077 IEC†	120.3	5629.2 ug/L	115.64	5629.2 ppb	115.64	2.05%
Mn 257.610†	1930163.2	2822.7 ug/L	8.38	2822.7 ppb	8.38	0.30%
Mo 202.031†	48.2	9.5377 ug/L	0.22967	9.5377 ppb	0.22967	2.41%
Na 589.592 Radial†	10699.6	4302.6 ug/L	15.89	4302.6 ppb	15.89	0.37%
Ni 231.604†	1219.3	43.733 ug/L	0.6221	43.733 ppb	0.6221	1.42%
P 214.914†	1113.4	725.88 ug/L	18.972	725.88 ppb	18.972	2.61%
Pb 220.353†	1770.7	303.08 ug/L	4.311	303.08 ppb	4.311	1.42%
S 181.975 Axial†	271.1	522.59 ug/L	9.198	522.59 ppb	9.198	1.76%
Sb 206.836†	8.7	-3.0983 ug/L	3.52299	-3.0983 ppb	3.52299	113.71%
Se 196.026†	-249.6	-61.717 ug/L	4.5779	-61.717 ppb	4.5779	7.42%
Si 251.611†	638331.2	26371 ug/L	33.4	26371 ppb	33.4	0.13%
Sn 189.927†	-29.5	-9.2368 ug/L	1.60151	-9.2368 ppb	1.60151	17.34%
Sr 421.552†	6826.2	61.904 ug/L	0.1734	61.904 ppb	0.1734	0.28%
Ti 334.940†	959737.6	1836.2 ug/L	3.02	1836.2 ppb	3.02	0.16%
Tl 190.801†	-72.9	-2.9914 ug/L	2.07936	-2.9914 ppb	2.07936	69.51%
U 409.014†	-6389.7	-224.09 ug/L	3.086	-224.09 ppb	3.086	1.38%
V 292.402†	8859.2	68.784 ug/L	1.1417	68.784 ppb	1.1417	1.66%
Zn 213.857†	73346.0	969.41 ug/L	12.583	969.41 ppb	12.583	1.30%
SiO2†	639331.9	56269 ug/L	636.5	56269 ppb	636.5	1.13%

Sequence No.: 112

Sample ID: 248045012|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 113

Date Collected: 3/27/2010 07:57:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045012|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4109.8	4109.8	108 %		07:59:46
1	Y RADIAL	5493.5	5493.5	134.6 %		07:59:26
1	Al 396.153Radial†	20076.2	18577.2	22105 ug/L	22105 ppb	07:59:26
1	Ca 317.933Radial†	4004.7	3669.2	8220.5 ug/L	8220.5 ppb	07:59:46
1	Fe 238.204 Radial†	5173.8	4760.3	62929 ug/L	62929 ppb	07:59:26
1	K 766.490 Radial†	35095.4	29869.1	6590.2 ug/L	6590.2 ppb	07:59:26
1	Mg 279.077 IEC†	134.0	120.7	5644.0 ug/L	5644.0 ppb	07:59:46
1	Na 589.592 Radial†	6335.6	6225.9	2503.6 ug/L	2503.6 ppb	07:59:26
1	Sr 421.552†	5377.9	4917.6	44.584 ug/L	44.584 ppb	07:59:26
1	Sc 361.383	852679.7	852679.7	116.36 %		08:00:43
1	Y 371.029	793635.7	793635.7	131.30 %		08:00:43
1	Ag 328.068†	-3125.7	-2838.4	3.5830 ug/L	3.5830 ppb	08:00:43
1	As 188.979†	-30.6	-4.0	25.845 ug/L	25.845 ppb	08:01:03
1	B 249.677†	51.5	379.2	1.1383 ug/L	1.1383 ppb	08:00:43
1	Ba 233.527†	27252.0	23418.2	247.52 ug/L	247.52 ppb	08:00:43
1	Be 313.107†	-6977.4	-2104.8	2.5624 ug/L	2.5624 ppb	08:00:43
1	Cd 226.502†	488.3	590.8	3.1679 ug/L	3.1679 ppb	08:01:03
1	Co 228.616†	749.4	690.8	15.758 ug/L	15.758 ppb	08:01:03
1	Cr 267.716†	5949.6	5018.2	83.642 ug/L	83.642 ppb	08:01:03
1	Cu 324.752†	227850.3	190100.9	682.00 ug/L	682.00 ppb	08:00:43
1	Mn 257.610†	1162547.9	998685.1	1463.6 ug/L	1463.6 ppb	08:00:43
1	Mo 202.031†	37.7	15.6	6.5610 ug/L	6.5610 ppb	08:01:03
1	Ni 231.604†	4687.4	3945.9	141.56 ug/L	141.56 ppb	08:01:03
1	P 214.914†	1400.3	1015.0	640.34 ug/L	640.34 ppb	08:01:03
1	Pb 220.353†	2701.0	2370.3	405.68 ug/L	405.68 ppb	08:01:03
1	S 181.975 Axial†	307.3	237.0	456.68 ug/L	456.68 ppb	08:01:03
1	Sb 206.836†	46.6	14.4	0.3817 ug/L	0.3817 ppb	08:01:03
1	Se 196.026†	-309.4	-244.2	-46.340 ug/L	-46.340 ppb	08:01:03
1	Si 251.611†	602604.9	517431.7	21377 ug/L	21377 ppb	08:00:43
1	Sn 189.927†	-43.3	-50.9	-15.054 ug/L	-15.054 ppb	08:01:03
1	Ti 334.940†	948917.0	816557.4	1562.2 ug/L	1562.2 ppb	08:00:43
1	Tl 190.801†	-87.3	-52.8	-3.0663 ug/L	-3.0663 ppb	08:01:03
1	U 409.014†	-5876.6	-3216.4	-116.72 ug/L	-116.72 ppb	08:00:43
1	V 292.402†	7811.9	8094.2	61.748 ug/L	61.748 ppb	08:00:43
1	Zn 213.857†	55724.0	47230.2	619.43 ug/L	619.43 ppb	08:00:43
1	SiO2†	620756.2	533022.9	46913 ug/L	46913 ppb	08:02:01
2	Sc Radial	4099.7	4099.7	108 %		08:00:11
2	Y RADIAL	5572.7	5572.7	136.5 %		07:59:51
2	Al 396.153Radial†	20266.3	18798.3	22369 ug/L	22369 ppb	07:59:51
2	Ca 317.933Radial†	3994.9	3669.3	8220.6 ug/L	8220.6 ppb	08:00:11
2	Fe 238.204 Radial†	5174.4	4772.5	63091 ug/L	63091 ppb	07:59:51
2	K 766.490 Radial†	35301.5	30138.9	6649.8 ug/L	6649.8 ppb	07:59:51
2	Mg 279.077 IEC†	129.0	116.4	5439.6 ug/L	5439.6 ppb	08:00:11
2	Na 589.592 Radial†	6344.8	6248.7	2512.8 ug/L	2512.8 ppb	07:59:51
2	Sr 421.552†	5449.1	4995.5	45.291 ug/L	45.291 ppb	07:59:51
2	Sc 361.383	871339.6	871339.6	118.90 %		08:01:09
2	Y 371.029	810477.9	810477.9	134.09 %		08:01:09
2	Ag 328.068†	-3114.6	-2771.5	4.0170 ug/L	4.0170 ppb	08:01:09
2	As 188.979†	-20.0	5.5	31.671 ug/L	31.671 ppb	08:01:29
2	B 249.677†	99.6	418.7	2.3016 ug/L	2.3016 ppb	08:01:09
2	Ba 233.527†	27929.3	23486.3	248.24 ug/L	248.24 ppb	08:01:09
2	Be 313.107†	-6955.7	-1958.2	2.6377 ug/L	2.6377 ppb	08:01:09
2	Cd 226.502†	484.9	579.0	2.9581 ug/L	2.9581 ppb	08:01:29
2	Co 228.616†	755.8	682.4	15.506 ug/L	15.506 ppb	08:01:29
2	Cr 267.716†	6023.3	4970.6	82.932 ug/L	82.932 ppb	08:01:29
2	Cu 324.752†	232757.5	190034.4	681.77 ug/L	681.77 ppb	08:01:09
2	Mn 257.610†	1187787.0	998515.3	1463.4 ug/L	1463.4 ppb	08:01:09
2	Mo 202.031†	34.4	12.2	6.2232 ug/L	6.2232 ppb	08:01:29
2	Ni 231.604†	4743.3	3906.6	140.15 ug/L	140.15 ppb	08:01:29

2	P 214.914†	1405.4	993.5	622.99 ug/L	622.99 ppb	08:01:29
2	Pb 220.353†	2731.7	2346.5	401.58 ug/L	401.58 ppb	08:01:29
2	S 181.975 Axial†	309.7	233.4	449.60 ug/L	449.60 ppb	08:01:29
2	Sb 206.836†	48.3	15.0	0.7104 ug/L	0.7104 ppb	08:01:29
2	Se 196.026†	-304.9	-234.7	-37.270 ug/L	-37.270 ppb	08:01:29
2	Si 251.611†	616141.4	517725.4	21389 ug/L	21389 ppb	08:01:09
2	Sn 189.927†	-26.4	-35.8	-11.247 ug/L	-11.247 ppb	08:01:29
2	Ti 334.940†	971540.4	818119.7	1565.2 ug/L	1565.2 ppb	08:01:09
2	Tl 190.801†	-81.5	-46.2	-0.2190 ug/L	-0.2190 ppb	08:01:29
2	U 409.014†	-6023.8	-3232.0	-117.27 ug/L	-117.27 ppb	08:01:09
2	V 292.402†	8084.5	8179.7	62.479 ug/L	62.479 ppb	08:01:09
2	Zn 213.857†	56916.3	47207.4	619.11 ug/L	619.11 ppb	08:01:09
2	SiO2†	625810.0	525848.6	46281 ug/L	46281 ppb	08:02:06
3	Sc Radial	4052.8	4052.8	107 %		08:00:36
3	Y RADIAL	5271.5	5271.5	129.1 %		08:00:16
3	Al 396.153Radial†	20225.2	18976.8	22581 ug/L	22581 ppb	08:00:16
3	Ca 317.933Radial†	3952.3	3672.2	8227.2 ug/L	8227.2 ppb	08:00:36
3	Fe 238.204 Radial†	5164.9	4819.0	63705 ug/L	63705 ppb	08:00:16
3	K 766.490 Radial†	34929.5	30169.0	6656.4 ug/L	6656.4 ppb	08:00:16
3	Mg 279.077 IEC†	130.4	119.1	5563.8 ug/L	5563.8 ppb	08:00:36
3	Na 589.592 Radial†	6235.3	6214.2	2498.9 ug/L	2498.9 ppb	08:00:16
3	Sr 421.552†	5401.7	5009.6	45.419 ug/L	45.419 ppb	08:00:16
3	Sc 361.383	867994.4	867994.4	118.45 %		08:01:35
3	Y 371.029	809458.0	809458.0	133.92 %		08:01:35
3	Ag 328.068†	-3227.9	-2877.4	3.6052 ug/L	3.6052 ppb	08:01:35
3	As 188.979†	-25.5	0.8	28.904 ug/L	28.904 ppb	08:01:55
3	B 249.677†	59.6	385.3	1.1948 ug/L	1.1948 ppb	08:01:35
3	Ba 233.527†	27696.9	23380.6	247.15 ug/L	247.15 ppb	08:01:35
3	Be 313.107†	-6948.9	-1975.0	2.6191 ug/L	2.6191 ppb	08:01:35
3	Cd 226.502†	502.7	595.6	3.1651 ug/L	3.1651 ppb	08:01:55
3	Co 228.616†	762.0	690.0	15.729 ug/L	15.729 ppb	08:01:55
3	Cr 267.716†	6019.8	4987.2	83.252 ug/L	83.252 ppb	08:01:55
3	Cu 324.752†	231340.5	189592.6	680.23 ug/L	680.23 ppb	08:01:35
3	Mn 257.610†	1178628.4	994633.1	1457.8 ug/L	1457.8 ppb	08:01:35
3	Mo 202.031†	43.9	20.3	7.0978 ug/L	7.0978 ppb	08:01:55
3	Ni 231.604†	4765.1	3940.4	141.36 ug/L	141.36 ppb	08:01:55
3	P 214.914†	1413.5	1004.9	632.03 ug/L	632.03 ppb	08:01:55
3	Pb 220.353†	2739.1	2361.5	404.15 ug/L	404.15 ppb	08:01:55
3	S 181.975 Axial†	313.3	237.4	457.35 ug/L	457.35 ppb	08:01:55
3	Sb 206.836†	37.9	6.4	-3.3229 ug/L	-3.3229 ppb	08:01:55
3	Se 196.026†	-316.2	-245.3	-45.105 ug/L	-45.105 ppb	08:01:55
3	Si 251.611†	611113.4	515477.6	21296 ug/L	21296 ppb	08:01:35
3	Sn 189.927†	-39.5	-47.0	-14.105 ug/L	-14.105 ppb	08:01:55
3	Ti 334.940†	964876.1	815642.3	1560.5 ug/L	1560.5 ppb	08:01:35
3	Tl 190.801†	-81.0	-46.1	-0.2409 ug/L	-0.2409 ppb	08:01:55
3	U 409.014†	-6079.0	-3298.2	-119.59 ug/L	-119.59 ppb	08:01:35
3	V 292.402†	8002.9	8137.0	62.021 ug/L	62.021 ppb	08:01:35
3	Zn 213.857†	56429.1	46980.5	615.98 ug/L	615.98 ppb	08:01:35
3	SiO2†	620086.2	523044.7	46035 ug/L	46035 ppb	08:02:12

Mean Data: 248045012|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	864004.6	117.90 %	%	1.358			1.15%
Sc Radial	4087.4	108 %	%	0.8			0.74%
Y 371.029	804523.9	133.11 %	%	1.562			1.17%
Y RADIAL	5445.9	133.4 %	%	3.83			2.87%
Ag 328.068†	-2829.1	3.7351 ug/L	ug/L	0.24442	3.7351 ppb	0.24442	6.54%
Al 396.153Radial†	18784.1	22352 ug/L	ug/L	238.2	22352 ppb	238.2	1.07%
As 188.979†	0.8	28.807 ug/L	ug/L	2.9140	28.807 ppb	2.9140	10.12%
B 249.677†	394.4	1.5449 ug/L	ug/L	0.65597	1.5449 ppb	0.65597	42.46%
Ba 233.527†	23428.4	247.64 ug/L	ug/L	0.554	247.64 ppb	0.554	0.22%
Be 313.107†	-2012.7	2.6064 ug/L	ug/L	0.03920	2.6064 ppb	0.03920	1.50%
Ca 317.933Radial†	3670.2	8222.7 ug/L	ug/L	3.83	8222.7 ppb	3.83	0.05%
Cd 226.502†	588.4	3.0970 ug/L	ug/L	0.12030	3.0970 ppb	0.12030	3.88%
Co 228.616†	687.7	15.664 ug/L	ug/L	0.1377	15.664 ppb	0.1377	0.88%
Cr 267.716†	4992.0	83.275 ug/L	ug/L	0.3554	83.275 ppb	0.3554	0.43%
Cu 324.752†	189909.3	681.33 ug/L	ug/L	0.964	681.33 ppb	0.964	0.14%
Fe 238.204 Radial†	4783.9	63242 ug/L	ug/L	409.5	63242 ppb	409.5	0.65%
K 766.490 Radial†	30059.0	6632.1 ug/L	ug/L	36.47	6632.1 ppb	36.47	0.55%

Mg 279.077 IEC†	118.7	5549.1 ug/L	103.01	5549.1 ppb	103.01	1.86%
Mn 257.610†	997277.9	1461.6 ug/L	3.31	1461.6 ppb	3.31	0.23%
Mo 202.031†	16.0	6.6274 ug/L	0.44105	6.6274 ppb	0.44105	6.65%
Na 589.592 Radial†	6229.6	2505.1 ug/L	7.05	2505.1 ppb	7.05	0.28%
Ni 231.604†	3931.0	141.02 ug/L	0.762	141.02 ppb	0.762	0.54%
P 214.914†	1004.5	631.79 ug/L	8.678	631.79 ppb	8.678	1.37%
Pb 220.353†	2359.4	403.80 ug/L	2.068	403.80 ppb	2.068	0.51%
S 181.975 Axial†	235.9	454.54 ug/L	4.294	454.54 ppb	4.294	0.94%
Sb 206.836†	11.9	-0.7436 ug/L	2.23979	-0.7436 ppb	2.23979	301.21%
Se 196.026†	-241.4	-42.905 ug/L	4.9188	-42.905 ppb	4.9188	11.46%
Si 251.611†	516878.3	21354 ug/L	50.5	21354 ppb	50.5	0.24%
Sn 189.927†	-44.6	-13.469 ug/L	1.9818	-13.469 ppb	1.9818	14.71%
Sr 421.552†	4974.2	45.098 ug/L	0.4497	45.098 ppb	0.4497	1.00%
Ti 334.940†	816773.1	1562.6 ug/L	2.40	1562.6 ppb	2.40	0.15%
Tl 190.801†	-48.4	-1.1754 ug/L	1.63762	-1.1754 ppb	1.63762	139.33%
U 409.014†	-3248.9	-117.86 ug/L	1.523	-117.86 ppb	1.523	1.29%
V 292.402†	8137.0	62.082 ug/L	0.3695	62.082 ppb	0.3695	0.60%
Zn 213.857†	47139.4	618.17 ug/L	1.904	618.17 ppb	1.904	0.31%
SiO2†	527305.4	46410 ug/L	452.9	46410 ppb	452.9	0.98%

Sequence No.: 113

Sample ID: 248045013|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 114

Date Collected: 3/27/2010 08:04:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045013|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4712.4	4712.4	124 %			08:06:17
1	Y RADIAL	6795.8	6795.8	166.5 %			08:06:17
1	Al 396.153Radial†	40137.5	32336.9	38479 ug/L		38479 ppb	08:06:17
1	Ca 317.933Radial†	4851.4	3877.8	8687.7 ug/L		8687.7 ppb	08:06:17
1	Fe 238.204 Radial†	6916.8	5551.5	73388 ug/L		73388 ppb	08:06:17
1	K 766.490 Radial†	25769.8	18236.2	4020.2 ug/L		4020.2 ppb	08:06:17
1	Mg 279.077 IEC†	167.5	131.8	6156.4 ug/L		6156.4 ppb	08:06:37
1	Na 589.592 Radial†	14411.8	11971.0	4813.9 ug/L		4813.9 ppb	08:06:17
1	Sr 421.552†	9427.0	7538.5	68.375 ug/L		68.375 ppb	08:06:17
1	Sc 361.383	868551.2	868551.2	118.52 %			08:07:34
1	Y 371.029	961705.6	961705.6	159.11 %			08:07:34
1	Ag 328.068†	-4356.1	-3827.5	1.3625 ug/L		1.3625 ppb	08:07:40
1	As 188.979†	-17.6	7.5	41.763 ug/L		41.763 ppb	08:08:00
1	B 249.677†	266.9	560.2	4.9009 ug/L		4.9009 ppb	08:07:40
1	Ba 233.527†	41929.1	35373.4	373.15 ug/L		373.15 ppb	08:07:40
1	Be 313.107†	-1208.9	2871.6	6.5940 ug/L		6.5940 ppb	08:07:40
1	Cd 226.502†	453.4	553.7	1.3842 ug/L		1.3842 ppb	08:08:00
1	Co 228.616†	547.3	508.5	8.8623 ug/L		8.8623 ppb	08:08:00
1	Cr 267.716†	3701.7	3028.1	54.366 ug/L		54.366 ppb	08:08:00
1	Cu 324.752†	26644.2	16763.0	63.893 ug/L		63.893 ppb	08:07:40
1	Mn 257.610†	2551773.4	2152531.4	3148.7 ug/L		3148.7 ppb	08:07:34
1	Mo 202.031†	23.8	3.3	6.1334 ug/L		6.1334 ppb	08:08:00
1	Ni 231.604†	1547.1	1222.7	43.860 ug/L		43.860 ppb	08:08:00
1	P 214.914†	824.1	506.8	348.19 ug/L		348.19 ppb	08:08:00
1	Pb 220.353†	331.4	328.6	55.008 ug/L		55.008 ppb	08:08:00
1	S 181.975 Axial†	110.7	66.3	121.71 ug/L		121.71 ppb	08:08:00
1	Sb 206.836†	44.2	11.6	-3.9996 ug/L		-3.9996 ppb	08:08:00
1	Se 196.026†	-408.1	-322.6	-84.585 ug/L		-84.585 ppb	08:08:00
1	Si 251.611†	862863.9	727551.2	30057 ug/L		30057 ppb	08:07:34
1	Sn 189.927†	-31.2	-40.0	-12.808 ug/L		-12.808 ppb	08:08:00
1	Ti 334.940†	1432905.1	1210000.8	2314.7 ug/L		2314.7 ppb	08:07:34
1	Tl 190.801†	-139.8	-95.7	-7.2699 ug/L		-7.2699 ppb	08:08:00
1	U 409.014†	-12796.3	-8962.4	-313.23 ug/L		-313.23 ppb	08:07:34
1	V 292.402†	8576.2	8616.4	63.745 ug/L		63.745 ppb	08:07:40
1	Zn 213.857†	40836.7	33794.5	439.91 ug/L		439.91 ppb	08:07:40
1	SiO2†	858608.0	723952.3	63717 ug/L		63717 ppb	08:09:08
2	Sc Radial	4400.9	4400.9	116 %			08:06:42
2	Y RADIAL	6425.5	6425.5	157.4 %			08:06:42
2	Al 396.153Radial†	39290.1	33891.0	40328 ug/L		40328 ppb	08:06:42
2	Ca 317.933Radial†	4737.5	4055.8	9086.5 ug/L		9086.5 ppb	08:06:42
2	Fe 238.204 Radial†	6691.5	5751.1	76027 ug/L		76027 ppb	08:06:42
2	K 766.490 Radial†	25345.4	19337.0	4263.1 ug/L		4263.1 ppb	08:06:42
2	Mg 279.077 IEC†	172.8	146.0	6823.7 ug/L		6823.7 ppb	08:07:02
2	Na 589.592 Radial†	13821.4	12282.8	4939.3 ug/L		4939.3 ppb	08:06:42
2	Sr 421.552†	9114.4	7805.8	70.798 ug/L		70.798 ppb	08:06:42
2	Sc 361.383	860255.3	860255.3	117.39 %			08:08:06
2	Y 371.029	945054.8	945054.8	156.36 %			08:08:06
2	Ag 328.068†	-4262.6	-3783.2	2.4075 ug/L		2.4075 ppb	08:08:11
2	As 188.979†	-24.9	1.0	37.934 ug/L		37.934 ppb	08:08:31
2	B 249.677†	304.2	594.1	5.4934 ug/L		5.4934 ppb	08:08:11
2	Ba 233.527†	40266.0	34297.9	361.95 ug/L		361.95 ppb	08:08:11
2	Be 313.107†	-1288.6	2793.9	6.4133 ug/L		6.4133 ppb	08:08:11
2	Cd 226.502†	454.8	558.6	1.1940 ug/L		1.1940 ppb	08:08:31
2	Co 228.616†	533.4	501.1	8.7403 ug/L		8.7403 ppb	08:08:31
2	Cr 267.716†	3646.5	3011.2	54.379 ug/L		54.379 ppb	08:08:31
2	Cu 324.752†	25703.2	16178.2	61.939 ug/L		61.939 ppb	08:08:11
2	Mn 257.610†	2472035.6	2105369.1	3080.1 ug/L		3080.1 ppb	08:08:06
2	Mo 202.031†	20.8	1.0	6.1110 ug/L		6.1110 ppb	08:08:31
2	Ni 231.604†	1546.9	1235.2	44.307 ug/L		44.307 ppb	08:08:31

2	P 214.914†	815.4	506.1	346.36 ug/L	346.36 ppb	08:08:31
2	Pb 220.353†	324.7	325.7	54.535 ug/L	54.535 ppb	08:08:31
2	S 181.975 Axial†	106.9	64.0	116.85 ug/L	116.85 ppb	08:08:31
2	Sb 206.836†	41.4	9.7	-4.8141 ug/L	-4.8141 ppb	08:08:31
2	Se 196.026†	-400.5	-319.4	-74.191 ug/L	-74.191 ppb	08:08:31
2	Si 251.611†	830867.0	707315.4	29221 ug/L	29221 ppb	08:08:06
2	Sn 189.927†	-38.8	-46.7	-14.598 ug/L	-14.598 ppb	08:08:31
2	Ti 334.940†	1380171.9	1176738.8	2251.1 ug/L	2251.1 ppb	08:08:06
2	Tl 190.801†	-127.8	-86.6	-4.1955 ug/L	-4.1955 ppb	08:08:31
2	U 409.014†	-12342.5	-8679.9	-303.93 ug/L	-303.93 ppb	08:08:06
2	V 292.402†	8182.6	8350.9	61.072 ug/L	61.072 ppb	08:08:11
2	Zn 213.857†	39202.0	32734.3	425.36 ug/L	425.36 ppb	08:08:11
2	SiO2†	873053.8	743243.7	65415 ug/L	65415 ppb	08:09:14
3	Sc Radial	4726.8	4726.8	125 %		08:07:07
3	Y RADIAL	6820.5	6820.5	167.1 %		08:07:07
3	Al 396.153Radial†	40402.4	32450.8	38614 ug/L	38614 ppb	08:07:07
3	Ca 317.933Radial†	4849.9	3864.7	8658.4 ug/L	8658.4 ppb	08:07:07
3	Fe 238.204 Radial†	6929.1	5544.4	73295 ug/L	73295 ppb	08:07:07
3	K 766.490 Radial†	25994.8	18353.3	4046.1 ug/L	4046.1 ppb	08:07:07
3	Mg 279.077 IEC†	177.5	139.5	6519.0 ug/L	6519.0 ppb	08:07:27
3	Na 589.592 Radial†	14311.0	11855.0	4767.2 ug/L	4767.2 ppb	08:07:07
3	Sr 421.552†	9410.3	7502.0	68.043 ug/L	68.043 ppb	08:07:07
3	Sc 361.383	868792.4	868792.4	118.56 %		08:08:37
3	Y 371.029	959689.7	959689.7	158.78 %		08:08:37
3	Ag 328.068†	-4382.1	-3848.4	1.2108 ug/L	1.2108 ppb	08:08:42
3	As 188.979†	-23.3	2.6	38.442 ug/L	38.442 ppb	08:09:02
3	B 249.677†	265.2	558.7	4.8717 ug/L	4.8717 ppb	08:08:42
3	Ba 233.527†	42475.0	35824.1	377.87 ug/L	377.87 ppb	08:08:42
3	Be 313.107†	-1353.7	2749.8	6.4396 ug/L	6.4396 ppb	08:08:42
3	Cd 226.502†	457.7	557.2	1.4532 ug/L	1.4532 ppb	08:09:02
3	Co 228.616†	529.1	493.0	8.5100 ug/L	8.5100 ppb	08:09:02
3	Cr 267.716†	3721.3	3043.8	54.594 ug/L	54.594 ppb	08:09:02
3	Cu 324.752†	27165.0	17196.1	65.429 ug/L	65.429 ppb	08:08:42
3	Mn 257.610†	2508554.4	2115479.5	3094.6 ug/L	3094.6 ppb	08:08:37
3	Mo 202.031†	17.4	-2.1	5.5815 ug/L	5.5815 ppb	08:09:02
3	Ni 231.604†	1552.9	1227.2	44.023 ug/L	44.023 ppb	08:09:02
3	P 214.914†	851.3	529.6	366.37 ug/L	366.37 ppb	08:09:02
3	Pb 220.353†	324.9	323.1	54.091 ug/L	54.091 ppb	08:09:02
3	S 181.975 Axial†	110.8	66.3	121.71 ug/L	121.71 ppb	08:09:02
3	Sb 206.836†	47.4	14.3	-2.6479 ug/L	-2.6479 ppb	08:09:02
3	Se 196.026†	-399.5	-315.2	-78.128 ug/L	-78.128 ppb	08:09:02
3	Si 251.611†	847228.1	714160.8	29504 ug/L	29504 ppb	08:08:37
3	Sn 189.927†	-41.2	-48.4	-14.930 ug/L	-14.930 ppb	08:09:02
3	Ti 334.940†	1406673.4	1187539.4	2271.7 ug/L	2271.7 ppb	08:08:37
3	Tl 190.801†	-128.5	-86.1	-3.7556 ug/L	-3.7556 ppb	08:09:02
3	U 409.014†	-12492.6	-8703.2	-304.41 ug/L	-304.41 ppb	08:08:37
3	V 292.402†	8673.7	8696.6	64.540 ug/L	64.540 ppb	08:08:42
3	Zn 213.857†	41229.8	34116.6	444.23 ug/L	444.23 ppb	08:08:42
3	SiO2†	867532.8	731279.0	64362 ug/L	64362 ppb	08:09:20

Mean Data: 248045013|959105|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	865866.3	118.16 %		0.663			0.56%
Sc Radial	4613.4	122 %		4.9			3.99%
Y 371.029	955483.3	158.08 %		1.503			0.95%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 158.1%							
Y RADIAL	6680.6	163.6 %		5.42			3.31%
Ag 328.068†	-3819.7	1.6603 ug/L		0.65153	1.6603 ppb	0.65153	39.24%
Al 396.153Radial†	32892.9	39140 ug/L		1030.8	39140 ppb	1030.8	2.63%
As 188.979†	3.7	39.380 ug/L		2.0794	39.380 ppb	2.0794	5.28%
B 249.677†	571.0	5.0886 ug/L		0.35081	5.0886 ppb	0.35081	6.89%
Ba 233.527†	35165.1	370.99 ug/L		8.176	370.99 ppb	8.176	2.20%
Be 313.107†	2805.1	6.4823 ug/L		0.09763	6.4823 ppb	0.09763	1.51%
Ca 317.933Radial†	3932.7	8810.9 ug/L		239.13	8810.9 ppb	239.13	2.71%
Cd 226.502†	556.5	1.3438 ug/L		0.13424	1.3438 ppb	0.13424	9.99%
Co 228.616†	500.9	8.7042 ug/L		0.17893	8.7042 ppb	0.17893	2.06%
Cr 267.716†	3027.7	54.446 ug/L		0.1279	54.446 ppb	0.1279	0.23%
Cu 324.752†	16712.4	63.753 ug/L		1.7488	63.753 ppb	1.7488	2.74%
Fe 238.204 Radial†	5615.7	74237 ug/L		1551.4	74237 ppb	1551.4	2.09%



K 766.490 Radial†	18642.2	4109.8 ug/L	133.38	4109.8 ppb	133.38	3.25%
Mg 279.077 IEC†	139.1	6499.7 ug/L	334.08	6499.7 ppb	334.08	5.14%
Mn 257.610†	2124460.0	3107.8 ug/L	36.16	3107.8 ppb	36.16	1.16%
Mo 202.031†	0.7	5.9419 ug/L	0.31236	5.9419 ppb	0.31236	5.26%
Na 589.592 Radial†	12036.3	4840.1 ug/L	88.98	4840.1 ppb	88.98	1.84%
Ni 231.604†	1228.4	44.063 ug/L	0.2261	44.063 ppb	0.2261	0.51%
P 214.914†	514.2	353.64 ug/L	11.066	353.64 ppb	11.066	3.13%
Pb 220.353†	325.8	54.544 ug/L	0.4588	54.544 ppb	0.4588	0.84%
S 181.975 Axial†	65.5	120.09 ug/L	2.806	120.09 ppb	2.806	2.34%
Sb 206.836†	11.9	-3.8205 ug/L	1.09415	-3.8205 ppb	1.09415	28.64%
Se 196.026†	-319.1	-78.968 ug/L	5.2475	-78.968 ppb	5.2475	6.65%
Si 251.611†	716342.4	29594 ug/L	425.2	29594 ppb	425.2	1.44%
Sn 189.927†	-45.0	-14.112 ug/L	1.1416	-14.112 ppb	1.1416	8.09%
Sr 421.552†	7615.4	69.072 ug/L	1.5039	69.072 ppb	1.5039	2.18%
Ti 334.940†	1191426.3	2279.2 ug/L	32.46	2279.2 ppb	32.46	1.42%
Tl 190.801†	-89.5	-5.0736 ug/L	1.91465	-5.0736 ppb	1.91465	37.74%
U 409.014†	-8781.8	-307.19 ug/L	5.239	-307.19 ppb	5.239	1.71%
V 292.402†	8554.6	63.119 ug/L	1.8167	63.119 ppb	1.8167	2.88%
Zn 213.857†	33548.4	436.50 ug/L	9.884	436.50 ppb	9.884	2.26%
SiO2†	732825.0	64498 ug/L	857.1	64498 ppb	857.1	1.33%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 114  
 Sample ID: 248045014|959105|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 115  
 Date Collected: 3/27/2010 08:11:32  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 248045014|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4508.0	4508.0	119 %		08:13:46
1	Y RADIAL	5064.1	5064.1	124.0 %		08:13:46
1	Al 396.153Radial†	19600.7	16543.0	19685 ug/L	19685 ppb	08:13:26
1	Ca 317.933Radial†	6918.7	5791.8	12976 ug/L	12976 ppb	08:13:46
1	Fe 238.204 Radial†	5221.7	4379.3	57892 ug/L	57892 ppb	08:13:46
1	K 766.490 Radial†	28041.1	21084.0	4649.9 ug/L	4649.9 ppb	08:13:26
1	Mg 279.077 IEC†	259.7	215.4	10126 ug/L	10126 ppb	08:13:46
1	Na 589.592 Radial†	1984.6	2053.9	825.94 ug/L	825.94 ppb	08:13:26
1	Sr 421.552†	10428.8	8723.9	79.104 ug/L	79.104 ppb	08:13:26
1	Sc 361.383	853240.0	853240.0	116.43 %		08:14:43
1	Y 371.029	738143.5	738143.5	122.12 %		08:14:43
1	Ag 328.068†	-3370.0	-3046.5	0.9187 ug/L	0.9187 ppb	08:14:43
1	As 188.979†	-30.1	-3.5	26.070 ug/L	26.070 ppb	08:15:03
1	B 249.677†	129.5	446.2	3.9665 ug/L	3.9665 ppb	08:14:43
1	Ba 233.527†	37302.6	32034.8	337.78 ug/L	337.78 ppb	08:14:43
1	Be 313.107†	-10728.8	-5322.9	1.3549 ug/L	1.3549 ppb	08:14:43
1	Cd 226.502†	397.1	512.2	2.3551 ug/L	2.3551 ppb	08:15:03
1	Co 228.616†	821.5	752.3	17.370 ug/L	17.370 ppb	08:15:03
1	Cr 267.716†	4171.5	3487.6	59.720 ug/L	59.720 ppb	08:15:03
1	Cu 324.752†	48112.2	35604.2	130.20 ug/L	130.20 ppb	08:14:43
1	Mn 257.610†	829658.4	712126.8	1044.7 ug/L	1044.7 ppb	08:14:43
1	Mo 202.031†	-3.1	-19.4	2.6896 ug/L	2.6896 ppb	08:15:03
1	Ni 231.604†	1310.5	1043.0	37.407 ug/L	37.407 ppb	08:15:03
1	P 214.914†	3085.2	2461.2	1922.3 ug/L	1922.3 ppb	08:15:03
1	Pb 220.353†	791.1	728.5	122.24 ug/L	122.24 ppb	08:15:03
1	S 181.975 Axial†	243.1	181.7	349.65 ug/L	349.65 ppb	08:15:03
1	Sb 206.836†	33.7	3.4	-5.2254 ug/L	-5.2254 ppb	08:15:03
1	Se 196.026†	-319.2	-252.4	-67.828 ug/L	-67.828 ppb	08:15:03
1	Si 251.611†	410147.9	351799.9	14534 ug/L	14534 ppb	08:14:43
1	Sn 189.927†	-85.8	-87.3	-23.158 ug/L	-23.158 ppb	08:15:03
1	Ti 334.940†	1028636.7	884489.3	1692.4 ug/L	1692.4 ppb	08:14:43
1	Tl 190.801†	-80.4	-46.8	-1.4734 ug/L	-1.4734 ppb	08:15:03
1	U 409.014†	-4231.2	-1800.0	-67.926 ug/L	-67.926 ppb	08:14:43
1	V 292.402†	13615.5	13074.2	107.19 ug/L	107.19 ppb	08:14:43
1	Zn 213.857†	34612.6	29067.2	379.06 ug/L	379.06 ppb	08:14:43
1	SiO2†	416086.6	356892.2	31411 ug/L	31411 ppb	08:16:00
2	Sc Radial	4527.0	4527.0	120 %		08:14:11
2	Y RADIAL	5089.5	5089.5	124.7 %		08:14:11
2	Al 396.153Radial†	20753.4	17438.5	20751 ug/L	20751 ppb	08:13:51
2	Ca 317.933Radial†	7128.7	5943.1	13315 ug/L	13315 ppb	08:14:11
2	Fe 238.204 Radial†	5395.3	4506.1	59569 ug/L	59569 ppb	08:14:11
2	K 766.490 Radial†	29564.2	22259.7	4909.3 ug/L	4909.3 ppb	08:13:51
2	Mg 279.077 IEC†	273.1	225.7	10614 ug/L	10614 ppb	08:14:11
2	Na 589.592 Radial†	2063.1	2112.7	849.57 ug/L	849.57 ppb	08:13:51
2	Sr 421.552†	11032.0	9191.9	83.350 ug/L	83.350 ppb	08:13:51
2	Sc 361.383	866807.9	866807.9	118.29 %		08:15:09
2	Y 371.029	750025.9	750025.9	124.09 %		08:15:09
2	Ag 328.068†	-3505.2	-3115.5	1.0327 ug/L	1.0327 ppb	08:15:09
2	As 188.979†	-26.6	-0.2	28.438 ug/L	28.438 ppb	08:15:29
2	B 249.677†	62.3	387.7	1.9329 ug/L	1.9329 ppb	08:15:09
2	Ba 233.527†	37556.0	31747.5	334.81 ug/L	334.81 ppb	08:15:09
2	Be 313.107†	-10928.1	-5347.1	1.3316 ug/L	1.3316 ppb	08:15:09
2	Cd 226.502†	402.5	511.4	2.1689 ug/L	2.1689 ppb	08:15:29
2	Co 228.616†	832.8	750.7	17.315 ug/L	17.315 ppb	08:15:29
2	Cr 267.716†	4191.2	3448.2	59.292 ug/L	59.292 ppb	08:15:29
2	Cu 324.752†	48971.1	35683.5	130.57 ug/L	130.57 ppb	08:15:09
2	Mn 257.610†	838441.6	708398.8	1039.4 ug/L	1039.4 ppb	08:15:09
2	Mo 202.031†	10.8	-7.6	4.0156 ug/L	4.0156 ppb	08:15:29
2	Ni 231.604†	1305.2	1020.9	36.615 ug/L	36.615 ppb	08:15:29

2	P 214.914†	3112.5	2442.9	1906.3 ug/L	1906.3 ppb	08:15:29
2	Pb 220.353†	792.9	719.4	120.66 ug/L	120.66 ppb	08:15:29
2	S 181.975 Axial†	251.7	185.7	357.18 ug/L	357.18 ppb	08:15:29
2	Sb 206.836†	40.1	8.3	-2.9286 ug/L	-2.9286 ppb	08:15:29
2	Se 196.026†	-319.7	-248.6	-59.600 ug/L	-59.600 ppb	08:15:29
2	Si 251.611†	415959.7	351199.5	14509 ug/L	14509 ppb	08:15:09
2	Sn 189.927†	-85.6	-86.0	-22.870 ug/L	-22.870 ppb	08:15:29
2	Ti 334.940†	1041700.3	881705.0	1687.1 ug/L	1687.1 ppb	08:15:09
2	Tl 190.801†	-72.6	-39.1	1.7429 ug/L	1.7429 ppb	08:15:29
2	U 409.014†	-4207.3	-1722.9	-65.495 ug/L	-65.495 ppb	08:15:09
2	V 292.402†	13664.4	12932.5	105.71 ug/L	105.71 ppb	08:15:09
2	Zn 213.857†	34945.8	28883.6	376.36 ug/L	376.36 ppb	08:15:09
2	SiO2†	414879.1	350277.7	30829 ug/L	30829 ppb	08:16:06
3	Sc Radial	4451.8	4451.8	118 %		08:14:36
3	Y RADIAL	5014.6	5014.6	122.8 %		08:14:36
3	Al 396.153Radial†	21398.3	18280.5	21753 ug/L	21753 ppb	08:14:16
3	Ca 317.933Radial†	7074.3	5997.6	13437 ug/L	13437 ppb	08:14:36
3	Fe 238.204 Radial†	5327.9	4525.0	59819 ug/L	59819 ppb	08:14:36
3	K 766.490 Radial†	30291.4	23296.2	5138.1 ug/L	5138.1 ppb	08:14:16
3	Mg 279.077 IEC†	270.1	227.1	10676 ug/L	10676 ppb	08:14:36
3	Na 589.592 Radial†	2182.9	2243.7	902.27 ug/L	902.27 ppb	08:14:16
3	Sr 421.552†	11510.6	9755.0	88.462 ug/L	88.462 ppb	08:14:16
3	Sc 361.383	857480.6	857480.6	117.01 %		08:15:35
3	Y 371.029	742617.0	742617.0	122.86 %		08:15:35
3	Ag 328.068†	-3366.4	-3029.1	1.6066 ug/L	1.6066 ppb	08:15:35
3	As 188.979†	-31.6	-4.7	25.831 ug/L	25.831 ppb	08:15:55
3	B 249.677†	60.5	386.6	1.8611 ug/L	1.8611 ppb	08:15:35
3	Ba 233.527†	37354.7	31920.8	336.64 ug/L	336.64 ppb	08:15:35
3	Be 313.107†	-10906.7	-5429.3	1.3062 ug/L	1.3062 ppb	08:15:35
3	Cd 226.502†	403.4	515.9	2.2154 ug/L	2.2154 ppb	08:15:55
3	Co 228.616†	829.6	755.7	17.442 ug/L	17.442 ppb	08:15:55
3	Cr 267.716†	4217.9	3509.6	60.260 ug/L	60.260 ppb	08:15:55
3	Cu 324.752†	48578.6	35798.5	130.99 ug/L	130.99 ppb	08:15:35
3	Mn 257.610†	831560.8	710228.8	1042.1 ug/L	1042.1 ppb	08:15:35
3	Mo 202.031†	6.6	-11.1	3.6847 ug/L	3.6847 ppb	08:15:55
3	Ni 231.604†	1329.4	1053.6	37.787 ug/L	37.787 ppb	08:15:55
3	P 214.914†	3141.1	2496.0	1949.1 ug/L	1949.1 ppb	08:15:55
3	Pb 220.353†	791.8	725.7	121.95 ug/L	121.95 ppb	08:15:55
3	S 181.975 Axial†	256.3	191.9	369.12 ug/L	369.12 ppb	08:15:55
3	Sb 206.836†	39.8	8.4	-2.9741 ug/L	-2.9741 ppb	08:15:55
3	Se 196.026†	-326.9	-257.6	-66.801 ug/L	-66.801 ppb	08:15:55
3	Si 251.611†	411853.4	351515.4	14522 ug/L	14522 ppb	08:15:35
3	Sn 189.927†	-96.0	-95.7	-25.316 ug/L	-25.316 ppb	08:15:55
3	Ti 334.940†	1034023.4	884723.8	1692.8 ug/L	1692.8 ppb	08:15:35
3	Tl 190.801†	-72.2	-39.4	1.6788 ug/L	1.6788 ppb	08:15:55
3	U 409.014†	-4319.4	-1857.3	-70.097 ug/L	-70.097 ppb	08:15:35
3	V 292.402†	13628.0	13027.2	106.51 ug/L	106.51 ppb	08:15:35
3	Zn 213.857†	34723.2	29014.7	378.07 ug/L	378.07 ppb	08:15:35
3	SiO2†	419926.3	358406.3	31544 ug/L	31544 ppb	08:16:11

Mean Data: 248045014|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	859176.2	117.24 %		0.947			0.81%
Sc Radial	4495.6	119 %		1.0			0.87%
Y 371.029	743595.5	123.03 %		0.993			0.81%
Y RADIAL	5056.1	123.8 %		0.93			0.75%
Ag 328.068†	-3063.7	1.1860 ug/L		0.36867	1.1860 ppb	0.36867	31.08%
Al 396.153Radial†	17420.7	20729 ug/L		1033.9	20729 ppb	1033.9	4.99%
As 188.979†	-2.8	26.780 ug/L		1.4413	26.780 ppb	1.4413	5.38%
B 249.677†	406.8	2.5868 ug/L		1.19539	2.5868 ppb	1.19539	46.21%
Ba 233.527†	31901.0	336.41 ug/L		1.495	336.41 ppb	1.495	0.44%
Be 313.107†	-5366.4	1.3309 ug/L		0.02435	1.3309 ppb	0.02435	1.83%
Ca 317.933Radial†	5910.8	13242 ug/L		238.9	13242 ppb	238.9	1.80%
Cd 226.502†	513.2	2.2465 ug/L		0.09691	2.2465 ppb	0.09691	4.31%
Co 228.616†	752.9	17.376 ug/L		0.0640	17.376 ppb	0.0640	0.37%
Cr 267.716†	3481.8	59.757 ug/L		0.4852	59.757 ppb	0.4852	0.81%
Cu 324.752†	35695.4	130.58 ug/L		0.399	130.58 ppb	0.399	0.31%
Fe 238.204 Radial†	4470.1	59094 ug/L		1047.7	59094 ppb	1047.7	1.77%
K 766.490 Radial†	22213.3	4899.1 ug/L		244.27	4899.1 ppb	244.27	4.99%

Mg 279.077 IEC†	222.7	10472 ug/L	300.9	10472 ppb	300.9	2.87%
Mn 257.610†	710251.5	1042.0 ug/L	2.65	1042.0 ppb	2.65	0.25%
Mo 202.031†	-12.7	3.4633 ug/L	0.69014	3.4633 ppb	0.69014	19.93%
Na 589.592 Radial†	2136.8	859.26 ug/L	39.077	859.26 ppb	39.077	4.55%
Ni 231.604†	1039.1	37.269 ug/L	0.5979	37.269 ppb	0.5979	1.60%
P 214.914†	2466.7	1925.9 ug/L	21.65	1925.9 ppb	21.65	1.12%
Pb 220.353†	724.5	121.62 ug/L	0.842	121.62 ppb	0.842	0.69%
S 181.975 Axial†	186.4	358.65 ug/L	9.820	358.65 ppb	9.820	2.74%
Sb 206.836†	6.7	-3.7094 ug/L	1.31311	-3.7094 ppb	1.31311	35.40%
Se 196.026†	-252.9	-64.743 ug/L	4.4833	-64.743 ppb	4.4833	6.92%
Si 251.611†	351504.9	14522 ug/L	12.4	14522 ppb	12.4	0.09%
Sn 189.927†	-89.7	-23.781 ug/L	1.3371	-23.781 ppb	1.3371	5.62%
Sr 421.552†	9223.6	83.639 ug/L	4.6854	83.639 ppb	4.6854	5.60%
Ti 334.940†	883639.3	1690.8 ug/L	3.21	1690.8 ppb	3.21	0.19%
Tl 190.801†	-41.8	0.6494 ug/L	1.83871	0.6494 ppb	1.83871	283.12%
U 409.014†	-1793.4	-67.840 ug/L	2.3022	-67.840 ppb	2.3022	3.39%
V 292.402†	13011.3	106.47 ug/L	0.740	106.47 ppb	0.740	0.70%
Zn 213.857†	28988.5	377.83 ug/L	1.364	377.83 ppb	1.364	0.36%
SiO2†	355192.0	31262 ug/L	380.5	31262 ppb	380.5	1.22%

Sequence No.: 115

Sample ID: 248045015|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 116

Date Collected: 3/27/2010 08:18:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045015|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4660.4	4660.4	123 %		08:20:17
1	Y RADIAL	5693.1	5693.1	139.4 %		08:20:17
1	Al 396.153Radial†	47856.2	38970.5	46372 ug/L	46372 ppb	08:20:17
1	Ca 317.933Radial†	22886.2	18580.0	41626 ug/L	41626 ppb	08:20:17
1	Fe 238.204 Radial†	6956.0	5645.4	74630 ug/L	74630 ppb	08:20:17
1	K 766.490 Radial†	65845.2	51040.6	11254 ug/L	11254 ppb	08:20:17
1	Mg 279.077 IEC†	293.6	235.8	11074 ug/L	11074 ppb	08:20:37
1	Na 589.592 Radial†	2119.7	2109.2	848.18 ug/L	848.18 ppb	08:20:17
1	Sr 421.552†	23007.2	18661.1	169.11 ug/L	169.11 ppb	08:20:17
1	Sc 361.383	882068.0	882068.0	120.37 %		08:21:35
1	Y 371.029	820042.0	820042.0	135.67 %		08:21:35
1	Ag 328.068†	-4113.9	-3569.9	2.8317 ug/L	2.8317 ppb	08:21:40
1	As 188.979†	-21.8	4.2	40.629 ug/L	40.629 ppb	08:22:00
1	B 249.677†	1376.3	1478.3	32.306 ug/L	32.306 ppb	08:21:40
1	Ba 233.527†	68206.0	56661.7	596.42 ug/L	596.42 ppb	08:21:40
1	Be 313.107†	-7482.0	-2324.3	4.3105 ug/L	4.3105 ppb	08:21:40
1	Cd 226.502†	1167.3	1141.0	10.873 ug/L	10.873 ppb	08:22:00
1	Co 228.616†	985.3	865.3	19.055 ug/L	19.055 ppb	08:22:00
1	Cr 267.716†	6335.7	5168.5	87.275 ug/L	87.275 ppb	08:22:00
1	Cu 324.752†	66950.1	49903.9	182.18 ug/L	182.18 ppb	08:21:40
1	Mn 257.610†	1783326.5	1481128.3	2168.7 ug/L	2168.7 ppb	08:21:35
1	Mo 202.031†	5.2	-12.5	5.0301 ug/L	5.0301 ppb	08:22:00
1	Ni 231.604†	3997.0	3238.1	116.16 ug/L	116.16 ppb	08:22:00
1	P 214.914†	2990.3	2295.8	1771.6 ug/L	1771.6 ppb	08:22:00
1	Pb 220.353†	3578.8	3022.3	522.90 ug/L	522.90 ppb	08:22:00
1	S 181.975 Axial†	748.2	594.5	1147.3 ug/L	1147.3 ppb	08:22:00
1	Sb 206.836†	40.0	7.6	-6.2828 ug/L	-6.2828 ppb	08:22:00
1	Se 196.026†	-418.2	-325.7	-81.902 ug/L	-81.902 ppb	08:22:00
1	Si 251.611†	932040.7	773866.1	31971 ug/L	31971 ppb	08:21:35
1	Sn 189.927†	-73.9	-75.1	-15.919 ug/L	-15.919 ppb	08:22:00
1	Ti 334.940†	1494666.6	1242785.0	2381.4 ug/L	2381.4 ppb	08:21:35
1	Tl 190.801†	-112.4	-71.1	-0.9660 ug/L	-0.9660 ppb	08:22:00
1	U 409.014†	-7797.1	-4643.6	-166.59 ug/L	-166.59 ppb	08:21:35
1	V 292.402†	14939.6	13792.1	110.31 ug/L	110.31 ppb	08:21:40
1	Zn 213.857†	48982.7	40034.1	522.43 ug/L	522.43 ppb	08:21:40
1	SiO2†	932470.7	774215.0	68141 ug/L	68141 ppb	08:23:08
2	Sc Radial	4560.0	4560.0	120 %		08:20:42
2	Y RADIAL	5588.9	5588.9	136.9 %		08:20:42
2	Al 396.153Radial†	47147.9	39238.8	46691 ug/L	46691 ppb	08:20:42
2	Ca 317.933Radial†	22559.7	18718.5	41937 ug/L	41937 ppb	08:20:42
2	Fe 238.204 Radial†	6850.3	5682.1	75115 ug/L	75115 ppb	08:20:42
2	K 766.490 Radial†	64439.9	51051.9	11256 ug/L	11256 ppb	08:20:42
2	Mg 279.077 IEC†	293.1	240.6	11302 ug/L	11302 ppb	08:21:02
2	Na 589.592 Radial†	2024.8	2068.3	831.73 ug/L	831.73 ppb	08:20:42
2	Sr 421.552†	22480.6	18635.4	168.87 ug/L	168.87 ppb	08:20:42
2	Sc 361.383	892008.6	892008.6	121.73 %		08:22:06
2	Y 371.029	829680.1	829680.1	137.27 %		08:22:06
2	Ag 328.068†	-4140.0	-3553.2	3.0595 ug/L	3.0595 ppb	08:22:11
2	As 188.979†	-23.5	3.0	39.970 ug/L	39.970 ppb	08:22:31
2	B 249.677†	1318.0	1417.7	30.405 ug/L	30.405 ppb	08:22:11
2	Ba 233.527†	67785.4	55684.7	586.19 ug/L	586.19 ppb	08:22:11
2	Be 313.107†	-7702.4	-2436.1	4.2521 ug/L	4.2521 ppb	08:22:11
2	Cd 226.502†	1155.4	1120.4	10.489 ug/L	10.489 ppb	08:22:31
2	Co 228.616†	970.7	844.1	18.442 ug/L	18.442 ppb	08:22:31
2	Cr 267.716†	6386.7	5151.8	87.065 ug/L	87.065 ppb	08:22:31
2	Cu 324.752†	66788.4	49151.2	179.52 ug/L	179.52 ppb	08:22:11
2	Mn 257.610†	1797687.9	1476416.1	2161.8 ug/L	2161.8 ppb	08:22:06
2	Mo 202.031†	8.7	-9.6	5.3564 ug/L	5.3564 ppb	08:22:31
2	Ni 231.604†	3978.4	3185.8	114.29 ug/L	114.29 ppb	08:22:31

2	P 214.914†	2975.5	2256.0	1739.6 ug/L	1739.6 ppb	08:22:31
2	Pb 220.353†	3537.4	2955.2	511.30 ug/L	511.30 ppb	08:22:31
2	S 181.975 Axial†	758.5	596.0	1150.3 ug/L	1150.3 ppb	08:22:31
2	Sb 206.836†	46.3	12.4	-4.0470 ug/L	-4.0470 ppb	08:22:31
2	Se 196.026†	-427.5	-329.5	-83.920 ug/L	-83.920 ppb	08:22:31
2	Si 251.611†	941220.4	772778.3	31926 ug/L	31926 ppb	08:22:06
2	Sn 189.927†	-72.3	-73.0	-15.378 ug/L	-15.378 ppb	08:22:31
2	Ti 334.940†	1509797.6	1241377.5	2378.7 ug/L	2378.7 ppb	08:22:06
2	Tl 190.801†	-116.4	-73.3	-1.9683 ug/L	-1.9683 ppb	08:22:31
2	U 409.014†	-7649.4	-4450.2	-160.07 ug/L	-160.07 ppb	08:22:06
2	V 292.402†	14848.6	13579.1	108.35 ug/L	108.35 ppb	08:22:11
2	Zn 213.857†	48722.3	39366.6	513.46 ug/L	513.46 ppb	08:22:11
2	SiO2†	927128.0	761192.8	66995 ug/L	66995 ppb	08:23:14
3	Sc Radial	4876.6	4876.6	129 %		08:21:07
3	Y RADIAL	5969.4	5969.4	146.2 %		08:21:07
3	Al 396.153Radial†	49984.8	38899.4	46288 ug/L	46288 ppb	08:21:07
3	Ca 317.933Radial†	23832.7	18490.6	41426 ug/L	41426 ppb	08:21:07
3	Fe 238.204 Radial†	7221.7	5601.1	74044 ug/L	74044 ppb	08:21:07
3	K 766.490 Radial†	68332.8	50600.1	11156 ug/L	11156 ppb	08:21:07
3	Mg 279.077 IEC†	289.5	222.1	10425 ug/L	10425 ppb	08:21:27
3	Na 589.592 Radial†	2251.6	2135.3	858.67 ug/L	858.67 ppb	08:21:07
3	Sr 421.552†	23899.6	18525.2	167.87 ug/L	167.87 ppb	08:21:07
3	Sc 361.383	878826.3	878826.3	119.93 %		08:22:37
3	Y 371.029	820844.9	820844.9	135.81 %		08:22:37
3	Ag 328.068†	-4140.7	-3604.8	2.4550 ug/L	2.4550 ppb	08:22:42
3	As 188.979†	-27.6	-0.7	37.410 ug/L	37.410 ppb	08:23:02
3	B 249.677†	1347.6	1458.6	31.808 ug/L	31.808 ppb	08:22:42
3	Ba 233.527†	68099.2	56781.6	597.66 ug/L	597.66 ppb	08:22:42
3	Be 313.107†	-7730.3	-2554.3	4.1831 ug/L	4.1831 ppb	08:22:42
3	Cd 226.502†	1153.6	1133.1	10.808 ug/L	10.808 ppb	08:23:02
3	Co 228.616†	974.1	858.9	18.898 ug/L	18.898 ppb	08:23:02
3	Cr 267.716†	6397.0	5239.1	88.293 ug/L	88.293 ppb	08:23:02
3	Cu 324.752†	67141.7	50268.8	183.45 ug/L	183.45 ppb	08:22:42
3	Mn 257.610†	1770033.9	1475509.3	2160.5 ug/L	2160.5 ppb	08:22:37
3	Mo 202.031†	-4.6	-20.6	4.1622 ug/L	4.1622 ppb	08:23:02
3	Ni 231.604†	4006.5	3258.3	116.89 ug/L	116.89 ppb	08:23:02
3	P 214.914†	2980.5	2296.8	1772.6 ug/L	1772.6 ppb	08:23:02
3	Pb 220.353†	3587.2	3040.2	526.07 ug/L	526.07 ppb	08:23:02
3	S 181.975 Axial†	742.8	592.3	1143.0 ug/L	1143.0 ppb	08:23:02
3	Sb 206.836†	51.5	17.4	-1.7412 ug/L	-1.7412 ppb	08:23:02
3	Se 196.026†	-427.6	-334.8	-91.679 ug/L	-91.679 ppb	08:23:02
3	Si 251.611†	927213.1	772696.8	31922 ug/L	31922 ppb	08:22:37
3	Sn 189.927†	-77.1	-78.0	-16.661 ug/L	-16.661 ppb	08:23:02
3	Ti 334.940†	1483664.9	1238191.7	2372.6 ug/L	2372.6 ppb	08:22:37
3	Tl 190.801†	-116.5	-74.9	-2.6850 ug/L	-2.6850 ppb	08:23:02
3	U 409.014†	-7578.0	-4484.9	-161.13 ug/L	-161.13 ppb	08:22:37
3	V 292.402†	15033.5	13916.2	111.50 ug/L	111.50 ppb	08:22:42
3	Zn 213.857†	48926.7	40137.5	523.89 ug/L	523.89 ppb	08:22:42
3	SiO2†	932257.0	776894.3	68377 ug/L	68377 ppb	08:23:20

Mean Data: 248045015|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	884301.0	120.67 %		0.937				0.78%
Sc Radial	4699.0	124 %		4.3				3.44%
Y 371.029	823522.3	136.25 %		0.885				0.65%
Y RADIAL	5750.5	140.8 %		4.82				3.42%
Ag 328.068†	-3576.0	2.7821 ug/L		0.30529	2.7821 ppb		0.30529	10.97%
Al 396.153Radial†	39036.2	46450 ug/L		213.0	46450 ppb		213.0	0.46%
As 188.979†	2.1	39.336 ug/L		1.7002	39.336 ppb		1.7002	4.32%
B 249.677†	1451.6	31.506 ug/L		0.9858	31.506 ppb		0.9858	3.13%
Ba 233.527†	56376.0	593.42 ug/L		6.295	593.42 ppb		6.295	1.06%
Be 313.107†	-2438.3	4.2486 ug/L		0.06373	4.2486 ppb		0.06373	1.50%
Ca 317.933Radial†	18596.4	41663 ug/L		257.3	41663 ppb		257.3	0.62%
Cd 226.502†	1131.5	10.723 ug/L		0.2057	10.723 ppb		0.2057	1.92%
Co 228.616†	856.1	18.798 ug/L		0.3181	18.798 ppb		0.3181	1.69%
Cr 267.716†	5186.5	87.544 ug/L		0.6568	87.544 ppb		0.6568	0.75%
Cu 324.752†	49774.7	181.72 ug/L		2.008	181.72 ppb		2.008	1.10%
Fe 238.204 Radial†	5642.9	74596 ug/L		536.1	74596 ppb		536.1	0.72%
K 766.490 Radial†	50897.5	11222 ug/L		56.8	11222 ppb		56.8	0.51%

Mg 279.077 IEC†	232.8	10934 ug/L	455.1	10934 ppb	455.1	4.16%
Mn 257.610†	1477684.6	2163.7 ug/L	4.41	2163.7 ppb	4.41	0.20%
Mo 202.031†	-14.2	4.8496 ug/L	0.61723	4.8496 ppb	0.61723	12.73%
Na 589.592 Radial†	2104.3	846.19 ug/L	13.577	846.19 ppb	13.577	1.60%
Ni 231.604†	3227.4	115.78 ug/L	1.342	115.78 ppb	1.342	1.16%
P 214.914†	2282.9	1761.3 ug/L	18.76	1761.3 ppb	18.76	1.06%
Pb 220.353†	3005.9	520.09 ug/L	7.775	520.09 ppb	7.775	1.49%
S 181.975 Axial†	594.3	1146.9 ug/L	3.65	1146.9 ppb	3.65	0.32%
Sb 206.836†	12.5	-4.0237 ug/L	2.27090	-4.0237 ppb	2.27090	56.44%
Se 196.026†	-330.0	-85.834 ug/L	5.1616	-85.834 ppb	5.1616	6.01%
Si 251.611†	773113.7	31940 ug/L	27.0	31940 ppb	27.0	0.08%
Sn 189.927†	-75.4	-15.986 ug/L	0.6439	-15.986 ppb	0.6439	4.03%
Sr 421.552†	18607.2	168.62 ug/L	0.654	168.62 ppb	0.654	0.39%
Ti 334.940†	1240784.7	2377.6 ug/L	4.49	2377.6 ppb	4.49	0.19%
Tl 190.801†	-73.1	-1.8731 ug/L	0.86342	-1.8731 ppb	0.86342	46.10%
U 409.014†	-4526.2	-162.59 ug/L	3.501	-162.59 ppb	3.501	2.15%
V 292.402†	13762.5	110.05 ug/L	1.592	110.05 ppb	1.592	1.45%
Zn 213.857†	39846.1	519.92 ug/L	5.648	519.92 ppb	5.648	1.09%
SiO2†	770767.4	67838 ug/L	739.3	67838 ppb	739.3	1.09%

Sequence No.: 116

Sample ID: 248045016|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 117

Date Collected: 3/27/2010 08:25:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045016|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4662.5	4662.5	123 %			08:27:47
1	Y RADIAL	6055.3	6055.3	148.3 %			08:27:47
1	Al 396.153Radial†	70492.0	57343.6	68235 ug/L		68235 ppb	08:27:27
1	Ca 317.933Radial†	18996.6	15411.8	34528 ug/L		34528 ppb	08:27:27
1	Fe 238.204 Radial†	8764.6	7112.3	94022 ug/L		94022 ppb	08:27:27
1	K 766.490 Radial†	72365.1	56314.1	12419 ug/L		12419 ppb	08:27:27
1	Mg 279.077 IEC†	369.9	297.7	13983 ug/L		13983 ppb	08:27:47
1	Na 589.592 Radial†	6647.7	5787.2	2327.2 ug/L		2327.2 ppb	08:27:27
1	Sr 421.552†	25999.9	21084.2	191.16 ug/L		191.16 ppb	08:27:27
1	Sc 361.383	879033.1	879033.1	119.95 %			08:28:44
1	Y 371.029	873326.0	873326.0	144.49 %			08:28:44
1	Ag 328.068†	-3150.0	-2778.1	13.557 ug/L		13.557 ppb	08:28:49
1	As 188.979†	-10.0	13.9	53.728 ug/L		53.728 ppb	08:29:10
1	B 249.677†	2047.1	2041.5	46.093 ug/L		46.093 ppb	08:28:49
1	Ba 233.527†	79548.0	66312.6	698.19 ug/L		698.19 ppb	08:28:49
1	Be 313.107†	-1458.5	2675.7	7.3416 ug/L		7.3416 ppb	08:28:49
1	Cd 226.502†	764.3	808.3	3.4173 ug/L		3.4173 ppb	08:29:10
1	Co 228.616†	1208.5	1054.2	23.627 ug/L		23.627 ppb	08:29:10
1	Cr 267.716†	4714.0	3834.8	68.963 ug/L		68.963 ppb	08:29:10
1	Cu 324.752†	109336.8	85431.6	310.08 ug/L		310.08 ppb	08:28:49
1	Mn 257.610†	2579004.6	2149560.2	3146.1 ug/L		3146.1 ppb	08:28:44
1	Mo 202.031†	53.3	27.7	10.506 ug/L		10.506 ppb	08:29:10
1	Ni 231.604†	2330.6	1860.4	66.729 ug/L		66.729 ppb	08:29:10
1	P 214.914†	2792.9	2139.8	1610.1 ug/L		1610.1 ppb	08:29:10
1	Pb 220.353†	4744.7	4004.5	694.72 ug/L		694.72 ppb	08:29:10
1	S 181.975 Axial†	1693.4	1384.6	2679.6 ug/L		2679.6 ppb	08:29:10
1	Sb 206.836†	51.6	17.4	-3.6621 ug/L		-3.6621 ppb	08:29:10
1	Se 196.026†	-511.3	-404.5	-95.161 ug/L		-95.161 ppb	08:29:10
1	Si 251.611†	921118.1	767433.8	31705 ug/L		31705 ppb	08:28:44
1	Sn 189.927†	-125.8	-118.5	-29.308 ug/L		-29.308 ppb	08:29:10
1	Ti 334.940†	1682019.3	1403258.7	2687.1 ug/L		2687.1 ppb	08:28:44
1	Tl 190.801†	-137.7	-92.6	-3.0457 ug/L		-3.0457 ppb	08:29:10
1	U 409.014†	-10661.1	-7053.6	-250.70 ug/L		-250.70 ppb	08:28:44
1	V 292.402†	16868.2	15442.8	121.94 ug/L		121.94 ppb	08:28:49
1	Zn 213.857†	60582.3	49844.6	650.67 ug/L		650.67 ppb	08:28:49
1	SiO2†	942525.7	785272.0	69114 ug/L		69114 ppb	08:30:18
2	Sc Radial	4697.3	4697.3	124 %			08:28:12
2	Y RADIAL	6070.7	6070.7	148.7 %			08:28:12
2	Al 396.153Radial†	71125.2	57430.0	68337 ug/L		68337 ppb	08:27:52
2	Ca 317.933Radial†	19169.8	15437.1	34585 ug/L		34585 ppb	08:27:52
2	Fe 238.204 Radial†	8845.9	7125.1	94191 ug/L		94191 ppb	08:27:52
2	K 766.490 Radial†	73475.5	56774.1	12521 ug/L		12521 ppb	08:27:52
2	Mg 279.077 IEC†	374.6	299.3	14056 ug/L		14056 ppb	08:28:12
2	Na 589.592 Radial†	6688.1	5779.8	2324.2 ug/L		2324.2 ppb	08:27:52
2	Sr 421.552†	26250.1	21129.5	191.57 ug/L		191.57 ppb	08:27:52
2	Sc 361.383	877295.8	877295.8	119.72 %			08:29:15
2	Y 371.029	872760.1	872760.1	144.40 %			08:29:15
2	Ag 328.068†	-3005.4	-2662.6	14.264 ug/L		14.264 ppb	08:29:21
2	As 188.979†	-23.5	2.6	46.895 ug/L		46.895 ppb	08:29:41
2	B 249.677†	2125.3	2110.2	48.131 ug/L		48.131 ppb	08:29:21
2	Ba 233.527†	79419.9	66336.9	698.45 ug/L		698.45 ppb	08:29:21
2	Be 313.107†	-1365.5	2751.0	7.3759 ug/L		7.3759 ppb	08:29:21
2	Cd 226.502†	766.4	811.3	3.4487 ug/L		3.4487 ppb	08:29:41
2	Co 228.616†	1214.0	1060.8	23.818 ug/L		23.818 ppb	08:29:41
2	Cr 267.716†	4709.0	3838.3	69.035 ug/L		69.035 ppb	08:29:41
2	Cu 324.752†	108783.7	85150.1	309.08 ug/L		309.08 ppb	08:29:21
2	Mn 257.610†	2576798.4	2151974.9	3149.6 ug/L		3149.6 ppb	08:29:15
2	Mo 202.031†	63.7	36.5	11.405 ug/L		11.405 ppb	08:29:41
2	Ni 231.604†	2327.9	1862.0	66.786 ug/L		66.786 ppb	08:29:41



2	P 214.914†	2787.7	2140.2	1610.4 ug/L	1610.4 ppb	08:29:41
2	Pb 220.353†	4732.9	4002.4	694.37 ug/L	694.37 ppb	08:29:41
2	S 181.975 Axial†	1687.8	1382.7	2675.9 ug/L	2675.9 ppb	08:29:41
2	Sb 206.836†	54.1	19.6	-2.6696 ug/L	-2.6696 ppb	08:29:41
2	Se 196.026†	-529.2	-420.3	-108.94 ug/L	-108.94 ppb	08:29:41
2	Si 251.611†	918222.3	766535.6	31668 ug/L	31668 ppb	08:29:15
2	Sn 189.927†	-142.3	-132.5	-32.856 ug/L	-32.856 ppb	08:29:41
2	Ti 334.940†	1678455.5	1403058.7	2686.7 ug/L	2686.7 ppb	08:29:15
2	Tl 190.801†	-142.2	-96.5	-4.7216 ug/L	-4.7216 ppb	08:29:41
2	U 409.014†	-10655.1	-7066.2	-251.15 ug/L	-251.15 ppb	08:29:15
2	V 292.402†	16774.2	15392.1	121.48 ug/L	121.48 ppb	08:29:21
2	Zn 213.857†	60463.2	49845.1	650.65 ug/L	650.65 ppb	08:29:21
2	SiO2†	939010.7	783891.9	68993 ug/L	68993 ppb	08:30:24
3	Sc Radial	4665.0	4665.0	123 %		08:28:37
3	Y RADIAL	6031.5	6031.5	147.7 %		08:28:37
3	Al 396.153Radial†	70392.9	57232.6	68103 ug/L	68103 ppb	08:28:17
3	Ca 317.933Radial†	19028.5	15429.4	34568 ug/L	34568 ppb	08:28:17
3	Fe 238.204 Radial†	8762.7	7106.9	93951 ug/L	93951 ppb	08:28:17
3	K 766.490 Radial†	72817.3	56649.8	12493 ug/L	12493 ppb	08:28:17
3	Mg 279.077 IEC†	370.7	298.2	14003 ug/L	14003 ppb	08:28:37
3	Na 589.592 Radial†	6625.0	5765.9	2318.6 ug/L	2318.6 ppb	08:28:17
3	Sr 421.552†	25904.5	20995.4	190.35 ug/L	190.35 ppb	08:28:17
3	Sc 361.383	881625.9	881625.9	120.31 %		08:29:47
3	Y 371.029	876252.4	876252.4	144.97 %		08:29:47
3	Ag 328.068†	-3202.2	-2813.8	13.316 ug/L	13.316 ppb	08:29:52
3	As 188.979†	-22.9	3.3	47.238 ug/L	47.238 ppb	08:30:12
3	B 249.677†	1972.2	1974.3	44.079 ug/L	44.079 ppb	08:29:52
3	Ba 233.527†	78564.2	65299.8	687.57 ug/L	687.57 ppb	08:29:52
3	Be 313.107†	-1430.2	2702.8	7.3562 ug/L	7.3562 ppb	08:29:52
3	Cd 226.502†	769.3	810.6	3.4637 ug/L	3.4637 ppb	08:30:12
3	Co 228.616†	1215.7	1057.2	23.705 ug/L	23.705 ppb	08:30:12
3	Cr 267.716†	4771.3	3870.8	69.502 ug/L	69.502 ppb	08:30:12
3	Cu 324.752†	106773.2	83032.7	301.51 ug/L	301.51 ppb	08:29:52
3	Mn 257.610†	2590900.8	2153125.3	3151.3 ug/L	3151.3 ppb	08:29:47
3	Mo 202.031†	42.6	18.6	9.5874 ug/L	9.5874 ppb	08:30:12
3	Ni 231.604†	2365.2	1883.4	67.555 ug/L	67.555 ppb	08:30:12
3	P 214.914†	2814.9	2151.3	1621.1 ug/L	1621.1 ppb	08:30:12
3	Pb 220.353†	4729.2	3980.0	690.46 ug/L	690.46 ppb	08:30:12
3	S 181.975 Axial†	1693.2	1380.3	2671.3 ug/L	2671.3 ppb	08:30:12
3	Sb 206.836†	40.7	8.2	-7.9210 ug/L	-7.9210 ppb	08:30:12
3	Se 196.026†	-516.9	-407.9	-98.468 ug/L	-98.468 ppb	08:30:12
3	Si 251.611†	923523.9	767175.3	31694 ug/L	31694 ppb	08:29:47
3	Sn 189.927†	-120.9	-114.1	-28.183 ug/L	-28.183 ppb	08:30:12
3	Ti 334.940†	1687539.3	1403723.2	2688.0 ug/L	2688.0 ppb	08:29:47
3	Tl 190.801†	-131.6	-87.1	-0.6755 ug/L	-0.6755 ppb	08:30:12
3	U 409.014†	-10522.9	-6912.6	-245.90 ug/L	-245.90 ppb	08:29:47
3	V 292.402†	16550.7	15137.5	119.21 ug/L	119.21 ppb	08:29:52
3	Zn 213.857†	59605.8	48884.4	637.86 ug/L	637.86 ppb	08:29:52
3	SiO2†	937793.3	779027.7	68564 ug/L	68564 ppb	08:30:30

-----  
Mean Data: 248045016|959105|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879318.2	119.99	%	0.297				0.25%
Sc Radial	4674.9	123	%	0.5				0.42%
Y 371.029	874112.8	144.62	%	0.310				0.21%
Y RADIAL	6052.5	148.2	%	0.48				0.33%
Ag 328.068†	-2751.5	13.713	ug/L	0.4928	13.713	ppb	0.4928	3.59%
Al 396.153Radial†	57335.4	68225	ug/L	117.7	68225	ppb	117.7	0.17%
As 188.979†	6.6	49.287	ug/L	3.8497	49.287	ppb	3.8497	7.81%
B 249.677†	2042.0	46.101	ug/L	2.0262	46.101	ppb	2.0262	4.40%
Ba 233.527†	65983.1	694.73	ug/L	6.209	694.73	ppb	6.209	0.89%
Be 313.107†	2709.9	7.3579	ug/L	0.01721	7.3579	ppb	0.01721	0.23%
Ca 317.933Radial†	15426.1	34560	ug/L	29.1	34560	ppb	29.1	0.08%
Cd 226.502†	810.1	3.4432	ug/L	0.02366	3.4432	ppb	0.02366	0.69%
Co 228.616†	1057.4	23.716	ug/L	0.0960	23.716	ppb	0.0960	0.40%
Cr 267.716†	3848.0	69.167	ug/L	0.2925	69.167	ppb	0.2925	0.42%
Cu 324.752†	84538.1	306.89	ug/L	4.687	306.89	ppb	4.687	1.53%
Fe 238.204 Radial†	7114.8	94054	ug/L	123.2	94054	ppb	123.2	0.13%
K 766.490 Radial†	56579.3	12478	ug/L	52.5	12478	ppb	52.5	0.42%

Mg 279.077 IEC†	298.4	14014 ug/L	37.8	14014 ppb	37.8	0.27%
Mn 257.610†	2151553.5	3149.0 ug/L	2.65	3149.0 ppb	2.65	0.08%
Mo 202.031†	27.6	10.499 ug/L	0.9087	10.499 ppb	0.9087	8.65%
Na 589.592 Radial†	5777.6	2323.3 ug/L	4.35	2323.3 ppb	4.35	0.19%
Ni 231.604†	1868.6	67.023 ug/L	0.4617	67.023 ppb	0.4617	0.69%
P 214.914†	2143.7	1613.8 ug/L	6.25	1613.8 ppb	6.25	0.39%
Pb 220.353†	3995.6	693.18 ug/L	2.361	693.18 ppb	2.361	0.34%
S 181.975 Axial†	1382.5	2675.6 ug/L	4.15	2675.6 ppb	4.15	0.16%
Sb 206.836†	15.1	-4.7509 ug/L	2.78987	-4.7509 ppb	2.78987	58.72%
Se 196.026†	-410.9	-100.86 ug/L	7.193	-100.86 ppb	7.193	7.13%
Si 251.611†	767048.2	31689 ug/L	19.1	31689 ppb	19.1	0.06%
Sn 189.927†	-121.7	-30.116 ug/L	2.4388	-30.116 ppb	2.4388	8.10%
Sr 421.552†	21069.7	191.03 ug/L	0.619	191.03 ppb	0.619	0.32%
Ti 334.940†	1403346.9	2687.3 ug/L	0.65	2687.3 ppb	0.65	0.02%
Tl 190.801†	-92.1	-2.8143 ug/L	2.03294	-2.8143 ppb	2.03294	72.24%
U 409.014†	-7010.8	-249.25 ug/L	2.911	-249.25 ppb	2.911	1.17%
V 292.402†	15324.1	120.88 ug/L	1.463	120.88 ppb	1.463	1.21%
Zn 213.857†	49524.7	646.39 ug/L	7.388	646.39 ppb	7.388	1.14%
SiO2†	782730.5	68890 ug/L	288.7	68890 ppb	288.7	0.42%

Sequence No.: 117

Sample ID: 248045017|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 118

Date Collected: 3/27/2010 08:32:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045017|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4633.3	4633.3	122 %		08:34:56
1	Y RADIAL	5969.2	5969.2	146.2 %		08:34:56
1	Al 396.153Radial†	66306.4	54282.5	64592 ug/L	64592 ppb	08:34:36
1	Ca 317.933Radial†	13324.7	10871.8	24357 ug/L	24357 ppb	08:34:36
1	Fe 238.204 Radial†	9451.0	7718.3	102030 ug/L	102030 ppb	08:34:36
1	K 766.490 Radial†	62465.9	48591.3	10718 ug/L	10718 ppb	08:34:36
1	Mg 279.077 IEC†	355.2	287.6	13495 ug/L	13495 ppb	08:34:56
1	Na 589.592 Radial†	4355.9	3947.5	1587.4 ug/L	1587.4 ppb	08:34:36
1	Sr 421.552†	19724.2	16086.5	145.86 ug/L	145.86 ppb	08:34:36
1	Sc 361.383	883887.8	883887.8	120.62 %		08:35:53
1	Y 371.029	875029.0	875029.0	144.77 %		08:35:53
1	Ag 328.068†	-6360.0	-5425.0	1.1955 ug/L	1.1955 ppb	08:35:58
1	As 188.979†	-22.9	3.3	50.865 ug/L	50.865 ppb	08:36:18
1	B 249.677†	1512.7	1589.1	31.143 ug/L	31.143 ppb	08:35:58
1	Ba 233.527†	73009.1	60527.2	637.83 ug/L	637.83 ppb	08:35:58
1	Be 313.107†	-1368.8	2756.8	7.8286 ug/L	7.8286 ppb	08:35:58
1	Cd 226.502†	768.7	808.5	2.5821 ug/L	2.5821 ppb	08:36:18
1	Co 228.616†	1670.6	1431.8	33.924 ug/L	33.924 ppb	08:36:18
1	Cr 267.716†	4554.3	3680.8	67.487 ug/L	67.487 ppb	08:36:18
1	Cu 324.752†	56153.7	40838.5	151.33 ug/L	151.33 ppb	08:35:58
1	Mn 257.610†	2705969.8	2243014.6	3283.3 ug/L	3283.3 ppb	08:35:53
1	Mo 202.031†	74.4	44.9	12.746 ug/L	12.746 ppb	08:36:18
1	Ni 231.604†	2090.7	1650.8	59.203 ug/L	59.203 ppb	08:36:18
1	P 214.914†	2041.3	1503.9	1120.4 ug/L	1120.4 ppb	08:36:18
1	Pb 220.353†	1447.2	1248.9	216.08 ug/L	216.08 ppb	08:36:18
1	S 181.975 Axial†	735.7	582.8	1121.2 ug/L	1121.2 ppb	08:36:18
1	Sb 206.836†	45.2	11.9	-6.6894 ug/L	-6.6894 ppb	08:36:18
1	Se 196.026†	-579.3	-458.6	-123.53 ug/L	-123.53 ppb	08:36:18
1	Si 251.611†	1072975.8	889117.0	36732 ug/L	36732 ppb	08:35:53
1	Sn 189.927†	-101.0	-97.4	-26.222 ug/L	-26.222 ppb	08:36:18
1	Ti 334.940†	1816107.2	1506725.5	2883.7 ug/L	2883.7 ppb	08:35:53
1	Tl 190.801†	-147.6	-100.1	-4.0990 ug/L	-4.0990 ppb	08:36:18
1	U 409.014†	-11784.4	-7936.1	-281.62 ug/L	-281.62 ppb	08:35:53
1	V 292.402†	18878.5	17032.2	134.80 ug/L	134.80 ppb	08:35:58
1	Zn 213.857†	52819.0	43130.8	560.08 ug/L	560.08 ppb	08:35:58
1	SiO2†	1091460.2	904433.7	79602 ug/L	79602 ppb	08:37:27
2	Sc Radial	4656.4	4656.4	123 %		08:35:21
2	Y RADIAL	5987.9	5987.9	146.7 %		08:35:21
2	Al 396.153Radial†	67396.4	54900.6	65328 ug/L	65328 ppb	08:35:01
2	Ca 317.933Radial†	13541.6	10994.3	24631 ug/L	24631 ppb	08:35:01
2	Fe 238.204 Radial†	9621.7	7818.9	103360 ug/L	103360 ppb	08:35:01
2	K 766.490 Radial†	63324.9	49037.1	10816 ug/L	10816 ppb	08:35:01
2	Mg 279.077 IEC†	359.3	289.5	13583 ug/L	13583 ppb	08:35:21
2	Na 589.592 Radial†	4471.4	4023.9	1618.1 ug/L	1618.1 ppb	08:35:01
2	Sr 421.552†	20032.3	16257.3	147.41 ug/L	147.41 ppb	08:35:01
2	Sc 361.383	897824.0	897824.0	122.52 %		08:36:24
2	Y 371.029	888815.4	888815.4	147.05 %		08:36:24
2	Ag 328.068†	-6116.2	-5144.3	3.1743 ug/L	3.1743 ppb	08:36:30
2	As 188.979†	-5.7	17.7	59.893 ug/L	59.893 ppb	08:36:50
2	B 249.677†	1556.3	1605.2	31.414 ug/L	31.414 ppb	08:36:30
2	Ba 233.527†	71462.9	58325.6	614.78 ug/L	614.78 ppb	08:36:30
2	Be 313.107†	-1390.5	2756.7	7.8299 ug/L	7.8299 ppb	08:36:30
2	Cd 226.502†	755.5	787.8	2.1086 ug/L	2.1086 ppb	08:36:50
2	Co 228.616†	1665.2	1405.9	33.150 ug/L	33.150 ppb	08:36:50
2	Cr 267.716†	4563.3	3629.5	66.832 ug/L	66.832 ppb	08:36:50
2	Cu 324.752†	54613.1	38858.3	144.33 ug/L	144.33 ppb	08:36:30
2	Mn 257.610†	2747192.2	2241837.2	3281.7 ug/L	3281.7 ppb	08:36:24
2	Mo 202.031†	84.4	52.1	13.581 ug/L	13.581 ppb	08:36:50
2	Ni 231.604†	2059.9	1598.7	57.335 ug/L	57.335 ppb	08:36:50

2	P 214.914†	2043.5	1479.4	1101.1 ug/L	1101.1 ppb	08:36:50
2	Pb 220.353†	1449.1	1231.8	213.10 ug/L	213.10 ppb	08:36:50
2	S 181.975 Axial†	738.3	575.5	1106.8 ug/L	1106.8 ppb	08:36:50
2	Sb 206.836†	45.4	11.4	-6.9470 ug/L	-6.9470 ppb	08:36:50
2	Se 196.026†	-581.4	-452.8	-114.62 ug/L	-114.62 ppb	08:36:50
2	Si 251.611†	1091822.3	890691.4	36797 ug/L	36797 ppb	08:36:24
2	Sn 189.927†	-98.9	-94.4	-25.482 ug/L	-25.482 ppb	08:36:50
2	Ti 334.940†	1845114.4	1507029.8	2884.3 ug/L	2884.3 ppb	08:36:24
2	Tl 190.801†	-157.5	-106.3	-6.7242 ug/L	-6.7242 ppb	08:36:50
2	U 409.014†	-11833.6	-7824.6	-277.98 ug/L	-277.98 ppb	08:36:24
2	V 292.402†	18404.1	16402.0	128.96 ug/L	128.96 ppb	08:36:30
2	Zn 213.857†	51650.0	41497.0	538.09 ug/L	538.09 ppb	08:36:30
2	SiO2†	1097814.1	895573.7	78822 ug/L	78822 ppb	08:37:33
3	Sc Radial	4671.3	4671.3	123 %		08:35:46
3	Y RADIAL	6022.3	6022.3	147.5 %		08:35:46
3	Al 396.153Radial†	68462.6	55590.1	66148 ug/L	66148 ppb	08:35:26
3	Ca 317.933Radial†	13713.4	11098.5	24865 ug/L	24865 ppb	08:35:26
3	Fe 238.204 Radial†	9757.1	7903.7	104480 ug/L	104480 ppb	08:35:26
3	K 766.490 Radial†	64464.8	49796.9	10984 ug/L	10984 ppb	08:35:26
3	Mg 279.077 IEC†	362.9	291.4	13674 ug/L	13674 ppb	08:35:46
3	Na 589.592 Radial†	4618.4	4131.4	1661.4 ug/L	1661.4 ppb	08:35:26
3	Sr 421.552†	20438.1	16534.3	149.92 ug/L	149.92 ppb	08:35:26
3	Sc 361.383	905017.2	905017.2	123.50 %		08:36:55
3	Y 371.029	894115.9	894115.9	147.93 %		08:36:55
3	Ag 328.068†	-6307.9	-5259.7	2.8687 ug/L	2.8687 ppb	08:37:01
3	As 188.979†	-25.0	2.1	50.695 ug/L	50.695 ppb	08:37:21
3	B 249.677†	1502.8	1551.8	29.627 ug/L	29.627 ppb	08:37:01
3	Ba 233.527†	72677.4	58845.4	620.27 ug/L	620.27 ppb	08:37:01
3	Be 313.107†	-1469.2	2701.9	7.8049 ug/L	7.8049 ppb	08:37:01
3	Cd 226.502†	749.2	777.8	1.8290 ug/L	1.8290 ppb	08:37:21
3	Co 228.616†	1643.5	1377.5	32.319 ug/L	32.319 ppb	08:37:21
3	Cr 267.716†	4517.5	3562.8	65.934 ug/L	65.934 ppb	08:37:21
3	Cu 324.752†	55819.5	39480.9	146.62 ug/L	146.62 ppb	08:37:01
3	Mn 257.610†	2766742.7	2239845.7	3278.9 ug/L	3278.9 ppb	08:36:55
3	Mo 202.031†	80.5	48.5	13.299 ug/L	13.299 ppb	08:37:21
3	Ni 231.604†	2069.4	1593.1	57.133 ug/L	57.133 ppb	08:37:21
3	P 214.914†	2032.6	1457.4	1082.2 ug/L	1082.2 ppb	08:37:21
3	Pb 220.353†	1439.4	1214.6	210.15 ug/L	210.15 ppb	08:37:21
3	S 181.975 Axial†	720.1	556.0	1068.7 ug/L	1068.7 ppb	08:37:21
3	Sb 206.836†	47.5	12.9	-6.2783 ug/L	-6.2783 ppb	08:37:21
3	Se 196.026†	-556.1	-428.5	-89.571 ug/L	-89.571 ppb	08:37:21
3	Si 251.611†	1101435.8	891392.7	36826 ug/L	36826 ppb	08:36:55
3	Sn 189.927†	-91.9	-88.1	-23.907 ug/L	-23.907 ppb	08:37:21
3	Ti 334.940†	1860068.1	1507168.1	2884.6 ug/L	2884.6 ppb	08:36:55
3	Tl 190.801†	-149.3	-98.7	-3.4600 ug/L	-3.4600 ppb	08:37:21
3	U 409.014†	-12065.0	-7935.2	-281.87 ug/L	-281.87 ppb	08:36:55
3	V 292.402†	18710.6	16530.8	129.95 ug/L	129.95 ppb	08:37:01
3	Zn 213.857†	52512.5	41860.3	542.77 ug/L	542.77 ppb	08:37:01
3	SiO2†	1070418.2	866269.0	76243 ug/L	76243 ppb	08:37:39

Mean Data: 248045017|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	895576.3	122.21 %		1.466				1.20%
Sc Radial	4653.7	123 %		0.5				0.41%
Y 371.029	885986.8	146.58 %		1.630				1.11%
Y RADIAL	5993.2	146.8 %		0.66				0.45%
Ag 328.068†	-5276.3	2.4129 ug/L		1.06525	2.4129 ppb		1.06525	44.15%
Al 396.153Radial†	54924.4	65356 ug/L		778.4	65356 ppb		778.4	1.19%
As 188.979†	7.7	53.817 ug/L		5.2620	53.817 ppb		5.2620	9.78%
B 249.677†	1582.1	30.728 ug/L		0.9629	30.728 ppb		0.9629	3.13%
Ba 233.527†	59232.7	624.29 ug/L		12.039	624.29 ppb		12.039	1.93%
Be 313.107†	2738.4	7.8211 ug/L		0.01405	7.8211 ppb		0.01405	0.18%
Ca 317.933Radial†	10988.2	24618 ug/L		254.1	24618 ppb		254.1	1.03%
Cd 226.502†	791.3	2.1732 ug/L		0.38070	2.1732 ppb		0.38070	17.52%
Co 228.616†	1405.1	33.131 ug/L		0.8027	33.131 ppb		0.8027	2.42%
Cr 267.716†	3624.4	66.751 ug/L		0.7797	66.751 ppb		0.7797	1.17%
Cu 324.752†	39725.9	147.43 ug/L		3.570	147.43 ppb		3.570	2.42%
Fe 238.204 Radial†	7813.6	103290 ug/L		1227.0	103290 ppb		1227.0	1.19%
K 766.490 Radial†	49141.7	10839 ug/L		134.5	10839 ppb		134.5	1.24%

Mg 279.077 IEC†	289.5	13584 ug/L	89.5	13584 ppb	89.5	0.66%
Mn 257.610†	2241565.8	3281.3 ug/L	2.22	3281.3 ppb	2.22	0.07%
Mo 202.031†	48.5	13.209 ug/L	0.4249	13.209 ppb	0.4249	3.22%
Na 589.592 Radial†	4034.3	1622.3 ug/L	37.15	1622.3 ppb	37.15	2.29%
Ni 231.604†	1614.2	57.891 ug/L	1.1412	57.891 ppb	1.1412	1.97%
P 214.914†	1480.3	1101.2 ug/L	19.10	1101.2 ppb	19.10	1.73%
Pb 220.353†	1231.8	213.11 ug/L	2.964	213.11 ppb	2.964	1.39%
S 181.975 Axial†	571.4	1098.9 ug/L	27.15	1098.9 ppb	27.15	2.47%
Sb 206.836†	12.1	-6.6383 ug/L	0.33727	-6.6383 ppb	0.33727	5.08%
Se 196.026†	-446.6	-109.24 ug/L	17.606	-109.24 ppb	17.606	16.12%
Si 251.611†	890400.4	36785 ug/L	48.1	36785 ppb	48.1	0.13%
Sn 189.927†	-93.3	-25.203 ug/L	1.1825	-25.203 ppb	1.1825	4.69%
Sr 421.552†	16292.7	147.73 ug/L	2.050	147.73 ppb	2.050	1.39%
Ti 334.940†	1506974.4	2884.2 ug/L	0.46	2884.2 ppb	0.46	0.02%
Tl 190.801†	-101.7	-4.7611 ug/L	1.72987	-4.7611 ppb	1.72987	36.33%
U 409.014†	-7898.6	-280.49 ug/L	2.176	-280.49 ppb	2.176	0.78%
V 292.402†	16655.0	131.24 ug/L	3.123	131.24 ppb	3.123	2.38%
Zn 213.857†	42162.7	546.98 ug/L	11.586	546.98 ppb	11.586	2.12%
SiO2†	888758.8	78222 ug/L	1758.0	78222 ppb	1758.0	2.25%

Sequence No.: 118

Sample ID: 248045018|959105|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 119

Date Collected: 3/27/2010 08:39:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248045018|959105|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4568.8	4568.8	121 %		08:41:44
1	Y RADIAL	5455.3	5455.3	133.6 %		08:41:44
1	Al 396.153Radial†	16492.7	13747.0	16358 ug/L	16358 ppb	08:41:44
1	Ca 317.933Radial†	10240.7	8468.7	18973 ug/L	18973 ppb	08:41:44
1	Fe 238.204 Radial†	7933.4	6569.1	86841 ug/L	86841 ppb	08:41:44
1	K 766.490 Radial†	48689.0	37889.6	8357.4 ug/L	8357.4 ppb	08:41:44
1	Mg 279.077 IEC†	192.5	156.8	7325.4 ug/L	7325.4 ppb	08:42:04
1	Na 589.592 Radial†	6803.4	6027.0	2423.6 ug/L	2423.6 ppb	08:41:44
1	Sr 421.552†	19829.8	16401.6	148.76 ug/L	148.76 ppb	08:41:44
1	Sc 361.383	839831.8	839831.8	114.61 %		08:43:02
1	Y 371.029	772762.1	772762.1	127.85 %		08:43:02
1	Ag 328.068†	-5153.8	-4649.1	0.5856 ug/L	0.5856 ppb	08:43:07
1	As 188.979†	-44.4	-16.5	31.355 ug/L	31.355 ppb	08:43:27
1	B 249.677†	147.6	463.7	-0.2314 ug/L	-0.2314 ppb	08:43:07
1	Ba 233.527†	25475.9	22226.7	235.78 ug/L	235.78 ppb	08:43:07
1	Be 313.107†	-14692.4	-8928.4	1.3443 ug/L	1.3443 ppb	08:43:07
1	Cd 226.502†	685.0	768.8	3.5884 ug/L	3.5884 ppb	08:43:27
1	Co 228.616†	1155.0	1054.5	24.047 ug/L	24.047 ppb	08:43:27
1	Cr 267.716†	6428.7	5514.4	93.796 ug/L	93.796 ppb	08:43:27
1	Cu 324.752†	283503.5	241657.5	867.33 ug/L	867.33 ppb	08:43:07
1	Mn 257.610†	1093964.3	954126.3	1400.9 ug/L	1400.9 ppb	08:43:02
1	Mo 202.031†	77.8	51.1	12.130 ug/L	12.130 ppb	08:43:27
1	Ni 231.604†	4828.6	4130.7	148.18 ug/L	148.18 ppb	08:43:27
1	P 214.914†	6886.7	5820.6	4468.1 ug/L	4468.1 ppb	08:43:27
1	Pb 220.353†	4603.5	4066.0	694.36 ug/L	694.36 ppb	08:43:27
1	S 181.975 Axial†	406.4	327.5	633.84 ug/L	633.84 ppb	08:43:27
1	Sb 206.836†	49.8	17.8	0.0773 ug/L	0.0773 ppb	08:43:27
1	Se 196.026†	-477.6	-395.0	-120.10 ug/L	-120.10 ppb	08:43:27
1	Si 251.611†	424678.2	370102.4	15290 ug/L	15290 ppb	08:43:07
1	Sn 189.927†	248.3	203.0	49.859 ug/L	49.859 ppb	08:43:27
1	Ti 334.940†	1454018.4	1269765.7	2430.2 ug/L	2430.2 ppb	08:43:02
1	Tl 190.801†	-97.3	-62.6	-0.4916 ug/L	-0.4916 ppb	08:43:27
1	U 409.014†	-6980.8	-4257.2	-154.85 ug/L	-154.85 ppb	08:43:02
1	V 292.402†	8554.5	8844.9	64.100 ug/L	64.100 ppb	08:43:07
1	Zn 213.857†	56372.2	48528.5	632.89 ug/L	632.89 ppb	08:43:07
1	SiO2†	440873.6	384225.6	33817 ug/L	33817 ppb	08:44:34
2	Sc Radial	4404.8	4404.8	116 %		08:42:09
2	Y RADIAL	5309.1	5309.1	130.0 %		08:42:09
2	Al 396.153Radial†	16212.5	14015.0	16677 ug/L	16677 ppb	08:42:09
2	Ca 317.933Radial†	10107.3	8670.0	19424 ug/L	19424 ppb	08:42:09
2	Fe 238.204 Radial†	7847.8	6740.3	89105 ug/L	89105 ppb	08:42:09
2	K 766.490 Radial†	47791.7	38620.7	8518.7 ug/L	8518.7 ppb	08:42:09
2	Mg 279.077 IEC†	192.3	162.5	7593.5 ug/L	7593.5 ppb	08:42:29
2	Na 589.592 Radial†	6664.3	6117.4	2460.0 ug/L	2460.0 ppb	08:42:09
2	Sr 421.552†	19411.9	16654.3	151.05 ug/L	151.05 ppb	08:42:09
2	Sc 361.383	861572.0	861572.0	117.57 %		08:43:33
2	Y 371.029	788884.8	788884.8	130.52 %		08:43:33
2	Ag 328.068†	-5028.3	-4429.0	2.5079 ug/L	2.5079 ppb	08:43:38
2	As 188.979†	-25.6	0.5	41.247 ug/L	41.247 ppb	08:43:58
2	B 249.677†	199.0	504.2	0.6202 ug/L	0.6202 ppb	08:43:38
2	Ba 233.527†	24942.5	21212.2	225.20 ug/L	225.20 ppb	08:43:38
2	Be 313.107†	-14365.7	-8327.1	1.3775 ug/L	1.3775 ppb	08:43:38
2	Cd 226.502†	683.6	752.6	3.0918 ug/L	3.0918 ppb	08:43:58
2	Co 228.616†	1174.5	1045.7	23.981 ug/L	23.981 ppb	08:43:58
2	Cr 267.716†	6456.0	5396.1	92.215 ug/L	92.215 ppb	08:43:58
2	Cu 324.752†	277325.7	230160.9	826.40 ug/L	826.40 ppb	08:43:38
2	Mn 257.610†	1072740.6	911988.2	1339.6 ug/L	1339.6 ppb	08:43:33
2	Mo 202.031†	60.1	34.3	10.616 ug/L	10.616 ppb	08:43:58
2	Ni 231.604†	4873.2	4062.3	145.73 ug/L	145.73 ppb	08:43:58

2	P 214.914†	6946.2	5719.6	4392.9 ug/L	4392.9 ppb	08:43:58
2	Pb 220.353†	4686.7	4035.3	688.83 ug/L	688.83 ppb	08:43:58
2	S 181.975 Axial†	416.2	326.9	632.53 ug/L	632.53 ppb	08:43:58
2	Sb 206.836†	45.0	12.6	-2.0348 ug/L	-2.0348 ppb	08:43:58
2	Se 196.026†	-471.6	-379.4	-99.907 ug/L	-99.907 ppb	08:43:58
2	Si 251.611†	416397.8	353709.2	14613 ug/L	14613 ppb	08:43:38
2	Sn 189.927†	254.9	203.2	49.845 ug/L	49.845 ppb	08:43:58
2	Ti 334.940†	1424620.2	1212747.4	2321.2 ug/L	2321.2 ppb	08:43:33
2	Tl 190.801†	-101.5	-64.1	-2.2911 ug/L	-2.2911 ppb	08:43:58
2	U 409.014†	-6673.3	-3842.0	-140.99 ug/L	-140.99 ppb	08:43:33
2	V 292.402†	8370.7	8500.3	60.800 ug/L	60.800 ppb	08:43:38
2	Zn 213.857†	55385.7	46448.2	604.85 ug/L	604.85 ppb	08:43:38
2	SiO2†	435488.8	369938.7	32559 ug/L	32559 ppb	08:44:40
3	Sc Radial	4536.0	4536.0	120 %		08:42:34
3	Y RADIAL	5465.9	5465.9	133.9 %		08:42:34
3	Al 396.153Radial†	16349.8	13726.7	16334 ug/L	16334 ppb	08:42:34
3	Ca 317.933Radial†	10139.6	8445.7	18922 ug/L	18922 ppb	08:42:34
3	Fe 238.204 Radial†	7894.7	6584.4	87044 ug/L	87044 ppb	08:42:34
3	K 766.490 Radial†	48232.2	37800.6	8337.8 ug/L	8337.8 ppb	08:42:34
3	Mg 279.077 IEC†	200.1	164.3	7679.3 ug/L	7679.3 ppb	08:42:54
3	Na 589.592 Radial†	6756.2	6028.5	2424.2 ug/L	2424.2 ppb	08:42:34
3	Sr 421.552†	19583.6	16315.2	147.98 ug/L	147.98 ppb	08:42:34
3	Sc 361.383	862040.5	862040.5	117.64 %		08:44:04
3	Y 371.029	789130.9	789130.9	130.56 %		08:44:04
3	Ag 328.068†	-5114.5	-4499.9	1.4798 ug/L	1.4798 ppb	08:44:09
3	As 188.979†	-28.9	-2.3	39.338 ug/L	39.338 ppb	08:44:29
3	B 249.677†	125.6	441.7	-0.9257 ug/L	-0.9257 ppb	08:44:09
3	Ba 233.527†	25109.5	21342.6	226.51 ug/L	226.51 ppb	08:44:09
3	Be 313.107†	-14421.1	-8367.6	1.4220 ug/L	1.4220 ppb	08:44:09
3	Cd 226.502†	713.7	777.9	3.7148 ug/L	3.7148 ppb	08:44:29
3	Co 228.616†	1169.1	1040.6	23.809 ug/L	23.809 ppb	08:44:29
3	Cr 267.716†	6509.2	5438.3	92.645 ug/L	92.645 ppb	08:44:29
3	Cu 324.752†	280350.2	232603.8	835.01 ug/L	835.01 ppb	08:44:09
3	Mn 257.610†	1085235.8	922114.3	1354.1 ug/L	1354.1 ppb	08:44:04
3	Mo 202.031†	73.8	45.9	11.622 ug/L	11.622 ppb	08:44:29
3	Ni 231.604†	4883.9	4069.2	145.98 ug/L	145.98 ppb	08:44:29
3	P 214.914†	6978.5	5743.8	4412.3 ug/L	4412.3 ppb	08:44:29
3	Pb 220.353†	4666.9	4016.3	685.76 ug/L	685.76 ppb	08:44:29
3	S 181.975 Axial†	430.0	338.4	655.03 ug/L	655.03 ppb	08:44:29
3	Sb 206.836†	43.7	11.5	-2.5737 ug/L	-2.5737 ppb	08:44:29
3	Se 196.026†	-478.1	-384.7	-110.23 ug/L	-110.23 ppb	08:44:29
3	Si 251.611†	419407.9	356075.6	14710 ug/L	14710 ppb	08:44:09
3	Sn 189.927†	257.8	205.5	50.459 ug/L	50.459 ppb	08:44:29
3	Ti 334.940†	1442581.3	1227357.2	2349.1 ug/L	2349.1 ppb	08:44:04
3	Tl 190.801†	-108.6	-70.1	-4.5851 ug/L	-4.5851 ppb	08:44:29
3	U 409.014†	-6837.2	-3978.2	-145.39 ug/L	-145.39 ppb	08:44:04
3	V 292.402†	8437.3	8553.0	61.553 ug/L	61.553 ppb	08:44:09
3	Zn 213.857†	55748.4	46730.9	608.92 ug/L	608.92 ppb	08:44:09
3	SiO2†	436858.5	370901.7	32644 ug/L	32644 ppb	08:44:45

Mean Data: 248045018|959105|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	854481.4	116.60	%	1.732			1.49%
Sc Radial	4503.2	119	%	2.3			1.93%
Y 371.029	783592.6	129.64	%	1.552			1.20%
Y RADIAL	5410.1	132.5	%	2.15			1.62%
Ag 328.068†	-4526.0	1.5244	ug/L	0.96196	1.5244 ppb	0.96196	63.10%
Al 396.153Radial†	13829.6	16456	ug/L	191.5	16456 ppb	191.5	1.16%
As 188.979†	-6.1	37.314	ug/L	5.2476	37.314 ppb	5.2476	14.06%
B 249.677†	469.9	-0.1790	ug/L	0.77427	-0.1790 ppb	0.77427	432.67%
Ba 233.527†	21593.8	229.16	ug/L	5.764	229.16 ppb	5.764	2.52%
Be 313.107†	-8541.0	1.3813	ug/L	0.03901	1.3813 ppb	0.03901	2.82%
Ca 317.933Radial†	8528.2	19106	ug/L	276.5	19106 ppb	276.5	1.45%
Cd 226.502†	766.4	3.4650	ug/L	0.32934	3.4650 ppb	0.32934	9.50%
Co 228.616†	1046.9	23.946	ug/L	0.1231	23.946 ppb	0.1231	0.51%
Cr 267.716†	5449.6	92.885	ug/L	0.8177	92.885 ppb	0.8177	0.88%
Cu 324.752†	234807.4	842.91	ug/L	21.577	842.91 ppb	21.577	2.56%
Fe 238.204 Radial†	6631.3	87663	ug/L	1252.5	87663 ppb	1252.5	1.43%
K 766.490 Radial†	38103.7	8404.7	ug/L	99.25	8404.7 ppb	99.25	1.18%

Mg 279.077 IEC†	161.2	7532.7 ug/L	184.58	7532.7 ppb	184.58	2.45%
Mn 257.610†	929409.6	1364.9 ug/L	32.02	1364.9 ppb	32.02	2.35%
Mo 202.031†	43.8	11.456 ug/L	0.7706	11.456 ppb	0.7706	6.73%
Na 589.592 Radial†	6057.6	2435.9 ug/L	20.82	2435.9 ppb	20.82	0.85%
Ni 231.604†	4087.4	146.63 ug/L	1.351	146.63 ppb	1.351	0.92%
P 214.914†	5761.3	4424.4 ug/L	39.06	4424.4 ppb	39.06	0.88%
Pb 220.353†	4039.2	689.65 ug/L	4.359	689.65 ppb	4.359	0.63%
S 181.975 Axial†	331.0	640.46 ug/L	12.629	640.46 ppb	12.629	1.97%
Sb 206.836†	14.0	-1.5104 ug/L	1.40113	-1.5104 ppb	1.40113	92.77%
Se 196.026†	-386.4	-110.08 ug/L	10.099	-110.08 ppb	10.099	9.17%
Si 251.611†	359962.4	14871 ug/L	366.1	14871 ppb	366.1	2.46%
Sn 189.927†	203.9	50.054 ug/L	0.3503	50.054 ppb	0.3503	0.70%
Sr 421.552†	16457.0	149.26 ug/L	1.598	149.26 ppb	1.598	1.07%
Ti 334.940†	1236623.4	2366.8 ug/L	56.63	2366.8 ppb	56.63	2.39%
Tl 190.801†	-65.6	-2.4559 ug/L	2.05174	-2.4559 ppb	2.05174	83.54%
U 409.014†	-4025.8	-147.08 ug/L	7.085	-147.08 ppb	7.085	4.82%
V 292.402†	8632.7	62.151 ug/L	1.7291	62.151 ppb	1.7291	2.78%
Zn 213.857†	47235.9	615.55 ug/L	15.154	615.55 ppb	15.154	2.46%
SiO2†	375022.0	33007 ug/L	702.8	33007 ppb	702.8	2.13%



Sequence No.: 119

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/27/2010 08:46:56

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	4315.3	4315.3	114 %		08:48:48
1	Y RADIAL	4629.3	4629.3	113.4 %		08:48:48
1	Al 396.153Radial†	5087.8	4538.9	5375.8 ug/L	5375.8 ppb	08:48:48
1	Ca 317.933Radial†	2678.0	2328.9	5217.6 ug/L	5217.6 ppb	08:49:08
1	Fe 238.204 Radial†	448.6	385.3	5109.2 ug/L	5109.2 ppb	08:49:08
1	K 766.490 Radial†	27936.5	22044.4	4860.6 ug/L	4860.6 ppb	08:48:48
1	Mg 279.077 IEC†	127.5	109.1	5158.7 ug/L	5158.7 ppb	08:49:08
1	Na 589.592 Radial†	27622.6	24633.7	9905.9 ug/L	9905.9 ppb	08:48:48
1	Sr 421.552†	62666.3	54969.8	499.01 ug/L	499.01 ppb	08:48:48
1	Sc 361.383	830979.4	830979.4	113.40 %		08:50:05
1	Y 371.029	678753.6	678753.6	112.30 %		08:50:05
1	Ag 328.068†	103598.1	91206.6	522.09 ug/L	522.09 ppb	08:50:10
1	As 188.979†	963.4	871.9	533.69 ug/L	533.69 ppb	08:50:30
1	B 249.677†	18816.9	16928.8	507.22 ug/L	507.22 ppb	08:50:10
1	Ba 233.527†	55637.5	49061.8	515.51 ug/L	515.51 ppb	08:50:10
1	Be 313.107†	1271627.9	1125286.2	526.52 ug/L	526.52 ppb	08:50:05
1	Cd 226.502†	35919.2	31846.7	517.37 ug/L	517.37 ppb	08:50:10
1	Co 228.616†	20452.8	18083.2	519.72 ug/L	519.72 ppb	08:50:10
1	Cr 267.716†	38576.7	33924.1	520.45 ug/L	520.45 ppb	08:50:10
1	Cu 324.752†	169730.0	143960.7	513.88 ug/L	513.88 ppb	08:50:10
1	Mn 257.610†	396416.9	349157.7	509.90 ug/L	509.90 ppb	08:50:10
1	Mo 202.031†	5864.3	5154.7	520.98 ug/L	520.98 ppb	08:50:30
1	Ni 231.604†	16741.1	14680.7	526.40 ug/L	526.40 ppb	08:50:10
1	P 214.914†	3828.8	3188.0	2476.9 ug/L	2476.9 ppb	08:50:30
1	Pb 220.353†	3341.0	2995.3	519.67 ug/L	519.67 ppb	08:50:30
1	S 181.975 Axial†	652.9	548.7	1065.9 ug/L	1065.9 ppb	08:50:30
1	Sb 206.836†	1266.5	1091.2	524.80 ug/L	524.80 ppb	08:50:30
1	Se 196.026†	642.7	588.5	546.17 ug/L	546.17 ppb	08:50:30
1	Si 251.611†	72188.8	63204.5	2604.8 ug/L	2604.8 ppb	08:50:10
1	Sn 189.927†	2330.4	2041.4	518.19 ug/L	518.19 ppb	08:50:30
1	Ti 334.940†	299786.3	265413.1	507.43 ug/L	507.43 ppb	08:50:10
1	Tl 190.801†	1340.8	1204.6	522.87 ug/L	522.87 ppb	08:50:30
1	U 409.014†	15148.5	15192.8	514.88 ug/L	514.88 ppb	08:50:10
1	V 292.402†	63791.1	57635.3	524.44 ug/L	524.44 ppb	08:50:10
1	Zn 213.857†	45302.0	39290.1	519.83 ug/L	519.83 ppb	08:50:10
1	SiO2†	71977.8	63010.2	5531.5 ug/L	5531.5 ppb	08:51:37
2	Sc Radial	4421.4	4421.4	117 %		08:49:13
2	Y RADIAL	4699.5	4699.5	115.1 %		08:49:13
2	Al 396.153Radial†	5033.6	4385.4	5194.2 ug/L	5194.2 ppb	08:49:13
2	Ca 317.933Radial†	2672.9	2268.1	5081.5 ug/L	5081.5 ppb	08:49:33
2	Fe 238.204 Radial†	452.9	379.6	5032.6 ug/L	5032.6 ppb	08:49:33
2	K 766.490 Radial†	27821.1	21357.4	4709.1 ug/L	4709.1 ppb	08:49:13
2	Mg 279.077 IEC†	132.7	110.9	5245.2 ug/L	5245.2 ppb	08:49:33
2	Na 589.592 Radial†	27399.2	23860.8	9595.1 ug/L	9595.1 ppb	08:49:13
2	Sr 421.552†	62195.2	53246.8	483.37 ug/L	483.37 ppb	08:49:13
2	Sc 361.383	856241.9	856241.9	116.84 %		08:50:36
2	Y 371.029	698721.4	698721.4	115.60 %		08:50:36
2	Ag 328.068†	102466.1	87542.4	501.14 ug/L	501.14 ppb	08:50:41
2	As 188.979†	957.2	841.5	515.06 ug/L	515.06 ppb	08:51:01
2	B 249.677†	18755.9	16387.0	490.98 ug/L	490.98 ppb	08:50:41
2	Ba 233.527†	54990.7	47060.7	494.49 ug/L	494.49 ppb	08:50:41
2	Be 313.107†	1279543.3	1098974.9	514.19 ug/L	514.19 ppb	08:50:36
2	Cd 226.502†	35419.8	30484.8	495.23 ug/L	495.23 ppb	08:50:41
2	Co 228.616†	20242.4	17371.0	499.25 ug/L	499.25 ppb	08:50:41
2	Cr 267.716†	38135.3	32542.6	499.27 ug/L	499.27 ppb	08:50:41
2	Cu 324.752†	167832.3	137920.5	492.33 ug/L	492.33 ppb	08:50:41
2	Mn 257.610†	391190.5	334370.6	488.31 ug/L	488.31 ppb	08:50:41
2	Mo 202.031†	5794.8	4942.6	499.56 ug/L	499.56 ppb	08:51:01
2	Ni 231.604†	16498.6	14037.6	503.34 ug/L	503.34 ppb	08:50:41

2	P 214.914†	3777.9	3044.9	2365.3 ug/L	2365.3 ppb	08:51:01
2	Pb 220.353†	3305.4	2877.9	499.29 ug/L	499.29 ppb	08:51:01
2	S 181.975 Axial†	637.8	518.8	1007.8 ug/L	1007.8 ppb	08:51:01
2	Sb 206.836†	1246.3	1041.0	500.68 ug/L	500.68 ppb	08:51:01
2	Se 196.026†	629.9	560.8	520.94 ug/L	520.94 ppb	08:51:01
2	Si 251.611†	71246.7	60520.0	2494.1 ug/L	2494.1 ppb	08:50:41
2	Sn 189.927†	2289.5	1945.8	493.92 ug/L	493.92 ppb	08:51:01
2	Ti 334.940†	296025.5	254394.6	486.35 ug/L	486.35 ppb	08:50:41
2	Tl 190.801†	1327.8	1158.6	502.88 ug/L	502.88 ppb	08:51:01
2	U 409.014†	15098.8	14756.2	500.09 ug/L	500.09 ppb	08:50:41
2	V 292.402†	62965.1	55268.6	502.90 ug/L	502.90 ppb	08:50:41
2	Zn 213.857†	44776.3	37661.5	498.27 ug/L	498.27 ppb	08:50:41
2	SiO2†	72777.4	61821.8	5427.5 ug/L	5427.5 ppb	08:51:42
3	Sc Radial	4432.1	4432.1	117 %		08:49:38
3	Y RADIAL	4718.0	4718.0	115.6 %		08:49:38
3	Al 396.153Radial†	5042.2	4382.3	5189.8 ug/L	5189.8 ppb	08:49:38
3	Ca 317.933Radial†	2719.7	2302.5	5158.6 ug/L	5158.6 ppb	08:49:58
3	Fe 238.204 Radial†	456.2	381.5	5057.9 ug/L	5057.9 ppb	08:49:58
3	K 766.490 Radial†	27820.6	21299.3	4696.2 ug/L	4696.2 ppb	08:49:38
3	Mg 279.077 IEC†	130.2	108.4	5128.5 ug/L	5128.5 ppb	08:49:58
3	Na 589.592 Radial†	27473.9	23867.8	9597.9 ug/L	9597.9 ppb	08:49:38
3	Sr 421.552†	62374.3	53271.0	483.59 ug/L	483.59 ppb	08:49:38
3	Sc 361.383	857713.0	857713.0	117.05 %		08:51:07
3	Y 371.029	701016.0	701016.0	115.98 %		08:51:07
3	Ag 328.068†	103786.3	88519.9	506.74 ug/L	506.74 ppb	08:51:12
3	As 188.979†	987.4	865.9	529.89 ug/L	529.89 ppb	08:51:32
3	B 249.677†	18991.3	16560.6	496.19 ug/L	496.19 ppb	08:51:12
3	Ba 233.527†	55713.8	47597.8	500.13 ug/L	500.13 ppb	08:51:12
3	Be 313.107†	1296437.8	1111530.9	520.07 ug/L	520.07 ppb	08:51:07
3	Cd 226.502†	35859.3	30808.3	500.48 ug/L	500.48 ppb	08:51:12
3	Co 228.616†	20463.0	17529.8	503.83 ug/L	503.83 ppb	08:51:12
3	Cr 267.716†	38704.6	32973.0	505.87 ug/L	505.87 ppb	08:51:12
3	Cu 324.752†	170344.5	139820.5	499.11 ug/L	499.11 ppb	08:51:12
3	Mn 257.610†	396144.4	338028.9	493.66 ug/L	493.66 ppb	08:51:12
3	Mo 202.031†	5960.0	5075.3	512.96 ug/L	512.96 ppb	08:51:32
3	Ni 231.604†	16713.0	14196.6	509.05 ug/L	509.05 ppb	08:51:12
3	P 214.914†	3897.0	3141.1	2441.8 ug/L	2441.8 ppb	08:51:32
3	Pb 220.353†	3407.9	2960.7	513.63 ug/L	513.63 ppb	08:51:32
3	S 181.975 Axial†	666.7	542.5	1054.0 ug/L	1054.0 ppb	08:51:32
3	Sb 206.836†	1292.8	1078.9	518.69 ug/L	518.69 ppb	08:51:32
3	Se 196.026†	657.6	583.6	541.50 ug/L	541.50 ppb	08:51:32
3	Si 251.611†	72329.4	61340.5	2527.8 ug/L	2527.8 ppb	08:51:12
3	Sn 189.927†	2343.1	1988.2	504.69 ug/L	504.69 ppb	08:51:32
3	Ti 334.940†	299950.8	257313.7	491.95 ug/L	491.95 ppb	08:51:12
3	Tl 190.801†	1371.0	1193.6	518.02 ug/L	518.02 ppb	08:51:32
3	U 409.014†	15103.5	14738.0	499.46 ug/L	499.46 ppb	08:51:12
3	V 292.402†	63803.9	55892.8	508.68 ug/L	508.68 ppb	08:51:12
3	Zn 213.857†	45307.4	38049.5	503.40 ug/L	503.40 ppb	08:51:12
3	SiO2†	71712.9	60805.5	5337.7 ug/L	5337.7 ppb	08:51:48

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	848311.5	115.76 %	2.051			1.77%
Sc Radial	4389.6	116 %	1.7			1.47%
Y 371.029	692830.3	114.63 %	2.026			1.77%
Y RADIAL	4682.2	114.7 %	1.15			1.00%
Ag 328.068†	89089.6	509.99 ug/L	10.844	509.99 ppb	10.844	2.13%
QC value within limits for Ag 328.068 Recovery = 102.00%						
Al 396.153Radial†	4435.6	5253.3 ug/L	106.13	5253.3 ppb	106.13	2.02%
QC value within limits for Al 396.153Radial Recovery = 105.07%						
As 188.979†	859.7	526.21 ug/L	9.843	526.21 ppb	9.843	1.87%
QC value within limits for As 188.979 Recovery = 105.24%						
B 249.677†	16625.5	498.13 ug/L	8.291	498.13 ppb	8.291	1.66%
QC value within limits for B 249.677 Recovery = 99.63%						
Ba 233.527†	47906.7	503.38 ug/L	10.881	503.38 ppb	10.881	2.16%
QC value within limits for Ba 233.527 Recovery = 100.68%						
Be 313.107†	1111930.7	520.26 ug/L	6.168	520.26 ppb	6.168	1.19%
QC value within limits for Be 313.107 Recovery = 104.05%						
Ca 317.933Radial†	2299.9	5152.6 ug/L	68.27	5152.6 ppb	68.27	1.32%

QC value within limits for Ca 317.933 Radial Recovery = 103.05%							
Cd 226.502†	31046.6	504.36 ug/L	11.567	504.36 ppb	11.567	2.29%	
QC value within limits for Cd 226.502 Recovery = 100.87%							
Co 228.616†	17661.3	507.60 ug/L	10.743	507.60 ppb	10.743	2.12%	
QC value within limits for Co 228.616 Recovery = 101.52%							
Cr 267.716†	33146.6	508.53 ug/L	10.839	508.53 ppb	10.839	2.13%	
QC value within limits for Cr 267.716 Recovery = 101.71%							
Cu 324.752†	140567.2	501.77 ug/L	11.023	501.77 ppb	11.023	2.20%	
QC value within limits for Cu 324.752 Recovery = 100.35%							
Fe 238.204 Radial†	382.1	5066.6 ug/L	39.05	5066.6 ppb	39.05	0.77%	
QC value within limits for Fe 238.204 Radial Recovery = 101.33%							
K 766.490 Radial†	21567.0	4755.3 ug/L	91.40	4755.3 ppb	91.40	1.92%	
QC value within limits for K 766.490 Radial Recovery = 95.11%							
Mg 279.077 IEC†	109.5	5177.5 ug/L	60.58	5177.5 ppb	60.58	1.17%	
QC value within limits for Mg 279.077 IEC Recovery = 103.55%							
Mn 257.610†	340519.1	497.29 ug/L	11.246	497.29 ppb	11.246	2.26%	
QC value within limits for Mn 257.610 Recovery = 99.46%							
Mo 202.031†	5057.5	511.17 ug/L	10.823	511.17 ppb	10.823	2.12%	
QC value within limits for Mo 202.031 Recovery = 102.23%							
Na 589.592 Radial†	24120.7	9699.7 ug/L	178.64	9699.7 ppb	178.64	1.84%	
QC value within limits for Na 589.592 Radial Recovery = 97.00%							
Ni 231.604†	14305.0	512.93 ug/L	12.011	512.93 ppb	12.011	2.34%	
QC value within limits for Ni 231.604 Recovery = 102.59%							
P 214.914†	3124.6	2428.0 ug/L	57.08	2428.0 ppb	57.08	2.35%	
QC value within limits for P 214.914 Recovery = 97.12%							
Pb 220.353†	2944.7	510.86 ug/L	10.468	510.86 ppb	10.468	2.05%	
QC value within limits for Pb 220.353 Recovery = 102.17%							
S 181.975 Axial†	536.7	1042.6 ug/L	30.66	1042.6 ppb	30.66	2.94%	
QC value within limits for S 181.975 Axial Recovery = 104.26%							
Sb 206.836†	1070.4	514.73 ug/L	12.539	514.73 ppb	12.539	2.44%	
QC value within limits for Sb 206.836 Recovery = 102.95%							
Se 196.026†	577.7	536.20 ug/L	13.425	536.20 ppb	13.425	2.50%	
QC value within limits for Se 196.026 Recovery = 107.24%							
Si 251.611†	61688.3	2542.2 ug/L	56.71	2542.2 ppb	56.71	2.23%	
QC value within limits for Si 251.611 Recovery = 101.69%							
Sn 189.927†	1991.8	505.60 ug/L	12.160	505.60 ppb	12.160	2.41%	
QC value within limits for Sn 189.927 Recovery = 101.12%							
Sr 421.552†	53829.2	488.66 ug/L	8.968	488.66 ppb	8.968	1.84%	
QC value within limits for Sr 421.552 Recovery = 97.73%							
Ti 334.940†	259040.5	495.24 ug/L	10.920	495.24 ppb	10.920	2.21%	
QC value within limits for Ti 334.940 Recovery = 99.05%							
Tl 190.801†	1185.6	514.59 ug/L	10.427	514.59 ppb	10.427	2.03%	
QC value within limits for Tl 190.801 Recovery = 102.92%							
U 409.014†	14895.7	504.81 ug/L	8.728	504.81 ppb	8.728	1.73%	
QC value within limits for U 409.014 Recovery = 100.96%							
V 292.402†	56265.5	512.00 ug/L	11.147	512.00 ppb	11.147	2.18%	
QC value within limits for V 292.402 Recovery = 102.40%							
Zn 213.857†	38333.7	507.17 ug/L	11.262	507.17 ppb	11.262	2.22%	
QC value within limits for Zn 213.857 Recovery = 101.43%							
SiO2†	61879.1	5432.3 ug/L	97.00	5432.3 ppb	97.00	1.79%	
QC value within limits for SiO2 Recovery = 101.58%							
All analyte(s) passed QC.							

Sequence No.: 120

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/27/2010 08:53:58

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc.	Analysis Time
1	Sc Radial	4138.5	4138.5	109 %			08:56:10
1	Y RADIAL	4604.2	4604.2	112.8 %			08:55:50
1	Al 396.153Radial†	-77.0	2.4	2.8226 ug/L		2.8226 ppb	08:56:10
1	Ca 317.933Radial†	27.4	3.1	7.0021 ug/L		7.0021 ppb	08:56:10
1	Fe 238.204 Radial†	10.5	1.2	15.567 ug/L		15.567 ppb	08:56:10
1	K 766.490 Radial†	2646.3	-56.4	-12.392 ug/L		-12.392 ppb	08:55:50
1	Mg 279.077 IEC†	1.7	-1.3	-61.182 ug/L		-61.182 ppb	08:56:10
1	Na 589.592 Radial†	-870.5	-410.5	-165.07 ug/L		-165.07 ppb	08:55:50
1	Sr 421.552†	26.4	-15.1	-0.1374 ug/L		-0.1374 ppb	08:55:50
1	Sc 361.383	841561.7	841561.7	114.84 %			08:57:07
1	Y 371.029	693936.0	693936.0	114.81 %			08:57:07
1	Ag 328.068†	273.5	86.0	0.4949 ug/L		0.4949 ppb	08:57:12
1	As 188.979†	-23.0	2.2	1.3590 ug/L		1.3590 ppb	08:57:32
1	B 249.677†	-313.6	61.9	1.8582 ug/L		1.8582 ppb	08:57:32
1	Ba 233.527†	32.1	25.4	0.2708 ug/L		0.2708 ppb	08:57:32
1	Be 313.107†	-3948.9	453.0	0.2123 ug/L		0.2123 ppb	08:57:12
1	Cd 226.502†	-161.4	30.6	0.4967 ug/L		0.4967 ppb	08:57:32
1	Co 228.616†	-31.2	19.5	0.5594 ug/L		0.5594 ppb	08:57:32
1	Cr 267.716†	107.8	-1.2	-0.0174 ug/L		-0.0174 ppb	08:57:32
1	Cu 324.752†	6195.7	-321.9	-1.1525 ug/L		-1.1525 ppb	08:57:12
1	Mn 257.610†	845.5	310.7	0.4575 ug/L		0.4575 ppb	08:57:32
1	Mo 202.031†	13.2	-5.2	-0.5278 ug/L		-0.5278 ppb	08:57:32
1	Ni 231.604†	97.3	2.1	0.0762 ug/L		0.0762 ppb	08:57:32
1	P 214.914†	172.4	-38.4	-30.809 ug/L		-30.809 ppb	08:57:32
1	Pb 220.353†	-57.1	-0.7	-0.1167 ug/L		-0.1167 ppb	08:57:32
1	S 181.975 Axial†	22.9	-7.1	-13.902 ug/L		-13.902 ppb	08:57:32
1	Sb 206.836†	21.8	-6.6	-3.1167 ug/L		-3.1167 ppb	08:57:32
1	Se 196.026†	-21.6	3.0	2.7054 ug/L		2.7054 ppb	08:57:32
1	Si 251.611†	595.1	62.4	2.5864 ug/L		2.5864 ppb	08:57:32
1	Sn 189.927†	4.6	-9.6	-2.4428 ug/L		-2.4428 ppb	08:57:32
1	Ti 334.940†	-989.6	182.6	0.3519 ug/L		0.3519 ppb	08:57:12
1	Tl 190.801†	-23.2	2.1	0.8919 ug/L		0.8919 ppb	08:57:32
1	U 409.014†	-1858.1	216.0	7.3449 ug/L		7.3449 ppb	08:57:07
1	V 292.402†	-1368.9	188.6	1.6963 ug/L		1.6963 ppb	08:57:12
1	Zn 213.857†	763.2	4.8	0.0624 ug/L		0.0624 ppb	08:57:32
1	SiO2†	611.6	68.6	6.0482 ug/L		6.0482 ppb	08:58:53
2	Sc Radial	4079.1	4079.1	108 %			08:56:35
2	Y RADIAL	4685.6	4685.6	114.8 %			08:56:15
2	Al 396.153Radial†	-57.2	19.8	23.554 ug/L		23.554 ppb	08:56:35
2	Ca 317.933Radial†	32.1	7.8	17.565 ug/L		17.565 ppb	08:56:35
2	Fe 238.204 Radial†	10.7	1.4	19.170 ug/L		19.170 ppb	08:56:35
2	K 766.490 Radial†	2670.9	1.8	0.4620 ug/L		0.4620 ppb	08:56:15
2	Mg 279.077 IEC†	0.1	-2.7	-129.94 ug/L		-129.94 ppb	08:56:35
2	Na 589.592 Radial†	-925.3	-472.9	-190.17 ug/L		-190.17 ppb	08:56:15
2	Sr 421.552†	49.5	6.7	0.0605 ug/L		0.0605 ppb	08:56:15
2	Sc 361.383	809545.0	809545.0	110.47 %			08:57:37
2	Y 371.029	665186.7	665186.7	110.05 %			08:57:37
2	Ag 328.068†	274.9	96.7	0.5583 ug/L		0.5583 ppb	08:57:42
2	As 188.979†	-18.9	5.2	3.1527 ug/L		3.1527 ppb	08:58:02
2	B 249.677†	-337.0	29.9	0.8974 ug/L		0.8974 ppb	08:58:02
2	Ba 233.527†	41.8	35.3	0.3721 ug/L		0.3721 ppb	08:58:02
2	Be 313.107†	-3950.1	316.0	0.1485 ug/L		0.1485 ppb	08:57:42
2	Cd 226.502†	-172.9	14.7	0.2367 ug/L		0.2367 ppb	08:58:02
2	Co 228.616†	-40.8	9.8	0.2799 ug/L		0.2799 ppb	08:58:02
2	Cr 267.716†	108.3	3.0	0.0483 ug/L		0.0483 ppb	08:58:02
2	Cu 324.752†	6225.7	-81.4	-0.2905 ug/L		-0.2905 ppb	08:57:42
2	Mn 257.610†	899.1	388.4	0.5740 ug/L		0.5740 ppb	08:58:02
2	Mo 202.031†	15.9	-2.3	-0.2324 ug/L		-0.2324 ppb	08:58:02
2	Ni 231.604†	94.6	3.1	0.1111 ug/L		0.1111 ppb	08:58:02

2	P 214.914†	167.4	-36.9	-29.793 ug/L	-29.793 ppb	08:58:02
2	Pb 220.353†	-63.9	-8.8	-1.5194 ug/L	-1.5194 ppb	08:58:02
2	S 181.975 Axial†	25.4	-4.1	-8.0658 ug/L	-8.0658 ppb	08:58:02
2	Sb 206.836†	27.4	-0.9	-0.4123 ug/L	-0.4123 ppb	08:58:02
2	Se 196.026†	-9.5	13.1	11.868 ug/L	11.868 ppb	08:58:02
2	Si 251.611†	642.3	125.7	5.1946 ug/L	5.1946 ppb	08:58:02
2	Sn 189.927†	11.5	-3.3	-0.8295 ug/L	-0.8295 ppb	08:58:02
2	Ti 334.940†	-914.3	216.7	0.4268 ug/L	0.4268 ppb	08:57:42
2	Tl 190.801†	-16.3	7.5	3.2580 ug/L	3.2580 ppb	08:58:02
2	U 409.014†	-1980.2	41.6	1.4112 ug/L	1.4112 ppb	08:57:37
2	V 292.402†	-1409.9	104.3	0.9304 ug/L	0.9304 ppb	08:57:42
2	Zn 213.857†	751.0	20.0	0.2641 ug/L	0.2641 ppb	08:58:02
2	SiO2†	631.1	107.3	9.4467 ug/L	9.4467 ppb	08:59:13
3	Sc Radial	4110.0	4110.0	108 %		08:57:00
3	Y RADIAL	4515.0	4515.0	110.6 %		08:56:40
3	Al 396.153Radial†	-63.3	14.5	17.269 ug/L	17.269 ppb	08:57:00
3	Ca 317.933Radial†	27.3	3.3	7.3228 ug/L	7.3228 ppb	08:57:00
3	Fe 238.204 Radial†	11.7	2.3	31.020 ug/L	31.020 ppb	08:57:00
3	K 766.490 Radial†	2632.0	-52.7	-11.558 ug/L	-11.558 ppb	08:56:40
3	Mg 279.077 IEC†	-0.7	-3.5	-164.49 ug/L	-164.49 ppb	08:57:00
3	Na 589.592 Radial†	-967.3	-505.2	-203.17 ug/L	-203.17 ppb	08:56:40
3	Sr 421.552†	25.8	-15.5	-0.1410 ug/L	-0.1410 ppb	08:56:40
3	Sc 361.383	816908.5	816908.5	111.48 %		08:58:08
3	Y 371.029	671862.0	671862.0	111.16 %		08:58:08
3	Ag 328.068†	257.6	78.9	0.4566 ug/L	0.4566 ppb	08:58:13
3	As 188.979†	-26.9	-1.9	-1.1267 ug/L	-1.1267 ppb	08:58:33
3	B 249.677†	-334.9	34.6	1.0345 ug/L	1.0345 ppb	08:58:33
3	Ba 233.527†	42.4	35.5	0.3742 ug/L	0.3742 ppb	08:58:33
3	Be 313.107†	-3942.8	354.8	0.1662 ug/L	0.1662 ppb	08:58:13
3	Cd 226.502†	-173.3	15.7	0.2523 ug/L	0.2523 ppb	08:58:33
3	Co 228.616†	-32.1	17.9	0.5155 ug/L	0.5155 ppb	08:58:33
3	Cr 267.716†	89.4	-14.8	-0.2250 ug/L	-0.2250 ppb	08:58:33
3	Cu 324.752†	6144.1	-205.5	-0.7344 ug/L	-0.7344 ppb	08:58:13
3	Mn 257.610†	686.1	190.0	0.2870 ug/L	0.2870 ppb	08:58:33
3	Mo 202.031†	22.4	3.4	0.3437 ug/L	0.3437 ppb	08:58:33
3	Ni 231.604†	96.0	3.5	0.1266 ug/L	0.1266 ppb	08:58:33
3	P 214.914†	166.9	-38.7	-31.194 ug/L	-31.194 ppb	08:58:33
3	Pb 220.353†	-59.2	-4.1	-0.7010 ug/L	-0.7010 ppb	08:58:33
3	S 181.975 Axial†	22.3	-7.1	-13.850 ug/L	-13.850 ppb	08:58:33
3	Sb 206.836†	22.3	-5.6	-2.6237 ug/L	-2.6237 ppb	08:58:33
3	Se 196.026†	-17.5	6.0	5.4888 ug/L	5.4888 ppb	08:58:33
3	Si 251.611†	602.2	84.5	3.4868 ug/L	3.4868 ppb	08:58:33
3	Sn 189.927†	7.4	-7.0	-1.7699 ug/L	-1.7699 ppb	08:58:33
3	Ti 334.940†	-1011.6	136.9	0.2742 ug/L	0.2742 ppb	08:58:13
3	Tl 190.801†	-25.0	-0.1	-0.0563 ug/L	-0.0563 ppb	08:58:33
3	U 409.014†	-1889.4	139.2	4.7289 ug/L	4.7289 ppb	08:58:08
3	V 292.402†	-1478.8	54.0	0.4910 ug/L	0.4910 ppb	08:58:13
3	Zn 213.857†	733.0	-2.2	-0.0344 ug/L	-0.0344 ppb	08:58:33
3	SiO2†	613.1	86.0	7.5580 ug/L	7.5580 ppb	08:59:33

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	822671.7	112.26 %	2.288			2.04%
Sc Radial	4109.2	108 %	0.8			0.72%
Y 371.029	676994.9	112.01 %	2.489			2.22%
Y RADIAL	4601.6	112.7 %	2.09			1.85%
Ag 328.068†	87.2	0.5033 ug/L	0.05133	0.5033 ppb	0.05133	10.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	12.2	14.549 ug/L	10.6302	14.549 ppb	10.6302	73.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.8	1.1283 ug/L	2.14902	1.1283 ppb	2.14902	190.46%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	42.1	1.2634 ug/L	0.51969	1.2634 ppb	0.51969	41.14%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	32.1	0.3390 ug/L	0.05911	0.3390 ppb	0.05911	17.43%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	374.6	0.1757 ug/L	0.03295	0.1757 ppb	0.03295	18.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.7	10.630 ug/L	6.0081	10.630 ppb	6.0081	56.52%

QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	20.3	0.3285 ug/L	0.14582	0.3285 ppb	0.14582	44.39%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	15.8	0.4516 ug/L	0.15028	0.4516 ppb	0.15028	33.28%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-4.4	-0.0647 ug/L	0.14266	-0.0647 ppb	0.14266	220.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-202.9	-0.7258 ug/L	0.43107	-0.7258 ppb	0.43107	59.39%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.7	21.919 ug/L	8.0849	21.919 ppb	8.0849	36.89%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-35.8	-7.8293 ug/L	7.19255	-7.8293 ppb	7.19255	91.87%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.5	-118.54 ug/L	52.590	-118.54 ppb	52.590	44.37%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	296.3	0.4395 ug/L	0.14434	0.4395 ppb	0.14434	32.84%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.4	-0.1388 ug/L	0.44327	-0.1388 ppb	0.44327	319.25%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-462.9	-186.14 ug/L	19.367	-186.14 ppb	19.367	10.40%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.9	0.1046 ug/L	0.02580	0.1046 ppb	0.02580	24.66%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-38.0	-30.599 ug/L	0.7237	-30.599 ppb	0.7237	2.37%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-4.5	-0.7790 ug/L	0.70460	-0.7790 ppb	0.70460	90.45%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-6.1	-11.939 ug/L	3.3546	-11.939 ppb	3.3546	28.10%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-4.4	-2.0509 ug/L	1.44032	-2.0509 ppb	1.44032	70.23%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.4	6.6875 ug/L	4.69765	6.6875 ppb	4.69765	70.25%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	90.9	3.7559 ug/L	1.32475	3.7559 ppb	1.32475	35.27%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-6.6	-1.6807 ug/L	0.81035	-1.6807 ppb	0.81035	48.21%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-8.0	-0.0726 ug/L	0.11527	-0.0726 ppb	0.11527	158.74%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	178.7	0.3510 ug/L	0.07631	0.3510 ppb	0.07631	21.74%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	3.2	1.3645 ug/L	1.70696	1.3645 ppb	1.70696	125.10%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	132.3	4.4950 ug/L	2.97372	4.4950 ppb	2.97372	66.16%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	115.7	1.0392 ug/L	0.60995	1.0392 ppb	0.60995	58.69%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	7.5	0.0974 ug/L	0.15232	0.0974 ppb	0.15232	156.43%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	87.3	7.6843 ug/L	1.70275	7.6843 ppb	1.70275	22.16%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Sunday, April 11, 2010 12:25:51

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1043

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	3223.8	3223.764	50.641	1.6
Mg	24.0	89591.9	89591.887	1041.216	1.2
Co	58.9	77961.8	77961.763	628.495	0.8
Rh	102.9	143543.8	143543.773	594.571	0.4
In	114.9	197887.8	197887.795	1158.717	0.6
Pb	208.0	229905.9	229905.890	1624.773	0.7
[> Ba	137.9	191326.2	191326.179	1418.614	0.7
[ Ba++	69.0	2760.8	0.014	0.000	1.7
[> Ce	139.9	235666.5	235666.484	2198.898	0.9
[ CeO	155.9	4920.4	0.021	0.000	1.4
Bkgd	220.0	21.9	21.900	3.305	15.1

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	8.5	4298.3
Co	59	21	9.3	70972.2
In	115	21	10.3	196918.6

## ICPMS #5 Instrument Tuning Report

File Name: 100411.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	599	2072	0.544
Be	9.0	9.0	2060	2088	0.571
Mg	24.0	24.0	5695	2100	0.538
Mg	25.0	25.0	5935	2100	0.530
Mg	26.0	26.0	6181	2100	0.543
Co	58.9	58.9	14189	2125	0.561
Rh	102.9	102.9	24872	2180	0.569
In	114.9	114.9	27788	2200	0.570
Ce	139.9	139.9	33870	2220	0.574
Pb	206.0	206.0	49948	2305	0.576
Pb	207.0	207.0	50171	2240	0.633
Pb	208.0	208.0	50451	2280	0.689
U	238.1	238.0	57732	2295	0.690



## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, April 12, 2010 00:51:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soli 2.mth

Dataset File: C:\elandata\Dataset\100411\Blank.201

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9		ug/L		12	
[>	Sc	45		ug/L		766734	
[	Ni	60		ug/L		71	
[>	Ge	74		ug/L		313633	
	As	75		ug/L		-14	
	Se	77		ug/L		2893	
	Se	82		ug/L		17	
[	Kr	83		ug/L		73	
[>	Lu	175		ug/L		490754	
	Tl	205		ug/L		1438	
[	U	238		ug/L		135	

Sample ID: Blank

Report Date/Time: Monday, April 12, 2010 00:52:21

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dilution	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45					
[	Ni	60					
[>	Ge	74					
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175					
[	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, April 12, 2010 00:54:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\Standard 1.202

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000	ug/L	4.051	3320	0.004
[>	Sc	45		ug/L		772929	772928.678
[	Ni	60	10.000	ug/L	1.347	10453	0.013
[>	Ge	74		ug/L		317583	317582.832
	As	75	10.000	ug/L	6.141	7575	0.024
	Se	77		ug/L		3653	0.002
	Se	82	10.000	ug/L	5.015	793	0.002
[	Kr	83		ug/L		79	0.000
[>	Lu	175		ug/L		493973	493972.968
	Tl	205	10.000	ug/L	2.309	191822	0.385
[	U	238	10.000	ug/L	0.872	465911	0.943

Sample ID: Standard 1

Report Date/Time: Monday, April 12, 2010 00:55:24

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Standard 1

Report Date/Time: Monday, April 12, 2010 00:55:24

Page 2

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45					
[	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175					
	Tl	205					
[	U	238					

## QC Out Of Limits

Measurement Type   Analyte   Mass   Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, April 12, 2010 00:57:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soli 2.mth

Dataset File: C:\elandata\Dataset\100411\Standard 2.203

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.968	ug/L	1.212	32979	0.041
[>	Sc	45		ug/L		794975	794975.131
[	Ni	60	99.975	ug/L	2.226	104157	0.131
[>	Ge	74		ug/L		324716	324715.653
	As	75	100.038	ug/L	2.944	80683	0.249
	Se	77		ug/L		8870	0.018
	Se	82	100.055	ug/L	1.957	8419	0.026
[	Kr	83		ug/L		108	0.000
[>	Lu	175		ug/L		495726	495726.396
	Tl	205	99.929	ug/L	2.514	1783129	3.595
[	U	238	99.920	ug/L	3.679	4323850	8.727

Sample ID: Standard 2

Report Date/Time: Monday, April 12, 2010 00:58:27

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dif	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45					
[	Ni	60					
[>	Ge	74					
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175					
[	Tl	205					
[	U	238					

## QC Out Of Limits

Measurement Type   Analyte   Mass   Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, April 12, 2010 01:00:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 1.204

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.153	ug/L	2.108	17324	0.021
>	Sc	45		ug/L		815868	815868.006
[	Ni	60	51.631	ug/L	1.208	55249	0.068
[>	Ge	74		ug/L		333707	333706.994
	As	75	51.188	ug/L	3.301	42424	0.127
	Se	77		ug/L		6201	0.009
	Se	82	50.608	ug/L	2.021	4387	0.013
[	Kr	83		ug/L		92	0.000
[>	Lu	175		ug/L		507247	507247.411
	Tl	205	52.257	ug/L	1.259	955164	1.880
[	U	238	52.135	ug/L	1.901	2309417	4.553

Sample ID: QC Std 1

Report Date/Time: Monday, April 12, 2010 01:01:31

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Ti	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	102.306					
[>	Sc	45		106.4				
[	Ni	60	103.262					
[>	Ge	74		106.4				
	As	75	102.377					
	Se	77						
	Se	82	101.217					
[	Kr	83						
[>	Lu	175		103.4				
	Tl	205	104.513					
[	U	238	104.270					

### 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 2

Sample Date/Time: Monday, April 12, 2010 01:03:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soli 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 2.205

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.030	ug/L	23.355	22	0.000
[>	Sc	45		ug/L		782571	782570.874
[	Ni	60	0.018	ug/L	48.585	91	0.000
[>	Ge	74		ug/L		319360	319360.301
[	As	75	-0.205	ug/L	188.308	-176	-0.001
[	Se	77		ug/L		3404	0.001
[	Se	82	-0.112	ug/L	240.994	8	-0.000
[	Kr	83		ug/L		85	0.000
[>	Lu	175		ug/L		485729	485729.204
[	Tl	205	0.153	ug/L	5.429	4095	0.006
[	U	238	0.004	ug/L	16.309	314	0.000

Sample ID: QC Std 2

Report Date/Time: Monday, April 12, 2010 01:04:38

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		102.1			
[	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		99.0			
	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: Monday, April 12, 2010 01:07:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 3.206

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.581	ug/L	11.399	206	0.000
>	Sc	45		ug/L		804582	804581.567
[	Ni	60	2.356	ug/L	0.998	2558	0.003
[>	Ge	74		ug/L		327791	327791.000
	As	75	6.002	ug/L	5.197	4874	0.015
	Se	77		ug/L		3274	0.001
	Se	82	5.880	ug/L	5.083	516	0.002
[	Kr	83		ug/L		75	-0.000
[>	Lu	175		ug/L		497313	497313.091
	Ti	205	1.306	ug/L	0.437	24817	0.047
[	U	238	0.326	ug/L	0.932	14292	0.028

Sample ID: QC Std 3

Report Date/Time: Monday, April 12, 2010 01:07:43

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9	116.127				
>	Sc	45		104.9			
[	Ni	60	117.805				
>	Ge	74		104.5			
	As	75	120.032				
	Se	77					
	Se	82	117.593				
[	Kr	83					
>	Lu	175		101.3			
	Tl	205	130.551				
[	U	238	162.947				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

### QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, April 12, 2010 01:10:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 4.207

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.123	ug/L	20.324	52	0.000
[>	Sc	45		ug/L		787011	787010.956
[	Ni	60	3.210	ug/L	2.875	3380	0.004
[>	Ge	74		ug/L		320994	320994.064
	As	75	-0.165	ug/L	234.975	-147	-0.000
	Se	77		ug/L		6029	0.010
	Se	82	-1.315	ug/L	25.185	-92	-0.000
[	Kr	83		ug/L		223	0.000
[>	Lu	175		ug/L		461141	461141.350
	Tl	205	0.019	ug/L	4.721	1665	0.001
[	U	238	0.001	ug/L	20.749	177	0.000

Sample ID: QC Std 4

Report Date/Time: Monday, April 12, 2010 01:10:47

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		102.6			
[	Ni	60	96.984				
[>	Ge	74		102.3			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		94.0			
	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 5

Sample Date/Time: Monday, April 12, 2010 01:13:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 5.208

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	19.246	ug/L	1.274	6218	0.008
>	Sc	45		ug/L		777589	777589.327
[	Ni	60	22.849	ug/L	1.292	23343	0.030
[>	Ge	74		ug/L		319940	319939.917
	As	75	19.851	ug/L	4.869	15763	0.049
	Se	77		ug/L		7224	0.013
	Se	82	18.444	ug/L	6.546	1543	0.005
[	Kr	83		ug/L		229	0.000
[>	Lu	175		ug/L		459551	459551.000
	Tl	205	20.089	ug/L	1.445	333487	0.723
[	U	238	22.182	ug/L	2.049	890304	1.937

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 01:13:52

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9	96.232				
[>	Sc	45		101.4			
[	Ni	60	98.024				
[>	Ge	74		102.0			
	As	75	99.253				
	Se	77					
	Se	82	92.218				
[	Kr	83					
[>	Lu	175		93.6			
	Tl	205	100.447				
[	U	238	110.908				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 01:16:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 6.209

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.435	ug/L	1.735	17345	0.021
>	Sc	45		ug/L		812522	812521.616
[	Ni	60	53.672	ug/L	2.606	57198	0.070
[>	Ge	74		ug/L		332915	332915.288
	As	75	52.043	ug/L	1.190	43047	0.129
	Se	77		ug/L		7677	0.014
	Se	82	52.188	ug/L	1.093	4512	0.013
[	Kr	83		ug/L		93	0.000
[>	Lu	175		ug/L		488511	488510.592
	Tl	205	53.725	ug/L	0.510	945745	1.933
[	U	238	54.595	ug/L	0.860	2329359	4.768

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 01:16:58

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9	102.871				
] >	Sc	45		106.0			
[	Ni	60	107.344				
] >	Ge	74		106.1			
	As	75	104.086				
	Se	77					
	Se	82	104.375				
[	Kr	83					
] >	Lu	175		99.5			
	Tl	205	107.450				
[	U	238	109.190				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 01:19:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soli 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 7.210

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.014	ug/L	73.003	18	0.000
>	Sc	45		ug/L		845147	845147.026
[	Ni	60	0.019	ug/L	61.937	100	0.000
>	Ge	74		ug/L		345873	345873.284
	As	75	-0.185	ug/L	95.201	-176	-0.000
	Se	77		ug/L		4967	0.005
	Se	82	-0.058	ug/L	230.780	13	-0.000
[	Kr	83		ug/L		85	0.000
>	Lu	175		ug/L		511010	511009.778
	Tl	205	0.176	ug/L	9.672	4725	0.006
[	U	238	0.004	ug/L	17.077	320	0.000

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 01:20:06

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		110.2			
[	Ni	60					
[>	Ge	74		110.3			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		104.1			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056860

Sample Date/Time: Monday, April 12, 2010 01:22:30

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056860.211

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.031	ug/L	22.471	23	0.000
[>	Sc	45		ug/L		820229	820229.084
[	Ni	60	0.222	ug/L	0.937	314	0.000
[>	Ge	74		ug/L		333830	333829.926
[	As	75	0.025	ug/L	1620.930	9	0.000
[	Se	77		ug/L		3888	0.002
[	Se	82	0.192	ug/L	63.770	34	0.000
[	Kr	83		ug/L		82	0.000
[>	Lu	175		ug/L		492196	492196.427
[	Tl	205	0.078	ug/L	2.025	2831	0.003
[	U	238	0.078	ug/L	1.972	3498	0.007

Sample ID: 1202056860

Report Date/Time: Monday, April 12, 2010 01:23:11

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		107.0			
[	Ni	60					
[>	Ge	74		106.4			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		100.3			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056865

Sample Date/Time: Monday, April 12, 2010 01:25:35

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959107|40|prb

Method File: c:\elandata\MethodVanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056865.212

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	22.100	ug/L	2.211	7862	0.009
[>	Sc	45		ug/L		856453	856452.575
[	Ni	60	42.008	ug/L	2.367	47204	0.055
[>	Ge	74		ug/L		353554	353554.234
[	As	75	30.585	ug/L	3.871	26852	0.076
[	Se	77		ug/L		10297	0.020
[	Se	82	81.002	ug/L	2.971	7426	0.021
[	Kr	83		ug/L		99	0.000
[>	Lu	175		ug/L		508068	508068.170
[	Tl	205	35.606	ug/L	1.696	652345	1.281
[	U	238	0.672	ug/L	1.661	29962	0.059

Sample ID: 1202056865

Report Date/Time: Monday, April 12, 2010 01:26:17

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		111.7			
[	Ni	60					
[>	Ge	74		112.7			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		103.5			
[	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: 248045001

Sample Date/Time: Monday, April 12, 2010 01:28:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045001.213

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.472	ug/L	1.301	860	0.001
[>	Sc	45		ug/L		826456	826455.675
[	Ni	60	17.064	ug/L	0.978	18547	0.022
[>	Ge	74		ug/L		320908	320908.409
	As	75	4.441	ug/L	4.602	3528	0.011
	Se	77		ug/L		3084	0.000
	Se	82	0.884	ug/L	40.929	91	0.000
[	Kr	83		ug/L		166	0.000
[>	Lu	175		ug/L		518892	518892.418
	Tl	205	0.766	ug/L	11.429	15817	0.028
[	U	238	3.148	ug/L	0.892	142783	0.275

Sample ID: 248045001

Report Date/Time: Monday, April 12, 2010 01:29:23

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		107.8			
[	Ni	60					
[>	Ge	74		102.3			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		105.7			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056861

Sample Date/Time: Monday, April 12, 2010 01:31:46

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Methot\Nanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056861.214

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.432	ug/L	3.052	1125	0.001
>	Sc	45		ug/L		781971	781971.382
[	Ni	60	26.748	ug/L	2.389	27465	0.035
>	Ge	74		ug/L		308485	308484.738
	As	75	5.499	ug/L	8.481	4202	0.014
	Se	77		ug/L		2597	-0.001
	Se	82	0.900	ug/L	26.277	88	0.000
[	Kr	83		ug/L		166	0.000
>	Lu	175		ug/L		497788	497787.783
	Tl	205	0.440	ug/L	1.123	9333	0.016
[	U	238	3.452	ug/L	1.339	150225	0.301

Sample ID: 1202056861

Report Date/Time: Monday, April 12, 2010 01:32:28

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Ret.	% Difference
[	Be	9						
[>	Sc	45			102.0			
[	Ni	60						
[>	Ge	74			98.4			
	As	75						
	Se	77						
	Se	82						
[	Kr	83						
[>	Lu	175			101.4			
	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: 1202056863

Sample Date/Time: Monday, April 12, 2010 01:34:52

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soli 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056863.215

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	28.174	ug/L	1.927	8996	0.012
>	Sc	45		ug/L		768777	768776.821
[	Ni	60	42.526	ug/L	2.284	42893	0.056
[>	Ge	74		ug/L		305294	305293.823
	As	75	44.087	ug/L	2.981	33425	0.110
	Se	77		ug/L		2988	0.001
	Se	82	9.808	ug/L	2.408	791	0.003
[	Kr	83		ug/L		196	0.000
[>	Lu	175		ug/L		514041	514041.281
	Tl	205	47.586	ug/L	0.850	881682	1.712
[	U	238	30.586	ug/L	2.001	1372971	2.671

Sample ID: 1202056863

Report Date/Time: Monday, April 12, 2010 01:35:34

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		100.3			
[	Ni	60					
[>	Ge	74		97.3			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		104.7			
[	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056864

Sample Date/Time: Monday, April 12, 2010 01:37:58

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056864.216

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	26.023	ug/L	0.843	8325	0.011
[>	Sc	45		ug/L		770245	770245.258
[	Ni	60	40.748	ug/L	1.280	41178	0.053
[>	Ge	74		ug/L		305330	305329.548
	As	75	39.984	ug/L	1.797	30323	0.099
	Se	77		ug/L		2877	0.000
	Se	82	8.258	ug/L	2.821	669	0.002
[	Kr	83		ug/L		172	0.000
[>	Lu	175		ug/L		504981	504981.356
	Tl	205	47.118	ug/L	1.135	857529	1.695
[	U	238	29.035	ug/L	1.827	1280552	2.536

Sample ID: 1202056864

Report Date/Time: Monday, April 12, 2010 01:38:40

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		100.5			
[	Ni	60					
[>	Ge	74		97.4			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		102.9			
	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: 1202056862

Sample Date/Time: Monday, April 12, 2010 01:41:04

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959107|10|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\1202056862.217

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.560		ug/L	7.236	189	0.000
[>	Sc	45			ug/L		764456	764455.778
[	Ni	60	3.512		ug/L	3.312	3586	0.005
[>	Ge	74			ug/L		315382	315381.831
	As	75	0.719		ug/L	11.579	549	0.002
	Se	77			ug/L		3347	0.001
	Se	82	0.164		ug/L	37.871	30	0.000
[	Kr	83			ug/L		92	0.000
[>	Lu	175			ug/L		495565	495565.426
	Tl	205	0.390		ug/L	5.431	8404	0.014
[	U	238	0.651		ug/L	0.744	28328	0.057

Sample ID: 1202056862

Report Date/Time: Monday, April 12, 2010 01:41:46

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45			99.7		
[	Ni	60					
[>	Ge	74			100.6		
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175			101.0		
	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: QC Std 8

Sample Date/Time: Monday, April 12, 2010 01:44:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 8.218

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	52.112	ug/L	2.541	16503	0.022
>	Sc	45		ug/L		763181	763180.637
[	Ni	60	53.455	ug/L	1.974	53497	0.070
[>	Ge	74		ug/L		320439	320439.427
	As	75	51.430	ug/L	0.784	40938	0.128
	Se	77		ug/L		6370	0.011
	Se	82	50.896	ug/L	1.670	4236	0.013
[	Kr	83		ug/L		88	0.000
[>	Lu	175		ug/L		484326	484326.418
	Tl	205	53.477	ug/L	1.560	933200	1.924
[	U	238	54.515	ug/L	2.409	2305628	4.761

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 01:44:52

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	104.225					
[>	Sc	45		99.5				
[	Ni	60	106.910					
[>	Ge	74		102.2				
	As	75	102.860					
	Se	77	101.793					
	Se	82						
[	Kr	83						
[>	Lu	175		98.7				
	Tl	205	106.955					
[	U	238	109.029					

### 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 9

Sample Date/Time: Monday, April 12, 2010 01:47:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 9.219

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.030	ug/L	41.582	21	0.000
[>	Sc	45		ug/L		761521	761520.550
[	Ni	60	0.006	ug/L	47.786	77	0.000
[>	Ge	74		ug/L		321135	321135.270
[	As	75	-0.270	ug/L	113.784	-231	-0.001
[	Se	77		ug/L		3719	0.002
[	Se	82	-0.018	ug/L	949.531	16	-0.000
[	Kr	83		ug/L		84	0.000
[>	Lu	175		ug/L		485538	485537.765
[	Tl	205	0.255	ug/L	6.697	5877	0.009
[	U	238	0.005	ug/L	44.885	342	0.000

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 01:48:00

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dilution	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		99.3			
	Ni	60					
[>	Ge	74		102.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
[>	Lu	175		98.9			
	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: 248045002

Sample Date/Time: Monday, April 12, 2010 01:50:24

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045002.220

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.691	ug/L	6.246	229	0.000
>	Sc	45		ug/L		758253	758253.003
[	Ni	60	17.873	ug/L	3.218	17814	0.023
>	Ge	74		ug/L		309619	309619.432
	As	75	5.029	ug/L	4.015	3857	0.012
	Se	77		ug/L		2557	-0.001
	Se	82	0.647	ug/L	45.207	69	0.000
[	Kr	83		ug/L		124	0.000
>	Lu	175		ug/L		491128	491128.083
	Tl	205	0.288	ug/L	1.033	6529	0.010
[	U	238	4.322	ug/L	2.475	185491	0.377

Sample ID: 248045002

Report Date/Time: Monday, April 12, 2010 01:51:06

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		98.9			
[	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		100.1			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045003

Sample Date/Time: Monday, April 12, 2010 01:53:30

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045003.221

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.640	ug/L	5.496	858	0.001
>	Sc	45		ug/L		773472	773472.320
[	Ni	60	20.609	ug/L	1.141	20951	0.027
>	Ge	74		ug/L		304140	304139.609
	As	75	5.347	ug/L	5.801	4025	0.013
	Se	77		ug/L		2377	-0.001
	Se	82	0.421	ug/L	26.240	49	0.000
[	Kr	83		ug/L		147	0.000
>	Lu	175		ug/L		502141	502140.821
	Tl	205	0.336	ug/L	1.767	7539	0.012
[	U	238	4.709	ug/L	1.378	206666	0.411

Sample ID: 248045003

Report Date/Time: Monday, April 12, 2010 01:54:12

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		100.9			
[	Ni	60					
[>	Ge	74		97.0			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		102.3			
[	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: 248045004

Sample Date/Time: Monday, April 12, 2010 01:56:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045004.222

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.091	ug/L	6.465	352	0.000
>	Sc	45		ug/L		752384	752383.684
[	Ni	60	36.734	ug/L	2.974	36254	0.048
>	Ge	74		ug/L		306098	306097.989
	As	75	3.860	ug/L	7.759	2925	0.010
	Se	77		ug/L		2400	-0.001
	Se	82	0.126	ug/L	122.599	26	0.000
[	Kr	83		ug/L		103	0.000
>	Lu	175		ug/L		492304	492303.586
	Tl	205	0.218	ug/L	1.451	5302	0.008
[	U	238	12.274	ug/L	0.495	527854	1.072

Sample ID: 248045004

Report Date/Time: Monday, April 12, 2010 01:57:18

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		98.1			
[	Ni	60					
[>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		100.3			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045005

Sample Date/Time: Monday, April 12, 2010 01:59:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045005.223

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.958	ug/L	4.659	964	0.001
>	Sc	45		ug/L		776773	776773.141
[	Ni	60	25.272	ug/L	1.071	25780	0.033
[>	Ge	74		ug/L		308765	308764.674
	As	75	8.079	ug/L	7.808	6183	0.020
	Se	77		ug/L		2674	-0.001
	Se	82	0.508	ug/L	29.123	57	0.000
[	Kr	83		ug/L		141	0.000
[>	Lu	175		ug/L		495304	495304.156
	Tl	205	0.358	ug/L	0.814	7836	0.013
[	U	238	10.385	ug/L	0.989	449354	0.907

Sample ID: 248045005

Report Date/Time: Monday, April 12, 2010 02:00:24

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		101.3			
[	Ni	60					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		100.9			
	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: 248045006

Sample Date/Time: Monday, April 12, 2010 02:02:48

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045006.224

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.227	ug/L	9.939	388	0.001
[>	Sc	45		ug/L		740253	740253.223
[	Ni	60	15.090	ug/L	1.372	14700	0.020
[>	Ge	74		ug/L		302243	302243.178
	As	75	6.645	ug/L	5.042	4976	0.017
	Se	77		ug/L		2315	-0.002
	Se	82	-0.013	ug/L	1067.625	15	-0.000
[	Kr	83		ug/L		108	0.000
[>	Lu	175		ug/L		485638	485637.868
	Tl	205	0.124	ug/L	1.698	3588	0.004
[	U	238	3.618	ug/L	1.021	153588	0.316

Sample ID: 248045006

Report Date/Time: Monday, April 12, 2010 02:03:30

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		96.5			
[	Ni	60					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		99.0			
	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: 248045007

Sample Date/Time: Monday, April 12, 2010 02:05:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045007.225

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.424	ug/L	0.221	756	0.001
>	Sc	45		ug/L		740872	740871.711
[	Ni	60	14.488	ug/L	2.692	14123	0.019
[ >	Ge	74		ug/L		297235	297234.645
	As	75	3.428	ug/L	7.577	2517	0.009
	Se	77		ug/L		2251	-0.002
	Se	82	0.262	ug/L	81.312	36	0.000
[	Kr	83		ug/L		170	0.000
[ >	Lu	175		ug/L		519520	519519.532
	Ti	205	0.132	ug/L	3.580	3988	0.005
[	U	238	3.086	ug/L	1.379	140186	0.270

Sample ID: 248045007

Report Date/Time: Monday, April 12, 2010 02:06:37

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate	Rel. % Difference
[	Be	9						
[>	Sc	45		96.6				
[	Ni	60						
[>	Ge	74		94.8				
[	As	75						
[	Se	77						
[	Se	82						
[	Kr	83						
[>	Lu	175		105.9				
[	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: 248045008

Sample Date/Time: Monday, April 12, 2010 02:09:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\Vanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045008.226

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.369	ug/L	6.017	757	0.001
[>	Sc	45		ug/L		758834	758834.215
[	Ni	60	35.023	ug/L	2.576	34869	0.046
[>	Ge	74		ug/L		298012	298012.030
	As	75	5.016	ug/L	8.328	3700	0.012
	Se	77		ug/L		2298	-0.002
	Se	82	-0.095	ug/L	441.230	8	-0.000
[	Kr	83		ug/L		143	0.000
[>	Lu	175		ug/L		489107	489106.931
	Tl	205	0.240	ug/L	3.166	5655	0.009
[	U	238	4.781	ug/L	2.198	204351	0.418

Sample ID: 248045008

Report Date/Time: Monday, April 12, 2010 02:09:43

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		99.0			
[	Ni	60					
[>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		99.7			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045009

Sample Date/Time: Monday, April 12, 2010 02:12:07

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045009.227

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	4.712	ug/L	3.290	1521	0.002
[>	Sc	45		ug/L		772211	772211.323
[	Ni	60	36.954	ug/L	1.391	37447	0.048
[>	Ge	74		ug/L		296288	296288.467
[	As	75	9.151	ug/L	1.554	6724	0.023
[	Se	77		ug/L		2106	-0.002
[	Se	82	-0.516	ug/L	84.379	-23	-0.000
[	Kr	83		ug/L		227	0.001
[>	Lu	175		ug/L		505868	505867.682
[	Tl	205	0.529	ug/L	1.963	11116	0.019
[	U	238	4.757	ug/L	1.695	210272	0.415

Sample ID: 248045009

Report Date/Time: Monday, April 12, 2010 02:12:50

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[	Be	9						
[>	Sc	45		100.7				
[	Ni	60						
[>	Ge	74		94.5				
	As	75						
	Se	77						
	Se	82						
[	Kr	83						
[>	Lu	175		103.1				
	Tl	205						
[	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 02:15:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 8.228

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	52.768 ug/L	2.657	16451	0.022
[>	Sc	45	ug/L		751348	751348.393
[	Ni	60	52.498 ug/L	3.121	51716	0.069
[>	Ge	74	ug/L		318432	318431.719
	As	75	50.432 ug/L	1.003	39896	0.125
	Se	77	ug/L		5806	0.009
	Se	82	49.790 ug/L	1.265	4119	0.013
[	Kr	83	ug/L		95	0.000
[>	Lu	175	ug/L		490378	490378.181
	Tl	205	52.375 ug/L	1.235	925571	1.884
[	U	238	53.401 ug/L	0.838	2287160	4.664

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 02:15:55

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	105.537				
>	Sc	45		98.0			
[	Ni	60	104.995				
[>	Ge	74		101.5			
	As	75	100.865				
	Se	77					
	Se	82	99.580				
[	Kr	83					
[>	Lu	175		99.9			
	Tl	205	104.750				
[	U	238	106.803				

### 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 9

Sample Date/Time: Monday, April 12, 2010 02:18:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 9.229

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.041	ug/L	47.602	24	0.000
>	Sc	45		ug/L		742099	742098.801
[	Ni	60	0.019	ug/L	8.966	87	0.000
>	Ge	74		ug/L		309529	309529.067
	As	75	-0.244	ug/L	119.191	-204	-0.001
	Se	77		ug/L		3142	0.001
	Se	82	-0.051	ug/L	201.512	12	-0.000
[	Kr	83		ug/L		78	0.000
>	Lu	175		ug/L		476560	476560.487
	Tl	205	0.150	ug/L	5.689	3970	0.005
[	U	238	0.003	ug/L	9.994	273	0.000

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 02:19:03

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		96.8			
[	Ni	60					
[>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		97.1			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045010

Sample Date/Time: Monday, April 12, 2010 02:21:27

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045010.230

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.586	ug/L	2.529	1113	0.001
[>	Sc	45		ug/L		740943	740942.761
[	Ni	60	31.230	ug/L	0.912	30377	0.041
[>	Ge	74		ug/L		287496	287495.753
	As	75	7.221	ug/L	2.945	5147	0.018
	Se	77		ug/L		2231	-0.001
	Se	82	-0.148	ug/L	89.580	4	-0.000
[	Kr	83		ug/L		164	0.000
[>	Lu	175		ug/L		481555	481554.947
	Tl	205	0.431	ug/L	2.230	8884	0.016
[	U	238	5.647	ug/L	1.507	237643	0.493

Sample ID: 248045010

Report Date/Time: Monday, April 12, 2010 02:22:10

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		96.6			
[	Ni	60					
[>	Ge	74		91.7			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		98.1			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045011

Sample Date/Time: Monday, April 12, 2010 02:24:34

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045011.231

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.458	ug/L	6.565	747	0.001
>	Sc	45		ug/L		722529	722529.054
[	Ni	60	21.375	ug/L	0.537	20296	0.028
>	Ge	74		ug/L		288801	288801.150
	As	75	4.113	ug/L	15.226	2942	0.010
	Se	77		ug/L		2065	-0.002
	Se	82	-0.010	ug/L	3088.568	15	-0.000
[	Kr	83		ug/L		135	0.000
>	Lu	175		ug/L		481512	481512.181
	Tl	205	0.241	ug/L	2.759	5588	0.009
[	U	238	5.089	ug/L	1.355	214126	0.444

Sample ID: 248045011

Report Date/Time: Monday, April 12, 2010 02:25:16

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		94.2			
[	Ni	60					
[>	Ge	74		92.1			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		98.1			
[	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045012

Sample Date/Time: Monday, April 12, 2010 02:27:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045012.232

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.419	ug/L	1.640	425	0.001
>	Sc	45		ug/L		703534	703533.900
[	Ni	60	61.804	ug/L	0.535	57019	0.081
>	Ge	74		ug/L		286796	286796.325
	As	75	3.088	ug/L	8.937	2186	0.008
	Se	77		ug/L		1995	-0.002
	Se	82	0.249	ug/L	126.274	34	0.000
[	Kr	83		ug/L		123	0.000
>	Lu	175		ug/L		477423	477423.316
	Tl	205	0.111	ug/L	3.958	3309	0.004
[	U	238	4.962	ug/L	1.125	207025	0.433

Sample ID: 248045012

Report Date/Time: Monday, April 12, 2010 02:28:23

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		91.8			
[	Ni	60					
[>	Ge	74		91.4			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		97.3			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 248045013

Sample Date/Time: Monday, April 12, 2010 02:30:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045013.233

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.793	ug/L	5.986	1169	0.002
>	Sc	45		ug/L		737329	737329.118
[	Ni	60	21.085	ug/L	3.455	20415	0.028
[>	Ge	74		ug/L		288045	288045.407
	As	75	4.759	ug/L	6.581	3392	0.012
	Se	77		ug/L		2022	-0.002
	Se	82	0.033	ug/L	794.098	18	0.000
[	Kr	83		ug/L		165	0.000
[>	Lu	175		ug/L		499540	499540.478
	Tl	205	0.266	ug/L	4.372	6240	0.010
[	U	238	2.831	ug/L	0.737	123628	0.247

Sample ID: 248045013

Report Date/Time: Monday, April 12, 2010 02:31:29

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		96.2			
[	Ni	60					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		101.8			
	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: 248045014

Sample Date/Time: Monday, April 12, 2010 02:33:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045014.234

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.027	ug/L	2.718	320	0.000
>	Sc	45		ug/L		726007	726007.104
[	Ni	60	28.923	ug/L	1.978	27571	0.038
>	Ge	74		ug/L		293622	293622.323
	As	75	4.260	ug/L	7.825	3098	0.011
	Se	77		ug/L		2053	-0.002
	Se	82	-0.001	ug/L	23004.824	15	-0.000
[	Kr	83		ug/L		106	0.000
>	Lu	175		ug/L		477673	477672.634
	Tl	205	0.157	ug/L	3.056	4092	0.006
[	U	238	4.898	ug/L	1.884	204444	0.428

Sample ID: 248045014

Report Date/Time: Monday, April 12, 2010 02:34:36

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		94.7			
[	Ni	60					
[>	Ge	74		93.6			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		97.3			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045015

Sample Date/Time: Monday, April 12, 2010 02:37:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045015.235

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.104	ug/L	5.173	754	0.001
[>	Sc	45		ug/L		849641	849640.625
[	Ni	60	31.173	ug/L	0.726	34770	0.041
[>	Ge	74		ug/L		335175	335174.855
	As	75	7.118	ug/L	4.825	5911	0.018
	Se	77		ug/L		5632	0.008
	Se	82	-0.466	ug/L	22.498	-23	-0.000
[	Kr	83		ug/L		190	0.000
[>	Lu	175		ug/L		493198	493197.795
	Tl	205	0.233	ug/L	0.913	5571	0.008
[	U	238	5.575	ug/L	0.625	240257	0.487

Sample ID: 248045015

Report Date/Time: Monday, April 12, 2010 02:37:44

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		110.8			
[	Ni	60					
[>	Ge	74		106.9			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		100.5			
[	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045016

Sample Date/Time: Monday, April 12, 2010 02:40:08

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045016.236

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.823	ug/L	2.042	1356	0.002
[>	Sc	45		ug/L		846735	846735.080
[	Ni	60	54.075	ug/L	1.438	60051	0.071
[>	Ge	74		ug/L		325134	325133.941
	As	75	7.586	ug/L	2.543	6115	0.019
	Se	77		ug/L		2932	-0.000
	Se	82	-0.057	ug/L	202.376	12	-0.000
[	Kr	83		ug/L		185	0.000
[>	Lu	175		ug/L		512891	512890.661
	Tl	205	0.368	ug/L	3.309	8301	0.013
[	U	238	11.156	ug/L	1.522	499821	0.974

Sample ID: 248045016

Report Date/Time: Monday, April 12, 2010 02:40:51

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
>	Sc	45		110.4			
[	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		104.5			
	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: 248045017

Sample Date/Time: Monday, April 12, 2010 02:43:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045017.237

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	4.624	ug/L	2.063	1504	0.002
[>	Sc	45		ug/L		778313	778313.091
[	Ni	60	30.744	ug/L	1.143	31415	0.040
[>	Ge	74		ug/L		300079	300078.787
[	As	75	8.001	ug/L	4.120	5955	0.020
[	Se	77		ug/L		2406	-0.001
[	Se	82	-0.097	ug/L	147.855	8	-0.000
[	Kr	83		ug/L		178	0.000
[>	Lu	175		ug/L		494318	494318.104
[	Tl	205	0.411	ug/L	3.299	8760	0.015
[	U	238	7.464	ug/L	1.521	322349	0.652

Sample ID: 248045017

Report Date/Time: Monday, April 12, 2010 02:43:58

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9					
[>	Sc	45		101.5			
[	Ni	60					
[>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175		100.7			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045018

Sample Date/Time: Monday, April 12, 2010 02:46:22

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\248045018.238

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.944	ug/L	7.589	299	0.000
[>	Sc	45		ug/L		734832	734831.676
[	Ni	60	35.085	ug/L	2.049	33828	0.046
[>	Ge	74		ug/L		300569	300568.825
	As	75	4.391	ug/L	4.019	3266	0.011
	Se	77		ug/L		2170	-0.002
	Se	82	-0.206	ug/L	51.137	0	-0.000
[	Kr	83		ug/L		109	0.000
[>	Lu	175		ug/L		483628	483628.348
	Tl	205	0.197	ug/L	4.760	4850	0.007
[	U	238	10.560	ug/L	1.951	446082	0.922

Sample ID: 248045018

Report Date/Time: Monday, April 12, 2010 02:47:05

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		95.8			
[	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
>	Lu	175		98.5			
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 02:49:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 6.239

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.085	ug/L	0.779	16048	0.021
>	Sc	45		ug/L		756838	756838.205
[	Ni	60	52.910	ug/L	2.179	52521	0.069
>	Ge	74		ug/L		319782	319781.538
	As	75	50.179	ug/L	3.642	39856	0.125
	Se	77		ug/L		5910	0.009
	Se	82	50.259	ug/L	2.425	4174	0.013
[	Kr	83		ug/L		86	0.000
>	Lu	175		ug/L		487752	487751.958
	Tl	205	52.386	ug/L	1.142	920774	1.885
[	U	238	53.575	ug/L	2.046	2282396	4.679

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 02:50:11

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[	Be	9	102.171				
[>	Sc	45			98.7		
[	Ni	60	105.821				
[>	Ge	74			102.0		
[	As	75	100.357				
[	Se	77					
[	Se	82	100.518				
[	Kr	83					
[>	Lu	175			99.4		
[	Tl	205	104.772				
[	U	238	107.151				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 02:52:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil 2.mth

Dataset File: C:\elandata\Dataset\100411\QC Std 7.240

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.007	ug/L	168.949	14	0.000
[>	Sc	45		ug/L		751338	751337.834
[	Ni	60	0.014	ug/L	66.141	83	0.000
[>	Ge	74		ug/L		317094	317093.560
	As	75	0.020	ug/L	960.179	2	0.000
	Se	77		ug/L		3359	0.001
	Se	82	0.168	ug/L	13.621	31	0.000
[	Kr	83		ug/L		76	0.000
[>	Lu	175		ug/L		481568	481568.393
	Tl	205	0.153	ug/L	6.939	4068	0.006
[	U	238	0.008	ug/L	19.323	474	0.001

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 02:53:19

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear 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			98.0		
[	Ni	60					
[>	Ge	74			101.1		
	As	75					
	Se	77					
	Se	82					
[	Kr	83					
[>	Lu	175			98.1		
	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Monday, April 12, 2010 12:06:55

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1047

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

### Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	1600.7	1600.690	66.606	4.2
Mg	24.0	42537.5	42537.482	1284.267	3.0
Co	58.9	65006.2	65006.172	391.198	0.6
Rh	102.9	127267.0	127267.002	942.029	0.7
In	114.9	184150.5	184150.534	1137.512	0.6
Pb	208.0	214713.3	214713.337	559.415	0.3
[> Ba	137.9	172158.1	172158.058	849.562	0.5
[ Ba++	69.0	1998.4	0.012	0.000	1.4
[> Ce	139.9	211469.3	211469.349	1635.986	0.8
[ CeO	155.9	4156.7	0.020	0.001	2.7
Bkgd	220.0	20.6	20.600	2.559	12.4

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3575.4
Co	59	21	8.3	64290.0
In	115	21	9.8	174307.3

## ICPMS #5 Instrument Tuning Report

File Name: 100412.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.537
Be	9.0	9.0	2052	2088	0.534
Mg	24.0	24.0	5693	2100	0.514
Mg	25.0	25.0	5933	2100	0.500
Mg	26.0	26.0	6180	2100	0.514
Co	58.9	58.9	14187	2125	0.535
Rh	102.9	102.9	24877	2180	0.538
In	114.9	114.9	27793	2200	0.533
Ce	139.9	139.9	33875	2220	0.545
Pb	206.0	206.0	49948	2305	0.528
Pb	207.0	207.0	50171	2240	0.592
Pb	208.0	208.0	50451	2280	0.646
U	238.1	238.0	57726	2295	0.643

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, April 12, 2010 13:07:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\Blank.002

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		401983	
[ U	238		ug/L		33	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175					
[ 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: Monday, April 12, 2010 13:08:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\Standard 1.003

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		403596	403595.719
[	U	238	10.000	ug/L	1.469	456239	1.130

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Monday, April 12, 2010 13:08:53

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, April 12, 2010 13:10:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\Standard 2.004

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		403373	403373.342
[	U	238	99.946	ug/L	1.206	4324678	10.720

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Monday, April 12, 2010 13:10:30

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, April 12, 2010 13:11:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 1.005

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		415856	415855.900
[	U	238	50.861	ug/L	0.330	2268787	5.455

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			103.5			
[	U	238	101.722					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Monday, April 12, 2010 13:12:08

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, April 12, 2010 13:13:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 2.006

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		403472	403472.356
[	U	238	0.011	ug/L	7.599	498	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			100.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Monday, April 12, 2010 13:13:49

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, April 12, 2010 13:15:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 3.007

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		400126	400125.688
[	U	238	0.220	ug/L	1.008	9491	0.024

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			99.5			
[	U	238	110.169					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Monday, April 12, 2010 13:15:29

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, April 12, 2010 13:16:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 4.008

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		373096	373095.683
[	U	238	0.004	ug/L	3.927	188	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			92.8		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Monday, April 12, 2010 13:17:08

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, April 12, 2010 13:18:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 5.009

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		374124	374124.304
[	U	238	ug/L	1.033	845812	2.261

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		93.1			
[	U	238	105.382				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 13:18:47

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 13:20:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 6.010

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		407279	407278.894
[	U	238	49.996	ug/L	1.540	2184194	5.363

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			101.3			
[	U	238	99.992					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 13:20:27

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 13:21:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 7.011

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		406499	406499.440
[	U	238	ug/L	2.370	402	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		101.1			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 13:22:09

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 13:36:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.019

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		402031	402030.824
[	U	238	49.551	ug/L	0.890	2136971	5.315

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.0			
[	U	238	99.102					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 12, 2010 13:37:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.020

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		404188	404187.644
[	U	238	0.009	ug/L	7.427	435	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.5			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 13:37:57

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 13:52:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.029

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		384670	384669.642
[	U	238	49.748	ug/L	1.695	2053043	5.336

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			95.7			
[	U	238	99.496					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 13:52:48

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 12, 2010 13:54:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.030

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		384119	384118.651
[	U	238	0.010	ug/L	5.049	461	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
[>	Lu	175		95.6			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 13:54:30

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 14:09:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.039

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		389768	389768.141
[	U	238	48.860 ug/L	0.924	2042940	5.241

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		97.0			
[	U	238	97.719				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 14:09:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 12, 2010 14:10:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.040

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		386379	386378.819
[	U	238	0.008	ug/L	7.883	371	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			96.1		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 14:11:06

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056860

Sample Date/Time: Monday, April 12, 2010 14:12:34

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\1202056860.041

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		431249	431249.222
[	U	238	0.067	ug/L	1.356	3119	0.007

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			107.3		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056860

Report Date/Time: Monday, April 12, 2010 14:12:45

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056865

Sample Date/Time: Monday, April 12, 2010 14:14:14

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959107|40|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\1202056865.042

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		389094	389094.364
[	U	238	0.638 ug/L	0.222	26647	0.068

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175		96.8		
[	U	238				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056865

Report Date/Time: Monday, April 12, 2010 14:14:25

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045001

Sample Date/Time: Monday, April 12, 2010 14:15:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045001.043

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		448957	448956.922
[ U	238	2.612	ug/L	0.781	125833	0.280

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Lu	175			111.7		
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045001

Report Date/Time: Monday, April 12, 2010 14:16:05

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056861

Sample Date/Time: Monday, April 12, 2010 14:17:33

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\1202056861.044

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		458491	458490.612
[	U	238	2.721	ug/L	0.692	133833	0.292

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			114.1		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056863

Sample Date/Time: Monday, April 12, 2010 14:19:13

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\1202056863.045

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		471269	471269.161
[	U	238	24.013	ug/L	0.683	1214009	2.576

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			117.2		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056863

Report Date/Time: Monday, April 12, 2010 14:19:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056864

Sample Date/Time: Monday, April 12, 2010 14:20:53

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\1202056864.046

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		453678	453677.717
[	U	238	23.149	ug/L	0.837	1126489	2.483

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			112.9			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202056862

Sample Date/Time: Monday, April 12, 2010 14:22:33

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959107|10|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\1202056862.047

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		399581	399581.486
[	U	238	0.602	ug/L	1.281	25844	0.065

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			99.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056862

Report Date/Time: Monday, April 12, 2010 14:22:44

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 14:24:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.048

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		387010	387010.067
[	U	238	49.006	ug/L	2.220	2034616	5.256

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			96.3		
[	U	238	98.011				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 14:24:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 12, 2010 14:25:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.049

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		388634	388633.719
[	U	238	0.011	ug/L	9.425	502	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			96.7		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 14:26:06

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045002

Sample Date/Time: Monday, April 12, 2010 14:27:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045002.050

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		442560	442560.479
[	U	238	ug/L	0.865	161317	0.364

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175		110.1			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045002

Report Date/Time: Monday, April 12, 2010 14:27:46

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045003

Sample Date/Time: Monday, April 12, 2010 14:29:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045003.051

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		455903	455902.708
[	U	238	3.726	ug/L	0.713	182238	0.400

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			113.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045003

Report Date/Time: Monday, April 12, 2010 14:29:26

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045004

Sample Date/Time: Monday, April 12, 2010 14:30:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045004.052

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		442465	442465.201
[	U	238	9.729 ug/L	0.992	461763	1.044

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175		110.1		
[	U	238				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045004

Report Date/Time: Monday, April 12, 2010 14:31:06

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045005

Sample Date/Time: Monday, April 12, 2010 14:32:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045005.053

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		451400	451400.355
[	U	238	8.233	ug/L	0.731	398671	0.883

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			112.3			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045005

Report Date/Time: Monday, April 12, 2010 14:32:46

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045006

Sample Date/Time: Monday, April 12, 2010 14:34:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045006.054

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		443724	443724.348
[	U	238	ug/L	0.776	134101	0.302

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		110.4		
[	U	238				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045006

Report Date/Time: Monday, April 12, 2010 14:34:26

Page 1



## ICPMS#5 - Summary Report

Sample ID: 248045007

Sample Date/Time: Monday, April 12, 2010 14:35:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045007.055

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		482457	482457.499
[	U	238	2.313	ug/L	1.438	119675	0.248

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175			120.0		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for saLu		175	

### QC Action

QC Action Line: Continue

Sample ID: 248045007

Report Date/Time: Monday, April 12, 2010 14:36:07

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045008

Sample Date/Time: Monday, April 12, 2010 14:37:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\du only.mth

Dataset File: C:\elandata\Dataset\100412\248045008.056

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		442503	442502.864
[	U	238	ug/L	0.503	180256	0.407

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		110.1			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045008

Report Date/Time: Monday, April 12, 2010 14:37:48

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045009

Sample Date/Time: Monday, April 12, 2010 14:39:17

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045009.057

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		470835	470834.941
[	U	238	3.669	ug/L	1.045	185344	0.394

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			117.1			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045009

Report Date/Time: Monday, April 12, 2010 14:39:28

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 14:40:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.058

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		390299	390298.862
[	U	238	47.949	ug/L	2.157	2007072	5.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175			97.1		
[	U	238	95.898				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Monday, April 12, 2010 14:41:08

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 12, 2010 14:42:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.059

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		385157	385157.358
[	U	238	0.012	ug/L	6.452	533	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175			95.8		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Monday, April 12, 2010 14:42:50

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045010

Sample Date/Time: Monday, April 12, 2010 14:44:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107[2]prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045010.060

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		463054	463054.170
[	U	238	4.328	ug/L	0.876	215002	0.464

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			115.2		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045010

Report Date/Time: Monday, April 12, 2010 14:44:30

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045011

Sample Date/Time: Monday, April 12, 2010 14:46:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045011.061

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		434853	434853.496
[	U	238	4.120	ug/L	0.718	192182	0.442

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		108.2			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045011

Report Date/Time: Monday, April 12, 2010 14:46:11

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045012

Sample Date/Time: Monday, April 12, 2010 14:47:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045012.062

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		444888	444887.611
[	U	238	3.772	ug/L	1.641	179952	0.405

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			110.7			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 248045013  
Sample Date/Time: Monday, April 12, 2010 14:49:21  
Sample Type:  
Sample Description: LANL 6020  
Number of Replicates: 3  
Batch ID: 959107|2|prb  
Method File: c:\elandata\Method\lu only.mth  
Dataset File: C:\elandata\Dataset\100412\248045013.063

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		464516	464515.809
[ U	238	2.176	ug/L	1.124	108466	0.233

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Lu	175			115.6			
[ U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045014

Sample Date/Time: Monday, April 12, 2010 14:51:02

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045014.064

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		445934	445933.880
[	U	238	3.712	ug/L	1.265	177620	0.398

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			110.9		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045014

Report Date/Time: Monday, April 12, 2010 14:51:13

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045015

Sample Date/Time: Monday, April 12, 2010 14:52:43

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100412\248045015.065

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		447819	447818.735
[	U	238	4.435	ug/L	0.727	213088	0.476

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
>	Lu	175			111.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045015

Report Date/Time: Monday, April 12, 2010 14:52:54

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045016

Sample Date/Time: Monday, April 12, 2010 14:54:24

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045016.066

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		472932	472932.354
[	U	238	8.805	ug/L	0.255	446687	0.944

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			117.6		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248045016

Report Date/Time: Monday, April 12, 2010 14:54:36

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248045017

Sample Date/Time: Monday, April 12, 2010 14:56:05

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045017.067

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		468473	468472.505
[	U	238	5.621	ug/L	1.253	282494	0.603

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			116.5		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248045018

Sample Date/Time: Monday, April 12, 2010 14:57:46

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959107|2|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\248045018.068

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		450642	450641.834
[	U	238	7.952	ug/L	0.229	384388	0.853

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		112.1			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 14:59:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 6.069

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		384177	384176.961
[	U	238	48.222	ug/L	1.449	1987383	5.172

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			95.6			
[	U	238	96.445					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 14:59:38

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 15:01:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 7.070

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		384661	384661.255
[	U	238	0.012	ug/L	4.453	521	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		95.7				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected



=====  
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\031510S1.SIF  
Batch ID:  
Results Data Set: 031510S1  
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====  
Method LoadedMethod Name: SOIL  
Method Description: 7471A, ILM04 ANALYST JXL

Method Last Saved: 3/12/2010 14:32:37

Sequence No.: 1  
Sample ID: Calib Blank  
Analyst:Autosampler Location: 1  
Date Collected: 3/15/2010 09:03:45  
Data Type: Original-----  
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0014	0.0003	09:04:38	Yes
2		[0.00]	0.0002	-0.0005	0.0002	09:05:07	Yes

Mean: [0.00] 0.0003  
SD: 0.00 0.0001  
%RSD: 0.00 24.54

Auto-zero performed.

Sequence No.: 2  
Sample ID: S0.2  
Analyst:Autosampler Location: 2  
Date Collected: 3/15/2010 09:05:26  
Data Type: Original-----  
Replicate Data: S0.2

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0026	0.0117	0.0029	09:06:17	Yes
2		[0.2]	0.0026	0.0118	0.0028	09:06:47	Yes

Mean: [0.2] 0.0026  
SD: 0.0 0.0000  
%RSD: 0.0 0.51

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.01289 Intercept: 0.00000

Sequence No.: 3  
Sample ID: S0.5  
Analyst:Autosampler Location: 3  
Date Collected: 3/15/2010 09:07:06  
Data Type: Original-----  
Replicate Data: S0.5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0067	0.0306	0.0069	09:07:57	Yes
2		[0.5]	0.0066	0.0302	0.0069	09:08:26	Yes

Mean: [0.5] 0.0067  
SD: 0.0 0.0000  
%RSD: 0.0 0.29

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999893 Slope: 0.01334 Intercept: -0.00003

Sequence No.: 4  
Sample ID: S2.0  
Analyst:Autosampler Location: 4  
Date Collected: 3/15/2010 09:08:46  
Data Type: Original

-----  
Replicate Data: S2.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0270	0.1245	0.0273	09:09:38	Yes
2		[2.0]	0.0269	0.1224	0.0271	09:10:08	Yes
Mean:		[2.0]	0.0270				
SD:		0.0	0.0001				
%RSD:		0.0	0.48				

Standard number 3 applied. [2.0]  
Correlation Coef.: 0.999991 Slope: 0.01351 Intercept: -0.00007

Sequence No.: 5

Sample ID: S5.0

Analyst:

Autosampler Location: 5

Date Collected: 3/15/2010 09:10:27

Data Type: Original  
=====

## Replicate Data: S5.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0662	0.3042	0.0665	09:11:20	Yes
2		[5.0]	0.0665	0.3042	0.0667	09:11:49	Yes
Mean:		[5.0]	0.0663				
SD:		0.0	0.0002				
%RSD:		0.0	0.28				

Standard number 4 applied. [5.0]  
Correlation Coef.: 0.999975 Slope: 0.01328 Intercept: 0.00005

Sequence No.: 6

Sample ID: S10.0

Analyst:

Autosampler Location: 6

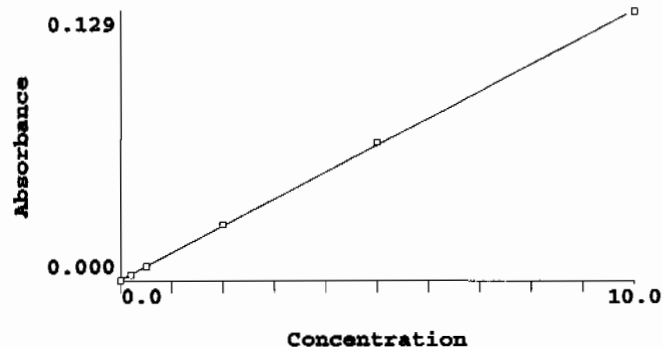
Date Collected: 3/15/2010 09:12:10

Data Type: Original  
=====

## Replicate Data: S10.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1293	0.5981	0.1295	09:13:00	Yes
2		[10.0]	0.1296	0.5961	0.1299	09:13:30	Yes
Mean:		[10.0]	0.1294				
SD:		0.0	0.0002				
%RSD:		0.0	0.17				

Standard number 5 applied. [10.0]  
Correlation Coef.: 0.999908 Slope: 0.01297 Intercept: 0.00041

-----  
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	-0.031	0.00	24.5
S0.2	0.0026	0.2	0.167	0.00	0.5
S0.5	0.0067	0.5	0.482	0.00	0.3
S2.0	0.0270	2.0	2.047	0.00	0.5

S5.0 0.0663 5.0 5.084 0.00 0.3  
S10.0 0.1294 10.0 9.950 0.00 0.2  
Correlation Coef.: 0.999908 Slope: 0.01297 Intercept: 0.00041

Sequence No.: 7

Sample ID: ICV

Analyst:

Autosampler Location: 9

Date Collected: 3/15/2010 09:13:49

Data Type: Original

## Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.175	5.175	0.0675	0.3121	0.0678	09:14:40	Yes
2	5.185	5.185	0.0676	0.3100	0.0679	09:15:10	Yes
Mean:	5.180	5.180	0.0676				
SD:	0.007	0.007	0.0001				
%RSD:	0.130	0.130	0.13				

QC value within limits for Hg 253.7 Recovery = 103.60%  
All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB

Analyst:

Autosampler Location: 10

Date Collected: 3/15/2010 09:15:30

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	-0.0001	-0.0003	0.0002	09:16:21	Yes
2	-0.040	-0.040	-0.0001	-0.0008	0.0002	09:16:51	Yes
Mean:	-0.037	-0.037	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	8.328	8.328	51.08				

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: 3/15/2010 09:17:11

Data Type: Original

## Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0026	0.0126	0.0029	09:18:02	Yes
2	0.166	0.166	0.0026	0.0116	0.0028	09:18:32	Yes
Mean:	0.169	0.169	0.0026				
SD:	0.004	0.004	0.0001				
%RSD:	2.512	2.512	2.12				

QC value within limits for Hg 253.7 Recovery = 84.36%  
All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 09:18:52

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.133	5.133	0.0670	0.3085	0.0672	09:19:42	Yes
2	5.131	5.131	0.0669	0.3085	0.0672	09:20:12	Yes
Mean:	5.132	5.132	0.0669				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

QC value within limits for Hg 253.7 Recovery = 102.63%  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/15/2010 09:20:31  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.043	-0.043	-0.0002	-0.0011	0.0001	09:21:22	Yes
2	-0.042	-0.042	-0.0001	-0.0007	0.0001	09:21:52	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.344	2.344	9.04				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12  
Sample ID: 1202056193|958761|1  
Analyst: JXL

Autosampler Location: 12  
Date Collected: 3/15/2010 09:22:11  
Data Type: Original

## Replicate Data: 1202056193|958761|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.042	-0.042	-0.0001	-0.0007	0.0001	09:23:03	Yes
2	-0.041	-0.041	-0.0001	-0.0007	0.0001	09:23:33	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.475	1.475	5.94				

Sequence No.: 13  
Sample ID: 1202056194|958761|10  
Analyst: JXL

Autosampler Location: 13  
Date Collected: 3/15/2010 09:23:53  
Data Type: Original

## Replicate Data: 1202056194|958761|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.338	3.338	0.0437	0.2012	0.0440	09:24:45	Yes
2	3.361	3.361	0.0440	0.2021	0.0443	09:25:15	Yes
Mean:	3.350	3.350	0.0438				
SD:	0.016	0.016	0.0002				
%RSD:	0.489	0.489	0.48				

Sequence No.: 14  
Sample ID: 248150001|958761|1  
Analyst: JXL

Autosampler Location: 14  
Date Collected: 3/15/2010 09:25:35  
Data Type: Original

## Replicate Data: 248150001|958761|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.047	0.047	0.0010	0.0048	0.0013	09:26:26	Yes
2	0.051	0.051	0.0011	0.0054	0.0013	09:26:55	Yes
Mean:	0.049	0.049	0.0010				
SD:	0.003	0.003	0.0000				
%RSD:	5.978	5.978	3.65				

Sequence No.: 15  
Sample ID: 1202056195|958761|1  
Analyst: JXL

Autosampler Location: 15  
Date Collected: 3/15/2010 09:27:14  
Data Type: Original

## Replicate Data: 1202056195|958761|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

-----  
Replicate Data: 248150003|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.076	0.076	0.0014	0.0070	0.0017	09:36:23	Yes
2	0.076	0.076	0.0014	0.0070	0.0017	09:36:52	Yes
Mean:	0.076	0.076	0.0014				
SD:	0.000	0.000	0.0000				
%RSD:	0.331	0.331	0.23				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 248150004|958761|1

Date Collected: 3/15/2010 09:37:12

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 248150004|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.003	-0.003	0.0004	0.0025	0.0006	09:38:03	Yes
2	-0.008	-0.008	0.0003	0.0019	0.0006	09:38:32	Yes
Mean:	-0.006	-0.006	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	57.05	57.05	12.59				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 09:38:52

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.151	5.151	0.0672	0.3086	0.0675	09:39:42	Yes
2	5.142	5.142	0.0671	0.3071	0.0674	09:40:12	Yes
Mean:	5.147	5.147	0.0671				
SD:	0.006	0.006	0.0001				
%RSD:	0.122	0.122	0.12				

QC value within limits for Hg 253.7 Recovery = 102.93%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 09:40:31

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.040	-0.040	-0.0001	0.0001	0.0002	09:41:21	Yes
2	-0.037	-0.037	-0.0001	0.0002	0.0002	09:41:51	Yes
Mean:	-0.038	-0.038	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.626	5.626	31.19				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 248163001|958761|1

Date Collected: 3/15/2010 09:42:11

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 248163001|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0008	0.0042	0.0011	09:43:02	Yes
2	0.029	0.029	0.0008	0.0044	0.0011	09:43:32	Yes

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.173	0.173	0.0026	0.0131	0.0029	09:51:26	Yes
2	0.172	0.172	0.0026	0.0132	0.0029	09:51:56	Yes
Mean:	0.173	0.173	0.0026				
SD:	0.000	0.000	0.0000				
%RSD:	0.128	0.128	0.11				

Sequence No.: 30

Autosampler Location: 28

Sample ID: 248163007|958761|1

Date Collected: 3/15/2010 09:52:16

Analyst: JXL

Data Type: Original

Replicate Data: 248163007|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.240	0.240	0.0035	0.0172	0.0038	09:53:06	Yes
2	0.239	0.239	0.0035	0.0170	0.0038	09:53:36	Yes
Mean:	0.239	0.239	0.0035				
SD:	0.001	0.001	0.0000				
%RSD:	0.258	0.258	0.23				

Sequence No.: 31

Autosampler Location: 29

Sample ID: 248163008|958761|1

Date Collected: 3/15/2010 09:53:55

Analyst: JXL

Data Type: Original

Replicate Data: 248163008|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.036	0.036	0.0009	0.0048	0.0011	09:54:46	Yes
2	0.039	0.039	0.0009	0.0055	0.0012	09:55:16	Yes
Mean:	0.038	0.038	0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	6.226	6.226	3.40				

Sequence No.: 32

Autosampler Location: 30

Sample ID: 248163009|958761|1

Date Collected: 3/15/2010 09:55:35

Analyst: JXL

Data Type: Original

Replicate Data: 248163009|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.161	0.161	0.0025	0.0125	0.0028	09:56:26	Yes
2	0.163	0.163	0.0025	0.0128	0.0028	09:56:56	Yes
Mean:	0.162	0.162	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.899	0.899	0.75				

Sequence No.: 33

Autosampler Location: 31

Sample ID: 248163010|958761|1

Date Collected: 3/15/2010 09:57:15

Analyst: JXL

Data Type: Original

Replicate Data: 248163010|958761|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.314	0.314	0.0045	0.0225	0.0047	09:58:06	Yes
2	0.315	0.315	0.0045	0.0226	0.0048	09:58:36	Yes
Mean:	0.315	0.315	0.0045				
SD:	0.001	0.001	0.0000				
%RSD:	0.342	0.342	0.31				

Sequence No.: 34

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 09:58:55

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.234	5.234	0.0683	0.3120	0.0685	09:59:45	Yes
2	5.219	5.219	0.0681	0.3095	0.0683	10:00:15	Yes
Mean:	5.227	5.227	0.0682				
SD:	0.011	0.011	0.0001				
%RSD:	0.208	0.208	0.21				

QC value within limits for Hg 253.7 Recovery = 104.54%  
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 10:00:34

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	0.0001	0.0023	0.0003	10:01:25	Yes
2	-0.027	-0.027	0.0001	0.0022	0.0003	10:01:55	Yes
Mean:	-0.027	-0.027	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.025	1.025	5.96				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 248163011|958761|1

Date Collected: 3/15/2010 10:02:14

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248163011|958761|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.533	0.533	0.0073	0.0342	0.0076	10:03:05	Yes
2	0.531	0.531	0.0073	0.0339	0.0076	10:03:35	Yes
Mean:	0.532	0.532	0.0073				
SD:	0.001	0.001	0.0000				
%RSD:	0.191	0.191	0.18				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 248163012|958761|1

Date Collected: 3/15/2010 10:03:54

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248163012|958761|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.242	0.242	0.0035	0.0169	0.0038	10:04:45	Yes
2	0.241	0.241	0.0035	0.0170	0.0038	10:05:15	Yes
Mean:	0.242	0.242	0.0035				
SD:	0.001	0.001	0.0000				
%RSD:	0.214	0.214	0.19				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 248163013|958761|1

Date Collected: 3/15/2010 10:05:35

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248163013|958761|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.197	0.197	0.0030	0.0141	0.0032	10:06:26	Yes

## Replicate Data: 248549002|964655|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0003	0.0048	0.0006	10:14:51	Yes
2	-0.014	-0.014	0.0002	0.0033	0.0005	10:15:21	Yes
Mean:	-0.009	-0.009	0.0003				
SD:	0.006	0.006	0.0001				
%RSD:	68.23	68.23	29.42				

Sequence No.: 44

Sample ID: 248549003|964655|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 3/15/2010 10:15:41

Data Type: Original

## Replicate Data: 248549003|964655|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0003	0.0020	0.0005	10:16:32	Yes
2	-0.007	-0.007	0.0003	0.0022	0.0006	10:17:01	Yes
Mean:	-0.009	-0.009	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	23.42	23.42	9.18				

Sequence No.: 45

Sample ID: 248549004|964655|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 3/15/2010 10:17:21

Data Type: Original

## Replicate Data: 248549004|964655|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.126	0.126	0.0020	0.0103	0.0023	10:18:12	Yes
2	0.124	0.124	0.0020	0.0099	0.0023	10:18:41	Yes
Mean:	0.125	0.125	0.0020				
SD:	0.002	0.002	0.0000				
%RSD:	1.409	1.409	1.13				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 10:19:01

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.944	4.944	0.0645	0.2920	0.0648	10:19:51	Yes
2	4.913	4.913	0.0641	0.2893	0.0644	10:20:21	Yes
Mean:	4.928	4.928	0.0643				
SD:	0.022	0.022	0.0003				
%RSD:	0.448	0.448	0.45				

QC value within limits for Hg 253.7 Recovery = 98.57%  
All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 10:20:40

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0000	0.0009	0.0003	10:21:31	Yes
2	-0.032	-0.032	-0.0000	0.0010	0.0003	10:22:01	Yes
Mean:	-0.032	-0.032	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.377	1.377	60.42				

QC value within limits for Hg 253.7 Recovery = Not calculated



-----  
Replicate Data: 1202069557|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.036	-0.036	-0.0001	0.0008	0.0002	10:38:20	Yes
2	-0.037	-0.037	-0.0001	0.0007	0.0002	10:38:50	Yes
Mean:	-0.037	-0.037	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.977	0.977	6.93				

Sequence No.: 58

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 10:39:09

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.260	5.260	0.0686	0.3107	0.0689	10:39:59	Yes
2	5.261	5.261	0.0686	0.3096	0.0689	10:40:29	Yes
Mean:	5.260	5.260	0.0686				
SD:	0.001	0.001	0.0000				
%RSD:	0.013	0.013	0.01				

QC value within limits for Hg 253.7 Recovery = 105.20%  
All analyte(s) passed QC.

Sequence No.: 59

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 10:40:48

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.007	-0.007	0.0003	0.0022	0.0006	10:41:39	Yes
2	-0.008	-0.008	0.0003	0.0022	0.0006	10:42:09	Yes
Mean:	-0.008	-0.008	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	9.021	9.021	3.05				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 60

Sample ID: 1202069558|964660|10

Analyst: JXL

Autosampler Location: 52

Date Collected: 3/15/2010 10:42:28

Data Type: Original

-----  
Replicate Data: 1202069558|964660|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.313	4.313	0.0563	0.2553	0.0566	10:43:19	Yes
2	4.279	4.279	0.0559	0.2529	0.0562	10:43:49	Yes
Mean:	4.296	4.296	0.0561				
SD:	0.024	0.024	0.0003				
%RSD:	0.550	0.550	0.55				

Sequence No.: 61

Sample ID: 248666001|964660|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 3/15/2010 10:44:08

Data Type: Original

-----  
Replicate Data: 248666001|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0004	0.0031	0.0007	10:45:00	Yes
2	0.005	0.005	0.0005	0.0034	0.0007	10:45:29	Yes
Mean:	0.004	0.004	0.0005				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.318	0.318	0.0045	0.0217	0.0048	10:53:22	Yes
2	0.315	0.315	0.0045	0.0216	0.0048	10:53:52	Yes
Mean:	0.316	0.316	0.0045				
SD:	0.002	0.002	0.0000				
%RSD:	0.716	0.716	0.65				

Sequence No.: 67

Autosampler Location: 59

Sample ID: 248666003|964660|1

Date Collected: 3/15/2010 10:54:12

Analyst: JXL

Data Type: Original

Replicate Data: 248666003|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.148	0.148	0.0023	0.0114	0.0026	10:55:03	Yes
2	0.151	0.151	0.0024	0.0117	0.0026	10:55:33	Yes
Mean:	0.149	0.149	0.0023				
SD:	0.003	0.003	0.0000				
%RSD:	1.717	1.717	1.42				

Sequence No.: 68

Autosampler Location: 60

Sample ID: 248666004|964660|1

Date Collected: 3/15/2010 10:55:53

Analyst: JXL

Data Type: Original

Replicate Data: 248666004|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.026	-0.026	0.0001	0.0013	0.0003	10:56:45	Yes
2	-0.027	-0.027	0.0001	0.0013	0.0003	10:57:14	Yes
Mean:	-0.026	-0.026	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.981	2.981	15.68				

Sequence No.: 69

Autosampler Location: 61

Sample ID: 248666005|964660|1

Date Collected: 3/15/2010 10:57:35

Analyst: JXL

Data Type: Original

Replicate Data: 248666005|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.368	0.368	0.0052	0.0243	0.0054	10:58:27	Yes
2	0.367	0.367	0.0052	0.0242	0.0054	10:58:57	Yes
Mean:	0.368	0.368	0.0052				
SD:	0.000	0.000	0.0000				
%RSD:	0.111	0.111	0.10				

Sequence No.: 70

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 10:59:17

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.304	5.304	0.0692	0.3120	0.0694	11:00:07	Yes
2	5.302	5.302	0.0692	0.3095	0.0694	11:00:37	Yes
Mean:	5.303	5.303	0.0692				
SD:	0.001	0.001	0.0000				
%RSD:	0.017	0.017	0.02				

QC value within limits for Hg 253.7 Recovery = 106.06%  
All analyte(s) passed QC.

Sequence No.: 71

Autosampler Location: 8

Sample ID: CCB  
Analyst:

Date Collected: 3/15/2010 11:00:56  
Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.008	-0.008	0.0003	0.0022	0.0006	11:01:47	Yes
2	-0.007	-0.007	0.0003	0.0022	0.0006	11:02:17	Yes
Mean:	-0.008	-0.008	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	11.72	11.72	3.78				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

## =====

Sequence No.: 72  
Sample ID: 248666006|964660|1  
Analyst: JXL

Autosampler Location: 62  
Date Collected: 3/15/2010 11:02:36  
Data Type: Original

-----  
Replicate Data: 248666006|964660|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.024	-0.024	0.0001	0.0016	0.0004	11:03:27	Yes
2	-0.024	-0.024	0.0001	0.0012	0.0004	11:03:57	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.099	0.099	0.34				

## =====

Sequence No.: 73  
Sample ID: 248666007|964660|1  
Analyst: JXL

Autosampler Location: 63  
Date Collected: 3/15/2010 11:04:17  
Data Type: Original

-----  
Replicate Data: 248666007|964660|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.123	0.123	0.0020	0.0099	0.0023	11:05:08	Yes
2	0.123	0.123	0.0020	0.0101	0.0023	11:05:38	Yes
Mean:	0.123	0.123	0.0020				
SD:	0.000	0.000	0.0000				
%RSD:	0.216	0.216	0.17				

## =====

Sequence No.: 74  
Sample ID: 248666008|964660|1  
Analyst: JXL

Autosampler Location: 64  
Date Collected: 3/15/2010 11:05:57  
Data Type: Original

-----  
Replicate Data: 248666008|964660|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.003	-0.003	0.0004	0.0027	0.0006	11:06:48	Yes
2	-0.005	-0.005	0.0003	0.0026	0.0006	11:07:18	Yes
Mean:	-0.004	-0.004	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	30.29	30.29	4.71				

## =====

Sequence No.: 75  
Sample ID: 248666009|964660|1  
Analyst: JXL

Autosampler Location: 65  
Date Collected: 3/15/2010 11:07:38  
Data Type: Original

-----  
Replicate Data: 248666009|964660|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.126	0.126	0.0020	0.0103	0.0023	11:08:29	Yes
2	0.127	0.127	0.0021	0.0104	0.0023	11:08:59	Yes

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0004	0.0031	0.0007	11:16:53	Yes
2	0.000	0.000	0.0004	0.0028	0.0007	11:17:23	Yes
Mean:	0.002	0.002	0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	125.1	125.1	5.93				

Sequence No.: 81

Autosampler Location: 71

Sample ID: 248666015|964660|1

Date Collected: 3/15/2010 11:17:43

Analyst: JXL

Data Type: Original

Replicate Data: 248666015|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.328	0.328	0.0047	0.0220	0.0049	11:18:35	Yes
2	0.328	0.328	0.0047	0.0219	0.0049	11:19:05	Yes
Mean:	0.328	0.328	0.0047				
SD:	0.000	0.000	0.0000				
%RSD:	0.019	0.019	0.02				

Sequence No.: 82

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 11:19:25

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.125	5.125	0.0669	0.3022	0.0671	11:20:15	Yes
2	5.141	5.141	0.0671	0.3019	0.0673	11:20:45	Yes
Mean:	5.133	5.133	0.0670				
SD:	0.012	0.012	0.0001				
%RSD:	0.225	0.225	0.22				

QC value within limits for Hg 253.7 Recovery = 102.66%  
All analyte(s) passed QC.

Sequence No.: 83

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 11:21:04

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.008	-0.008	0.0003	0.0023	0.0006	11:21:54	Yes
2	-0.010	-0.010	0.0003	0.0019	0.0005	11:22:24	Yes
Mean:	-0.009	-0.009	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	19.00	19.00	7.28				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 84

Autosampler Location: 72

Sample ID: 248666016|964660|1

Date Collected: 3/15/2010 11:22:44

Analyst: JXL

Data Type: Original

Replicate Data: 248666016|964660|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.028	-0.028	0.0000	0.0012	0.0003	11:23:36	Yes
2	-0.028	-0.028	0.0000	0.0012	0.0003	11:24:05	Yes
Mean:	-0.028	-0.028	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.019	1.019	8.12				

2	-0.041	-0.041	-0.0001	0.0003	0.0001	11:32:33	Yes
Mean:	-0.040	-0.040	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.552	4.552	21.64				

Sequence No.: 90

Sample ID: 1202056134|958734|10

Analyst: JXL

Autosampler Location: 78

Date Collected: 3/15/2010 11:32:53

Data Type: Original

Replicate Data: 1202056134|958734|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.717	3.717	0.0486	0.2202	0.0489	11:33:45	Yes
2	3.718	3.718	0.0486	0.2188	0.0489	11:34:15	Yes
Mean:	3.717	3.717	0.0486				
SD:	0.000	0.000	0.0000				
%RSD:	0.011	0.011	0.01				

Sequence No.: 91

Sample ID: 248002001|958734|1

Analyst: JXL

Autosampler Location: 79

Date Collected: 3/15/2010 11:34:35

Data Type: Original

Replicate Data: 248002001|958734|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.163	0.163	0.0025	0.0125	0.0028	11:35:26	Yes
2	0.158	0.158	0.0025	0.0121	0.0027	11:35:56	Yes
Mean:	0.160	0.160	0.0025				
SD:	0.003	0.003	0.0000				
%RSD:	2.147	2.147	1.80				

Sequence No.: 92

Sample ID: 1202056135|958734|1

Analyst: JXL

Autosampler Location: 80

Date Collected: 3/15/2010 11:36:16

Data Type: Original

Replicate Data: 1202056135|958734|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.179	0.179	0.0027	0.0135	0.0030	11:37:07	Yes
2	0.181	0.181	0.0028	0.0135	0.0030	11:37:37	Yes
Mean:	0.180	0.180	0.0027				
SD:	0.001	0.001	0.0000				
%RSD:	0.791	0.791	0.67				

Sequence No.: 93

Sample ID: 1202056136|958734|1

Analyst: JXL

Autosampler Location: 81

Date Collected: 3/15/2010 11:37:57

Data Type: Original

Replicate Data: 1202056136|958734|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.446	2.446	0.0321	0.1458	0.0324	11:38:49	Yes
2	2.444	2.444	0.0321	0.1451	0.0324	11:39:19	Yes
Mean:	2.445	2.445	0.0321				
SD:	0.001	0.001	0.0000				
%RSD:	0.051	0.051	0.05				

Sequence No.: 94

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 11:39:39

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	0.0675	0.3049	0.0678	11:40:29	Yes
2	5.147	5.147	0.0671	0.3028	0.0674	11:40:59	Yes
Mean:	5.160	5.160	0.0673				
SD:	0.019	0.019	0.0002				
%RSD:	0.360	0.360	0.36				

QC value within limits for Hg 253.7 Recovery = 103.20%  
All analyte(s) passed QC.

Sequence No.: 95

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 11:41:18

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.006	-0.006	0.0003	0.0027	0.0006	11:42:09	Yes
2	-0.010	-0.010	0.0003	0.0021	0.0005	11:42:39	Yes
Mean:	-0.008	-0.008	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	31.92	31.92	10.52				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 96

Sample ID: 1202056138|958734|1

Analyst: JXL

Autosampler Location: 82

Date Collected: 3/15/2010 11:42:58

Data Type: Original

## Replicate Data: 1202056138|958734|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.402	2.402	0.0316	0.1437	0.0318	11:43:50	Yes
2	2.399	2.399	0.0315	0.1426	0.0318	11:44:20	Yes
Mean:	2.401	2.401	0.0315				
SD:	0.002	0.002	0.0000				
%RSD:	0.071	0.071	0.07				

Sequence No.: 97

Sample ID: 1202056137|958734|5

Analyst: JXL

Autosampler Location: 83

Date Collected: 3/15/2010 11:44:40

Data Type: Original

## Replicate Data: 1202056137|958734|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.005	0.005	0.0005	0.0030	0.0007	11:45:31	Yes
2	0.004	0.004	0.0005	0.0025	0.0007	11:46:01	Yes
Mean:	0.004	0.004	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	13.85	13.85	1.71				

Sequence No.: 98

Sample ID: 248002002|958734|1

Analyst: JXL

Autosampler Location: 84

Date Collected: 3/15/2010 11:46:21

Data Type: Original

## Replicate Data: 248002002|958734|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.245	0.245	0.0036	0.0170	0.0039	11:47:12	Yes
2	0.250	0.250	0.0036	0.0176	0.0039	11:47:42	Yes
Mean:	0.248	0.248	0.0036				
SD:	0.003	0.003	0.0000				

1	0.095	0.095	0.0016	0.0087	0.0019	11:55:40	Yes
2	0.091	0.091	0.0016	0.0079	0.0019	11:56:10	Yes
Mean:	0.093	0.093	0.0016				
SD:	0.003	0.003	0.0000				
%RSD:	3.146	3.146	2.35				

Sequence No.: 104

Autosampler Location: 90

Sample ID: 248002008|958734|1

Date Collected: 3/15/2010 11:56:30

Analyst: JXL

Data Type: Original

Replicate Data: 248002008|958734|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.155	0.155	0.0024	0.0117	0.0027	11:57:22	Yes
2	0.159	0.159	0.0025	0.0121	0.0027	11:57:52	Yes
Mean:	0.157	0.157	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	1.765	1.765	1.47				

Sequence No.: 105

Autosampler Location: 91

Sample ID: 248009001|958734|1

Date Collected: 3/15/2010 11:58:12

Analyst: JXL

Data Type: Original

Replicate Data: 248009001|958734|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.037	0.037	0.0009	0.0051	0.0012	11:59:03	Yes
2	0.033	0.033	0.0008	0.0044	0.0011	11:59:33	Yes
Mean:	0.035	0.035	0.0009				
SD:	0.003	0.003	0.0000				
%RSD:	8.772	8.772	4.61				

Sequence No.: 106

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 11:59:53

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.168	5.168	0.0674	0.3036	0.0677	12:00:43	Yes
2	5.142	5.142	0.0671	0.3012	0.0673	12:01:13	Yes
Mean:	5.155	5.155	0.0673				
SD:	0.019	0.019	0.0002				
%RSD:	0.363	0.363	0.36				

QC value within limits for Hg 253.7 Recovery = 103.10%  
All analyte(s) passed QC.

Sequence No.: 107

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 12:01:32

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.007	-0.007	0.0003	0.0022	0.0006	12:02:23	Yes
2	-0.009	-0.009	0.0003	0.0024	0.0006	12:02:53	Yes
Mean:	-0.008	-0.008	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	17.48	17.48	5.66				

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	0.221	0.221	0.0033	0.0155	0.0035	12:19:20	Yes
2	0.213	0.213	0.0032	0.0154	0.0034	12:19:50	Yes
Mean:	0.217	0.217	0.0032				
SD:	0.006	0.006	0.0001				
%RSD:	2.624	2.624	2.29				

Sequence No.: 118

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 12:20:10

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.354	5.354	0.0698	0.3154	0.0701	12:21:01	Yes
2	5.363	5.363	0.0700	0.3143	0.0702	12:21:30	Yes
Mean:	5.358	5.358	0.0699				
SD:	0.006	0.006	0.0001				
%RSD:	0.121	0.121	0.12				

QC value within limits for Hg 253.7 Recovery = 107.17%  
All analyte(s) passed QC.

Sequence No.: 119

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 12:21:49

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.015	-0.015	0.0002	0.0016	0.0005	12:22:40	Yes
2	-0.014	-0.014	0.0002	0.0017	0.0005	12:23:10	Yes
Mean:	-0.014	-0.014	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.339	6.339	5.34				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 120

Autosampler Location: 102

Sample ID: 1202056142|958737|1

Date Collected: 3/15/2010 12:23:30

Analyst: JXL

Data Type: Original

## Replicate Data: 1202056142|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.490	2.490	0.0327	0.1477	0.0330	12:24:21	Yes
2	2.480	2.480	0.0326	0.1469	0.0328	12:24:51	Yes
Mean:	2.485	2.485	0.0326				
SD:	0.007	0.007	0.0001				
%RSD:	0.287	0.287	0.28				

Sequence No.: 121

Autosampler Location: 103

Sample ID: 1202056144|958737|1

Date Collected: 3/15/2010 12:25:12

Analyst: JXL

Data Type: Original

## Replicate Data: 1202056144|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.465	2.465	0.0324	0.1468	0.0326	12:26:04	Yes
2	2.484	2.484	0.0326	0.1466	0.0329	12:26:34	Yes
Mean:	2.474	2.474	0.0325				
SD:	0.013	0.013	0.0002				
%RSD:	0.540	0.540	0.53				



Mean: -0.029      -0.029      0.0000  
SD: 0.001          0.001      0.0000  
%RSD: 3.368        3.368      34.07

Sequence No.: 127

Sample ID: 248025002|958737|1

Analyst: JXL

Autosampler Location: 109

Date Collected: 3/15/2010 12:35:26

Data Type: Original

Replicate Data: 248025002|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0008	0.0039	0.0010	12:36:18	Yes
2	0.032	0.032	0.0008	0.0046	0.0011	12:36:48	Yes
Mean:	0.031	0.031	0.0008				
SD:	0.003	0.003	0.0000				
%RSD:	8.427	8.427	4.15				

Sequence No.: 128

Sample ID: 248025003|958737|1

Analyst: JXL

Autosampler Location: 110

Date Collected: 3/15/2010 12:37:09

Data Type: Original

Replicate Data: 248025003|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.007	0.007	0.0005	0.0027	0.0008	12:38:01	Yes
2	0.004	0.004	0.0005	0.0028	0.0007	12:38:30	Yes
Mean:	0.006	0.006	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	32.69	32.69	5.06				

Sequence No.: 129

Sample ID: 248025004|958737|1

Analyst: JXL

Autosampler Location: 111

Date Collected: 3/15/2010 12:38:51

Data Type: Original

Replicate Data: 248025004|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.041	0.041	0.0009	0.0051	0.0012	12:39:43	Yes
2	0.037	0.037	0.0009	0.0048	0.0011	12:40:13	Yes
Mean:	0.039	0.039	0.0009				
SD:	0.003	0.003	0.0000				
%RSD:	7.226	7.226	3.99				

Sequence No.: 130

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 12:40:33

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.340	5.340	0.0697	0.3137	0.0699	12:41:24	Yes
2	5.342	5.342	0.0697	0.3122	0.0699	12:41:54	Yes
Mean:	5.341	5.341	0.0697				
SD:	0.001	0.001	0.0000				
%RSD:	0.017	0.017	0.02				

QC value within limits for Hg 253.7 Recovery = 106.82%  
All analyte(s) passed QC.

Sequence No.: 131

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 12:42:13

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.007	-0.007	0.0003	0.0017	0.0006	12:43:03	Yes
2	-0.018	-0.018	0.0002	0.0016	0.0004	12:43:33	Yes
Mean:	-0.013	-0.013	0.0002				
SD:	0.008	0.008	0.0001				
%RSD:	60.55	60.55	40.23				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 132  
Sample ID: 248025005|958737|1  
Analyst: JXL

Autosampler Location: 112

Date Collected: 3/15/2010 12:43:52

Data Type: Original

-----  
Replicate Data: 248025005|958737|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.005	-0.005	0.0003	0.0022	0.0006	12:44:45	Yes
2	-0.012	-0.012	0.0002	0.0017	0.0005	12:45:15	Yes
Mean:	-0.009	-0.009	0.0003				
SD:	0.005	0.005	0.0001				
%RSD:	60.10	60.10	22.76				

=====

Sequence No.: 133  
Sample ID: 248025006|958737|1  
Analyst: JXL

Autosampler Location: 113

Date Collected: 3/15/2010 12:45:35

Data Type: Original

-----  
Replicate Data: 248025006|958737|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.372	0.372	0.0052	0.0241	0.0055	12:46:27	Yes
2	0.379	0.379	0.0053	0.0243	0.0056	12:46:57	Yes
Mean:	0.375	0.375	0.0053				
SD:	0.004	0.004	0.0001				
%RSD:	1.193	1.193	1.10				

=====

Sequence No.: 134  
Sample ID: 248025007|958737|1  
Analyst: JXL

Autosampler Location: 114

Date Collected: 3/15/2010 12:47:18

Data Type: Original

-----  
Replicate Data: 248025007|958737|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.018	0.018	0.0006	0.0036	0.0009	12:48:10	Yes
2	0.019	0.019	0.0007	0.0035	0.0009	12:48:40	Yes
Mean:	0.019	0.019	0.0006				
SD:	0.001	0.001	0.0000				
%RSD:	2.688	2.688	1.00				

=====

Sequence No.: 135  
Sample ID: 248031001|958737|1  
Analyst: JXL

Autosampler Location: 115

Date Collected: 3/15/2010 12:49:01

Data Type: Original

-----  
Replicate Data: 248031001|958737|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	0.0007	0.0034	0.0010	12:49:53	Yes
2	0.022	0.022	0.0007	0.0035	0.0010	12:50:23	Yes
Mean:	0.024	0.024	0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	12.99	12.99	5.65				

2	-0.038	-0.038	-0.0001	0.0002	0.0002	12:58:55	Yes
Mean:	-0.034	-0.034	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	15.42	15.42	210.37				

Sequence No.: 141

Sample ID: 1202056153|958744|1

Analyst: JXL

Autosampler Location: 121

Date Collected: 3/15/2010 12:59:16

Data Type: Original

Replicate Data: 1202056153|958744|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0001	-0.0002	0.0002	13:00:07	Yes
2	-0.043	-0.043	-0.0002	-0.0004	0.0001	13:00:37	Yes
Mean:	-0.041	-0.041	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	8.905	8.905	39.08				

Sequence No.: 142

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 13:00:58

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0001	-0.0001	0.0001	13:01:48	Yes
2	-0.044	-0.044	-0.0002	-0.0004	0.0001	13:02:18	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.473	5.473	21.07				

QC value less than the lower limit for Hg 253.7 Recovery = -0.85%  
QC Failed. Continue with analysis.

Sequence No.: 143

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 13:02:37

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0002	0.0001	0.0001	13:03:28	Yes
2	-0.042	-0.042	-0.0001	0.0002	0.0001	13:03:57	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.297	1.297	4.91				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 144

Sample ID: 1202056154|958744|1

Analyst: JXL

Autosampler Location: 122

Date Collected: 3/15/2010 13:04:17

Data Type: Original

Replicate Data: 1202056154|958744|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0001	0.0002	0.0001	13:05:09	Yes
2	-0.042	-0.042	-0.0001	0.0002	0.0001	13:05:39	Yes
Mean:	-0.041	-0.041	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.338	0.338	1.39				

Sequence No.: 145

Autosampler Location: 123

=====  
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\031510S1.SIF  
Batch ID:  
Results Data Set: 031510S1  
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====  
Method Loaded

Method Name: SOIL

Method Last Saved: 3/15/2010 09:05:09

Method Description: 7471A, ILM04 ANALYST JXL

=====  
Sequence No.: 1

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 13:20:21

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.351	5.351	0.0698	0.3165	0.0701	13:21:11	Yes
2	5.333	5.333	0.0696	0.3142	0.0698	13:21:40	Yes
Mean:	5.342	5.342	0.0697				
SD:	0.012	0.012	0.0002				
%RSD:	0.231	0.231	0.23				

QC value within limits for Hg 253.7 Recovery = 106.84%

All analyte(s) passed QC.

=====  
Sequence No.: 2

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 13:21:59

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	0.0002	0.0011	0.0004	13:22:50	Yes
2	-0.020	-0.020	0.0001	0.0011	0.0004	13:23:20	Yes
Mean:	-0.019	-0.019	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.495	5.495	8.87				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

=====  
Sequence No.: 3

Sample ID: 248025005|958737|1

Analyst: JXL

Autosampler Location: 112

Date Collected: 3/15/2010 13:23:39

Data Type: Original

-----  
Replicate Data: 248025005|958737|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	0.0002	0.0015	0.0005	13:24:31	Yes
2	-0.017	-0.017	0.0002	0.0017	0.0005	13:25:01	Yes
Mean:	-0.017	-0.017	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.625	0.625	0.70				

=====  
Sequence No.: 4

Sample ID: 248025006|958737|1

Analyst: JXL

Autosampler Location: 113

Date Collected: 3/15/2010 13:25:21

Data Type: Original

Sequence No.: 9  
Sample ID: 1202056151|958744|1  
Analyst: JXL

Autosampler Location: 118  
Date Collected: 3/15/2010 13:33:54  
Data Type: Original

-----  
Replicate Data: 1202056151|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.037	-0.037	-0.0001	0.0005	0.0002	13:34:46	Yes
2	-0.037	-0.037	-0.0001	0.0004	0.0002	13:35:16	Yes
Mean:	-0.037	-0.037	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.176	0.176	1.15				

Sequence No.: 10  
Sample ID: 1202056152|958744|10  
Analyst: JXL

Autosampler Location: 119  
Date Collected: 3/15/2010 13:35:37  
Data Type: Original

-----  
Replicate Data: 1202056152|958744|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.438	4.438	0.0580	0.2607	0.0582	13:36:29	Yes
2	4.432	4.432	0.0579	0.2595	0.0581	13:36:59	Yes
Mean:	4.435	4.435	0.0579				
SD:	0.004	0.004	0.0001				
%RSD:	0.094	0.094	0.09				

Sequence No.: 11  
Sample ID: 248033001|958744|1  
Analyst: JXL

Autosampler Location: 120  
Date Collected: 3/15/2010 13:37:20  
Data Type: Original

-----  
Replicate Data: 248033001|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.220	0.220	0.0033	0.0158	0.0035	13:38:11	Yes
2	0.226	0.226	0.0033	0.0159	0.0036	13:38:41	Yes
Mean:	0.223	0.223	0.0033				
SD:	0.004	0.004	0.0001				
%RSD:	1.791	1.791	1.57				

Sequence No.: 12  
Sample ID: 1202056153|958744|1  
Analyst: JXL

Autosampler Location: 121  
Date Collected: 3/15/2010 13:39:02  
Data Type: Original

-----  
Replicate Data: 1202056153|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.217	0.217	0.0032	0.0155	0.0035	13:39:54	Yes
2	0.215	0.215	0.0032	0.0154	0.0035	13:40:24	Yes
Mean:	0.216	0.216	0.0032				
SD:	0.001	0.001	0.0000				
%RSD:	0.506	0.506	0.44				

Sequence No.: 13  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/15/2010 13:40:45  
Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.344	5.344	0.0697	0.3155	0.0700	13:41:35	Yes
2	5.380	5.380	0.0702	0.3142	0.0704	13:42:05	Yes
Mean:	5.362	5.362	0.0699				

SD: 0.026 0.026 0.0003  
%RSD: 0.487 0.487 0.48

QC value within limits for Hg 253.7 Recovery = 107.24%  
All analyte(s) passed QC.

Sequence No.: 14  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/15/2010 13:42:24  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	0.0002	0.0017	0.0005	13:43:14	Yes
2	-0.017	-0.017	0.0002	0.0018	0.0005	13:43:44	Yes
Mean:	-0.017	-0.017	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.696	0.696	0.79				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 15  
Sample ID: 1202056154|958744|1  
Analyst: JXL

Autosampler Location: 122  
Date Collected: 3/15/2010 13:44:03  
Data Type: Original

## Replicate Data: 1202056154|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.441	2.441	0.0321	0.1458	0.0323	13:44:55	Yes
2	2.449	2.449	0.0322	0.1465	0.0324	13:45:25	Yes
Mean:	2.445	2.445	0.0321				
SD:	0.006	0.006	0.0001				
%RSD:	0.242	0.242	0.24				

Sequence No.: 16  
Sample ID: 1202056156|958744|1  
Analyst: JXL

Autosampler Location: 123  
Date Collected: 3/15/2010 13:45:46  
Data Type: Original

## Replicate Data: 1202056156|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.413	2.413	0.0317	0.1438	0.0320	13:46:38	Yes
2	2.406	2.406	0.0316	0.1433	0.0319	13:47:08	Yes
Mean:	2.409	2.409	0.0316				
SD:	0.005	0.005	0.0001				
%RSD:	0.209	0.209	0.21				

Sequence No.: 17  
Sample ID: 1202056155|958744|5  
Analyst: JXL

Autosampler Location: 124  
Date Collected: 3/15/2010 13:47:29  
Data Type: Original

## Replicate Data: 1202056155|958744|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.019	0.019	0.0006	0.0041	0.0009	13:48:21	Yes
2	0.016	0.016	0.0006	0.0037	0.0009	13:48:51	Yes
Mean:	0.018	0.018	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	9.207	9.207	3.31				

Sequence No.: 18  
Sample ID: 248033002|958744|1  
Analyst: JXL

Autosampler Location: 125  
Date Collected: 3/15/2010 13:49:12  
Data Type: Original

Sequence No.: 23  
Sample ID: 248033007|958744|1  
Analyst: JXL

Autosampler Location: 130  
Date Collected: 3/15/2010 13:57:46  
Data Type: Original

## Replicate Data: 248033007|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.096	0.096	0.0017	0.0085	0.0019	13:58:38	Yes
2	0.093	0.093	0.0016	0.0083	0.0019	13:59:08	Yes
Mean:	0.094	0.094	0.0016				
SD:	0.002	0.002	0.0000				
%RSD:	2.538	2.538	1.90				

Sequence No.: 24  
Sample ID: 248033008|958744|1  
Analyst: JXL

Autosampler Location: 131  
Date Collected: 3/15/2010 13:59:29  
Data Type: Original

## Replicate Data: 248033008|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.123	0.123	0.0020	0.0100	0.0023	14:00:21	Yes
2	0.121	0.121	0.0020	0.0098	0.0022	14:00:51	Yes
Mean:	0.122	0.122	0.0020				
SD:	0.002	0.002	0.0000				
%RSD:	1.259	1.259	1.00				

Sequence No.: 25  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/15/2010 14:01:12  
Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.383	5.383	0.0702	0.3149	0.0705	14:02:02	Yes
2	5.382	5.382	0.0702	0.3153	0.0705	14:02:32	Yes
Mean:	5.382	5.382	0.0702				
SD:	0.000	0.000	0.0000				
%RSD:	0.008	0.008	0.01				

QC value within limits for Hg 253.7 Recovery = 107.65%  
All analyte(s) passed QC.

Sequence No.: 26  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/15/2010 14:02:51  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.014	-0.014	0.0002	0.0019	0.0005	14:03:42	Yes
2	-0.017	-0.017	0.0002	0.0018	0.0005	14:04:11	Yes
Mean:	-0.016	-0.016	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	12.42	12.42	12.21				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 27  
Sample ID: 248033009|958744|1  
Analyst: JXL

Autosampler Location: 132  
Date Collected: 3/15/2010 14:04:31  
Data Type: Original

## Replicate Data: 248033009|958744|1

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248041005|958744|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.913	0.913	0.0122	0.0563	0.0125	14:14:00	Yes
2	0.917	0.917	0.0123	0.0562	0.0126	14:14:30	Yes
Mean:	0.915	0.915	0.0123				
SD:	0.003	0.003	0.0000				
%RSD:	0.288	0.288	0.28				

Sequence No.: 33

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 14:14:50

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.374	5.374	0.0701	0.3148	0.0704	14:15:41	Yes
2	5.372	5.372	0.0701	0.3132	0.0703	14:16:11	Yes
Mean:	5.373	5.373	0.0701				
SD:	0.001	0.001	0.0000				
%RSD:	0.025	0.025	0.03				

QC value within limits for Hg 253.7 Recovery = 107.45%

All analyte(s) passed QC.

Sequence No.: 34

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 14:16:30

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.015	-0.015	0.0002	0.0020	0.0005	14:17:20	Yes
2	-0.015	-0.015	0.0002	0.0018	0.0005	14:17:50	Yes
Mean:	-0.015	-0.015	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	2.776	2.776	2.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.



-----  
Replicate Data: 248045003|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.458	0.458	0.0063	0.0259	0.0066	14:36:30	Yes
2	0.462	0.462	0.0064	0.0254	0.0067	14:37:00	Yes
Mean:	0.460	0.460	0.0064				
SD:	0.003	0.003	0.0000				
%RSD:	0.686	0.686	0.64				

Sequence No.: 10

Autosampler Location: 47

Sample ID: 248045004|958747|1

Date Collected: 3/15/2010 14:37:20

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248045004|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.200	0.200	0.0030	0.0126	0.0033	14:38:12	Yes
2	0.506	0.506	0.0070	0.0280	0.0072	14:38:42	Yes
Mean:	0.353	0.353	0.0050				
SD:	0.217	0.217	0.0028				
%RSD:	61.30	61.30	56.30				

Sequence No.: 11

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 14:39:02

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.006	0.006	0.0005	0.0033	0.0007	14:39:52	Yes
2	4.399	4.399	0.0575	0.2248	0.0577	14:40:22	Yes
Mean:	2.203	2.203	0.0290				
SD:	3.107	3.107	0.0403				
%RSD:	141.0	141.0	139.06				

QC value less than the lower limit for Hg 253.7 Recovery = 44.05%  
QC Failed. Continue with analysis.

Sequence No.: 12

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 14:40:40

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.012	-0.012	0.0003	0.0021	0.0005	14:41:31	Yes
2	-0.004	-0.004	0.0004	0.0025	0.0006	14:42:01	Yes
Mean:	-0.008	-0.008	0.0003				
SD:	0.006	0.006	0.0001				
%RSD:	73.10	73.10	23.94				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 13

Autosampler Location: 48

Sample ID: 248045005|958747|1

Date Collected: 3/15/2010 14:42:20

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248045005|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.045	-0.045	-0.0002	0.0004	0.0001	14:43:12	Yes
2	7.149	7.149	0.0931	0.3323	0.0934	14:43:42	Yes
Mean:	3.552	3.552	0.0465				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.046	-0.046	-0.0002	0.0000	0.0001	14:51:37	Yes
2	-0.047	-0.047	-0.0002	0.0002	0.0001	14:52:07	Yes
Mean:	-0.047	-0.047	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.111	0.111	0.34				

Sequence No.: 19

Autosampler Location: 54

Sample ID: 248045011|958747|1

Date Collected: 3/15/2010 14:52:26

Analyst: JXL

Data Type: Original

Replicate Data: 248045011|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.046	-0.046	-0.0002	0.0003	0.0001	14:53:17	Yes
2	-0.027	-0.027	0.0001	0.0008	0.0003	14:53:47	Yes
Mean:	-0.037	-0.037	-0.0001				
SD:	0.013	0.013	0.0002				
%RSD:	35.81	35.81	247.01				

Sequence No.: 20

Autosampler Location: 55

Sample ID: 248045012|958747|1

Date Collected: 3/15/2010 14:54:07

Analyst: JXL

Data Type: Original

Replicate Data: 248045012|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.005	-0.005	0.0003	0.0019	0.0006	14:54:58	Yes
2	-0.048	-0.048	-0.0002	-0.0001	0.0000	14:55:27	Yes
Mean:	-0.027	-0.027	0.0001				
SD:	0.030	0.030	0.0004				
%RSD:	113.1	113.1	648.29				

Sequence No.: 21

Autosampler Location: 56

Sample ID: 248045013|958747|1

Date Collected: 3/15/2010 14:55:47

Analyst: JXL

Data Type: Original

Replicate Data: 248045013|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.035	-0.035	-0.0001	0.0009	0.0002	14:56:38	Yes
2	0.011	0.011	0.0005	0.0024	0.0008	14:57:08	Yes
Mean:	-0.012	-0.012	0.0002				
SD:	0.033	0.033	0.0004				
%RSD:	265.2	265.2	170.66				

Sequence No.: 22

Autosampler Location: 57

Sample ID: 248045014|958747|1

Date Collected: 3/15/2010 14:57:28

Analyst: JXL

Data Type: Original

Replicate Data: 248045014|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0002	-0.0001	0.0001	14:58:19	Yes
2	-0.024	-0.024	0.0001	0.0011	0.0004	14:58:49	Yes
Mean:	-0.035	-0.035	-0.0001				
SD:	0.016	0.016	0.0002				
%RSD:	45.90	45.90	396.38				

Sequence No.: 23

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 14:59:08

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.045	-0.045	-0.0002	0.0003	0.0001	14:59:59	Yes
2	-0.045	-0.045	-0.0002	0.0003	0.0001	15:00:29	Yes
Mean:	-0.045	-0.045	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.875	0.875	2.91				

QC value less than the lower limit for Hg 253.7 Recovery = -0.90%

QC Failed. Continue with analysis.

=====

Sequence No.: 24

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 15:00:48

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.046	-0.046	-0.0002	-0.0001	0.0001	15:01:39	Yes
2	-0.048	-0.048	-0.0002	-0.0001	0.0001	15:02:09	Yes
Mean:	-0.047	-0.047	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.583	2.583	7.75				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

=====

Sequence No.: 25

Sample ID: 248045015|958747|1

Analyst: JXL

User canceled analysis.

Autosampler Location: 58

Date Collected: 3/15/2010 15:02:28

Data Type: Original

=====  
Analysis BegunLogged In Analyst: Administrator  
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS  
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\031510S2.SIF

Batch ID:

Results Data Set: 031510S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 15:06:21

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.461	5.461	0.0712	0.3236	0.0715	15:07:11	Yes
2	5.471	5.471	0.0714	0.3227	0.0716	15:07:41	Yes
Mean:	5.466	5.466	0.0713				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 109.32%

All analyte(s) passed QC.

=====  
Sequence No.: 2

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 15:08:00

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	0.0002	0.0018	0.0004	15:08:50	Yes
2	-0.025	-0.025	0.0001	0.0012	0.0003	15:09:20	Yes
Mean:	-0.022	-0.022	0.0001				
SD:	0.004	0.004	0.0001				
%RSD:	20.36	20.36	45.90				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

=====  
Sequence No.: 3

Autosampler Location: 38

Sample ID: 1202056161|958747|1

Date Collected: 3/15/2010 15:09:40

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202056161|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.029	-0.029	0.0000	0.0014	0.0003	15:10:30	Yes
2	-0.030	-0.030	0.0000	0.0010	0.0003	15:11:01	Yes
Mean:	-0.030	-0.030	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.117	4.117	69.07				

=====  
Sequence No.: 4

Autosampler Location: 39

Sample ID: 1202056162|958747|10

Date Collected: 3/15/2010 15:11:20

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202056162|958747|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.570	3.570	0.0467	0.2108	0.0470	15:12:11	Yes

2	3.565	3.565	0.0466	0.2097	0.0469	15:12:41	Yes
Mean:	3.568	3.568	0.0467				
SD:	0.003	0.003	0.0000				
%RSD:	0.089	0.089	0.09				

Sequence No.: 5  
Sample ID: 248045001|958747|1  
Analyst: JXL

Autosampler Location: 40  
Date Collected: 3/15/2010 15:13:01  
Data Type: Original

## Replicate Data: 248045001|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.632	0.632	0.0086	0.0399	0.0089	15:13:52	Yes
2	0.631	0.631	0.0086	0.0396	0.0088	15:14:22	Yes
Mean:	0.631	0.631	0.0086				
SD:	0.001	0.001	0.0000				
%RSD:	0.194	0.194	0.18				

Sequence No.: 6  
Sample ID: 1202056163|958747|1  
Analyst: JXL

Autosampler Location: 41  
Date Collected: 3/15/2010 15:14:41  
Data Type: Original

## Replicate Data: 1202056163|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.603	0.603	0.0082	0.0377	0.0085	15:15:32	Yes
2	0.603	0.603	0.0082	0.0385	0.0085	15:16:02	Yes
Mean:	0.603	0.603	0.0082				
SD:	0.000	0.000	0.0000				
%RSD:	0.062	0.062	0.06				

Sequence No.: 7  
Sample ID: 1202056164|958747|1  
Analyst: JXL

Autosampler Location: 42  
Date Collected: 3/15/2010 15:16:21  
Data Type: Original

## Replicate Data: 1202056164|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.841	2.841	0.0373	0.1690	0.0375	15:17:12	Yes
2	2.844	2.844	0.0373	0.1690	0.0375	15:17:42	Yes
Mean:	2.843	2.843	0.0373				
SD:	0.002	0.002	0.0000				
%RSD:	0.058	0.058	0.06				

Sequence No.: 8  
Sample ID: 1202056166|958747|1  
Analyst: JXL

Autosampler Location: 43  
Date Collected: 3/15/2010 15:18:01  
Data Type: Original

## Replicate Data: 1202056166|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.024	3.024	0.0396	0.1811	0.0399	15:18:52	Yes
2	3.027	3.027	0.0397	0.1807	0.0399	15:19:22	Yes
Mean:	3.026	3.026	0.0396				
SD:	0.002	0.002	0.0000				
%RSD:	0.061	0.061	0.06				

Sequence No.: 9  
Sample ID: 1202056165|958747|5  
Analyst: JXL

Autosampler Location: 44  
Date Collected: 3/15/2010 15:19:42  
Data Type: Original

## Replicate Data: 1202056165|958747|5

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0010	0.0055	0.0013	15:20:32	Yes
2	0.046	0.046	0.0010	0.0053	0.0013	15:21:02	Yes
Mean:	0.047	0.047	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	2.946	2.946	1.77				

Sequence No.: 10

Sample ID: 248045002|958747|1

Analyst: JXL

Autosampler Location: 45

Date Collected: 3/15/2010 15:21:22

Data Type: Original

## Replicate Data: 248045002|958747|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.031	1.031	0.0138	0.0641	0.0140	15:22:13	Yes
2	1.032	1.032	0.0138	0.0639	0.0141	15:22:43	Yes
Mean:	1.032	1.032	0.0138				
SD:	0.001	0.001	0.0000				
%RSD:	0.058	0.058	0.06				

Sequence No.: 11

Sample ID: 248045003|958747|1

Analyst: JXL

Autosampler Location: 46

Date Collected: 3/15/2010 15:23:03

Data Type: Original

## Replicate Data: 248045003|958747|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.655	0.655	0.0089	0.0415	0.0092	15:23:54	Yes
2	0.650	0.650	0.0088	0.0412	0.0091	15:24:23	Yes
Mean:	0.652	0.652	0.0089				
SD:	0.004	0.004	0.0000				
%RSD:	0.548	0.548	0.52				

Sequence No.: 12

Sample ID: 248045004|958747|1

Analyst: JXL

Autosampler Location: 47

Date Collected: 3/15/2010 15:24:43

Data Type: Original

## Replicate Data: 248045004|958747|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.136	1.136	0.0151	0.0728	0.0154	15:25:34	Yes
2	1.107	1.107	0.0148	0.0691	0.0150	15:26:04	Yes
Mean:	1.121	1.121	0.0149				
SD:	0.021	0.021	0.0003				
%RSD:	1.830	1.830	1.78				

Sequence No.: 13

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 15:26:24

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.406	5.406	0.0705	0.3195	0.0708	15:27:14	Yes
2	5.451	5.451	0.0711	0.3195	0.0714	15:27:44	Yes
Mean:	5.428	5.428	0.0708				
SD:	0.032	0.032	0.0004				
%RSD:	0.583	0.583	0.58				

QC value within limits for Hg 253.7 Recovery = 108.56%  
All analyte(s) passed QC.

Sequence No.: 14  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/15/2010 15:28:03  
Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	0.0013	0.0004	15:28:54	Yes
2	-0.024	-0.024	0.0001	0.0015	0.0004	15:29:24	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.398	0.398	1.34				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 15  
Sample ID: 248045005|958747|1  
Analyst: JXL

Autosampler Location: 48  
Date Collected: 3/15/2010 15:29:43  
Data Type: Original

## Replicate Data: 248045005|958747|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.09	26.09	0.3387	1.6199	0.3390	15:30:35	Yes
Sample concentration is greater than that of the highest standard.							
2	26.14	26.14	0.3393	1.6089	0.3396	15:31:05	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	26.11	26.11	0.3390				
SD:	0.032	0.032	0.0004				
%RSD:	0.121	0.121	0.12				

Sample concentration is greater than that of the highest standard.

Sequence No.: 16  
Sample ID: 248045006|958747|1  
Analyst: JXL

Autosampler Location: 49  
Date Collected: 3/15/2010 15:31:25  
Data Type: Original

## Replicate Data: 248045006|958747|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.370	5.370	0.0700	0.3191	0.0703	15:32:17	Yes
2	5.383	5.383	0.0702	0.3200	0.0705	15:32:47	Yes
Mean:	5.377	5.377	0.0701				
SD:	0.009	0.009	0.0001				
%RSD:	0.176	0.176	0.18				

Sequence No.: 17  
Sample ID: 248045007|958747|1  
Analyst: JXL

Autosampler Location: 50  
Date Collected: 3/15/2010 15:33:08  
Data Type: Original

## Replicate Data: 248045007|958747|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.578	1.578	0.0209	0.0952	0.0211	15:33:59	Yes
2	1.549	1.549	0.0205	0.0936	0.0208	15:34:29	Yes
Mean:	1.564	1.564	0.0207				
SD:	0.021	0.021	0.0003				
%RSD:	1.317	1.317	1.29				

Sequence No.: 18  
Sample ID: 248045008|958747|1  
Analyst: JXL

Autosampler Location: 51  
Date Collected: 3/15/2010 15:34:49  
Data Type: Original

## Replicate Data: 248045008|958747|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	18.55	18.55	0.2409	1.1305	0.2412	15:35:39	Yes
Sample concentration is greater than that of the highest standard.							
2	18.57	18.57	0.2411	1.1263	0.2414	15:36:09	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	18.56	18.56	0.2410				
SD:	0.012	0.012	0.0002				
%RSD:	0.067	0.067	0.07				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 19

Autosampler Location: 52

Sample ID: 248045009|958747|1

Date Collected: 3/15/2010 15:36:29

Analyst: JXL

Data Type: Original

## Replicate Data: 248045009|958747|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.754	0.754	0.0102	0.0471	0.0104	15:37:20	Yes
2	0.747	0.747	0.0101	0.0466	0.0104	15:37:50	Yes
Mean:	0.750	0.750	0.0101				
SD:	0.005	0.005	0.0001				
%RSD:	0.604	0.604	0.58				

Sequence No.: 20

Autosampler Location: 53

Sample ID: 248045010|958747|1

Date Collected: 3/15/2010 15:38:10

Analyst: JXL

Data Type: Original

## Replicate Data: 248045010|958747|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.642	0.642	0.0087	0.0414	0.0090	15:39:01	Yes
2	0.639	0.639	0.0087	0.0411	0.0090	15:39:30	Yes
Mean:	0.641	0.641	0.0087				
SD:	0.002	0.002	0.0000				
%RSD:	0.351	0.351	0.33				

Sequence No.: 21

Autosampler Location: 54

Sample ID: 248045011|958747|1

Date Collected: 3/15/2010 15:39:50

Analyst: JXL

Data Type: Original

## Replicate Data: 248045011|958747|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	10.53	10.53	0.1370	0.6362	0.1373	15:40:41	Yes
2	10.55	10.55	0.1372	0.6345	0.1375	15:41:11	Yes
Mean:	10.54	10.54	0.1371				
SD:	0.010	0.010	0.0001				
%RSD:	0.094	0.094	0.09				

Sequence No.: 22

Autosampler Location: 55

Sample ID: 248045012|958747|1

Date Collected: 3/15/2010 15:41:31

Analyst: JXL

Data Type: Original

## Replicate Data: 248045012|958747|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	7.120	7.120	0.0927	0.4264	0.0930	15:42:22	Yes
2	7.161	7.161	0.0933	0.4257	0.0935	15:42:52	Yes
Mean:	7.140	7.140	0.0930				
SD:	0.029	0.029	0.0004				
%RSD:	0.411	0.411	0.41				



Sequence No.: 23  
Sample ID: 248045013|958747|1  
Analyst: JXL

Autosampler Location: 56  
Date Collected: 3/15/2010 15:43:11  
Data Type: Original

## Replicate Data: 248045013|958747|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.175	2.175	0.0286	0.1302	0.0289	15:44:02	Yes
2	2.150	2.150	0.0283	0.1289	0.0286	15:44:32	Yes
Mean:	2.163	2.163	0.0284				
SD:	0.018	0.018	0.0002				
%RSD:	0.815	0.815	0.80				

Sequence No.: 24  
Sample ID: 248045014|958747|1  
Analyst: JXL

Autosampler Location: 57  
Date Collected: 3/15/2010 15:44:52  
Data Type: Original

## Replicate Data: 248045014|958747|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.244	0.244	0.0036	0.0174	0.0038	15:45:42	Yes
2	0.241	0.241	0.0035	0.0170	0.0038	15:46:12	Yes
Mean:	0.242	0.242	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.946	0.946	0.84				

Sequence No.: 25  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/15/2010 15:46:32  
Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.384	5.384	0.0702	0.3172	0.0705	15:47:23	Yes
2	5.346	5.346	0.0697	0.3145	0.0700	15:47:53	Yes
Mean:	5.365	5.365	0.0700				
SD:	0.027	0.027	0.0004				
%RSD:	0.503	0.503	0.50				

QC value within limits for Hg 253.7 Recovery = 107.30%  
All analyte(s) passed QC.

Sequence No.: 26  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/15/2010 15:48:11  
Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0002	0.0015	0.0004	15:49:02	Yes
2	-0.022	-0.022	0.0001	0.0013	0.0004	15:49:32	Yes
Mean:	-0.021	-0.021	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	8.512	8.512	17.34				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 27  
Sample ID: 248045015|958747|1  
Analyst: JXL

Autosampler Location: 58  
Date Collected: 3/15/2010 15:49:51  
Data Type: Original

## Replicate Data: 248045015|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	21.41	21.41	0.2781	1.3103	0.2784	15:50:42	Yes
Sample concentration is greater than that of the highest standard.							
2	21.36	21.36	0.2774	1.3028	0.2776	15:51:12	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	21.39	21.39	0.2777				
SD:	0.040	0.040	0.0005				
%RSD:	0.188	0.188	0.19				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 28

Autosampler Location: 59

Sample ID: 248045016|958747|1

Date Collected: 3/15/2010 15:51:32

Analyst: JXL

Data Type: Original

## Replicate Data: 248045016|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	95.27	95.27	1.2358	8.5813	1.2361	15:52:23	Yes
Sample concentration is greater than that of the highest standard.							
2	93.69	93.69	1.2153	8.3995	1.2156	15:52:53	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	94.48	94.48	1.2256				
SD:	1.117	1.117	0.0145				
%RSD:	1.182	1.182	1.18				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 29

Autosampler Location: 60

Sample ID: 248045017|958747|1

Date Collected: 3/15/2010 15:53:13

Analyst: JXL

Data Type: Original

## Replicate Data: 248045017|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	94.62	94.62	1.2274	8.4922	1.2277	15:54:05	Yes
Sample concentration is greater than that of the highest standard.							
2	93.24	93.24	1.2094	8.3082	1.2097	15:54:35	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	93.93	93.93	1.2184				
SD:	0.982	0.982	0.0127				
%RSD:	1.046	1.046	1.05				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 30

Autosampler Location: 61

Sample ID: 248045018|958747|1

Date Collected: 3/15/2010 15:54:55

Analyst: JXL

Data Type: Original

## Replicate Data: 248045018|958747|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.596	1.596	0.0211	0.0869	0.0214	15:55:48	Yes
2	1.575	1.575	0.0208	0.0905	0.0211	15:56:18	Yes
Mean:	1.585	1.585	0.0210				
SD:	0.015	0.015	0.0002				
%RSD:	0.954	0.954	0.94				

Sequence No.: 31

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/15/2010 15:56:38

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.541	5.541	0.0723	0.3254	0.0725	15:57:29	Yes
2	5.541	5.541	0.0723	0.3250	0.0725	15:57:59	Yes
Mean:	5.541	5.541	0.0723				
SD:	0.000	0.000	0.0000				
%RSD:	0.002	0.002	0.00				

QC value within limits for Hg 253.7 Recovery = 110.82%  
All analyte(s) passed QC.

Sequence No.: 32

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/15/2010 15:58:17

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.106	0.106	0.0018	0.0081	0.0021	15:59:08	Yes
2	0.085	0.085	0.0015	0.0071	0.0018	15:59:38	Yes
Mean:	0.096	0.096	0.0016				
SD:	0.015	0.015	0.0002				
%RSD:	16.07	16.07	12.10				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====  
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\031510S2.SIF  
Batch ID:  
Results Data Set: 031510S1  
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====  
Method Loaded  
Method Name: SOIL  
Method Description: 7471A, ILM04 ANALYST JXL

Method Last Saved: 3/15/2010 15:07:42

Sequence No.: 1  
Sample ID: 248045005|958747|10  
Analyst: JXLAutosampler Location: 48  
Date Collected: 3/15/2010 16:05:24  
Data Type: Original-----  
Replicate Data: 248045005|958747|10

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.291	3.291	0.0431	0.1963	0.0433	16:06:16	Yes
2	3.176	3.176	0.0416	0.1886	0.0419	16:06:46	Yes
Mean:	3.233	3.233	0.0423				
SD:	0.081	0.081	0.0011				
%RSD:	2.516	2.516	2.49				

Sequence No.: 2  
Sample ID: 248045008|958747|10  
Analyst: JXLAutosampler Location: 51  
Date Collected: 3/15/2010 16:07:06  
Data Type: Original-----  
Replicate Data: 248045008|958747|10

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.318	2.318	0.0305	0.1386	0.0307	16:07:57	Yes
2	2.299	2.299	0.0302	0.1376	0.0305	16:08:27	Yes
Mean:	2.309	2.309	0.0303				
SD:	0.013	0.013	0.0002				
%RSD:	0.561	0.561	0.55				

Sequence No.: 3  
Sample ID: 248045015|9587547|10  
Analyst: JXLAutosampler Location: 58  
Date Collected: 3/15/2010 16:08:47  
Data Type: Original-----  
Replicate Data: 248045015|9587547|10

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.651	2.651	0.0348	0.1585	0.0350	16:09:38	Yes
2	2.648	2.648	0.0347	0.1578	0.0350	16:10:08	Yes
Mean:	2.649	2.649	0.0348				
SD:	0.002	0.002	0.0000				
%RSD:	0.092	0.092	0.09				

Sequence No.: 4  
Sample ID: 248045016|958747|100  
Analyst: JXLAutosampler Location: 59  
Date Collected: 3/15/2010 16:10:27  
Data Type: Original-----  
Replicate Data: 248045016|958747|100

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
--------	-----------------	---------------	----------------	-----------	-------------	------	-------------

1	3.633	3.633	0.0475	0.2176	0.0478	16:11:19	Yes
2	3.685	3.685	0.0482	0.2189	0.0485	16:11:49	Yes
Mean:	3.659	3.659	0.0479				
SD:	0.037	0.037	0.0005				
%RSD:	1.007	1.007	1.00				

Sequence No.: 5

Sample ID: 248045017|958747|100

Analyst: JXL

Autosampler Location: 60

Date Collected: 3/15/2010 16:12:09

Data Type: Original

Replicate Data: 248045017|958747|100

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.493	3.493	0.0457	0.2080	0.0460	16:13:00	Yes
2	3.474	3.474	0.0455	0.2064	0.0457	16:13:30	Yes
Mean:	3.483	3.483	0.0456				
SD:	0.013	0.013	0.0002				
%RSD:	0.386	0.386	0.38				

Sequence No.: 6

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/15/2010 16:13:50

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.405	5.405	0.0705	0.3203	0.0708	16:14:41	Yes
2	5.411	5.411	0.0706	0.3204	0.0708	16:15:10	Yes
Mean:	5.408	5.408	0.0705				
SD:	0.004	0.004	0.0001				
%RSD:	0.074	0.074	0.07				

QC value within limits for Hg 253.7 Recovery = 108.16%  
All analyte(s) passed QC.

Sequence No.: 7

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/15/2010 16:15:29

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.022	0.022	0.0007	0.0041	0.0010	16:16:21	Yes
2	0.013	0.013	0.0006	0.0034	0.0008	16:16:50	Yes
Mean:	0.018	0.018	0.0006				
SD:	0.006	0.006	0.0001				
%RSD:	34.60	34.60	12.48				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====  
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\031510S2.SIF  
Batch ID:  
Results Data Set: 031510S1  
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====  
Sequence No.: 1  
Sample ID: 248045011|958747|2  
Analyst: JXL  
Autosampler Location: 54  
Date Collected: 3/15/2010 16:38:36  
Data Type: Original-----  
Replicate Data: 248045011|958747|2

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.298	5.298	0.0691	0.3234	0.0694	16:39:27	Yes
2	5.283	5.283	0.0689	0.3231	0.0692	16:39:57	Yes
Mean:	5.290	5.290	0.0690				
SD:	0.010	0.010	0.0001				
%RSD:	0.198	0.198	0.20				

=====  
Sequence No.: 2  
Sample ID: CCV  
Analyst:  
Autosampler Location: 7  
Date Collected: 3/15/2010 16:40:16  
Data Type: Original-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.127	5.127	0.0669	0.3146	0.0671	16:41:07	Yes
2	5.141	5.141	0.0671	0.3141	0.0673	16:41:37	Yes
Mean:	5.134	5.134	0.0670				
SD:	0.010	0.010	0.0001				
%RSD:	0.195	0.195	0.19				

QC value within limits for Hg 253.7 Recovery = 102.67%  
All analyte(s) passed QC.=====  
Sequence No.: 3  
Sample ID: CCB  
Analyst:  
Autosampler Location: 8  
Date Collected: 3/15/2010 16:41:56  
Data Type: Original-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.012	0.012	0.0006	0.0035	0.0008	16:42:47	Yes
2	0.008	0.008	0.0005	0.0035	0.0008	16:43:17	Yes
Mean:	0.010	0.010	0.0005				
SD:	0.003	0.003	0.0000				
%RSD:	26.01	26.01	6.27				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

# Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

<b>Batch ID:</b>	<b>959104.0</b>	Verified by:			
<b>Analyst:</b>	Francena Armstrong				
<b>Method:</b>	SW846 3050B				
<b>Lab SOP:</b>	GL-MA-E-009 REV# 19				
<b>Instrument:</b>	Sartorius Balance B-001				
<b>Type</b>	<b>Sample Id</b>	<b>Description</b>	<b>Serial Number</b>	<b>Spike Amount</b>	<b>Spike Units</b>
LCS	1202056859	Metals Soil LCS SRM ICP/Hg	U1062540-I	.537	g
MS	1202056857	Metals Spike Mix I	U11268741-01	.25	mL
MS	1202056857	Metals Spike Mix II	U11268744-06	.25	mL
MSD	1202056858	Metals Spike Mix I	U11268741-01	.25	mL
MSD	1202056858	Metals Spike Mix II	U11268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202056854 MB	08-MAR-2010 14:00:00	Soil	0.523	50	95.60229	
1202056859 LCS	08-MAR-2010 14:00:00	Soil	0.537	50	93.10987	
248045001	08-MAR-2010 14:00:00	Soil	0.57	50	87.7193	
1202056855 DUP (248045001)	08-MAR-2010 14:00:00	Soil	0.532	50	93.98496	
1202056856 SDILT (248045001)	08-MAR-2010 14:00:00	Soil	0.571	50	87.56567	
1202056857 MS (248045001)	08-MAR-2010 14:00:00	Soil	0.514	50	97.27626	
1202056858 MSD (248045001)	08-MAR-2010 14:00:00	Soil	0.505	50	99.0099	
248045002	08-MAR-2010 14:00:00	Soil	0.532	50	93.98496	
248045003	08-MAR-2010 14:00:00	Soil	0.519	50	96.33911	
248045004	08-MAR-2010 14:00:00	Soil	0.54	50	92.59259	
248045005	08-MAR-2010 14:00:00	Soil	0.517	50	96.7118	
248045006	08-MAR-2010 14:00:00	Soil	0.505	50	99.0099	
248045007	08-MAR-2010 14:00:00	Soil	0.511	50	97.84736	
248045008	08-MAR-2010 14:00:00	Soil	0.52	50	96.15385	
248045009	08-MAR-2010 14:00:00	Soil	0.539	50	92.76438	
248045010	08-MAR-2010 14:00:00	Soil	0.593	50	84.31703	
248045011	08-MAR-2010 14:00:00	Soil	0.528	50	94.69697	
248045012	08-MAR-2010 14:00:00	Soil	0.56	50	89.28571	
248045013	08-MAR-2010 14:00:00	Soil	0.508	50	98.4252	
248045014	08-MAR-2010 14:00:00	Soil	0.538	50	92.9368	
248045015	08-MAR-2010 14:00:00	Soil	0.524	50	95.41985	
248045016	08-MAR-2010 14:00:00	Soil	0.523	50	95.60229	
248045017	08-MAR-2010 14:00:00	Soil	0.536	50	93.28358	



# Prep Logbook

**Batch ID:** 959104.0  
**Analyst:** Francena Armstrong  
**Method:** SW846 3050B  
**Lab SOP:** GL-MA-E-009 REV# 19  
**Instrument:** Sartorius Balance B-001

Verified by: \_\_\_\_\_

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056859	Metals Soil LCS SRM ICP/Hg	UI062540-1	.537	g
MS	1202056857	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202056857	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202056858	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202056858	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248045018	08-MAR-2010 14:00:00	Soil	0.551	50	90.7441	

## Comments:

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	10 mL
1277919	Nitric Acid CONC.	1.25 mL

Hard, wet, clumpy, brown soil.

# Prep Logbook

## Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959106.0      Verified by: \_\_\_\_\_      Lab SOP: GL-MA-E-009 REV# 19  
 Analyst: Francena Armstrong      Instrument: Sartorius Balance B-001  
 Method: SW846 3050B

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202056860 MB	08-MAR-2010 14:00:00	0.515	50	97.08738	1
1202056865 LCS	08-MAR-2010 14:00:00	0.534	50	93.63296	
248045001	08-MAR-2010 14:00:00	0.511	50	97.84736	
1202056861 DUP (248045001)	08-MAR-2010 14:00:00	0.512	50	97.65625	
1202056862 SDILT (248045001)	08-MAR-2010 14:00:00	0.511	50	97.84736	
1202056863 MS (248045001)	08-MAR-2010 14:00:00	0.596	50	83.89262	
1202056864 MSD (248045001)	08-MAR-2010 14:00:00	0.51	50	98.03922	
248045002	08-MAR-2010 14:00:00	0.572	50	87.41259	
248045003	08-MAR-2010 14:00:00	0.515	50	97.08738	
248045004	08-MAR-2010 14:00:00	0.532	50	93.98496	
248045005	08-MAR-2010 14:00:00	0.598	50	83.61204	
248045006	08-MAR-2010 14:00:00	0.53	50	94.33962	
248045007	08-MAR-2010 14:00:00	0.583	50	85.76329	
248045008	08-MAR-2010 14:00:00	0.512	50	97.65625	
248045009	08-MAR-2010 14:00:00	0.528	50	94.69697	
248045010	08-MAR-2010 14:00:00	0.53	50	94.33962	
248045011	08-MAR-2010 14:00:00	0.504	50	99.20635	
248045012	08-MAR-2010 14:00:00	0.508	50	98.4252	
248045013	08-MAR-2010 14:00:00	0.507	50	98.61933	
248045014	08-MAR-2010 14:00:00	0.521	50	95.96929	
248045015	08-MAR-2010 14:00:00	0.561	50	89.12656	
248045016	08-MAR-2010 14:00:00	0.506	50	98.81423	
248045017	08-MAR-2010 14:00:00	0.503	50	99.40358	
248045018	08-MAR-2010 14:00:00	0.541	50	92.42144	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202056865	Merals Soil LCS SRM ICPMS	U1062540-MS	.534	g	Hard, wet, clumpy, brown soil.
MS	1202056863	ICP-MS Spike for soil products.	U1090827-A	.5	mL	
MS	1202056863	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
MSD	1202056864	ICP-MS Spike for soil products.	U1090827-A	.5	mL	
MSD	1202056864	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
REGNT All		Hydrogen Peroxide 30%	1250038-02	1.5	mL	
REGNT All		Nitric Acid CONC.	1277919	.5	mL	

# Prep Logbook

## Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Batch ID:** 958746.0  
**Analyst:** Tara Griffin  
**Method:** SW846 7471A Prep  
**Lab SOP:** GL-MA-E-010 REV# 23  
**Instrument:** BAL-002

**Verified by:**

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056162	Metals LCS Soil SRM	U1031809A	.207	g
MS	1202056164	Mercury soil working intermediate standard for MS	WHG100312-14	.3	mL
MSD	1202056166	Mercury soil working intermediate standard for MS	WHG100312-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202056161 MB	12-MAR-2010 21:00:00	Soil	0.508	30	59.05512	
1202056162 LCS	12-MAR-2010 21:00:00	Soil	0.207	30	144.92754	
248045001	12-MAR-2010 21:00:00	Soil	0.525	30	57.14286	
1202056163 DUP (248045001)	12-MAR-2010 21:00:00	Soil	0.524	30	57.25191	
1202056164 MS (248045001)	12-MAR-2010 21:00:00	Soil	0.508	30	59.05512	
1202056166 MSD (248045001)	12-MAR-2010 21:00:00	Soil	0.558	30	53.76344	
1202056165 SDILT (248045001)	12-MAR-2010 21:00:00	Soil	0.525	30	57.14286	
248045002	12-MAR-2010 21:00:00	Soil	0.506	30	59.28854	
248045003	12-MAR-2010 21:00:00	Soil	0.503	30	59.64215	
248045004	12-MAR-2010 21:00:00	Soil	0.55	30	54.54545	
248045005	12-MAR-2010 21:00:00	Soil	0.546	30	54.94505	
248045006	12-MAR-2010 21:00:00	Soil	0.546	30	54.94505	
248045007	12-MAR-2010 21:00:00	Soil	0.541	30	55.45287	
248045008	12-MAR-2010 21:00:00	Soil	0.539	30	55.65863	
248045009	12-MAR-2010 21:00:00	Soil	0.573	30	52.35602	
248045010	12-MAR-2010 21:00:00	Soil	0.505	30	59.40594	
248045011	12-MAR-2010 21:00:00	Soil	0.506	30	59.28854	
248045012	12-MAR-2010 21:00:00	Soil	0.575	30	52.17391	
248045013	12-MAR-2010 21:00:00	Soil	0.537	30	55.86592	
248045014	12-MAR-2010 21:00:00	Soil	0.548	30	54.74453	
248045015	12-MAR-2010 21:00:00	Soil	0.569	30	52.72408	
248045016	12-MAR-2010 21:00:00	Soil	0.502	30	59.76096	
248045017	12-MAR-2010 21:00:00	Soil	0.554	30	54.15162	
248045018	12-MAR-2010 21:00:00	Soil	0.5	30	60	

**Reagent/Solvent Lot ID**    **Description**    **Amount**    **Comments:**

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

**Batch ID:** 958746.0  
**Analyst:** Tara Griffin  
**Method:** SW846 7471A Prep  
**Lab SOP:** GL-MA-E-010 REV# 23  
**Instrument:** BAL-002

Verified by: \_\_\_\_\_

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056162	Metals LCS Soil SRM	UI031809A	.207	g
MS	1202056164	Mercury soil working intermediate standard for MS	WHG100312-14	.3	mL
MSD	1202056166	Mercury soil working intermediate standard for MS	WHG100312-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1255532-C	Hg reducing agent	2 mL				
1274391-1	NITRIC ACID	.375 mL				
1277235-A	Hydrochloric Acid Conc.	1.125 mL				
1277238-C	5% KMnO4 solution	7.5 mL				
WHG100312-07	Mercury Working Standard 1st Source	CAL S 30 uL				
WHG100312-08	0.2/CRA					
	Mercury Working Standard 1st Source	CAL S 75 uL				
WHG100312-09	0.5					
	Mercury Working 1st Source	CAL S 2.0	300 uL			
WHG100312-10	Mercury Working 1st Source	CAL S 5.0/CCV	750 uL			
WHG100312-11	Mercury Working 1st Source	CAL S 10.0	1.5 mL			
WHG100312-12	Mercury Working 2nd Source	S 5.0/ICV	750 uL			

Sample 248045001 is a moist brown rocky soil.  
 Digestion Start Date: 12-MAR-10 21:00  
 Digestion End Date: 12-MAR-10 21:30

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 29-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP	<b>Test / Method:</b> SW846 3050B/6010B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959105	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248045(10-2075)</b> <b>Application Issues:</b> Failed Recovery for MS/PS Failed RPD for DUP Failed Recovery for LCS/LCSD Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed Recovery for MS/PS: QC 1202056857MS 2. Failed RPD for DUP: QC 1202056855DUP 3. Failed Recovery for LCS/LCSD: QC 1202056859LCS 4. Failed Recovery for MSD/PSD: QC 1202056858MSD		1. The matrix spike recovery failed outside of the control limits for calcium and copper 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 aluminum, calcium, copper, iron, lead, magnesium, manganese, potassium, vanadium and zinc 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. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures. 4. The matrix spike duplicate recovery failed outside of the control limits for calcium 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 29-MAR-10

**Data Validator/Group Leader:**

Eric Lawson 29-MAR-10

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 12-APR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP/MS	<b>Test / Method:</b> SW846 3050B/6020	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959107	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248045(10-2075)</b> <b>Application Issues:</b> Failed RPD for DUP Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. Failed RPD for DUP: QC 1202056861DUP  2. Failed Recovery for MSD/PSD: QC 1202056864MSD		The sample and sample duplicate % RPD failed outside the control limits for Be and Ni 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.  The 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:**

Samantha Jacobs 13-APR-10

**Data Validator/Group Leader:**

Jamie Johnson 13-APR-10

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI031809A      **Opened:** 18-MAR-09      **Catalog Number :** 540  
**Name:** METALSOILSRM      **Received:** 18-MAR-09      **Lot Number :** D061-540  
**Type:** Source Material      **Expires:** 10-OCT-10  
**Employee:** Jamie Johnson  
**Supplier:** ERA  
**Description:** Metals LCS Soil SRM  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

# Standard Logbook

**Serial ID:** UI062540-I      **Opened:** 12-JUN-09      **Amount :** 80 g  
**Name:** ICP SOIL SRM      **Received:** 12-JUN-09      **Lot Number :** D062-540  
**Type:** Source Material      **Expires:** 12-JUN-10  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICP/Hg  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

**Serial ID:** UI062540-MS      **Opened:** 12-JUN-09      **Lot Number :** D062-540  
**Name:** ICPMS SOIL SRM      **Received:** 12-JUN-09  
**Type:** Source Material      **Expires:** 12-JAN-10  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICPMS  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg



# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

**Serial ID:** UI090421-40      **Opened:** 09-OCT-09      **Amount :** 250 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 21-APR-09      **Catalog Number :** HP100052-1  
**Type:** Source Material      **Expires:** 09-OCT-10      **Lot Number :** 0830227  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% 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		

# Standard Logbook

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL 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
---------	---------------	---------	---------------

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090827-A      **Opened:** 27-AUG-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1015749  
**Type:** Source Material      **Expires:** 27-AUG-10  
**Employee:** Francena Armstrong  
**Supplier:** 02si  
**Description:** ICP-MS Spike for soil products.  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI090827-B      **Opened:** 27-AUG-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1015749  
**Type:** Source Material      **Expires:** 27-AUG-10  
**Employee:** Francena Armstrong  
**Supplier:** 02si  
**Description:** ICP-MS Spike for Soil Products  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Camello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

# Standard Logbook

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
----------------	----------------------	----------------	----------------------

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI091102-42      **Opened:** 17-NOV-09      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 02-NOV-09      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 17-NOV-10      **Lot Number :** 0921924  
**Employee:** Helen Camello      **Solvent :** H2O/tr HF  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI100310-48      **Opened:** 19-MAR-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSA      **Received:** 12-MAR-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 19-MAR-11      **Lot Number :** 1019141  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

**Serial ID:** UI100317-06      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-MAR-10      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019161  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

# Standard Logbook

**Serial ID:** UI100317-07      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-MAR-10      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019162  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

**Serial ID:** UI100317-08      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-MAR-10      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019163  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI100318-11      **Opened:** 18-MAR-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 18-MAR-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 18-MAR-11      **Lot Number :** 1018321  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** 02SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

**Serial ID:** UI100325-40      **Opened:** 25-MAR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 25-MAR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 25-MAR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

**Serial ID:** UI100325-41      **Opened:** 25-MAR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 25-MAR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 25-MAR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L



# Standard Logbook

**Serial ID:** UI100405-12      **Opened:** 05-APR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 05-APR-10      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019466  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI100405-13      **Opened:** 05-APR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 05-APR-10      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019467  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI1268741-01      **Opened:** 11-FEB-10      **Lot Number :** 1018514  
**Name:** METALSPIKE-1      **Received:** 11-FEB-10  
**Type:** Source Material      **Expires:** 11-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix I  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI1268744-06      **Opened:** 11-FEB-10      **Lot Number :** 1018515  
**Name:** METALSPIKE-2      **Received:** 11-FEB-10  
**Type:** Source Material      **Expires:** 11-FEB-11  
**Employee:** Bryan Davis  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UMS100226-01      **Opened:** 26-FEB-10      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 26-FEB-10      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 26-FEB-11      **Lot Number :** 21-104JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

# Standard Logbook

**Serial ID:** UMS100226-02      **Opened:** 26-FEB-10      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCalSPIKEA      **Received:** 26-FEB-10      **Lot Number :** 21-103JB  
**Type:** Source Material      **Expires:** 26-FEB-11  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

**Serial ID:** UMS100226-03      **Opened:** 26-FEB-10      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 26-FEB-10      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 26-FEB-11      **Lot Number :** 21-102JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100312-01      **Opened:** 12-MAR-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 12-MAR-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 13-MAR-10      **Solvent :** 1mL HNO3 + Type1 H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 1st Source 200 ug/L  
**Comments:** Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100312-02      **Opened:** 12-MAR-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Intermediate      **Expires:** 13-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100312-07      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.2CRA      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.2/CRA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

**Serial ID:** WHG100312-08      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.5      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

**Serial ID:** WHG100312-09      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS2.0      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 2.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

**Serial ID:** WHG100312-10      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS5.0CCV      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 5.0/CCV  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100312-11      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS10.0      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 10.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

**Serial ID:** WHG100312-12      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKS5.0ICV      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source S 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100312-14      **Opened:** 12-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGSOILMSSPIKE      **Received:** 12-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 19-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury soil working intermediate standard for MS  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100326-42      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1%HNO3 -1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100326-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100326-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100326-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100326-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100326-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100326-43      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1%HNO3 -1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

**Serial ID:** WI100326-44      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1 %HNO3-1289705  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

**Serial ID:** WI100326-45      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1%HNO3 -1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L



# Standard Logbook

**Serial ID:** WI100326-46      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL AND 1%HNO3-1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

# Standard Logbook

**Serial ID:** WI100326-47      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL &1%HNO3-1289705  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100411-04      **Opened:** 11-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 11-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 12-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCL-1296562  
**Supplier:** GEL

# Standard Logbook

**Description:** ICPMS Calibration Standard (100 ppb)

**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
U090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100411-04A      **Opened:** 11-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 11-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100411-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100411-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100411-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100411-05      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 11-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100411-06      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 11-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100411-07      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 11-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 12-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100411-08      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 11-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** WMS100412-04      **Opened:** 12-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 12-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 13-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1300209  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	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:** WMS100412-04A      **Opened:** 12-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 12-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 13-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100412-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100412-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100412-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
WMS100412-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

<b>Serial ID:</b> <u>WMS100412-05</u>	<b>Opened:</b> <u>12-APR-10</u>	<b>Balance Id :</b> <u>40245216</u>
<b>Name:</b> <u>ICPMS ICV</u>	<b>Received:</b> <u>12-APR-10</u>	<b>Pipet Id :</b> <u>3541598</u>
<b>Type:</b> <u>Working</u>	<b>Expires:</b> <u>13-APR-10</u>	<b>Solvent :</b> <u>2%HNO3/1%HCl - 1300209</u>
<b>Employee:</b> <u>Paul Boyd</u>		
<b>Supplier:</b> <u>GEL</u>		
<b>Description:</b> <u>ICPMS ICV</u>		
<b>Comments:</b> <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

**Serial ID:** WMS100412-06      **Opened:** 12-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 12-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 13-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
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:** WMS100412-07      **Opened:** 12-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 12-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 13-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100412-08      **Opened:** 12-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 12-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 13-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** 1156689-A      **Opened:** 20-JUL-09      **Lot Number :** 41226920  
**Name:** B-KMnO4(VWR)-MER      **Received:** 20-JUL-09  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin      **Verified:** 07-AUG-07  
**Supplier:** VWR  
**Description:** Potassium Permanganate  
**Comments:** None

**Serial ID:** 1228372-A      **Opened:** 12-NOV-09      **Lot Number :** 49215936  
**Name:** B-NH2OH.HCl-MER      **Received:** 12-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 12-NOV-10  
**Employee:** Tara Griffin  
**Supplier:** Fisher Scientific  
**Description:** 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

# Standard Logbook

**Serial ID:** 125532-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.	Allquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

**Serial ID:** 1274391-1      **Opened:** 24-FEB-10      **Instrument Id :** MERCURY  
**Name:** B-HNO3-MER      **Received:** 24-FEB-10      **Lot Number :** H44025  
**Type:** Reagent/Solvent      **Expires:** 24-FEB-11  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt Chemicals  
**Description:** NITRIC ACID  
**Comments:** None

**Serial ID:** 1277235-A      **Opened:** 01-MAR-10      **Lot Number :** J02039  
**Name:** B-HCl-MER      **Received:** 01-MAR-10  
**Type:** Reagent/Solvent      **Expires:** 01-MAR-11  
**Employee:** Tara Griffin  
**Supplier:** J T Baker  
**Description:** Hydrochloric Acid Conc.  
**Comments:** None

**Serial ID:** 1277238-C      **Opened:** 01-MAR-10      **Balance Id :** BAL-002  
**Name:** B-KMnO4-MER      **Received:** 01-MAR-10  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% KMnO4 solution  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

**Serial ID:** 1277916      **Opened:** 02-MAR-10      **Lot Number :** J02039  
**Name:** I-HCL      **Received:** 02-MAR-10      **Preservative Id :** 5 none  
**Type:** Reagent/Solvent      **Expires:** 02-MAR-11  
**Employee:** Francena Armstrong  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID

# Standard Logbook

Comments: None

Serial ID: 1277919      Opened: 02-MAR-10      Lot Number : J 04043 L  
 Name: I-HNO3      Received: 02-MAR-10  
 Type: Reagent/Solvent      Expires: 02-MAR-11  
 Employee: Francena Armstrong  
 Supplier: BAKER  
 Description: Nitric Acid CONC.  
 Comments: None

Serial ID: 1289705      Opened: 22-MAR-10      Amount : 20 L  
 Name: B-ICP-RINSE SOLN      Received: 12-MAR-10      Lot Number : H04040+G34050  
 Type: Reagent/Solvent      Expires: 28-MAR-10      Solvent : 3%HCL+1%HNO3  
 Employee: Helen Camello  
 Supplier: GEL  
 Description: 3%HCL+1%HNO3 RINSE SOLN.  
 Comments: None

Serial ID: 1291278      Opened: 25-MAR-10      Lot Number : J 08035 L  
 Name: I-HNO3      Received: 25-MAR-10  
 Type: Reagent/Solvent      Expires: 25-MAR-11  
 Employee: Anthony Green  
 Supplier: BAKER  
 Description: Nitric Acid CONC.  
 Comments: None

Serial ID: 1296562      Opened: 05-APR-10      Solvent : Type I Water  
 Name: B-2%HNO3/1%HCL-ICPMS      Received: 05-APR-10  
 Type: Reagent/Solvent      Expires: 12-APR-10  
 Employee: Paul Boyd  
 Supplier: GEL  
 Description: 2%HNO3/1%HCL Solution (Type I Water)  
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

# Standard Logbook

Serial ID: 1300209      Opened: 12-APR-10      Solvent : Type I Water  
Name: B-2%HNO3/1%HCl-ICPMS      Received: 12-APR-10  
Type: Reagent/Solvent      Expires: 19-APR-10  
Employee: Paul Boyd  
Supplier: GEL  
Description: 2%HNO3/1%HCl Solution (Type I Water)  
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A



# **Metals Analysis**

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2075-1**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248046001	RE36-10-7528
248046002	RE36-10-7527
1202056808	Method Blank (MB) ICP
1202056809	Laboratory Control Sample (LCS)
1202056812	248046001(RE36-10-7528L) Serial Dilution (SD)
1202056810	248046001(RE36-10-7528D) Sample Duplicate (DUP)
1202056811	248046001(RE36-10-7528S) Matrix Spike (MS)
1202056813	Method Blank (MB) ICP-MS
1202056814	Laboratory Control Sample (LCS)
1202056817	248046002(RE36-10-7527L) Serial Dilution (SD)
1202056815	248046002(RE36-10-7527D) Sample Duplicate (DUP)
1202056816	248046002(RE36-10-7527S) Matrix Spike (MS)
1202056573	Method Blank (MB) CVAA
1202056574	Laboratory Control Sample (LCS)
1202056577	248145001(WST16-10-12239L) Serial Dilution (SD)
1202056575	248145001(WST16-10-12239D) Sample Duplicate (DUP)
1202056576	248145001(WST16-10-12239S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Method/Analysis Information**

<b>Analytical Batch:</b>	959089, 959091 and 958951
<b>Prep Batch :</b>	959088, 959090 and 958949
<b>Standard Operating Procedures:</b>	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
<b>Analytical Method:</b>	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
<b>Prep Method :</b>	SW846 3005A and SW846 7470A Prep

## **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

### **System Configuration**

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E 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 - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

### **Calibration Information**

#### **Instrument Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

#### **CRDL Requirements**

All CRDL standards met the advisory control limits with the exceptions of beryllium and potassium that recovered outside of the advisory control limits of 70-130%.

**ICSA/ICSAB Statement**

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

**Continuing Calibration Blank (CCB) Requirements**

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

**Continuing Calibration Verification (CCV) Requirements**

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**Quality Control (QC) Sample Statement**

The following samples were selected as the quality control (QC) samples for this SDG: 248046001 (RE36-10-7528)-ICP, 248046002 (RE36-10-7527)-ICP-MS and 248145001 (WST16-10-12239)-CVAA.

**Matrix Spike (MS) Recovery Statement**

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

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

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

**Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

**Technical Information****Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are

calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

#### **Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

#### **Preparation Information**

The samples in this SDG were prepared exactly according to the cited SOP.

#### **Miscellaneous Information**

##### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

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

##### **Additional Comments**

Additional comments were not required for this SDG.

#### **Certification Statement**

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

#### **Review Validation:**

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

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

Reviewer: Nikhil A. Emore Date: 4.17.10

# **Sample Data Summary**



**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248046001

BASIS: As Received

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7528

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 13:03	100413-3	959091
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-70-2	Calcium	84.9	ug/L	J	50	200	200	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-50-8	Copper	5.99	ug/L	J	3	10	10	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-92-1	Lead	0.850	ug/L	J	0.5	2	2	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/26/10 23:30	032610A-1	959089
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXLI	03/02/10 11:42	030210W3-6	958951
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-09-7	Potassium	259	ug/L		50	150	150	1	P	HSC	03/26/10 23:30	032610A-1	959089
7782-49-2	Selenium	6.94	ug/L	J	5	30	30	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-23-5	Sodium	158	ug/L	J	100	300	300	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/12/10 01:54	100411-2	959091
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 16:05	100413-5	959091
7440-62-2	Vanadium	1.47	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:30	032610A-1	959089
7440-66-6	Zinc	6.17	ug/L	J	3.3	10	10	1	P	HSC	03/26/10 23:30	032610A-1	959089

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
958951	958949	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959089	959088	SW846 3005A	50	mL	50	mL	03/04/10	LYH1
959091	959090	SW846 3005A	50	mL	50	mL	03/02/10	FGA

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2075-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248046002

BASIS: As Received

DATE COLLECTED 20-FEB-10

CLIENT ID: RE36-10-7527

LEVEL: Low

DATE RECEIVED 25-FEB-10

MATRIX: WATER

%SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 13:26	100413-3	959091
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-70-2	Calcium	60.7	ug/L	J	50	200	200	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-47-3	Chromium	1.64	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-50-8	Copper	6.19	ug/L	J	3	10	10	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-92-1	Lead	0.708	ug/L	J	0.5	2	2	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/26/10 23:57	032610A-1	959089
7439-96-5	Manganese	1.69	ug/L	J	1	5	5	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/02/10 11:44	030210W3-6	958951
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-09-7	Potassium	266	ug/L		50	150	150	1	P	HSC	03/26/10 23:57	032610A-1	959089
7782-49-2	Selenium	6.64	ug/L	J	5	30	30	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-23-5	Sodium	155	ug/L	J	100	300	300	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-28-0	Thallium	0.474	ug/L	J	0.3	1	1	1	MS	BCD1	04/12/10 02:18	100411-2	959091
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 16:07	100413-5	959091
7440-62-2	Vanadium	1.35	ug/L	J	1	5	5	1	P	HSC	03/26/10 23:57	032610A-1	959089
7440-66-6	Zinc	6.02	ug/L	J	3.3	10	10	1	P	HSC	03/26/10 23:57	032610A-1	959089

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
958951	958949	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959089	959088	SW846 3005A	50	mL	50	mL	03/04/10	LYH1
959091	959090	SW846 3005A	50	mL	50	mL	03/02/10	FGA

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

<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	5.2	ug/L	5	ug/L	104	90.0 - 110.0	AV	02-MAR-10 08:39	030210W3-6
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Arsenic	485	ug/L	500	ug/L	97	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Nickel	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Potassium	2490	ug/L	2500	ug/L	99.7	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Selenium	2600	ug/L	2500	ug/L	104	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Silver	254	ug/L	250	ug/L	101.8	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	26-MAR-10 19:33	032610A-1
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	11-APR-10 23:44	100411-2
	Cadmium	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	11-APR-10 23:44	100411-2
	Lead	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	11-APR-10 23:44	100411-2
	Manganese	52.7	ug/L	50	ug/L	105.4	90.0 - 110.0	MS	11-APR-10 23:44	100411-2
	Thallium	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	11-APR-10 23:44	100411-2
	Antimony	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	13-APR-10 11:52	100413-3
	Uranium	49.6	ug/L	50	ug/L	99.3	90.0 - 110.0	MS	13-APR-10 15:17	100413-5
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 - 120.0	AV	02-MAR-10 08:45	030210W3-6
	Aluminum	4750	ug/L	5000	ug/L	95.1	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Arsenic	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1
	Calcium	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	26-MAR-10 20:21	032610A-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Iron	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Magnesium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Nickel	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Potassium	4580	ug/L	5000	ug/L	91.6	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Selenium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	26-MAR-10 20:21	032610A-1
	Beryllium	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	12-APR-10 00:15	100411-2
	Cadmium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	12-APR-10 00:15	100411-2
	Lead	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	12-APR-10 00:15	100411-2
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	12-APR-10 00:15	100411-2
	Thallium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	12-APR-10 00:15	100411-2
	Antimony	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	13-APR-10 12:04	100413-3
	Uranium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	13-APR-10 15:26	100413-5
CCV02	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02-MAR-10 09:08	030210W3-6
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Arsenic	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

<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>
	Nickel	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Potassium	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Selenium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Sodium	10300	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Zinc	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	26-MAR-10 20:43	032610A-1
	Beryllium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	12-APR-10 00:33	100411-2
	Cadmium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	12-APR-10 00:33	100411-2
	Lead	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	12-APR-10 00:33	100411-2
	Manganese	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	12-APR-10 00:33	100411-2
	Thallium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	12-APR-10 00:33	100411-2
	Antimony	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	13-APR-10 12:31	100413-3
	Uranium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13-APR-10 15:44	100413-5
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02-MAR-10 09:31	030210W3-6
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Arsenic	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Chromium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Cobalt	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Iron	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Nickel	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Selenium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Silver	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1
	Sodium	10500	ug/L	10000	ug/L	104.6	90.0 – 110.0	P	26-MAR-10 21:59	032610A-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	26-MAR-10 21:59	032610A-1
	Zinc	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	26-MAR-10 21:59	032610A-1
	Beryllium	52.5	ug/L	50	ug/L	105	90.0 - 110.0	MS	12-APR-10 01:41	100411-2
	Cadmium	51.5	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	12-APR-10 01:41	100411-2
	Lead	51.6	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	12-APR-10 01:41	100411-2
	Manganese	53.4	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	12-APR-10 01:41	100411-2
	Thallium	48.6	ug/L	50	ug/L	97.3	90.0 - 110.0	MS	12-APR-10 01:41	100411-2
	Antimony	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	13-APR-10 12:53	100413-3
	Uranium	48.8	ug/L	50	ug/L	97.6	90.0 - 110.0	MS	13-APR-10 15:59	100413-5
CCV04	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 - 120.0	AV	02-MAR-10 09:54	030210W3-6
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Arsenic	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Cobalt	513	ug/L	500	ug/L	102.5	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Nickel	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Selenium	525	ug/L	500	ug/L	104.9	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Silver	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	26-MAR-10 23:02	032610A-1
	Beryllium	53	ug/L	50	ug/L	106.1	90.0 - 110.0	MS	12-APR-10 02:25	100411-2
	Cadmium	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	12-APR-10 02:25	100411-2
	Lead	51.8	ug/L	50	ug/L	103.7	90.0 - 110.0	MS	12-APR-10 02:25	100411-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

<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>
	Manganese	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	12-APR-10 02:25	100411-2
	Thallium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	12-APR-10 02:25	100411-2
	Antimony	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	13-APR-10 13:21	100413-3
	Uranium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	13-APR-10 16:14	100413-5
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02-MAR-10 10:17	030210W3-6
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Arsenic	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Nickel	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Potassium	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Selenium	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Sodium	9300	ug/L	10000	ug/L	93	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Vanadium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-MAR-10 00:04	032610A-1
	Antimony	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	13-APR-10 13:36	100413-3
CCV06										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	02-MAR-10 10:41	030210W3-6
CCV07										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02-MAR-10 11:04	030210W3-6
CCV08										
	Mercury	5.21	ug/L	5	ug/L	104.3	80.0 – 120.0	AV	02-MAR-10 11:27	030210W3-6



## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

---

<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>
CCV09	Mercury	4.93	ug/L	5	ug/L	98.7	80.0 – 120.0	AV	02-MAR-10 11:50	030210W3-6
CCV10	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	02-MAR-10 12:14	030210W3-6

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

<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	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02-MAR-10 08:43	030210W3-6
	Lead	2.25	ug/L	2	ug/L	112.7	70.0 – 130.0	MS	11-APR-10 23:56	100411-2
	Thallium	1.19	ug/L	1	ug/L	119.4	70.0 – 130.0	MS	11-APR-10 23:56	100411-2
	Manganese	6.14	ug/L	5	ug/L	122.7	70.0 – 130.0	MS	11-APR-10 23:56	100411-2
	Cadmium	1.18	ug/L	1	ug/L	118.3	70.0 – 130.0	MS	11-APR-10 23:56	100411-2
	Beryllium	.653	ug/L	.5	ug/L	130.6	70.0 – 130.0	MS	11-APR-10 23:56	100411-2
	Antimony	2.94	ug/L	3	ug/L	98.1	70.0 – 130.0	MS	13-APR-10 11:57	100413-3
	Uranium	.216	ug/L	.2	ug/L	108	70.0 – 130.0	MS	13-APR-10 15:21	100413-5
PQL01										
	Aluminum	207	ug/L	200	ug/L	103.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Iron	78.1	ug/L	100	ug/L	78.1	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Magnesium	223	ug/L	300	ug/L	74.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Nickel	4.87	ug/L	5	ug/L	97.4	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Potassium	103	ug/L	150	ug/L	68.6	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Silver	4.9	ug/L	5	ug/L	98	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Sodium	293	ug/L	300	ug/L	97.5	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Arsenic	29.8	ug/L	30	ug/L	99.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Barium	5.06	ug/L	5	ug/L	101.1	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Chromium	4.99	ug/L	5	ug/L	99.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Cobalt	5.03	ug/L	5	ug/L	100.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Copper	9.16	ug/L	10	ug/L	91.6	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Vanadium	5.74	ug/L	5	ug/L	114.7	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Zinc	9.68	ug/L	10	ug/L	96.8	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Calcium	189	ug/L	200	ug/L	94.3	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1
	Selenium	32.5	ug/L	30	ug/L	108.2	70.0 – 130.0	P	26-MAR-10 19:47	032610A-1

Metals  
-3a-  
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2075-1

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	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 08:41	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	26-MAR-10 19:40	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	26-MAR-10 19:40	032610A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	26-MAR-10 19:40	032610A-1
	Magnesium	-91.83	+/-300	J	85.0	300	LIQ	P	26-MAR-10 19:40	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	26-MAR-10 19:40	032610A-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	26-MAR-10 19:40	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	26-MAR-10 19:40	032610A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	11-APR-10 23:50	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	11-APR-10 23:50	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	11-APR-10 23:50	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	11-APR-10 23:50	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	11-APR-10 23:50	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 11:54	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:19	100413-5
CCB01	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 08:47	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	26-MAR-10 20:28	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	26-MAR-10 20:28	032610A-1
	Chromium	1.25	+/-5	J	1.0	5.0	LIQ	P	26-MAR-10 20:28	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/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	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	26-MAR-10 20:28	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	26-MAR-10 20:28	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	26-MAR-10 20:28	032610A-1
	Selenium	6.79	+/-30	J	5.0	30.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	26-MAR-10 20:28	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	26-MAR-10 20:28	032610A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 00:21	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 00:21	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 00:21	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 00:21	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	12-APR-10 00:21	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 12:07	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:27	100413-5
<b>CCB02</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:10	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	26-MAR-10 20:50	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	26-MAR-10 20:50	032610A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	26-MAR-10 20:50	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	26-MAR-10 20:50	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	26-MAR-10 20:50	032610A-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075-1

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>
	Selenium	5.47	+/-30	J	5.0	30.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	26-MAR-10 20:50	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	26-MAR-10 20:50	032610A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 00:39	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 00:39	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 00:39	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 00:39	100411-2
	Thallium	0.508	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 00:39	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 12:34	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:45	100413-5
<b>CCB03</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:33	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	26-MAR-10 22:06	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	26-MAR-10 22:06	032610A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	26-MAR-10 22:06	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	26-MAR-10 22:06	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	26-MAR-10 22:06	032610A-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	26-MAR-10 22:06	032610A-1
	Vanadium	1.11	+/-5	J	1.0	5.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	26-MAR-10 22:06	032610A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 01:47	100411-2

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075-1

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>
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 01:47	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 01:47	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 01:47	100411-2
	Thallium	0.463	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 01:47	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 12:56	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 16:00	100413-5
<b>CCB04</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:56	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	26-MAR-10 23:09	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	26-MAR-10 23:09	032610A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	26-MAR-10 23:09	032610A-1
	Magnesium	-89.02	+/-300	J	85.0	300	LIQ	P	26-MAR-10 23:09	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	26-MAR-10 23:09	032610A-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	26-MAR-10 23:09	032610A-1
	Vanadium	1.04	+/-5	J	1.0	5.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	26-MAR-10 23:09	032610A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 02:31	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 02:31	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 02:31	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 02:31	100411-2
	Thallium	0.456	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 02:31	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 13:24	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 16:15	100413-5

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2075-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/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>
CCB05	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 10:19	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	27-MAR-10 00:11	032610A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	27-MAR-10 00:11	032610A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Iron	-30.45	+/-100	J	30.0	100	LIQ	P	27-MAR-10 00:11	032610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	27-MAR-10 00:11	032610A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	27-MAR-10 00:11	032610A-1
	Selenium	7.45	+/-30	J	5.0	30.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	27-MAR-10 00:11	032610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	27-MAR-10 00:11	032610A-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 13:39	100413-3
CCB06	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 10:42	030210W3-6
CCB07	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:06	030210W3-6
CCB08	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:29	030210W3-6
CCB09	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:52	030210W3-6
CCB10	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 12:15	030210W3-6

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

SDG NO. 10-2075-1

Contract: LANL01004

Matrix: WATER

<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>
1202056573	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2
1202056808	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	6.01	ug/L	+/-30	J	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1.21	ug/L	+/-5	J	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202056813	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	1.61	ug/L	+/-2	J	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.302	ug/L	+/-1	J	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2



**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<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>
<b>ICSA01</b>									
	Aluminum	516000	ug/L	500000	ug/L	103	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Arsenic	5.12	ug/L					26-MAR-10 19:54	032610A-1
	Barium	0.49	ug/L					26-MAR-10 19:54	032610A-1
	Calcium	473000	ug/L	500000	ug/L	94.5	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Chromium	-1.5	ug/L					26-MAR-10 19:54	032610A-1
	Cobalt	-0.992	ug/L					26-MAR-10 19:54	032610A-1
	Copper	1.32	ug/L					26-MAR-10 19:54	032610A-1
	Iron	182000	ug/L	200000	ug/L	90.8	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	26-MAR-10 19:54	032610A-1
	Nickel	3.17	ug/L					26-MAR-10 19:54	032610A-1
	Potassium	-214.0	ug/L					26-MAR-10 19:54	032610A-1
	Selenium	-29.5	ug/L					26-MAR-10 19:54	032610A-1
	Silver	-1.58	ug/L					26-MAR-10 19:54	032610A-1
	Sodium	78.8	ug/L					26-MAR-10 19:54	032610A-1
	Vanadium	0.309	ug/L					26-MAR-10 19:54	032610A-1
	Zinc	-0.241	ug/L					26-MAR-10 19:54	032610A-1
<b>ICSAB01</b>									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Arsenic	524	ug/L	500	ug/L	105	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Barium	487	ug/L	500	ug/L	97.3	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Calcium	468000	ug/L	500000	ug/L	93.6	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Chromium	481	ug/L	500	ug/L	96.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Cobalt	446	ug/L	500	ug/L	89.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Copper	548	ug/L	500	ug/L	110	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Iron	179000	ug/L	200000	ug/L	89.5	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Magnesium	477000	ug/L	500000	ug/L	95.4	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Nickel	454	ug/L	500	ug/L	90.8	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Potassium	4830	ug/L	5000	ug/L	96.5	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Selenium	2470	ug/L	2500	ug/L	98.9	80.0 – 120.0	26-MAR-10 20:01	032610A-1

**METALS**  
**-4-**  
**Interference Check Sample**

**SDG No:** 10-2075-1

**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>
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Sodium	5110	ug/L	5000	ug/L	102	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Vanadium	508	ug/L	500	ug/L	102	80.0 – 120.0	26-MAR-10 20:01	032610A-1
	Zinc	491	ug/L	500	ug/L	98.1	80.0 – 120.0	26-MAR-10 20:01	032610A-1

METALS  
-4-  
Interference Check Sample

SDG No: 10-2075-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

<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									
	Beryllium	0.086	ug/L					12-APR-10 00:02	100411-2
	Cadmium	0.214	ug/L					12-APR-10 00:02	100411-2
	Lead	0.22	ug/L					12-APR-10 00:02	100411-2
	Manganese	5.79	ug/L					12-APR-10 00:02	100411-2
	Thallium	0.027	ug/L					12-APR-10 00:02	100411-2
ICSAB01									
	Beryllium	18.3	ug/L	20	ug/L	91.4	80.0 - 120.0	12-APR-10 00:09	100411-2
	Cadmium	18.9	ug/L	20.44	ug/L	92.5	80.0 - 120.0	12-APR-10 00:09	100411-2
	Lead	18.7	ug/L	20.19	ug/L	92.4	80.0 - 120.0	12-APR-10 00:09	100411-2
	Manganese	25.5	ug/L	25.8	ug/L	98.9	80.0 - 120.0	12-APR-10 00:09	100411-2
	Thallium	17.6	ug/L	20	ug/L	88.2	80.0 - 120.0	12-APR-10 00:09	100411-2

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075-1

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	Antimony	0.265	ug/L					13-APR-10 11:59	100413-3
ICSAB01	Antimony	20.3	ug/L	20	ug/L	101	80.0 - 120.0	13-APR-10 12:02	100413-3

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2075-1

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	Uranium	-0.002	ug/L					13-APR-10 15:22	100413-5
ICSAB01	Uranium	21.0	ug/L	20	ug/L	105	80.0 - 120.0	13-APR-10 15:24	100413-5

## METALS

-5a-

## Matrix Spike Summary

**SDG NO.** 10-2075-1 **Client ID** WST16-10-12239S**Contract:** LANL01004 **Level:** Low**Matrix:** WATER **% Solids:****Sample ID:** 248145001 **Spike ID:** 1202056576

<b>Analyte</b>	<b>Units</b>	<b>Acceptance Limit</b>	<b>Spiked Result</b>	<b>C</b>	<b>Sample Result</b>	<b>C</b>	<b>Spike Added</b>	<b>% Recovery</b>	<b>Qual</b>	<b>M</b>
Mercury	ug/L	75-125	2.27		0.066	U	2	112		AV

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2075-1 Client ID RE36-10-7528S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 248046001 Spike ID: 1202056811

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5140		68	U	5000	102		P
Arsenic	ug/L	75-125	508		5	U	500	101		P
Barium	ug/L	75-125	499		1	U	500	99.7		P
Calcium	ug/L	75-125	5160		84.9	J	5000	102		P
Chromium	ug/L	75-125	493		1	U	500	98.4		P
Cobalt	ug/L	75-125	491		1	U	500	98.1		P
Copper	ug/L	75-125	504		5.99	J	500	99.5		P
Iron	ug/L	75-125	4940		30	U	5000	98.4		P
Magnesium	ug/L	75-125	5070		85	U	5000	101		P
Nickel	ug/L	75-125	502		1.5	U	500	100		P
Potassium	ug/L	75-125	5070		259		5000	96.2		P
Selenium	ug/L	75-125	505		6.94	J	500	99.7		P
Silver	ug/L	75-125	481		1	U	500	96.3		P
Sodium	ug/L	75-125	4980		158	J	5000	96.4		P
Vanadium	ug/L	75-125	501		1.47	J	500	100		P
Zinc	ug/L	75-125	490		6.17	J	500	96.7		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2075-1 Client ID RE36-10-7527S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 248046002 Spike ID: 1202056816

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	213		1	U	200	107		MS
Beryllium	ug/L	75-125	48.2		0.1	U	50	96.3		MS
Cadmium	ug/L	75-125	9.66		0.11	U	10	96.3		MS
Lead	ug/L	75-125	40.2		0.708	J	40	98.8		MS
Manganese	ug/L	75-125	49.1		1.69	J	50	94.9		MS
Thallium	ug/L	75-125	88.2		0.474	J	100	87.7		MS
Uranium	ug/L	75-125	45		0.05	U	50	90.1		MS



## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: WST16-10-12239D

Sample ID: 248145001

Duplicate ID: 1202056575

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066 U		0.066 U				AV

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE36-10-7528D

Sample ID: 248046001

Duplicate ID: 1202056810

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68 U		68 U				P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L		1 U		1 U				P
Calcium	ug/L	+/-200	84.9 J		66.7 J		24		P
Chromium	ug/L		1 U		1 U				P
Cobalt	ug/L		1 U		1 U				P
Copper	ug/L	+/-10	5.99 J		5.6 J		6.84		P
Iron	ug/L		30 U		30 U				P
Magnesium	ug/L		85 U		85 U				P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L	+/-150	259		257		.737		P
Selenium	ug/L		6.94 J		5 U		200		P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L	+/-300	158 J		164 J		3.96		P
Vanadium	ug/L	+/-5	1.47 J		1.51 J		2.72		P
Zinc	ug/L	+/-10	6.17 J		5.56 J		10.4		P

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2075-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE36-10-7527D

Sample ID: 248046002

Duplicate ID: 1202056815

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1 U		1 U				MS
Beryllium	ug/L		0.1 U		0.1 U				MS
Cadmium	ug/L		0.11 U		0.11 U				MS
Lead	ug/L	+/-2	0.708 J		0.771 J		8.52		MS
Manganese	ug/L		1.69 J		1 U		200		MS
Thallium	ug/L		0.474 J		0.3 U		200		MS
Uranium	ug/L		0.05 U		0.05 U				MS

METALS  
-7-  
Laboratory Control Sample Summary

SDG NO. 10-2075-1

Contract: LANL01004

Aqueous LCS Source: GEL

Solid LCS Source:

<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>
1202056574	Mercury	ug/L	2	2.21		110	80-120	AV

**METALS**  
**-7-**  
**Laboratory Control Sample Summary**

SDG NO. 10-2075-1

Contract: LANL01004

Aqueous LCS Source:OS2I

Solid LCS Source:

<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>
1202056809	Aluminum	ug/L	5000	5370		107	80-120	P
	Arsenic	ug/L	500	513		103	80-120	P
	Barium	ug/L	500	512		102	80-120	P
	Calcium	ug/L	5000	5230		105	80-120	P
	Chromium	ug/L	500	503		101	80-120	P
	Cobalt	ug/L	500	505		101	80-120	P
	Copper	ug/L	500	508		102	80-120	P
	Iron	ug/L	5000	5070		101	80-120	P
	Magnesium	ug/L	5000	5180		104	80-120	P
	Nickel	ug/L	500	515		103	80-120	P
	Potassium	ug/L	5000	4940		98.8	80-120	P
	Selenium	ug/L	500	515		103	80-120	P
	Silver	ug/L	500	494		98.9	80-120	P
	Sodium	ug/L	5000	4970		99.4	80-120	P
	Vanadium	ug/L	500	512		102	80-120	P
	Zinc	ug/L	500	497		99.4	80-120	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2075-1

Contract: LANL01004

Aqueous LCS Source:O2si

Solid LCS Source:

<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>
1202056814								
	Antimony	ug/L	50	56		112	80-120	MS
	Beryllium	ug/L	50	49.9		99.7	80-120	MS
	Cadmium	ug/L	50	46.9		93.8	80-120	MS
	Lead	ug/L	50	50		100	80-120	MS
	Manganese	ug/L	50	49.7		99.3	80-120	MS
	Thallium	ug/L	50	45		89.9	80-120	MS
	Uranium	ug/L	50	45.3		90.6	80-120	MS

## METALS

-9-

## Serial Dilution Sample Summary

**SDG NO.** 10-2075-1 **Client ID** WST16-10-12239L**Contract:** LANL01004**Matrix:** LIQUID **Level:** Low**Sample ID:** 248145001 **Serial Dilution ID:** 1202056577

<b>Analyte</b>	<b>Initial Value ug/L</b>	<b>C</b>	<b>Serial Value ug/L</b>	<b>C</b>	<b>% Difference</b>	<b>Qual</b>	<b>Acceptance Limit</b>	<b>M</b>
Mercury	.066	U	.33	U				AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2075-1 Client ID RE36-10-7528L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 248046001 Serial Dilution ID: 1202056812

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	84.9	J	250	U	100			P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	5.99	J	15	U	100			P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	259		250	U	100			P
Selenium	6.94	J	31	J	347			P
Silver	1	U	5	U				P
Sodium	158	J	500	U	100			P
Vanadium	1.47	J	5	U	100			P
Zinc	6.17	J	16.5	U	100			P



## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2075-1 Client ID RE36-10-7527L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 248046002 Serial Dilution ID: 1202056817

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.708	J	2.5	U	100			MS
Manganese	1.69	J	5	U	100			MS
Thallium	.474	J	6.85		1350			MS
Uranium	.05	U	.25	U				MS

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

---

SDG No: 10-2075-1

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 959088							
1202056808	MB for batch 959088	MB	W	04-MAR-10	50mL	50mL	
1202056809	LCS for batch 959088	LCS	W	04-MAR-10	50mL	50mL	
1202056811	RE36-10-7528S	MS	W	04-MAR-10	50mL	50mL	
1202056810	RE36-10-7528D	DUP	W	04-MAR-10	50mL	50mL	
248046001	RE36-10-7528	SAMPLE	W	04-MAR-10	50mL	50mL	
248046002	RE36-10-7527	SAMPLE	W	04-MAR-10	50mL	50mL	

---

SW846

---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

---

SDG No: 10-2075-1

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	959090						
1202056813	MB for batch 959090	MB	W	02-MAR-10	50mL	50mL	
1202056814	LCS for batch 959090	LCS	W	02-MAR-10	50mL	50mL	
1202056816	RE36-10-7527S	MS	W	02-MAR-10	50mL	50mL	
1202056815	RE36-10-7527D	DUP	W	02-MAR-10	50mL	50mL	
248046001	RE36-10-7528	SAMPLE	W	02-MAR-10	50mL	50mL	
248046002	RE36-10-7527	SAMPLE	W	02-MAR-10	50mL	50mL	

---

SW846

---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

---

SDG No: 10-2075-1

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	958949						
1202056573	MB for batch 958949	MB	W	01-MAR-10	20mL	20mL	
1202056574	LCS for batch 958949	LCS	W	01-MAR-10	20mL	20mL	
1202056576	WST16-10-12239S	MS	W	01-MAR-10	20mL	20mL	
1202056575	WST16-10-12239D	DUP	W	01-MAR-10	20mL	20mL	
248046001	RE36-10-7528	SAMPLE	W	01-MAR-10	20mL	20mL	
248046002	RE36-10-7527	SAMPLE	W	01-MAR-10	20mL	20mL	

---

SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 13-APR-10

End Date: 13-APR-10

Client Sdg: 10-2075-1

Method MS

Data File: 100413-3

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	11:45:00		X																						
S10	1	11:47:00		X																						
S100	1	11:49:00		X																						
ICV01	1	11:52:00		X																						
ICB01	1	11:54:00		X																						
CRDL01	1	11:57:00		X																						
ICSA01	1	11:59:00		X																						
ICSAB01	1	12:02:00		X																						
CCV01	1	12:04:00		X																						
CCB01	1	12:07:00		X																						
ZZZZZZ	1	12:09:00																								
ZZZZZZ	1	12:12:00																								
ZZZZZZ	1	12:14:00																								
ZZZZZZ	1	12:16:00																								
ZZZZZZ	1	12:19:00																								
ZZZZZZ	1	12:21:00																								
ZZZZZZ	1	12:24:00																								
ZZZZZZ	5	12:26:00																								
ZZZZZZ	1	12:29:00																								
CCV02	1	12:31:00		X																						
CCB02	1	12:34:00		X																						
1202056813	1	12:36:00		X																						
1202056814	1	12:39:00		X																						
ZZZZZZ	1	12:41:00																								
ZZZZZZ	1	12:44:00																								
ZZZZZZ	1	12:46:00																								
ZZZZZZ	1	12:48:00																								
ZZZZZZ	1	12:51:00																								
CCV03	1	12:53:00		X																						
CCB03	1	12:56:00		X																						
ZZZZZZ	1	12:58:00																								
ZZZZZZ	1	13:01:00																								
248046001	1	13:03:00		X																						
ZZZZZZ	1	13:06:00																								
ZZZZZZ	1	13:08:00																								
ZZZZZZ	1	13:11:00																								
ZZZZZZ	5	13:13:00																								
ZZZZZZ	1	13:19:00																								
CCV04	1	13:21:00		X																						
CCB04	1	13:24:00		X																						

**Metals**  
-14-  
**Analysis Run Log**

Samp No.	D/F	Run Time
248046002	1	13:26:00
1202056815	1	13:29:00
1202056816	1	13:31:00
1202056817	5	13:34:00
CCV05	1	13:36:00
CCB05	1	13:39:00

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 13-APR-10

End Date: 13-APR-10

Client Sdg: 10-2075-1

Method MS

Data File: 100413-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:12:00																						X		
S10	1	15:14:00																						X		
S100	1	15:16:00																						X		
ICV01	1	15:17:00																						X		
ICB01	1	15:19:00																						X		
CRDL01	1	15:21:00																						X		
ICSA01	1	15:22:00																						X		
ICSAB01	1	15:24:00																						X		
CCV01	1	15:26:00																						X		
CCB01	1	15:27:00																						X		
ZZZZZZ	1	15:29:00																								
ZZZZZZ	1	15:31:00																								
ZZZZZZ	1	15:32:00																								
ZZZZZZ	1	15:34:00																								
ZZZZZZ	1	15:35:00																								
ZZZZZZ	1	15:37:00																								
ZZZZZZ	1	15:39:00																								
ZZZZZZ	5	15:40:00																								
ZZZZZZ	1	15:42:00																								
CCV02	1	15:44:00																						X		
CCB02	1	15:45:00																						X		
1202056813	1	15:47:00																						X		
1202056814	1	15:49:00																						X		
ZZZZZZ	1	15:50:00																								
ZZZZZZ	1	15:52:00																								
ZZZZZZ	1	15:54:00																								
ZZZZZZ	1	15:55:00																								
ZZZZZZ	1	15:57:00																								
CCV03	1	15:59:00																						X		
CCB03	1	16:00:00																						X		
ZZZZZZ	1	16:02:00																								
ZZZZZZ	1	16:04:00																								
248046001	1	16:05:00																						X		
248046002	1	16:07:00																						X		
1202056815	1	16:09:00																						X		
1202056816	1	16:10:00																						X		
1202056817	5	16:12:00																						X		
CCV04	1	16:14:00																						X		
CCB04	1	16:15:00																						X		

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 26-MAR-10

End Date: 27-MAR-10

Client Sdg: 10-2075-1

Method P

Data File: 032610A-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	18:59:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	19:07:00			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	19:14:00	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	19:21:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	19:27:00	X						X				X		X							X				
ICV01	1	19:33:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	19:40:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	19:47:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	19:54:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	20:01:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	20:08:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	20:15:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	20:21:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	20:28:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	20:36:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	20:43:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	20:50:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZ	1	20:57:00																								
ZZZZZ	1	21:04:00																								
ZZZZZ	1	21:11:00																								
ZZZZZ	1	21:18:00																								
ZZZZZ	1	21:25:00																								
ZZZZZ	5	21:32:00																								
ZZZZZ	1	21:38:00																								
ZZZZZ	1	21:45:00																								
ZZZZZ	1	21:52:00																								
CCV03	1	21:59:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	22:06:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056808	1	22:13:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056809	1	22:20:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZ	1	22:27:00																								
ZZZZZ	1	22:34:00																								
ZZZZZ	1	22:41:00																								
ZZZZZ	1	22:48:00																								
ZZZZZ	1	22:55:00																								
CCV04	1	23:02:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	23:09:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZ	1	23:16:00																								
ZZZZZ	1	23:23:00																								
248046001	1	23:30:00	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
----------	-----	----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: HG3

Start Date: 02-MAR-10

End Date: 02-MAR-10

Client Sdg: 10-2075-1

Method AV

Data File: 030210W3-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:28:00															X									
S0.2	1	08:30:00															X									
S0.5	1	08:31:00															X									
S2.0	1	08:33:00															X									
S5.0	1	08:35:00															X									
S10.0	1	08:37:00															X									
ICV01	1	08:39:00															X									
ICB01	1	08:41:00															X									
CRDL01	1	08:43:00															X									
CCV01	1	08:45:00															X									
CCB01	1	08:47:00															X									
ZZZZZZ	1	08:49:00																								
ZZZZZZ	1	08:51:00																								
ZZZZZZ	1	08:53:00																								
ZZZZZZ	1	08:55:00																								
ZZZZZZ	1	08:57:00																								
ZZZZZZ	5	08:58:00																								
ZZZZZZ	1	09:00:00																								
ZZZZZZ	1	09:02:00																								
ZZZZZZ	1	09:04:00																								
ZZZZZZ	1	09:06:00																								
CCV02	1	09:08:00															X									
CCB02	1	09:10:00															X									
ZZZZZZ	1	09:12:00																								
ZZZZZZ	1	09:14:00																								
ZZZZZZ	1	09:16:00																								
ZZZZZZ	1	09:18:00																								
ZZZZZZ	1	09:20:00																								
ZZZZZZ	1	09:21:00																								
ZZZZZZ	1	09:23:00																								
ZZZZZZ	1	09:25:00																								
ZZZZZZ	5	09:27:00																								
ZZZZZZ	1	09:29:00																								
CCV03	1	09:31:00															X									
CCB03	1	09:33:00															X									
ZZZZZZ	1	09:35:00																								
ZZZZZZ	1	09:37:00																								
ZZZZZZ	1	09:39:00																								
ZZZZZZ	1	09:41:00																								
ZZZZZZ	1	09:43:00																								

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time
ZZZZZZ	1	09:45:00
ZZZZZZ	1	09:47:00
ZZZZZZ	1	09:48:00
ZZZZZZ	1	09:50:00
ZZZZZZ	1	09:52:00
CCV04	1	09:54:00
CCB04	1	09:56:00
ZZZZZZ	1	09:58:00
ZZZZZZ	1	10:00:00
ZZZZZZ	1	10:02:00
ZZZZZZ	5	10:04:00
ZZZZZZ	1	10:06:00
ZZZZZZ	1	10:08:00
ZZZZZZ	1	10:10:00
ZZZZZZ	1	10:12:00
ZZZZZZ	1	10:13:00
ZZZZZZ	1	10:15:00
CCV05	1	10:17:00
CCB05	1	10:19:00
ZZZZZZ	1	10:21:00
ZZZZZZ	1	10:23:00
ZZZZZZ	1	10:25:00
ZZZZZZ	1	10:27:00
ZZZZZZ	1	10:29:00
ZZZZZZ	5	10:31:00
ZZZZZZ	1	10:33:00
ZZZZZZ	1	10:35:00
ZZZZZZ	1	10:37:00
ZZZZZZ	1	10:39:00
CCV06	1	10:41:00
CCB06	1	10:42:00
ZZZZZZ	1	10:44:00
ZZZZZZ	1	10:46:00
ZZZZZZ	1	10:48:00
ZZZZZZ	1	10:50:00
ZZZZZZ	1	10:52:00
ZZZZZZ	1	10:54:00
ZZZZZZ	1	10:56:00
ZZZZZZ	1	10:58:00
ZZZZZZ	1	11:00:00

Metals  
-14-  
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	5	11:02:00																								
CCV07	1	11:04:00															X									
CCB07	1	11:06:00															X									
ZZZZZZ	1	11:08:00																								
ZZZZZZ	1	11:09:00																								
ZZZZZZ	1	11:11:00																								
ZZZZZZ	1	11:13:00																								
1202056573	1	11:15:00															X									
1202056574	1	11:17:00															X									
ZZZZZZ	1	11:19:00																								
ZZZZZZ	1	11:21:00																								
ZZZZZZ	1	11:23:00																								
ZZZZZZ	1	11:25:00																								
CCV08	1	11:27:00															X									
CCB08	1	11:29:00															X									
ZZZZZZ	1	11:31:00																								
ZZZZZZ	1	11:33:00																								
ZZZZZZ	1	11:35:00																								
ZZZZZZ	1	11:37:00																								
ZZZZZZ	1	11:39:00																								
ZZZZZZ	1	11:40:00																								
248046001	1	11:42:00															X									
248046002	1	11:44:00															X									
ZZZZZZ	1	11:46:00																								
ZZZZZZ	1	11:48:00																								
CCV09	1	11:50:00															X									
CCB09	1	11:52:00															X									
ZZZZZZ	1	11:54:00																								
ZZZZZZ	1	11:56:00																								
ZZZZZZ	1	11:58:00																								
ZZZZZZ	1	12:00:00																								
1202056575	1	12:02:00															X									
1202056576	1	12:04:00															X									
1202056577	5	12:06:00															X									
ZZZZZZ	1	12:08:00																								
ZZZZZZ	1	12:10:00																								
ZZZZZZ	1	12:12:00																								
CCV10	1	12:14:00															X									
CCB10	1	12:15:00															X									

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 11-APR-10

End Date: 12-APR-10

Client Sdg: 10-2075-1

Method MS

Data File: 100411-2

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	23:26:00					X	X						X		X							X			
S10	1	23:32:00					X	X						X		X							X			
S100	1	23:38:00					X	X						X		X							X			
ICV01	1	23:44:00					X	X						X		X							X			
ICB01	1	23:50:00					X	X						X		X							X			
CRDL01	1	23:56:00					X	X						X		X							X			
ICSA01	1	00:02:00					X	X						X		X							X			
ICSAB01	1	00:09:00					X	X						X		X							X			
CCV01	1	00:15:00					X	X						X		X							X			
CCB01	1	00:21:00					X	X						X		X							X			
LR01	1	00:27:00					X	X						X		X							X			
CCV02	1	00:33:00					X	X						X		X							X			
CCB02	1	00:39:00					X	X						X		X							X			
1202056813	1	00:45:00					X	X						X		X							X			
1202056814	1	00:52:00					X	X						X		X							X			
ZZZZZZ	1	00:58:00																								
ZZZZZZ	1	01:04:00																								
ZZZZZZ	1	01:10:00																								
ZZZZZZ	1	01:16:00																								
ZZZZZZ	1	01:23:00																								
ZZZZZZ	1	01:29:00																								
ZZZZZZ	1	01:35:00																								
CCV03	1	01:41:00					X	X						X		X							X			
CCB03	1	01:47:00					X	X						X		X							X			
248046001	1	01:54:00					X	X						X		X							X			
1202056815	1	02:00:00					X	X						X		X							X			
1202056816	1	02:06:00					X	X						X		X							X			
1202056817	5	02:12:00					X	X						X		X							X			
248046002	1	02:18:00					X	X						X		X							X			
CCV04	1	02:25:00					X	X						X		X							X			
CCB04	1	02:31:00					X	X						X		X							X			

# Standards

METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-2075-J

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</u>	<u>ug/L</u>	<u>ug/L</u>
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

---

METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-2075-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

---

	<u>Analyte</u>	<u>Wavelength</u> (nm)	<u>MDL</u> ug/L	<u>RDL</u> ug/L
MERCURY				
LIQUID	Mercury		0.066	.2



---

**METALS**  
**-10-**  
**Instrument Detection Limits**

---

SDG NO. 10-2075-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

---

ICP	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</u>	<u>ug/L</u>	<u>ug/L</u>
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

---

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075-1

Contract: LANL01004

Instrument: OPTIMA3

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	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-2075-1**Contract: LANL01004Instrument: OPTIMA3Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2075-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2075-1

Contract: LANL01004

Lab Code: GEL

Instrument IDICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
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



**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2075-1

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

<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

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2075-1

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS4

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

# Raw Data

=====  
Analysis Begun

Start Time: 3/26/2010 18:59:42

Plasma On Time: 3/26/2010 18:41:22

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032610.sif

Batch ID:

Results Data Set: 032610A

Results Library: C:\pe\Optima3\Results\Results.mdb  
=====

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/26/2010 18:59:42

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	3784.2	3784.2	99.9 %		19:01:55
1	Y RADIAL	4053.5	4053.5	99.28 %		19:01:35
1	Al 396.153Radial†	-70.1	-70.1	[0.00] ug/L		19:01:55
1	Ca 317.933Radial†	24.1	24.2	[0.00] ug/L		19:01:55
1	Fe 238.204 Radial†	9.9	9.9	[0.00] ug/L		19:01:55
1	K 766.490 Radial†	2442.9	2445.3	[0.00] ug/L		19:01:35
1	Mg 279.077 IEC†	1.9	1.9	[0.00] ug/L		19:01:55
1	Na 589.592 Radial†	-395.5	-395.9	[0.00] ug/L		19:01:35
1	Sr 421.552†	43.7	43.7	[0.00] ug/L		19:01:35
1	Sc 361.383	721339.3	721339.3	98.435 %		19:02:52
1	Y 371.029	594849.4	594849.4	98.416 %		19:02:52
1	Ag 328.068†	159.0	161.6	[0.00] ug/L		19:02:52
1	As 188.979†	-18.6	-18.9	[0.00] ug/L		19:03:12
1	B 249.677†	-326.1	-331.3	[0.00] ug/L		19:03:12
1	Ba 233.527†	-2.4	-2.4	[0.00] ug/L		19:03:12
1	Be 313.107†	-3890.2	-3952.0	[0.00] ug/L		19:02:52
1	Cd 226.502†	-169.3	-172.0	[0.00] ug/L		19:03:12
1	Co 228.616†	-48.1	-48.9	[0.00] ug/L		19:03:12
1	Cr 267.716†	94.7	96.2	[0.00] ug/L		19:03:12
1	Cu 324.752†	5666.7	5756.8	[0.00] ug/L		19:02:52
1	Mn 257.610†	429.7	436.5	[0.00] ug/L		19:03:12
1	Mo 202.031†	13.9	14.1	[0.00] ug/L		19:03:12
1	Ni 231.604†	89.7	91.1	[0.00] ug/L		19:03:12
1	P 214.914†	196.9	200.1	[0.00] ug/L		19:03:12
1	Pb 220.353†	-52.9	-53.7	[0.00] ug/L		19:03:12
1	S 181.975 Axial†	27.1	27.5	[0.00] ug/L		19:03:12
1	Sb 206.836†	25.3	25.7	[0.00] ug/L		19:03:12
1	Se 196.026†	-25.0	-25.4	[0.00] ug/L		19:03:12
1	Si 251.611†	450.1	457.2	[0.00] ug/L		19:03:12
1	Sn 189.927†	15.5	15.7	[0.00] ug/L		19:03:12
1	Ti 334.940†	-1040.4	-1056.9	[0.00] ug/L		19:02:52
1	Tl 190.801†	-19.9	-20.2	[0.00] ug/L		19:03:12
1	U 409.014†	-1712.7	-1740.0	[0.00] ug/L		19:02:52
1	V 292.402†	-1338.4	-1359.7	[0.00] ug/L		19:02:52
1	Zn 213.857†	662.4	672.9	[0.00] ug/L		19:03:12
1	SiO2†	463.9	471.2	[0.00] ug/L		19:04:23
2	Sc Radial	3854.2	3854.2	102 %		19:02:20
2	Y RADIAL	4161.4	4161.4	101.9 %		19:02:00
2	Al 396.153Radial†	-73.3	-72.1	[0.00] ug/L		19:02:20
2	Ca 317.933Radial†	23.5	23.1	[0.00] ug/L		19:02:20
2	Fe 238.204 Radial†	9.3	9.1	[0.00] ug/L		19:02:20
2	K 766.490 Radial†	2503.4	2460.4	[0.00] ug/L		19:02:00
2	Mg 279.077 IEC†	3.2	3.2	[0.00] ug/L		19:02:20
2	Na 589.592 Radial†	-388.6	-381.9	[0.00] ug/L		19:02:00
2	Sr 421.552†	48.8	47.9	[0.00] ug/L		19:02:00
2	Sc 361.383	725301.9	725301.9	98.976 %		19:03:17
2	Y 371.029	598502.2	598502.2	99.020 %		19:03:17

2	Ag 328.068†	161.0	162.6	[0.00]	ug/L	19:03:17
2	As 188.979†	-23.0	-23.3	[0.00]	ug/L	19:03:37
2	B 249.677†	-356.6	-360.3	[0.00]	ug/L	19:03:37
2	Ba 233.527†	9.0	9.1	[0.00]	ug/L	19:03:37
2	Be 313.107†	-3901.0	-3941.3	[0.00]	ug/L	19:03:17
2	Cd 226.502†	-171.1	-172.9	[0.00]	ug/L	19:03:37
2	Co 228.616†	-47.4	-47.9	[0.00]	ug/L	19:03:37
2	Cr 267.716†	104.0	105.1	[0.00]	ug/L	19:03:37
2	Cu 324.752†	5597.9	5655.8	[0.00]	ug/L	19:03:17
2	Mn 257.610†	428.5	432.9	[0.00]	ug/L	19:03:37
2	Mo 202.031†	13.7	13.8	[0.00]	ug/L	19:03:37
2	Ni 231.604†	82.8	83.7	[0.00]	ug/L	19:03:37
2	P 214.914†	182.2	184.1	[0.00]	ug/L	19:03:37
2	Pb 220.353†	-46.7	-47.2	[0.00]	ug/L	19:03:37
2	S 181.975 Axial†	26.8	27.1	[0.00]	ug/L	19:03:37
2	Sb 206.836†	30.4	30.7	[0.00]	ug/L	19:03:37
2	Se 196.026†	-21.2	-21.5	[0.00]	ug/L	19:03:37
2	Si 251.611†	445.1	449.7	[0.00]	ug/L	19:03:37
2	Sn 189.927†	12.8	13.0	[0.00]	ug/L	19:03:37
2	Ti 334.940†	-1032.1	-1042.8	[0.00]	ug/L	19:03:17
2	Tl 190.801†	-27.5	-27.8	[0.00]	ug/L	19:03:37
2	U 409.014†	-1939.5	-1959.6	[0.00]	ug/L	19:03:17
2	V 292.402†	-1464.5	-1479.7	[0.00]	ug/L	19:03:17
2	Zn 213.857†	650.3	657.0	[0.00]	ug/L	19:03:37
2	SiO2†	474.2	479.1	[0.00]	ug/L	19:04:43
3	Sc Radial	3725.7	3725.7	98.4	%	19:02:45
3	Y RADIAL	4033.3	4033.3	98.79	%	19:02:25
3	Al 396.153Radial†	-75.1	-76.4	[0.00]	ug/L	19:02:45
3	Ca 317.933Radial†	18.2	18.5	[0.00]	ug/L	19:02:45
3	Fe 238.204 Radial†	6.2	6.3	[0.00]	ug/L	19:02:45
3	K 766.490 Radial†	2488.2	2529.8	[0.00]	ug/L	19:02:25
3	Mg 279.077 IEC†	3.3	3.4	[0.00]	ug/L	19:02:45
3	Na 589.592 Radial†	-374.8	-381.1	[0.00]	ug/L	19:02:25
3	Sr 421.552†	25.7	26.1	[0.00]	ug/L	19:02:25
3	Sc 361.383	751775.1	751775.1	102.59	%	19:03:42
3	Y 371.029	619924.0	619924.0	102.56	%	19:03:42
3	Ag 328.068†	135.7	132.3	[0.00]	ug/L	19:03:42
3	As 188.979†	-25.3	-24.7	[0.00]	ug/L	19:04:02
3	B 249.677†	-321.4	-313.3	[0.00]	ug/L	19:04:02
3	Ba 233.527†	1.0	1.0	[0.00]	ug/L	19:04:02
3	Be 313.107†	-3879.4	-3781.5	[0.00]	ug/L	19:03:42
3	Cd 226.502†	-173.0	-168.6	[0.00]	ug/L	19:04:02
3	Co 228.616†	-44.5	-43.3	[0.00]	ug/L	19:04:02
3	Cr 267.716†	86.1	83.9	[0.00]	ug/L	19:04:02
3	Cu 324.752†	5886.8	5738.3	[0.00]	ug/L	19:03:42
3	Mn 257.610†	417.7	407.2	[0.00]	ug/L	19:04:02
3	Mo 202.031†	22.9	22.4	[0.00]	ug/L	19:04:02
3	Ni 231.604†	74.7	72.8	[0.00]	ug/L	19:04:02
3	P 214.914†	185.9	181.2	[0.00]	ug/L	19:04:02
3	Pb 220.353†	-47.5	-46.3	[0.00]	ug/L	19:04:02
3	S 181.975 Axial†	27.4	26.7	[0.00]	ug/L	19:04:02
3	Sb 206.836†	21.0	20.5	[0.00]	ug/L	19:04:02
3	Se 196.026†	-18.8	-18.4	[0.00]	ug/L	19:04:02
3	Si 251.611†	472.1	460.2	[0.00]	ug/L	19:04:02
3	Sn 189.927†	12.6	12.3	[0.00]	ug/L	19:04:02
3	Ti 334.940†	-1060.0	-1033.2	[0.00]	ug/L	19:03:42
3	Tl 190.801†	-19.3	-18.8	[0.00]	ug/L	19:04:02
3	U 409.014†	-1849.2	-1802.5	[0.00]	ug/L	19:03:42
3	V 292.402†	-1336.1	-1302.4	[0.00]	ug/L	19:03:42
3	Zn 213.857†	666.3	649.5	[0.00]	ug/L	19:04:02
3	SiO2†	453.1	441.6	[0.00]	ug/L	19:05:03

-----  
Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	732805.4	16547.26	2.26%	100.000 %
Sc Radial	3788.0	64.32	1.70%	100 %
Y 371.029	604425.2	13546.07	2.24%	100.00 %
Y RADIAL	4082.7	68.88	1.69%	100.0 %
Ag 328.068†	152.2	17.20	11.30%	[0.00] ug/L

Al 396.153Radial†	-72.9	3.20	4.39%	[0.00] ug/L
As 188.979†	-22.3	3.01	13.48%	[0.00] ug/L
B 249.677†	-335.0	23.71	7.08%	[0.00] ug/L
Ba 233.527†	2.6	5.93	232.05%	[0.00] ug/L
Be 313.107†	-3891.6	95.53	2.45%	[0.00] ug/L
Ca 317.933Radial†	21.9	3.04	13.88%	[0.00] ug/L
Cd 226.502†	-171.2	2.26	1.32%	[0.00] ug/L
Co 228.616†	-46.7	2.96	6.33%	[0.00] ug/L
Cr 267.716†	95.1	10.62	11.17%	[0.00] ug/L
Cu 324.752†	5717.0	53.75	0.94%	[0.00] ug/L
Fe 238.204 Radial†	8.5	1.89	22.38%	[0.00] ug/L
K 766.490 Radial†	2478.5	45.07	1.82%	[0.00] ug/L
Mg 279.077 IEC†	2.8	0.81	28.97%	[0.00] ug/L
Mn 257.610†	425.5	15.99	3.76%	[0.00] ug/L
Mo 202.031†	16.7	4.86	29.00%	[0.00] ug/L
Na 589.592 Radial†	-386.3	8.34	2.16%	[0.00] ug/L
Ni 231.604†	82.6	9.20	11.14%	[0.00] ug/L
P 214.914†	188.5	10.17	5.40%	[0.00] ug/L
Pb 220.353†	-49.1	4.05	8.25%	[0.00] ug/L
S 181.975 Axial†	27.1	0.40	1.47%	[0.00] ug/L
Sb 206.836†	25.6	5.12	19.98%	[0.00] ug/L
Se 196.026†	-21.7	3.51	16.18%	[0.00] ug/L
Si 251.611†	455.7	5.39	1.18%	[0.00] ug/L
Sn 189.927†	13.6	1.81	13.25%	[0.00] ug/L
Sr 421.552†	39.3	11.56	29.43%	[0.00] ug/L
Ti 334.940†	-1044.3	11.92	1.14%	[0.00] ug/L
Tl 190.801†	-22.3	4.86	21.84%	[0.00] ug/L
U 409.014†	-1834.0	113.13	6.17%	[0.00] ug/L
V 292.402†	-1380.6	90.48	6.55%	[0.00] ug/L
Zn 213.857†	659.8	11.94	1.81%	[0.00] ug/L
SiO2†	464.0	19.75	4.26%	[0.00] ug/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 3/26/2010 19:07:13  
 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	3959.8	3959.8	105 %	19:09:25
1	Y RADIAL	4241.6	4241.6	103.9 %	19:09:25
1	K 766.490 Radial†	6985.1	4203.4	[1000] ug/L	19:09:05
1	Sr 421.552†	10622.4	10122.3	[100] ug/L	19:09:25
1	Sc 361.383	756854.1	756854.1	103.28 %	19:10:22
1	Y 371.029	624292.2	624292.2	103.29 %	19:10:22
1	Ag 328.068†	18964.0	18209.2	[100] ug/L	19:10:22
1	As 188.979†	155.5	172.8	[100] ug/L	19:10:42
1	B 249.677†	3142.4	3377.5	[100] ug/L	19:10:22
1	Ba 233.527†	10249.5	9921.2	[100] ug/L	19:10:22
1	Be 313.107†	225796.6	222513.6	[100] ug/L	19:10:22
1	Cd 226.502†	6385.3	6353.5	[100] ug/L	19:10:42
1	Co 228.616†	3781.5	3708.1	[100] ug/L	19:10:42
1	Cr 267.716†	7089.6	6769.3	[100] ug/L	19:10:22
1	Cu 324.752†	35323.9	28484.5	[100] ug/L	19:10:22
1	Mn 257.610†	74848.6	72044.8	[100] ug/L	19:10:22
1	Mo 202.031†	1079.6	1028.5	[100] ug/L	19:10:42
1	Ni 231.604†	3108.5	2927.1	[100] ug/L	19:10:42
1	P 214.914†	861.6	645.7	[500] ug/L	19:10:42
1	Pb 220.353†	587.6	618.0	[100] ug/L	19:10:42
1	S 181.975 Axial†	136.4	104.9	[200] ug/L	19:10:42
1	Sb 206.836†	269.0	234.9	[100] ug/L	19:10:42
1	Se 196.026†	103.2	121.6	[100] ug/L	19:10:42
1	Si 251.611†	13311.5	12432.8	[500] ug/L	19:10:22
1	Sn 189.927†	435.9	408.4	[100] ug/L	19:10:42
1	Ti 334.940†	54432.5	53747.3	[100] ug/L	19:10:22
1	Tl 190.801†	220.1	235.4	[100] ug/L	19:10:42
1	U 409.014†	1346.1	3137.3	[100] ug/L	19:10:22
1	V 292.402†	10429.2	11478.4	[100] ug/L	19:10:22
1	Zn 213.857†	8780.6	7841.8	[100] ug/L	19:10:22
1	SiO2†	13483.6	12591.1	[1069.5] ug/L	19:11:39
2	Sc Radial	3905.9	3905.9	103 %	19:09:51
2	Y RADIAL	4193.6	4193.6	102.7 %	19:09:51
2	K 766.490 Radial†	7477.5	4773.4	[1000] ug/L	19:09:31
2	Sr 421.552†	10707.1	10344.8	[100] ug/L	19:09:51
2	Sc 361.383	814135.1	814135.1	111.10 %	19:10:48
2	Y 371.029	670029.6	670029.6	110.85 %	19:10:48
2	Ag 328.068†	20316.1	18134.4	[100] ug/L	19:10:48
2	As 188.979†	159.4	165.8	[100] ug/L	19:11:08
2	B 249.677†	3415.9	3409.6	[100] ug/L	19:10:48
2	Ba 233.527†	11008.6	9906.3	[100] ug/L	19:10:48
2	Be 313.107†	241618.2	221372.9	[100] ug/L	19:10:48
2	Cd 226.502†	6350.0	5886.8	[100] ug/L	19:11:08
2	Co 228.616†	3753.8	3425.6	[100] ug/L	19:11:08
2	Cr 267.716†	7587.4	6734.4	[100] ug/L	19:10:48
2	Cu 324.752†	37932.7	28426.3	[100] ug/L	19:10:48
2	Mn 257.610†	80125.1	71695.3	[100] ug/L	19:10:48
2	Mo 202.031†	1077.1	952.8	[100] ug/L	19:11:08
2	Ni 231.604†	3069.3	2680.1	[100] ug/L	19:11:08
2	P 214.914†	861.5	587.0	[500] ug/L	19:11:08
2	Pb 220.353†	582.8	573.7	[100] ug/L	19:11:08
2	S 181.975 Axial†	138.7	97.7	[200] ug/L	19:11:08
2	Sb 206.836†	268.9	216.4	[100] ug/L	19:11:08
2	Se 196.026†	99.3	111.1	[100] ug/L	19:11:08
2	Si 251.611†	14272.2	12390.8	[500] ug/L	19:10:48
2	Sn 189.927†	424.6	368.6	[100] ug/L	19:11:08
2	Ti 334.940†	58617.3	53806.0	[100] ug/L	19:10:48
2	Tl 190.801†	228.9	228.3	[100] ug/L	19:11:08
2	U 409.014†	1537.3	3217.8	[100] ug/L	19:10:48

2	V 292.402†	11218.7	11478.6	[100]	ug/L	19:10:48
2	Zn 213.857†	9334.9	7742.5	[100]	ug/L	19:10:48
2	SiO2†	13297.4	11505.1	[1069.5]	ug/L	19:11:44
3	Sc Radial	3922.9	3922.9	104	%	19:10:16
3	Y RADIAL	4216.4	4216.4	103.3	%	19:10:16
3	K 766.490 Radial†	7297.7	4568.2	[1000]	ug/L	19:09:56
3	Sr 421.552†	10808.0	10397.0	[100]	ug/L	19:10:16
3	Sc 361.383	755634.2	755634.2	103.12	%	19:11:14
3	Y 371.029	622938.6	622938.6	103.06	%	19:11:14
3	Ag 328.068†	18941.2	18216.8	[100]	ug/L	19:11:14
3	As 188.979†	154.6	172.2	[100]	ug/L	19:11:34
3	B 249.677†	3102.5	3343.8	[100]	ug/L	19:11:14
3	Ba 233.527†	10272.6	9959.7	[100]	ug/L	19:11:14
3	Be 313.107†	225553.0	222630.4	[100]	ug/L	19:11:14
3	Cd 226.502†	6336.8	6316.5	[100]	ug/L	19:11:34
3	Co 228.616†	3751.6	3684.9	[100]	ug/L	19:11:34
3	Cr 267.716†	7145.2	6834.3	[100]	ug/L	19:11:14
3	Cu 324.752†	35269.0	28486.5	[100]	ug/L	19:11:14
3	Mn 257.610†	74830.8	72144.5	[100]	ug/L	19:11:14
3	Mo 202.031†	1073.7	1024.5	[100]	ug/L	19:11:34
3	Ni 231.604†	3093.7	2917.7	[100]	ug/L	19:11:34
3	P 214.914†	855.9	641.6	[500]	ug/L	19:11:34
3	Pb 220.353†	575.1	606.8	[100]	ug/L	19:11:34
3	S 181.975 Axial†	144.4	112.9	[200]	ug/L	19:11:34
3	Sb 206.836†	264.5	230.9	[100]	ug/L	19:11:34
3	Se 196.026†	91.1	110.1	[100]	ug/L	19:11:34
3	Si 251.611†	13300.0	12442.4	[500]	ug/L	19:11:14
3	Sn 189.927†	428.0	401.4	[100]	ug/L	19:11:34
3	Ti 334.940†	54429.7	53829.6	[100]	ug/L	19:11:14
3	Tl 190.801†	224.8	240.3	[100]	ug/L	19:11:34
3	U 409.014†	1480.9	3270.1	[100]	ug/L	19:11:14
3	V 292.402†	10394.2	11460.8	[100]	ug/L	19:11:14
3	Zn 213.857†	8781.8	7856.6	[100]	ug/L	19:11:14
3	SiO2†	13472.0	12601.0	[1069.5]	ug/L	19:11:49

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	775541.2	33428.90	4.31%	105.83 %
Sc Radial	3929.5	27.59	0.70%	104 %
Y 371.029	639086.8	26805.79	4.19%	105.73 %
Y RADIAL	4217.2	23.97	0.57%	103.3 %
Ag 328.068†	18186.8	45.56	0.25%	[100] ug/L
As 188.979†	170.3	3.91	2.29%	[100] ug/L
B 249.677†	3377.0	32.91	0.97%	[100] ug/L
Ba 233.527†	9929.1	27.53	0.28%	[100] ug/L
Be 313.107†	222172.3	694.77	0.31%	[100] ug/L
Cd 226.502†	6185.6	259.46	4.19%	[100] ug/L
Co 228.616†	3606.2	156.85	4.35%	[100] ug/L
Cr 267.716†	6779.3	50.69	0.75%	[100] ug/L
Cu 324.752†	28465.8	34.17	0.12%	[100] ug/L
K 766.490 Radial†	4515.0	288.69	6.39%	[1000] ug/L
Mn 257.610†	71961.6	235.88	0.33%	[100] ug/L
Mo 202.031†	1001.9	42.63	4.26%	[100] ug/L
Ni 231.604†	2841.7	139.96	4.93%	[100] ug/L
P 214.914†	624.8	32.75	5.24%	[500] ug/L
Pb 220.353†	599.5	23.04	3.84%	[100] ug/L
S 181.975 Axial†	105.2	7.59	7.22%	[200] ug/L
Sb 206.836†	227.4	9.72	4.28%	[100] ug/L
Se 196.026†	114.3	6.40	5.61%	[100] ug/L
Si 251.611†	12422.0	27.47	0.22%	[500] ug/L
Sn 189.927†	392.8	21.28	5.42%	[100] ug/L
Sr 421.552†	10288.0	145.93	1.42%	[100] ug/L
Ti 334.940†	53794.3	42.39	0.08%	[100] ug/L
Tl 190.801†	234.6	6.04	2.57%	[100] ug/L
U 409.014†	3208.4	66.91	2.09%	[100] ug/L
V 292.402†	11472.6	10.23	0.09%	[100] ug/L
Zn 213.857†	7813.6	62.05	0.79%	[100] ug/L
SiO2†	12232.4	629.92	5.15%	[1069.5] ug/L



Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 3/26/2010 19:14:00  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc Radial	3948.4	3948.4	104	%	19:16:12
1	Y RADIAL	4473.3	4473.3	109.6	%	19:15:52
1	Al 396.153Radial†	4578.3	4465.2	[5000]	ug/L	19:15:52
1	Ca 317.933Radial†	2438.3	2317.4	[5000]	ug/L	19:16:12
1	K 766.490 Radial†	26802.6	23235.5	[5000]	ug/L	19:15:52
1	Mg 279.077 IEC†	119.1	111.5	[5000]	ug/L	19:16:12
1	Sr 421.552†	59246.6	56801.0	[500]	ug/L	19:15:52
1	Sc 361.383	781698.4	781698.4	106.67	%	19:17:10
1	Y 371.029	639119.4	639119.4	105.74	%	19:17:10
1	Ag 328.068†	96625.6	90429.8	[500]	ug/L	19:17:15
1	As 188.979†	867.1	835.2	[500]	ug/L	19:17:35
1	B 249.677†	17582.0	16817.3	[500]	ug/L	19:17:15
1	Ba 233.527†	51877.6	48630.2	[500]	ug/L	19:17:15
1	Be 313.107†	1151343.1	1083221.5	[500]	ug/L	19:17:10
1	Cd 226.502†	33338.3	31424.2	[500]	ug/L	19:17:15
1	Co 228.616†	19217.2	18061.9	[500]	ug/L	19:17:15
1	Cr 267.716†	35556.5	33237.5	[500]	ug/L	19:17:15
1	Cu 324.752†	157545.2	141974.3	[500]	ug/L	19:17:15
1	Mn 257.610†	368217.3	344760.8	[500]	ug/L	19:17:10
1	Mo 202.031†	5413.8	5058.5	[500]	ug/L	19:17:35
1	Ni 231.604†	15495.1	14443.3	[500]	ug/L	19:17:15
1	P 214.914†	3545.1	3134.9	[2500]	ug/L	19:17:35
1	Pb 220.353†	3084.6	2940.7	[500]	ug/L	19:17:35
1	S 181.975 Axial†	590.8	526.7	[1000]	ug/L	19:17:35
1	Sb 206.836†	1196.0	1095.6	[500]	ug/L	19:17:35
1	Se 196.026†	580.7	566.1	[500]	ug/L	19:17:35
1	Si 251.611†	66672.6	62046.7	[2500]	ug/L	19:17:15
1	Sn 189.927†	2159.6	2010.9	[500]	ug/L	19:17:35
1	Ti 334.940†	280353.8	263862.8	[500]	ug/L	19:17:15
1	Tl 190.801†	1235.2	1180.2	[500]	ug/L	19:17:35
1	U 409.014†	14321.3	15259.6	[500]	ug/L	19:17:15
1	V 292.402†	58928.3	56623.1	[500]	ug/L	19:17:15
1	Zn 213.857†	41570.1	38310.2	[500]	ug/L	19:17:15
1	SiO2†	65661.9	61090.9	[5347.5]	ug/L	19:18:42
2	Sc Radial	3835.3	3835.3	101	%	19:16:37
2	Y RADIAL	4488.0	4488.0	109.9	%	19:16:17
2	Al 396.153Radial†	4606.4	4622.5	[5000]	ug/L	19:16:17
2	Ca 317.933Radial†	2403.3	2351.7	[5000]	ug/L	19:16:37
2	K 766.490 Radial†	26935.2	24124.4	[5000]	ug/L	19:16:17
2	Mg 279.077 IEC†	113.3	109.1	[5000]	ug/L	19:16:37
2	Sr 421.552†	59628.1	58853.4	[500]	ug/L	19:16:17
2	Sc 361.383	786326.1	786326.1	107.30	%	19:17:41
2	Y 371.029	642760.6	642760.6	106.34	%	19:17:41
2	Ag 328.068†	94729.6	88129.7	[500]	ug/L	19:17:46
2	As 188.979†	848.5	813.1	[500]	ug/L	19:18:06
2	B 249.677†	17147.9	16315.8	[500]	ug/L	19:17:46
2	Ba 233.527†	51040.3	47563.8	[500]	ug/L	19:17:46
2	Be 313.107†	1143791.7	1069832.0	[500]	ug/L	19:17:41
2	Cd 226.502†	32820.7	30757.9	[500]	ug/L	19:17:46
2	Co 228.616†	18895.8	17656.4	[500]	ug/L	19:17:46
2	Cr 267.716†	35003.7	32526.2	[500]	ug/L	19:17:46
2	Cu 324.752†	153934.8	137740.4	[500]	ug/L	19:17:46
2	Mn 257.610†	366678.5	341295.3	[500]	ug/L	19:17:41
2	Mo 202.031†	5277.5	4901.5	[500]	ug/L	19:18:06
2	Ni 231.604†	15251.5	14130.9	[500]	ug/L	19:17:46
2	P 214.914†	3437.5	3015.1	[2500]	ug/L	19:18:06
2	Pb 220.353†	2992.8	2838.2	[500]	ug/L	19:18:06
2	S 181.975 Axial†	568.9	503.1	[1000]	ug/L	19:18:06
2	Sb 206.836†	1154.2	1050.0	[500]	ug/L	19:18:06

2	Se 196.026†	564.9	548.2	[500]	ug/L	19:18:06
2	Si 251.611†	65277.6	60378.8	[2500]	ug/L	19:17:46
2	Sn 189.927†	2102.9	1946.1	[500]	ug/L	19:18:06
2	Ti 334.940†	275136.8	257454.1	[500]	ug/L	19:17:46
2	Tl 190.801†	1193.5	1134.5	[500]	ug/L	19:18:06
2	U 409.014†	14009.1	14889.6	[500]	ug/L	19:17:46
2	V 292.402†	57814.2	55259.7	[500]	ug/L	19:17:46
2	Zn 213.857†	40881.2	37438.9	[500]	ug/L	19:17:46
2	SiO2†	65430.8	60513.4	[5347.5]	ug/L	19:18:47
3	Sc Radial	4051.5	4051.5	107	%	19:17:02
3	Y RADIAL	4186.1	4186.1	102.5	%	19:16:42
3	Al 396.153Radial†	4337.1	4127.9	[5000]	ug/L	19:16:42
3	Ca 317.933Radial†	2495.3	2311.1	[5000]	ug/L	19:17:02
3	K 766.490 Radial†	25579.1	21436.8	[5000]	ug/L	19:16:42
3	Mg 279.077 IEC†	119.3	108.7	[5000]	ug/L	19:17:02
3	Sr 421.552†	56174.4	52481.3	[500]	ug/L	19:16:42
3	Sc 361.383	771590.3	771590.3	105.29	%	19:18:12
3	Y 371.029	630724.8	630724.8	104.35	%	19:18:12
3	Ag 328.068†	95758.7	90793.1	[500]	ug/L	19:18:17
3	As 188.979†	864.5	843.4	[500]	ug/L	19:18:37
3	B 249.677†	17437.8	16896.3	[500]	ug/L	19:18:17
3	Ba 233.527†	51567.4	48972.7	[500]	ug/L	19:18:17
3	Be 313.107†	1126364.4	1073637.9	[500]	ug/L	19:18:12
3	Cd 226.502†	33229.2	31730.1	[500]	ug/L	19:18:17
3	Co 228.616†	19142.4	18226.9	[500]	ug/L	19:18:17
3	Cr 267.716†	35441.3	33564.7	[500]	ug/L	19:18:17
3	Cu 324.752†	155403.6	141875.1	[500]	ug/L	19:18:17
3	Mn 257.610†	361764.6	343154.6	[500]	ug/L	19:18:12
3	Mo 202.031†	5383.7	5096.3	[500]	ug/L	19:18:37
3	Ni 231.604†	15420.0	14562.4	[500]	ug/L	19:18:17
3	P 214.914†	3497.5	3133.3	[2500]	ug/L	19:18:37
3	Pb 220.353†	3078.8	2973.1	[500]	ug/L	19:18:37
3	S 181.975 Axial†	583.1	526.7	[1000]	ug/L	19:18:37
3	Sb 206.836†	1189.8	1104.4	[500]	ug/L	19:18:37
3	Se 196.026†	574.0	566.9	[500]	ug/L	19:18:37
3	Si 251.611†	66026.9	62252.3	[2500]	ug/L	19:18:17
3	Sn 189.927†	2133.1	2012.3	[500]	ug/L	19:18:37
3	Ti 334.940†	277776.5	264858.0	[500]	ug/L	19:18:17
3	Tl 190.801†	1232.6	1192.9	[500]	ug/L	19:18:37
3	U 409.014†	14075.7	15202.2	[500]	ug/L	19:18:17
3	V 292.402†	58452.7	56895.1	[500]	ug/L	19:18:17
3	Zn 213.857†	41375.3	38635.7	[500]	ug/L	19:18:17
3	SiO2†	64447.8	60744.3	[5347.5]	ug/L	19:18:52

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	779871.6	7535.81	0.97%	106.42	%
Sc Radial	3945.1	108.15	2.74%	104	%
Y 371.029	637534.9	6172.35	0.97%	105.48	%
Y RADIAL	4382.5	170.20	3.88%	107.3	%
Ag 328.068†	89784.2	1444.31	1.61%	[500]	ug/L
Al 396.153Radial†	4405.2	252.71	5.74%	[5000]	ug/L
As 188.979†	830.5	15.67	1.89%	[500]	ug/L
B 249.677†	16676.4	314.85	1.89%	[500]	ug/L
Ba 233.527†	48388.9	734.83	1.52%	[500]	ug/L
Be 313.107†	1075563.8	6899.37	0.64%	[500]	ug/L
Ca 317.933Radial†	2326.7	21.88	0.94%	[5000]	ug/L
Cd 226.502†	31304.1	497.07	1.59%	[500]	ug/L
Co 228.616†	17981.7	293.60	1.63%	[500]	ug/L
Cr 267.716†	33109.5	531.00	1.60%	[500]	ug/L
Cu 324.752†	140529.9	2416.31	1.72%	[500]	ug/L
K 766.490 Radial†	22932.2	1369.23	5.97%	[5000]	ug/L
Mg 279.077 IEC†	109.8	1.50	1.36%	[5000]	ug/L
Mn 257.610†	343070.2	1734.31	0.51%	[500]	ug/L
Mo 202.031†	5018.8	103.27	2.06%	[500]	ug/L
Ni 231.604†	14378.9	222.84	1.55%	[500]	ug/L
P 214.914†	3094.4	68.72	2.22%	[2500]	ug/L
Pb 220.353†	2917.3	70.43	2.41%	[500]	ug/L
S 181.975 Axial†	518.8	13.67	2.63%	[1000]	ug/L

Sb 206.836†	1083.3	29.17	2.69%	[500] ug/L
Se 196.026†	560.4	10.58	1.89%	[500] ug/L
Si 251.611†	61559.3	1027.47	1.67%	[2500] ug/L
Sn 189.927†	1989.8	37.81	1.90%	[500] ug/L
Sr 421.552†	56045.2	3252.57	5.80%	[500] ug/L
Ti 334.940†	262058.3	4018.28	1.53%	[500] ug/L
Tl 190.801†	1169.2	30.71	2.63%	[500] ug/L
U 409.014†	15117.1	199.09	1.32%	[500] ug/L
V 292.402†	56259.3	876.32	1.56%	[500] ug/L
Zn 213.857†	38128.3	618.81	1.62%	[500] ug/L
SiO2†	60782.9	290.70	0.48%	[5347.5] ug/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 3/26/2010 19:21:03  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	3955.0	3955.0	104 %	19:23:16
1	Y RADIAL	4374.2	4374.2	107.1 %	19:22:56
1	Al 396.153Radial†	9148.9	8835.5	[10000] ug/L	19:22:56
1	Ca 317.933Radial†	5037.5	4802.9	[10000] ug/L	19:22:56
1	Fe 238.204 Radial†	828.0	784.6	[10000] ug/L	19:23:16
1	K 766.490 Radial†	50617.6	46002.0	[10000] ug/L	19:22:56
1	Mg 279.077 IEC†	236.8	224.0	[10000] ug/L	19:23:16
1	Na 589.592 Radial†	26401.8	25673.4	[10000] ug/L	19:22:56
1	Sr 421.552†	116616.4	111653.7	[1000] ug/L	19:22:56
1	Sc 361.383	788649.0	788649.0	107.62 %	19:24:15
1	Y 371.029	642971.8	642971.8	106.38 %	19:24:15
1	Ag 328.068†	189873.5	176276.6	[1000] ug/L	19:24:15
1	As 188.979†	1735.0	1634.5	[1000] ug/L	19:24:35
1	B 249.677†	35641.4	33452.7	[1000] ug/L	19:24:15
1	Ba 233.527†	103471.2	96141.9	[1000] ug/L	19:24:15
1	Be 313.107†	2323674.4	2163028.6	[1000] ug/L	19:24:15
1	Cd 226.502†	66598.6	62054.0	[1000] ug/L	19:24:15
1	Co 228.616†	37076.5	34497.9	[1000] ug/L	19:24:35
1	Cr 267.716†	70935.3	65817.3	[1000] ug/L	19:24:15
1	Cu 324.752†	309969.2	282303.6	[1000] ug/L	19:24:15
1	Mn 257.610†	745768.0	692535.3	[1000] ug/L	19:24:15
1	Mo 202.031†	10628.6	9859.3	[1000] ug/L	19:24:35
1	Ni 231.604†	29803.5	27610.6	[1000] ug/L	19:24:35
1	P 214.914†	6850.3	6176.8	[5000] ug/L	19:24:35
1	Pb 220.353†	6159.9	5772.8	[1000] ug/L	19:24:35
1	S 181.975 Axial†	1135.5	1028.0	[2000] ug/L	19:24:35
1	Sb 206.836†	2344.7	2153.0	[1000] ug/L	19:24:35
1	Se 196.026†	1177.2	1115.6	[1000] ug/L	19:24:35
1	Si 251.611†	131489.5	121723.1	[5000] ug/L	19:24:15
1	Sn 189.927†	4253.6	3938.8	[1000] ug/L	19:24:35
1	Ti 334.940†	566898.7	527801.4	[1000] ug/L	19:24:15
1	Tl 190.801†	2458.6	2306.7	[1000] ug/L	19:24:35
1	U 409.014†	29575.9	29315.7	[1000] ug/L	19:24:15
1	V 292.402†	119191.8	112132.6	[1000] ug/L	19:24:15
1	Zn 213.857†	81832.1	75377.8	[1000] ug/L	19:24:15
1	SiO2†	133295.9	123393.4	[10695] ug/L	19:25:35
2	Sc Radial	3878.7	3878.7	102 %	19:23:41
2	Y RADIAL	4329.4	4329.4	106.0 %	19:23:21
2	Al 396.153Radial†	8987.2	8850.1	[10000] ug/L	19:23:21
2	Ca 317.933Radial†	4948.9	4811.4	[10000] ug/L	19:23:21
2	Fe 238.204 Radial†	806.9	779.6	[10000] ug/L	19:23:41
2	K 766.490 Radial†	49756.6	46115.4	[10000] ug/L	19:23:21
2	Mg 279.077 IEC†	232.8	224.5	[10000] ug/L	19:23:41
2	Na 589.592 Radial†	25916.6	25697.3	[10000] ug/L	19:23:21
2	Sr 421.552†	114776.7	112055.3	[1000] ug/L	19:23:21
2	Sc 361.383	811253.9	811253.9	110.71 %	19:24:43
2	Y 371.029	662399.3	662399.3	109.59 %	19:24:43
2	Ag 328.068†	191244.3	172598.8	[1000] ug/L	19:24:43
2	As 188.979†	1788.2	1637.5	[1000] ug/L	19:25:03
2	B 249.677†	35985.2	32840.4	[1000] ug/L	19:24:43
2	Ba 233.527†	103577.6	93559.1	[1000] ug/L	19:24:43
2	Be 313.107†	2330506.2	2109037.1	[1000] ug/L	19:24:43
2	Cd 226.502†	66612.7	60342.4	[1000] ug/L	19:24:43
2	Co 228.616†	37786.9	34179.6	[1000] ug/L	19:25:03
2	Cr 267.716†	71014.7	64052.5	[1000] ug/L	19:24:43
2	Cu 324.752†	312414.9	276487.3	[1000] ug/L	19:24:43
2	Mn 257.610†	746740.7	674105.1	[1000] ug/L	19:24:43
2	Mo 202.031†	10859.4	9792.5	[1000] ug/L	19:25:03
2	Ni 231.604†	30450.1	27423.0	[1000] ug/L	19:25:03

2	P 214.914†	7015.1	6148.3	[5000]	ug/L	19:25:03
2	Pb 220.353†	6259.2	5703.0	[1000]	ug/L	19:25:03
2	S 181.975 Axial†	1155.7	1016.8	[2000]	ug/L	19:25:03
2	Sb 206.836†	2399.3	2141.7	[1000]	ug/L	19:25:03
2	Se 196.026†	1190.2	1096.8	[1000]	ug/L	19:25:03
2	Si 251.611†	132116.6	118885.1	[5000]	ug/L	19:24:43
2	Sn 189.927†	4337.4	3904.4	[1000]	ug/L	19:25:03
2	Ti 334.940†	568983.2	515006.7	[1000]	ug/L	19:24:43
2	Tl 190.801†	2523.1	2301.4	[1000]	ug/L	19:25:03
2	U 409.014†	29905.1	28847.3	[1000]	ug/L	19:24:43
2	V 292.402†	119702.7	109508.0	[1000]	ug/L	19:24:43
2	Zn 213.857†	81983.0	73395.4	[1000]	ug/L	19:24:43
2	SiO2†	133895.3	120483.6	[10695]	ug/L	19:25:41
3	Sc Radial	4024.5	4024.5	106	%	19:24:06
3	Y RADIAL	4241.4	4241.4	103.9	%	19:23:46
3	Al 396.153Radial†	8810.2	8365.4	[10000]	ug/L	19:23:46
3	Ca 317.933Radial†	4817.4	4512.4	[10000]	ug/L	19:23:46
3	Fe 238.204 Radial†	835.2	777.6	[10000]	ug/L	19:24:06
3	K 766.490 Radial†	48679.5	43340.5	[10000]	ug/L	19:23:46
3	Mg 279.077 IEC†	238.3	221.5	[10000]	ug/L	19:24:06
3	Na 589.592 Radial†	25357.2	24253.5	[10000]	ug/L	19:23:46
3	Sr 421.552†	112127.8	105499.8	[1000]	ug/L	19:23:46
3	Sc 361.383	790958.8	790958.8	107.94	%	19:25:10
3	Y 371.029	644933.1	644933.1	106.70	%	19:25:10
3	Ag 328.068†	189465.7	175383.6	[1000]	ug/L	19:25:10
3	As 188.979†	1764.6	1657.2	[1000]	ug/L	19:25:30
3	B 249.677†	35545.1	33266.7	[1000]	ug/L	19:25:10
3	Ba 233.527†	102961.5	95389.0	[1000]	ug/L	19:25:10
3	Be 313.107†	2310240.7	2144277.3	[1000]	ug/L	19:25:10
3	Cd 226.502†	66121.3	61431.0	[1000]	ug/L	19:25:10
3	Co 228.616†	37525.9	34813.6	[1000]	ug/L	19:25:30
3	Cr 267.716†	70613.5	65326.8	[1000]	ug/L	19:25:10
3	Cu 324.752†	309232.9	280780.4	[1000]	ug/L	19:25:10
3	Mn 257.610†	741998.2	687019.0	[1000]	ug/L	19:25:10
3	Mo 202.031†	10760.1	9952.2	[1000]	ug/L	19:25:30
3	Ni 231.604†	30205.1	27901.7	[1000]	ug/L	19:25:30
3	P 214.914†	6925.6	6228.0	[5000]	ug/L	19:25:30
3	Pb 220.353†	6230.0	5821.0	[1000]	ug/L	19:25:30
3	S 181.975 Axial†	1144.4	1033.2	[2000]	ug/L	19:25:30
3	Sb 206.836†	2362.0	2162.7	[1000]	ug/L	19:25:30
3	Se 196.026†	1178.7	1113.8	[1000]	ug/L	19:25:30
3	Si 251.611†	130889.9	120810.8	[5000]	ug/L	19:25:10
3	Sn 189.927†	4293.4	3964.1	[1000]	ug/L	19:25:30
3	Ti 334.940†	565084.2	524582.1	[1000]	ug/L	19:25:10
3	Tl 190.801†	2494.4	2333.3	[1000]	ug/L	19:25:30
3	U 409.014†	29710.6	29360.2	[1000]	ug/L	19:25:10
3	V 292.402†	118908.3	111546.4	[1000]	ug/L	19:25:10
3	Zn 213.857†	81419.1	74773.1	[1000]	ug/L	19:25:10
3	SiO2†	130682.4	120610.3	[10695]	ug/L	19:25:46

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	796953.9	12437.93	1.56%	108.75	%
Sc Radial	3952.7	72.95	1.85%	104	%
Y 371.029	650101.4	10695.35	1.65%	107.56	%
Y RADIAL	4315.0	67.56	1.57%	105.7	%
Ag 328.068†	174753.0	1918.27	1.10%	[1000]	ug/L
Al 396.153Radial†	8683.7	275.73	3.18%	[10000]	ug/L
As 188.979†	1643.1	12.33	0.75%	[1000]	ug/L
B 249.677†	33186.6	313.91	0.95%	[1000]	ug/L
Ba 233.527†	95030.0	1328.31	1.40%	[1000]	ug/L
Be 313.107†	2138781.0	27412.18	1.28%	[1000]	ug/L
Ca 317.933Radial†	4708.9	170.20	3.61%	[10000]	ug/L
Cd 226.502†	61275.8	866.28	1.41%	[1000]	ug/L
Co 228.616†	34497.0	317.01	0.92%	[1000]	ug/L
Cr 267.716†	65065.5	910.98	1.40%	[1000]	ug/L
Cu 324.752†	279857.1	3016.05	1.08%	[1000]	ug/L
Fe 238.204 Radial†	780.6	3.57	0.46%	[10000]	ug/L
K 766.490 Radial†	45152.6	1570.37	3.48%	[10000]	ug/L

Mg 279.077 IEC†	223.3	1.60	0.72%	[10000]	ug/L
Mn 257.610†	684553.1	9459.30	1.38%	[1000]	ug/L
Mo 202.031†	9868.0	80.22	0.81%	[1000]	ug/L
Na 589.592 Radial†	25208.1	826.79	3.28%	[10000]	ug/L
Ni 231.604†	27645.1	241.24	0.87%	[1000]	ug/L
P 214.914†	6184.3	40.40	0.65%	[5000]	ug/L
Pb 220.353†	5765.6	59.35	1.03%	[1000]	ug/L
S 181.975 Axial†	1026.0	8.35	0.81%	[2000]	ug/L
Sb 206.836†	2152.5	10.52	0.49%	[1000]	ug/L
Se 196.026†	1108.7	10.36	0.93%	[1000]	ug/L
Si 251.611†	120473.0	1448.82	1.20%	[5000]	ug/L
Sn 189.927†	3935.7	29.98	0.76%	[1000]	ug/L
Sr 421.552†	109736.3	3674.39	3.35%	[1000]	ug/L
Ti 334.940†	522463.4	6655.29	1.27%	[1000]	ug/L
Tl 190.801†	2313.8	17.09	0.74%	[1000]	ug/L
U 409.014†	29174.4	284.16	0.97%	[1000]	ug/L
V 292.402†	111062.3	1377.61	1.24%	[1000]	ug/L
Zn 213.857†	74515.5	1016.01	1.36%	[1000]	ug/L
SiO2†	121495.8	1644.61	1.35%	[10695]	ug/L

Sequence No.: 5  
 Sample ID: S10  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 3/26/2010 19:27:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	3938.3	3938.3	104 %	19:30:11
1	Y RADIAL	4177.9	4177.9	102.3 %	19:30:11
1	Al 396.153Radial†	42877.7	41314.1	[50000] ug/L	19:29:51
1	Ca 317.933Radial†	22928.2	22031.2	[50000] ug/L	19:29:51
1	Fe 238.204 Radial†	1584.7	1515.7	[20000] ug/L	19:30:11
1	Mg 279.077 IEC†	1111.0	1065.8	[50000] ug/L	19:30:11
1	Na 589.592 Radial†	50332.9	48798.1	[20000] ug/L	19:29:51
1	Sc 361.383	806458.8	806458.8	110.05 %	19:31:08
1	Y 371.029	655971.9	655971.9	108.53 %	19:31:08
2	Sc Radial	4056.8	4056.8	107 %	19:30:36
2	Y RADIAL	4313.9	4313.9	105.7 %	19:30:36
2	Al 396.153Radial†	44903.6	42001.6	[50000] ug/L	19:30:16
2	Ca 317.933Radial†	23838.7	22237.5	[50000] ug/L	19:30:16
2	Fe 238.204 Radial†	1615.7	1500.2	[20000] ug/L	19:30:36
2	Mg 279.077 IEC†	1132.2	1054.4	[50000] ug/L	19:30:36
2	Na 589.592 Radial†	52742.1	49634.3	[20000] ug/L	19:30:16
2	Sc 361.383	783540.7	783540.7	106.92 %	19:31:14
2	Y 371.029	637635.1	637635.1	105.49 %	19:31:14
3	Sc Radial	4193.9	4193.9	111 %	19:31:01
3	Y RADIAL	4446.3	4446.3	108.9 %	19:31:01
3	Al 396.153Radial†	46987.9	42513.4	[50000] ug/L	19:30:41
3	Ca 317.933Radial†	24944.3	22508.3	[50000] ug/L	19:30:41
3	Fe 238.204 Radial†	1655.3	1486.6	[20000] ug/L	19:31:01
3	Mg 279.077 IEC†	1157.9	1043.1	[50000] ug/L	19:31:01
3	Na 589.592 Radial†	55220.2	50262.5	[20000] ug/L	19:30:41
3	Sc 361.383	820097.6	820097.6	111.91 %	19:31:19
3	Y 371.029	667753.4	667753.4	110.48 %	19:31:19

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	803365.7	18473.66	2.30%	109.63 %
Sc Radial	4063.0	127.89	3.15%	107 %
Y 371.029	653786.8	15177.60	2.32%	108.17 %
Y RADIAL	4312.7	134.23	3.11%	105.6 %
Al 396.153Radial†	41943.0	601.82	1.43%	[50000] ug/L
Ca 317.933Radial†	22259.0	239.29	1.08%	[50000] ug/L
Fe 238.204 Radial†	1500.8	14.56	0.97%	[20000] ug/L
Mg 279.077 IEC†	1054.4	11.38	1.08%	[50000] ug/L
Na 589.592 Radial†	49565.0	734.65	1.48%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	175.8	0.00000	0.999936	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8404	0.00000	0.999966	
As 188.979	3	Lin Thru 0	0.0	1.647	0.00000	0.999986	
B 249.677	3	Lin Thru 0	0.0	33.22	0.00000	0.999997	
Ba 233.527	3	Lin Thru 0	0.0	95.41	0.00000	0.999967	
Be 313.107	3	Lin Thru 0	0.0	2142	0.00000	0.999992	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4464	0.00000	0.999931	
Cd 226.502	3	Lin Thru 0	0.0	61.54	0.00000	0.999963	
Co 228.616	3	Lin Thru 0	0.0	34.80	0.00000	0.999854	
Cr 267.716	3	Lin Thru 0	0.0	65.32	0.00000	0.999969	
Cu 324.752	3	Lin Thru 0	0.0	280.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0756	0.00000	0.999873	
K 766.490 Radial	3	Lin Thru 0	0.0	4.529	0.00000	0.999980	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0211	0.00000	0.999929
Mn 257.610	3	Lin Thru 0	0.0	685.1	0.00000	0.999989
Mo 202.031	3	Lin Thru 0	0.0	9.903	0.00000	0.999976
Na 589.592 Radia	2	Lin Thru 0	0.0	2.487	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	27.87	0.00000	0.999872
P 214.914	3	Lin Thru 0	0.0	1.237	0.00000	1.000000
Pb 220.353	3	Lin Thru 0	0.0	5.781	0.00000	0.999983
S 181.975 Axial	3	Lin Thru 0	0.0	0.5143	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	2.156	0.00000	0.999985
Se 196.026	3	Lin Thru 0	0.0	1.111	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	24.21	0.00000	0.999959
Sn 189.927	3	Lin Thru 0	0.0	3.944	0.00000	0.999990
Sr 421.552	3	Lin Thru 0	0.0	110.1	0.00000	0.999946
Ti 334.940	3	Lin Thru 0	0.0	522.9	0.00000	0.999996
Tl 190.801	3	Lin Thru 0	0.0	2.319	0.00000	0.999991
U 409.014	3	Lin Thru 0	0.0	29.41	0.00000	0.999864
V 292.402	3	Lin Thru 0	0.0	111.4	0.00000	0.999983
Zn 213.857	3	Lin Thru 0	0.0	74.89	0.00000	0.999950
SiO2	3	Lin Thru 0	0.0	11.36	0.00000	1.000000



Sequence No.: 6  
 Sample ID: ICV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 3/26/2010 19:33:31  
 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	3973.6	3973.6	105 %		19:35:44
1	Y RADIAL	4374.9	4374.9	107.2 %		19:35:24
1	Al 396.153Radial†	4544.1	4404.8	5216.3 ug/L	5216.3 ppb	19:35:24
1	Ca 317.933Radial†	2435.7	2300.0	5152.9 ug/L	5152.9 ppb	19:35:44
1	Fe 238.204 Radial†	411.0	383.3	5082.9 ug/L	5082.9 ppb	19:35:44
1	K 766.490 Radial†	14325.2	11177.7	2464.3 ug/L	2464.3 ppb	19:35:24
1	Mg 279.077 IEC†	116.0	107.8	5096.9 ug/L	5096.9 ppb	19:35:44
1	Na 589.592 Radial†	5942.0	6050.8	2433.2 ug/L	2433.2 ppb	19:35:24
1	Sr 421.552†	59592.9	56770.4	515.36 ug/L	515.36 ppb	19:35:24
1	Sc 361.383	825011.1	825011.1	112.58 %		19:36:42
1	Y 371.029	675512.4	675512.4	111.76 %		19:36:42
1	Ag 328.068†	49901.4	44172.1	254.42 ug/L	254.42 ppb	19:36:42
1	As 188.979†	858.5	784.8	480.64 ug/L	480.64 ppb	19:37:02
1	B 249.677†	19365.4	17536.1	525.51 ug/L	525.51 ppb	19:36:42
1	Ba 233.527†	54806.5	48678.6	511.45 ug/L	511.45 ppb	19:36:42
1	Be 313.107†	613354.3	548695.6	257.28 ug/L	257.28 ppb	19:36:42
1	Cd 226.502†	34390.2	30717.8	499.00 ug/L	499.00 ppb	19:36:42
1	Co 228.616†	20261.9	18044.1	518.64 ug/L	518.64 ppb	19:36:42
1	Cr 267.716†	36066.8	31940.8	490.06 ug/L	490.06 ppb	19:36:42
1	Cu 324.752†	167869.2	143390.7	511.86 ug/L	511.86 ppb	19:36:42
1	Mn 257.610†	387078.6	343392.0	501.49 ug/L	501.49 ppb	19:36:42
1	Mo 202.031†	5792.7	5128.5	518.34 ug/L	518.34 ppb	19:37:02
1	Ni 231.604†	15687.2	13851.4	496.65 ug/L	496.65 ppb	19:36:42
1	P 214.914†	3679.2	3079.5	2389.6 ug/L	2389.6 ppb	19:37:02
1	Pb 220.353†	3163.9	2859.4	496.11 ug/L	496.11 ppb	19:37:02
1	S 181.975 Axial†	1431.8	1244.7	2419.4 ug/L	2419.4 ppb	19:37:02
1	Sb 206.836†	1222.6	1060.3	510.41 ug/L	510.41 ppb	19:37:02
1	Se 196.026†	3195.4	2860.0	2589.8 ug/L	2589.8 ppb	19:37:02
1	Si 251.611†	133234.6	117888.1	4863.9 ug/L	4863.9 ppb	19:36:42
1	Sn 189.927†	2315.7	2043.3	518.65 ug/L	518.65 ppb	19:37:02
1	Ti 334.940†	285385.8	254534.6	486.64 ug/L	486.64 ppb	19:36:42
1	Tl 190.801†	1295.4	1172.9	509.02 ug/L	509.02 ppb	19:37:02
1	U 409.014†	14305.4	14540.6	492.77 ug/L	492.77 ppb	19:36:42
1	V 292.402†	60742.6	55334.4	503.73 ug/L	503.73 ppb	19:36:42
1	Zn 213.857†	42609.5	37187.5	491.95 ug/L	491.95 ppb	19:36:42
1	SiO2†	129353.1	114432.2	10057 ug/L	10057 ppb	19:37:59
2	Sc Radial	3911.1	3911.1	103 %		19:36:09
2	Y RADIAL	4216.6	4216.6	103.3 %		19:35:49
2	Al 396.153Radial†	4527.6	4458.0	5279.7 ug/L	5279.7 ppb	19:35:49
2	Ca 317.933Radial†	2459.7	2360.4	5288.2 ug/L	5288.2 ppb	19:36:09
2	Fe 238.204 Radial†	416.3	394.8	5234.1 ug/L	5234.1 ppb	19:36:09
2	K 766.490 Radial†	14345.3	11415.4	2516.8 ug/L	2516.8 ppb	19:35:49
2	Mg 279.077 IEC†	114.8	108.4	5127.5 ug/L	5127.5 ppb	19:36:09
2	Na 589.592 Radial†	5947.0	6146.2	2471.6 ug/L	2471.6 ppb	19:35:49
2	Sr 421.552†	59681.0	57763.8	524.38 ug/L	524.38 ppb	19:35:49
2	Sc 361.383	821861.3	821861.3	112.15 %		19:37:08
2	Y 371.029	673287.5	673287.5	111.39 %		19:37:08
2	Ag 328.068†	49372.1	43870.1	252.73 ug/L	252.73 ppb	19:37:08
2	As 188.979†	851.5	781.5	478.64 ug/L	478.64 ppb	19:37:28
2	B 249.677†	19305.3	17548.4	525.86 ug/L	525.86 ppb	19:37:08
2	Ba 233.527†	54305.2	48418.2	508.72 ug/L	508.72 ppb	19:37:08
2	Be 313.107†	609197.2	547076.9	256.52 ug/L	256.52 ppb	19:37:08
2	Cd 226.502†	34222.2	30685.1	498.45 ug/L	498.45 ppb	19:37:08
2	Co 228.616†	20099.6	17968.4	516.46 ug/L	516.46 ppb	19:37:08
2	Cr 267.716†	35787.3	31814.3	488.14 ug/L	488.14 ppb	19:37:08
2	Cu 324.752†	166074.9	142362.2	508.20 ug/L	508.20 ppb	19:37:08
2	Mn 257.610†	384018.4	341981.1	499.44 ug/L	499.44 ppb	19:37:08
2	Mo 202.031†	5726.0	5088.8	514.34 ug/L	514.34 ppb	19:37:28
2	Ni 231.604†	15566.2	13796.9	494.70 ug/L	494.70 ppb	19:37:08

2	P 214.914†	3654.1	3069.7	2382.3 ug/L	2382.3 ppb	19:37:28
2	Pb 220.353†	3125.5	2835.9	492.03 ug/L	492.03 ppb	19:37:28
2	S 181.975 Axial†	1414.8	1234.4	2399.4 ug/L	2399.4 ppb	19:37:28
2	Sb 206.836†	1213.5	1056.4	508.46 ug/L	508.46 ppb	19:37:28
2	Se 196.026†	3148.0	2828.6	2562.0 ug/L	2562.0 ppb	19:37:28
2	Si 251.611†	132002.5	117243.1	4837.3 ug/L	4837.3 ppb	19:37:08
2	Sn 189.927†	2291.0	2029.1	515.07 ug/L	515.07 ppb	19:37:28
2	Ti 334.940†	282841.1	253237.1	484.18 ug/L	484.18 ppb	19:37:08
2	Tl 190.801†	1293.0	1175.1	509.96 ug/L	509.96 ppb	19:37:28
2	U 409.014†	14112.4	14417.2	488.57 ug/L	488.57 ppb	19:37:08
2	V 292.402†	60160.1	55021.8	500.84 ug/L	500.84 ppb	19:37:08
2	Zn 213.857†	42424.3	37167.4	491.67 ug/L	491.67 ppb	19:37:08
2	SiO2†	130268.1	115688.5	10168 ug/L	10168 ppb	19:38:05
3	Sc Radial	4071.3	4071.3	107 %		19:36:34
3	Y RADIAL	4522.7	4522.7	110.8 %		19:36:14
3	Al 396.153Radial†	4746.4	4489.0	5315.8 ug/L	5315.8 ppb	19:36:14
3	Ca 317.933Radial†	2511.3	2314.7	5185.8 ug/L	5185.8 ppb	19:36:34
3	Fe 238.204 Radial†	421.0	383.3	5082.5 ug/L	5082.5 ppb	19:36:34
3	K 766.490 Radial†	14823.7	11313.9	2494.4 ug/L	2494.4 ppb	19:36:14
3	Mg 279.077 IEC†	118.3	107.2	5072.3 ug/L	5072.3 ppb	19:36:34
3	Na 589.592 Radial†	6222.2	6175.6	2483.4 ug/L	2483.4 ppb	19:36:14
3	Sr 421.552†	62877.9	58464.1	530.73 ug/L	530.73 ppb	19:36:14
3	Sc 361.383	797166.9	797166.9	108.78 %		19:37:34
3	Y 371.029	652378.0	652378.0	107.93 %		19:37:34
3	Ag 328.068†	48523.9	44454.0	256.04 ug/L	256.04 ppb	19:37:34
3	As 188.979†	856.9	810.0	495.92 ug/L	495.92 ppb	19:37:54
3	B 249.677†	18855.4	17668.1	529.46 ug/L	529.46 ppb	19:37:34
3	Ba 233.527†	53730.8	49390.2	518.92 ug/L	518.92 ppb	19:37:34
3	Be 313.107†	599026.3	554553.9	260.02 ug/L	260.02 ppb	19:37:34
3	Cd 226.502†	33700.9	31151.1	506.05 ug/L	506.05 ppb	19:37:34
3	Co 228.616†	19829.5	18275.2	525.31 ug/L	525.31 ppb	19:37:34
3	Cr 267.716†	35327.8	32380.5	496.80 ug/L	496.80 ppb	19:37:34
3	Cu 324.752†	162764.5	143906.3	513.70 ug/L	513.70 ppb	19:37:34
3	Mn 257.610†	378740.8	347736.6	507.83 ug/L	507.83 ppb	19:37:34
3	Mo 202.031†	5755.5	5274.1	533.04 ug/L	533.04 ppb	19:37:54
3	Ni 231.604†	15352.8	14030.7	503.08 ug/L	503.08 ppb	19:37:34
3	P 214.914†	3670.1	3185.3	2474.9 ug/L	2474.9 ppb	19:37:54
3	Pb 220.353†	3150.8	2945.5	511.07 ug/L	511.07 ppb	19:37:54
3	S 181.975 Axial†	1426.2	1283.9	2495.7 ug/L	2495.7 ppb	19:37:54
3	Sb 206.836†	1221.0	1096.8	527.88 ug/L	527.88 ppb	19:37:54
3	Se 196.026†	3157.9	2924.7	2648.1 ug/L	2648.1 ppb	19:37:54
3	Si 251.611†	129617.4	118696.7	4897.1 ug/L	4897.1 ppb	19:37:34
3	Sn 189.927†	2304.3	2104.6	534.21 ug/L	534.21 ppb	19:37:54
3	Ti 334.940†	278284.1	256860.4	491.10 ug/L	491.10 ppb	19:37:34
3	Tl 190.801†	1292.4	1210.4	525.20 ug/L	525.20 ppb	19:37:54
3	U 409.014†	13757.7	14480.9	490.73 ug/L	490.73 ppb	19:37:34
3	V 292.402†	59212.0	55811.9	508.22 ug/L	508.22 ppb	19:37:34
3	Zn 213.857†	41818.6	37782.4	499.85 ug/L	499.85 ppb	19:37:34
3	SiO2†	127687.2	116914.0	10275 ug/L	10275 ppb	19:38:10

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814679.8	111.17 %	2.081			1.87%
Sc Radial	3985.3	105 %	2.1			2.03%
Y 371.029	667059.3	110.36 %	2.112			1.91%
Y RADIAL	4371.4	107.1 %	3.75			3.50%
Ag 328.068†	44165.4	254.40 ug/L	1.652	254.40 ppb	1.652	0.65%
QC value within limits for Ag 328.068 Recovery = 101.76%						
Al 396.153Radial†	4450.6	5270.6 ug/L	50.40	5270.6 ppb	50.40	0.96%
QC value within limits for Al 396.153Radial Recovery = 105.41%						
As 188.979†	792.1	485.07 ug/L	9.449	485.07 ppb	9.449	1.95%
QC value within limits for As 188.979 Recovery = 97.01%						
B 249.677†	17584.2	526.94 ug/L	2.188	526.94 ppb	2.188	0.42%
QC value within limits for B 249.677 Recovery = 105.39%						
Ba 233.527†	48829.0	513.03 ug/L	5.279	513.03 ppb	5.279	1.03%
QC value within limits for Ba 233.527 Recovery = 102.61%						
Be 313.107†	550108.8	257.94 ug/L	1.844	257.94 ppb	1.844	0.72%
QC value within limits for Be 313.107 Recovery = 103.18%						
Ca 317.933Radial†	2325.0	5209.0 ug/L	70.58	5209.0 ppb	70.58	1.35%

QC value within limits for Ca 317.933 Radial Recovery = 104.18%							
Cd 226.502†	30851.3	501.17 ug/L	4.234	501.17 ppb	4.234	0.84%	
QC value within limits for Cd 226.502 Recovery = 100.23%							
Co 228.616†	18095.9	520.14 ug/L	4.610	520.14 ppb	4.610	0.89%	
QC value within limits for Co 228.616 Recovery = 104.03%							
Cr 267.716†	32045.2	491.67 ug/L	4.548	491.67 ppb	4.548	0.92%	
QC value within limits for Cr 267.716 Recovery = 98.33%							
Cu 324.752†	143219.8	511.25 ug/L	2.801	511.25 ppb	2.801	0.55%	
QC value within limits for Cu 324.752 Recovery = 102.25%							
Fe 238.204 Radial†	387.1	5133.2 ug/L	87.42	5133.2 ppb	87.42	1.70%	
QC value within limits for Fe 238.204 Radial Recovery = 102.66%							
K 766.490 Radial†	11302.3	2491.8 ug/L	26.31	2491.8 ppb	26.31	1.06%	
QC value within limits for K 766.490 Radial Recovery = 99.67%							
Mg 279.077 IEC†	107.8	5098.9 ug/L	27.65	5098.9 ppb	27.65	0.54%	
QC value within limits for Mg 279.077 IEC Recovery = 101.98%							
Mn 257.610†	344369.9	502.92 ug/L	4.373	502.92 ppb	4.373	0.87%	
QC value within limits for Mn 257.610 Recovery = 100.58%							
Mo 202.031†	5163.8	521.90 ug/L	9.847	521.90 ppb	9.847	1.89%	
QC value within limits for Mo 202.031 Recovery = 104.38%							
Na 589.592 Radial†	6124.2	2462.7 ug/L	26.23	2462.7 ppb	26.23	1.07%	
QC value within limits for Na 589.592 Radial Recovery = 98.51%							
Ni 231.604†	13893.0	498.14 ug/L	4.387	498.14 ppb	4.387	0.88%	
QC value within limits for Ni 231.604 Recovery = 99.63%							
P 214.914†	3111.5	2415.6 ug/L	51.51	2415.6 ppb	51.51	2.13%	
QC value within limits for P 214.914 Recovery = 96.62%							
Pb 220.353†	2880.3	499.74 ug/L	10.022	499.74 ppb	10.022	2.01%	
QC value within limits for Pb 220.353 Recovery = 99.95%							
S 181.975 Axial†	1254.3	2438.1 ug/L	50.83	2438.1 ppb	50.83	2.08%	
QC value within limits for S 181.975 Axial Recovery = 97.53%							
Sb 206.836†	1071.2	515.58 ug/L	10.692	515.58 ppb	10.692	2.07%	
QC value within limits for Sb 206.836 Recovery = 103.12%							
Se 196.026†	2871.1	2600.0 ug/L	43.95	2600.0 ppb	43.95	1.69%	
QC value within limits for Se 196.026 Recovery = 104.00%							
Si 251.611†	117942.6	4866.1 ug/L	29.97	4866.1 ppb	29.97	0.62%	
QC value within limits for Si 251.611 Recovery = 97.32%							
Sn 189.927†	2059.0	522.64 ug/L	10.176	522.64 ppb	10.176	1.95%	
QC value within limits for Sn 189.927 Recovery = 104.53%							
Sr 421.552†	57666.1	523.49 ug/L	7.726	523.49 ppb	7.726	1.48%	
QC value within limits for Sr 421.552 Recovery = 104.70%							
Ti 334.940†	254877.4	487.31 ug/L	3.505	487.31 ppb	3.505	0.72%	
QC value within limits for Ti 334.940 Recovery = 97.46%							
Tl 190.801†	1186.1	514.73 ug/L	9.081	514.73 ppb	9.081	1.76%	
QC value within limits for Tl 190.801 Recovery = 102.95%							
U 409.014†	14479.6	490.69 ug/L	2.104	490.69 ppb	2.104	0.43%	
QC value within limits for U 409.014 Recovery = 98.14%							
V 292.402†	55389.4	504.27 ug/L	3.715	504.27 ppb	3.715	0.74%	
QC value within limits for V 292.402 Recovery = 100.85%							
Zn 213.857†	37379.1	494.49 ug/L	4.643	494.49 ppb	4.643	0.94%	
QC value within limits for Zn 213.857 Recovery = 98.90%							
SiO2†	115678.2	10167 ug/L	109.0	10167 ppb	109.0	1.07%	
QC value within limits for SiO2 Recovery = 95.06%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/26/2010 19:40:20

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	3965.5	3965.5	105 %		19:42:33
1	Y RADIAL	4370.5	4370.5	107.0 %		19:42:13
1	Al 396.153Radial†	-67.9	8.0	9.4766 ug/L	9.4766 ppb	19:42:33
1	Ca 317.933Radial†	25.1	2.1	4.6363 ug/L	4.6363 ppb	19:42:33
1	Fe 238.204 Radial†	6.5	-2.2	-29.551 ug/L	-29.551 ppb	19:42:33
1	K 766.490 Radial†	2442.8	-145.1	-32.029 ug/L	-32.029 ppb	19:42:13
1	Mg 279.077 IEC†	1.6	-1.3	-60.627 ug/L	-60.627 ppb	19:42:33
1	Na 589.592 Radial†	-425.4	-20.0	-8.0429 ug/L	-8.0429 ppb	19:42:13
1	Sr 421.552†	56.9	15.1	0.1371 ug/L	0.1371 ppb	19:42:13
1	Sc 361.383	756477.5	756477.5	103.23 %		19:43:30
1	Y 371.029	624575.8	624575.8	103.33 %		19:43:30
1	Ag 328.068†	134.9	-21.5	-0.1369 ug/L	-0.1369 ppb	19:43:30
1	As 188.979†	-26.4	-3.3	-1.9908 ug/L	-1.9908 ppb	19:43:50
1	B 249.677†	-56.6	280.1	8.4363 ug/L	8.4363 ppb	19:43:50
1	Ba 233.527†	0.9	-1.7	-0.0197 ug/L	-0.0197 ppb	19:43:50
1	Be 313.107†	-3988.6	27.8	0.0125 ug/L	0.0125 ppb	19:43:30
1	Cd 226.502†	-158.1	18.0	0.2973 ug/L	0.2973 ppb	19:43:50
1	Co 228.616†	-52.7	-4.3	-0.1229 ug/L	-0.1229 ppb	19:43:50
1	Cr 267.716†	109.2	10.7	0.1580 ug/L	0.1580 ppb	19:43:50
1	Cu 324.752†	5686.9	-208.0	-0.7468 ug/L	-0.7468 ppb	19:43:30
1	Mn 257.610†	402.1	-36.0	-0.0530 ug/L	-0.0530 ppb	19:43:50
1	Mo 202.031†	20.4	3.0	0.3006 ug/L	0.3006 ppb	19:43:50
1	Ni 231.604†	91.3	5.9	0.2125 ug/L	0.2125 ppb	19:43:50
1	P 214.914†	197.0	2.4	2.0975 ug/L	2.0975 ppb	19:43:50
1	Pb 220.353†	-41.0	9.3	1.6229 ug/L	1.6229 ppb	19:43:50
1	S 181.975 Axial†	31.7	3.6	6.9323 ug/L	6.9323 ppb	19:43:50
1	Sb 206.836†	35.4	8.7	4.0263 ug/L	4.0263 ppb	19:43:50
1	Se 196.026†	-21.9	0.6	0.4293 ug/L	0.4293 ppb	19:43:50
1	Si 251.611†	437.2	-32.2	-1.3338 ug/L	-1.3338 ppb	19:43:50
1	Sn 189.927†	15.8	1.7	0.4329 ug/L	0.4329 ppb	19:43:50
1	Ti 334.940†	-1198.1	-116.3	-0.2191 ug/L	-0.2191 ppb	19:43:30
1	Tl 190.801†	-17.9	5.0	2.1432 ug/L	2.1432 ppb	19:43:50
1	U 409.014†	-1740.3	148.2	5.0409 ug/L	5.0409 ppb	19:43:30
1	V 292.402†	-1465.2	-38.7	-0.3305 ug/L	-0.3305 ppb	19:43:30
1	Zn 213.857†	587.1	-91.1	-1.2118 ug/L	-1.2118 ppb	19:43:50
1	SiO2†	442.6	-35.2	-3.1097 ug/L	-3.1097 ppb	19:45:01
2	Sc Radial	4016.8	4016.8	106 %		19:42:58
2	Y RADIAL	4487.7	4487.7	109.9 %		19:42:38
2	Al 396.153Radial†	-70.5	6.4	7.5366 ug/L	7.5366 ppb	19:42:58
2	Ca 317.933Radial†	20.5	-2.6	-5.8274 ug/L	-5.8274 ppb	19:42:58
2	Fe 238.204 Radial†	7.2	-1.7	-22.273 ug/L	-22.273 ppb	19:42:58
2	K 766.490 Radial†	2550.1	-73.7	-16.267 ug/L	-16.267 ppb	19:42:38
2	Mg 279.077 IEC†	0.6	-2.2	-105.42 ug/L	-105.42 ppb	19:42:58
2	Na 589.592 Radial†	-470.9	-57.7	-23.209 ug/L	-23.209 ppb	19:42:38
2	Sr 421.552†	42.9	1.2	0.0106 ug/L	0.0106 ppb	19:42:38
2	Sc 361.383	778672.5	778672.5	106.26 %		19:43:55
2	Y 371.029	642382.4	642382.4	106.28 %		19:43:55
2	Ag 328.068†	184.0	21.0	0.1133 ug/L	0.1133 ppb	19:43:55
2	As 188.979†	-27.1	-3.3	-1.9809 ug/L	-1.9809 ppb	19:44:15
2	B 249.677†	-83.9	256.0	7.7095 ug/L	7.7095 ppb	19:44:15
2	Ba 233.527†	-3.3	-5.7	-0.0591 ug/L	-0.0591 ppb	19:44:15
2	Be 313.107†	-3921.3	201.3	0.0942 ug/L	0.0942 ppb	19:43:55
2	Cd 226.502†	-162.2	18.5	0.3026 ug/L	0.3026 ppb	19:44:15
2	Co 228.616†	-56.2	-6.2	-0.1755 ug/L	-0.1755 ppb	19:44:15
2	Cr 267.716†	120.8	18.6	0.2822 ug/L	0.2822 ppb	19:44:15
2	Cu 324.752†	5733.0	-321.6	-1.1501 ug/L	-1.1501 ppb	19:43:55
2	Mn 257.610†	440.2	-11.3	-0.0144 ug/L	-0.0144 ppb	19:44:15
2	Mo 202.031†	25.9	7.6	0.7656 ug/L	0.7656 ppb	19:44:15
2	Ni 231.604†	83.4	-4.1	-0.1471 ug/L	-0.1471 ppb	19:44:15

2	P 214.914†	191.1	-8.6	-6.7258 ug/L	-6.7258 ppb	19:44:15
2	Pb 220.353†	-38.1	13.2	2.2959 ug/L	2.2959 ppb	19:44:15
2	S 181.975 Axial†	25.4	-3.2	-6.2299 ug/L	-6.2299 ppb	19:44:15
2	Sb 206.836†	35.9	8.1	3.7833 ug/L	3.7833 ppb	19:44:15
2	Se 196.026†	-18.1	4.7	4.1616 ug/L	4.1616 ppb	19:44:15
2	Si 251.611†	443.2	-38.6	-1.6057 ug/L	-1.6057 ppb	19:44:15
2	Sn 189.927†	13.5	-0.9	-0.2288 ug/L	-0.2288 ppb	19:44:15
2	Ti 334.940†	-1055.6	50.9	0.1044 ug/L	0.1044 ppb	19:43:55
2	Tl 190.801†	-23.0	0.6	0.2543 ug/L	0.2543 ppb	19:44:15
2	U 409.014†	-1905.2	41.0	1.3965 ug/L	1.3965 ppb	19:43:55
2	V 292.402†	-1415.6	48.4	0.4488 ug/L	0.4488 ppb	19:43:55
2	Zn 213.857†	592.9	-101.9	-1.3542 ug/L	-1.3542 ppb	19:44:15
2	SiO2†	468.3	-23.3	-2.0696 ug/L	-2.0696 ppb	19:45:21
3	Sc Radial	4018.5	4018.5	106 %		19:43:23
3	Y RADIAL	4510.6	4510.6	110.5 %		19:43:03
3	Al 396.153Radial†	-62.6	13.8	16.490 ug/L	16.490 ppb	19:43:23
3	Ca 317.933Radial†	25.3	1.9	4.3431 ug/L	4.3431 ppb	19:43:23
3	Fe 238.204 Radial†	8.1	-0.9	-11.481 ug/L	-11.481 ppb	19:43:23
3	K 766.490 Radial†	2374.0	-240.7	-53.145 ug/L	-53.145 ppb	19:43:03
3	Mg 279.077 IEC†	0.5	-2.3	-109.45 ug/L	-109.45 ppb	19:43:23
3	Na 589.592 Radial†	-397.8	11.3	4.5491 ug/L	4.5491 ppb	19:43:03
3	Sr 421.552†	25.9	-14.8	-0.1348 ug/L	-0.1348 ppb	19:43:03
3	Sc 361.383	761609.4	761609.4	103.93 %		19:44:20
3	Y 371.029	627824.5	627824.5	103.87 %		19:44:20
3	Ag 328.068†	124.1	-32.8	-0.1927 ug/L	-0.1927 ppb	19:44:20
3	As 188.979†	-19.8	3.2	1.9539 ug/L	1.9539 ppb	19:44:40
3	B 249.677†	-92.3	246.2	7.4131 ug/L	7.4131 ppb	19:44:40
3	Ba 233.527†	5.9	3.1	0.0336 ug/L	0.0336 ppb	19:44:40
3	Be 313.107†	-3989.6	52.9	0.0246 ug/L	0.0246 ppb	19:44:20
3	Cd 226.502†	-165.0	12.4	0.2039 ug/L	0.2039 ppb	19:44:40
3	Co 228.616†	-58.7	-9.8	-0.2822 ug/L	-0.2822 ppb	19:44:40
3	Cr 267.716†	119.3	19.7	0.2994 ug/L	0.2994 ppb	19:44:40
3	Cu 324.752†	5739.9	-194.2	-0.6969 ug/L	-0.6969 ppb	19:44:20
3	Mn 257.610†	437.9	-4.2	-0.0028 ug/L	-0.0028 ppb	19:44:40
3	Mo 202.031†	11.1	-6.0	-0.6104 ug/L	-0.6104 ppb	19:44:40
3	Ni 231.604†	63.5	-21.4	-0.7689 ug/L	-0.7689 ppb	19:44:40
3	P 214.914†	195.6	-0.3	-0.0948 ug/L	-0.0948 ppb	19:44:40
3	Pb 220.353†	-58.7	-7.4	-1.2740 ug/L	-1.2740 ppb	19:44:40
3	S 181.975 Axial†	26.8	-1.4	-2.6422 ug/L	-2.6422 ppb	19:44:40
3	Sb 206.836†	37.1	10.1	4.6599 ug/L	4.6599 ppb	19:44:40
3	Se 196.026†	-16.7	5.6	5.0269 ug/L	5.0269 ppb	19:44:40
3	Si 251.611†	420.2	-51.4	-2.1163 ug/L	-2.1163 ppb	19:44:40
3	Sn 189.927†	8.1	-5.8	-1.4781 ug/L	-1.4781 ppb	19:44:40
3	Ti 334.940†	-1101.9	-15.9	-0.0236 ug/L	-0.0236 ppb	19:44:20
3	Tl 190.801†	-30.8	-7.4	-3.1904 ug/L	-3.1904 ppb	19:44:40
3	U 409.014†	-1727.5	171.8	5.8441 ug/L	5.8441 ppb	19:44:20
3	V 292.402†	-1370.4	62.0	0.5586 ug/L	0.5586 ppb	19:44:20
3	Zn 213.857†	577.4	-104.2	-1.3841 ug/L	-1.3841 ppb	19:44:40
3	SiO2†	442.8	-37.9	-3.3182 ug/L	-3.3182 ppb	19:45:41

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	765586.5	104.47 %		1.586				1.52%
Sc Radial	4000.3	106 %		0.8				0.75%
Y 371.029	631594.2	104.50 %		1.569				1.50%
Y RADIAL	4456.3	109.1 %		1.84				1.69%
Ag 328.068†	-11.1	-0.0721 ug/L		0.16295	-0.0721 ppb		0.16295	225.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.4	11.168 ug/L		4.7100	11.168 ppb		4.7100	42.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.6726 ug/L		2.27466	-0.6726 ppb		2.27466	338.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	260.8	7.8530 ug/L		0.52647	7.8530 ppb		0.52647	6.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.4	-0.0151 ug/L		0.04648	-0.0151 ppb		0.04648	308.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	94.0	0.0438 ug/L		0.04410	0.0438 ppb		0.04410	100.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	1.0507 ug/L		5.95840	1.0507 ppb		5.95840	567.11%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd 226.502†	16.3	0.2679 ug/L	0.05553	0.2679 ppb	0.05553	20.72%			
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co 228.616†	-6.8	-0.1935 ug/L	0.08119	-0.1935 ppb	0.08119	41.95%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	16.3	0.2465 ug/L	0.07718	0.2465 ppb	0.07718	31.31%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	-241.3	-0.8646 ug/L	0.24854	-0.8646 ppb	0.24854	28.75%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	-1.6	-21.101 ug/L	9.0918	-21.101 ppb	9.0918	43.09%			
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K 766.490 Radial†	-153.2	-33.813 ug/L	18.5033	-33.813 ppb	18.5033	54.72%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	-1.9	-91.832 ug/L	27.0991	-91.832 ppb	27.0991	29.51%			
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn 257.610†	-17.2	-0.0234 ug/L	0.02633	-0.0234 ppb	0.02633	112.58%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	1.5	0.1519 ug/L	0.69996	0.1519 ppb	0.69996	460.80%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	-22.1	-8.9009 ug/L	13.89892	-8.9009 ppb	13.89892	156.15%			
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	-6.5	-0.2345 ug/L	0.49650	-0.2345 ppb	0.49650	211.76%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	-2.2	-1.5743 ug/L	4.59395	-1.5743 ppb	4.59395	291.80%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	5.1	0.8816 ug/L	1.89688	0.8816 ppb	1.89688	215.17%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	-0.3	-0.6466 ug/L	6.80421	-0.6466 ppb	6.80421	>999.9%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	9.0	4.1565 ug/L	0.45259	4.1565 ppb	0.45259	10.89%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	3.6	3.2060 ug/L	2.44326	3.2060 ppb	2.44326	76.21%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Si 251.611†	-40.7	-1.6853 ug/L	0.39727	-1.6853 ppb	0.39727	23.57%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	-1.7	-0.4247 ug/L	0.97045	-0.4247 ppb	0.97045	228.52%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	0.5	0.0043 ug/L	0.13603	0.0043 ppb	0.13603	>999.9%			
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	-27.1	-0.0461 ug/L	0.16291	-0.0461 ppb	0.16291	353.54%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	-0.6	-0.2643 ug/L	2.70432	-0.2643 ppb	2.70432	>999.9%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	120.3	4.0938 ug/L	2.37021	4.0938 ppb	2.37021	57.90%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	23.9	0.2256 ug/L	0.48474	0.2256 ppb	0.48474	214.84%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	-99.0	-1.3167 ug/L	0.09207	-1.3167 ppb	0.09207	6.99%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†	-32.1	-2.8325 ug/L	0.66887	-2.8325 ppb	0.66887	23.61%			
QC value within limits for SiO2 Recovery = Not calculated									
All analyte(s) passed QC.									

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/26/2010 19:47:52

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	4188.0	4188.0	111 %		19:49:45
1	Y RADIAL	4481.4	4481.4	109.8 %		19:49:45
1	Al 396.153Radial†	109.1	171.6	203.73 ug/L	203.73 ppb	19:50:05
1	Ca 317.933Radial†	115.8	82.8	185.53 ug/L	185.53 ppb	19:50:05
1	Fe 238.204 Radial†	17.1	7.0	92.755 ug/L	92.755 ppb	19:50:05
1	K 766.490 Radial†	3255.1	465.7	102.62 ug/L	102.62 ppb	19:49:45
1	Mg 279.077 IEC†	7.8	4.2	200.14 ug/L	200.14 ppb	19:50:05
1	Na 589.592 Radial†	443.8	787.8	316.79 ug/L	316.79 ppb	19:49:45
1	Sr 421.552†	604.5	507.5	4.6060 ug/L	4.6060 ppb	19:49:45
1	Sc 361.383	811470.9	811470.9	110.73 %		19:51:02
1	Y 371.029	669286.3	669286.3	110.73 %		19:51:02
1	Ag 328.068†	1096.9	838.4	4.7671 ug/L	4.7671 ppb	19:51:02
1	As 188.979†	29.5	48.9	29.726 ug/L	29.726 ppb	19:51:22
1	B 249.677†	1639.8	1815.8	54.623 ug/L	54.623 ppb	19:51:02
1	Ba 233.527†	537.6	482.9	5.0754 ug/L	5.0754 ppb	19:51:22
1	Be 313.107†	7985.0	11102.5	5.1955 ug/L	5.1955 ppb	19:51:02
1	Cd 226.502†	158.5	314.3	5.1121 ug/L	5.1121 ppb	19:51:22
1	Co 228.616†	142.3	175.2	5.0436 ug/L	5.0436 ppb	19:51:22
1	Cr 267.716†	429.6	292.9	4.4767 ug/L	4.4767 ppb	19:51:22
1	Cu 324.752†	9191.7	2583.7	9.1939 ug/L	9.1939 ppb	19:51:02
1	Mn 257.610†	8466.0	7219.8	10.539 ug/L	10.539 ppb	19:51:02
1	Mo 202.031†	116.7	88.7	8.9623 ug/L	8.9623 ppb	19:51:22
1	Ni 231.604†	239.3	133.6	4.7887 ug/L	4.7887 ppb	19:51:22
1	P 214.914†	397.9	170.8	136.33 ug/L	136.33 ppb	19:51:22
1	Pb 220.353†	20.7	67.8	11.773 ug/L	11.773 ppb	19:51:22
1	S 181.975 Axial†	87.1	51.6	100.29 ug/L	100.29 ppb	19:51:22
1	Sb 206.836†	57.9	26.7	12.735 ug/L	12.735 ppb	19:51:22
1	Se 196.026†	14.0	34.4	31.257 ug/L	31.257 ppb	19:51:22
1	Si 251.611†	3002.5	2255.7	93.080 ug/L	93.080 ppb	19:51:22
1	Sn 189.927†	61.8	42.1	10.713 ug/L	10.713 ppb	19:51:22
1	Ti 334.940†	1896.5	2757.0	5.2522 ug/L	5.2522 ppb	19:51:02
1	Tl 190.801†	39.4	57.9	25.019 ug/L	25.019 ppb	19:51:22
1	U 409.014†	-24.8	1811.6	61.581 ug/L	61.581 ppb	19:51:02
1	V 292.402†	-888.0	578.7	5.4228 ug/L	5.4228 ppb	19:51:02
1	Zn 213.857†	1506.0	700.1	9.2922 ug/L	9.2922 ppb	19:51:22
1	SiO2†	3181.0	2408.6	211.75 ug/L	211.75 ppb	19:52:19
2	Sc Radial	4037.6	4037.6	107 %		19:50:11
2	Y RADIAL	4335.2	4335.2	106.2 %		19:50:11
2	Al 396.153Radial†	113.4	179.2	212.80 ug/L	212.80 ppb	19:50:31
2	Ca 317.933Radial†	116.0	86.9	194.72 ug/L	194.72 ppb	19:50:31
2	Fe 238.204 Radial†	14.3	4.9	65.483 ug/L	65.483 ppb	19:50:31
2	K 766.490 Radial†	3267.6	587.1	129.44 ug/L	129.44 ppb	19:50:11
2	Mg 279.077 IEC†	7.3	4.0	189.96 ug/L	189.96 ppb	19:50:31
2	Na 589.592 Radial†	301.7	669.4	269.19 ug/L	269.19 ppb	19:50:11
2	Sr 421.552†	617.1	539.7	4.8983 ug/L	4.8983 ppb	19:50:11
2	Sc 361.383	784023.8	784023.8	106.99 %		19:51:28
2	Y 371.029	646431.1	646431.1	106.95 %		19:51:28
2	Ag 328.068†	1096.4	872.6	4.9581 ug/L	4.9581 ppb	19:51:28
2	As 188.979†	31.6	51.8	31.478 ug/L	31.478 ppb	19:51:48
2	B 249.677†	1655.9	1882.7	56.641 ug/L	56.641 ppb	19:51:28
2	Ba 233.527†	519.8	483.3	5.0802 ug/L	5.0802 ppb	19:51:48
2	Be 313.107†	7631.7	11024.8	5.1589 ug/L	5.1589 ppb	19:51:28
2	Cd 226.502†	172.2	332.1	5.4038 ug/L	5.4038 ppb	19:51:48
2	Co 228.616†	140.4	178.0	5.1238 ug/L	5.1238 ppb	19:51:48
2	Cr 267.716†	451.5	327.0	4.9979 ug/L	4.9979 ppb	19:51:48
2	Cu 324.752†	8800.6	2508.7	8.9265 ug/L	8.9265 ppb	19:51:28
2	Mn 257.610†	8168.1	7208.9	10.520 ug/L	10.520 ppb	19:51:28
2	Mo 202.031†	116.9	92.5	9.3467 ug/L	9.3467 ppb	19:51:48
2	Ni 231.604†	234.9	137.0	4.9123 ug/L	4.9123 ppb	19:51:48

2	P 214.914†	401.9	187.2	149.61 ug/L	149.61 ppb	19:51:48
2	Pb 220.353†	24.3	71.8	12.475 ug/L	12.475 ppb	19:51:48
2	S 181.975 Axial†	88.4	55.6	108.01 ug/L	108.01 ppb	19:51:48
2	Sb 206.836†	48.0	19.2	9.2163 ug/L	9.2163 ppb	19:51:48
2	Se 196.026†	8.9	30.0	27.258 ug/L	27.258 ppb	19:51:48
2	Si 251.611†	3030.4	2376.8	98.076 ug/L	98.076 ppb	19:51:48
2	Sn 189.927†	46.2	29.6	7.5247 ug/L	7.5247 ppb	19:51:48
2	Ti 334.940†	1768.3	2697.1	5.1408 ug/L	5.1408 ppb	19:51:28
2	Tl 190.801†	26.1	46.7	20.199 ug/L	20.199 ppb	19:51:48
2	U 409.014†	-115.4	1726.2	58.679 ug/L	58.679 ppb	19:51:28
2	V 292.402†	-778.6	652.9	6.0926 ug/L	6.0926 ppb	19:51:28
2	Zn 213.857†	1501.1	743.2	9.8705 ug/L	9.8705 ppb	19:51:48
2	SiO2†	3191.4	2518.9	221.44 ug/L	221.44 ppb	19:52:24
3	Sc Radial	4222.3	4222.3	111 %		19:50:36
3	Y RADIAL	4498.5	4498.5	110.2 %		19:50:36
3	Al 396.153Radial†	109.4	171.1	203.05 ug/L	203.05 ppb	19:50:56
3	Ca 317.933Radial†	116.6	82.7	185.30 ug/L	185.30 ppb	19:50:56
3	Fe 238.204 Radial†	15.8	5.7	76.089 ug/L	76.089 ppb	19:50:56
3	K 766.490 Radial†	3151.2	348.6	76.769 ug/L	76.769 ppb	19:50:36
3	Mg 279.077 IEC†	9.7	5.9	278.61 ug/L	278.61 ppb	19:50:56
3	Na 589.592 Radial†	378.1	725.5	291.74 ug/L	291.74 ppb	19:50:36
3	Sr 421.552†	591.6	491.5	4.4608 ug/L	4.4608 ppb	19:50:36
3	Sc 361.383	777839.0	777839.0	106.15 %		19:51:53
3	Y 371.029	641104.6	641104.6	106.07 %		19:51:53
3	Ag 328.068†	1091.0	875.7	4.9760 ug/L	4.9760 ppb	19:51:53
3	As 188.979†	25.6	46.4	28.200 ug/L	28.200 ppb	19:52:13
3	B 249.677†	1606.3	1848.3	55.604 ug/L	55.604 ppb	19:51:53
3	Ba 233.527†	508.8	476.8	5.0119 ug/L	5.0119 ppb	19:52:13
3	Be 313.107†	7577.3	11030.2	5.1618 ug/L	5.1618 ppb	19:51:53
3	Cd 226.502†	176.5	337.4	5.4895 ug/L	5.4895 ppb	19:52:13
3	Co 228.616†	132.2	171.3	4.9327 ug/L	4.9327 ppb	19:52:13
3	Cr 267.716†	481.8	358.9	5.4864 ug/L	5.4864 ppb	19:52:13
3	Cu 324.752†	8858.7	2628.9	9.3550 ug/L	9.3550 ppb	19:51:53
3	Mn 257.610†	8112.1	7216.9	10.530 ug/L	10.530 ppb	19:51:53
3	Mo 202.031†	123.0	99.1	10.020 ug/L	10.020 ppb	19:52:13
3	Ni 231.604†	233.1	137.1	4.9147 ug/L	4.9147 ppb	19:52:13
3	P 214.914†	390.0	179.0	142.86 ug/L	142.86 ppb	19:52:13
3	Pb 220.353†	23.6	71.3	12.393 ug/L	12.393 ppb	19:52:13
3	S 181.975 Axial†	87.9	55.7	108.33 ug/L	108.33 ppb	19:52:13
3	Sb 206.836†	44.6	16.4	7.9170 ug/L	7.9170 ppb	19:52:13
3	Se 196.026†	22.5	42.9	38.873 ug/L	38.873 ppb	19:52:13
3	Si 251.611†	3027.4	2396.4	98.878 ug/L	98.878 ppb	19:52:13
3	Sn 189.927†	44.7	28.4	7.2390 ug/L	7.2390 ppb	19:52:13
3	Ti 334.940†	1842.5	2780.2	5.2904 ug/L	5.2904 ppb	19:51:53
3	Tl 190.801†	22.9	43.8	18.953 ug/L	18.953 ppb	19:52:13
3	U 409.014†	-67.4	1770.6	60.186 ug/L	60.186 ppb	19:51:53
3	V 292.402†	-821.4	606.7	5.6909 ug/L	5.6909 ppb	19:51:53
3	Zn 213.857†	1488.9	742.8	9.8636 ug/L	9.8636 ppb	19:52:13
3	SiO2†	3178.6	2530.6	222.45 ug/L	222.45 ppb	19:52:29

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	791111.2	107.96 %		2.443			2.26%
Sc Radial	4149.3	110 %		2.6			2.37%
Y 371.029	652274.0	107.92 %		2.477			2.30%
Y RADIAL	4438.4	108.7 %		2.20			2.02%
Ag 328.068†	862.3	4.9004 ug/L		0.11579	4.9004 ppb	0.11579	2.36%
QC value within limits for Ag 328.068 Recovery = 98.01%							
Al 396.153Radial†	173.9	206.53 ug/L		5.441	206.53 ppb	5.441	2.63%
QC value within limits for Al 396.153Radial Recovery = 103.26%							
As 188.979†	49.0	29.801 ug/L		1.6407	29.801 ppb	1.6407	5.51%
QC value within limits for As 188.979 Recovery = 99.34%							
B 249.677†	1848.9	55.623 ug/L		1.0091	55.623 ppb	1.0091	1.81%
QC value within limits for B 249.677 Recovery = 111.25%							
Ba 233.527†	481.0	5.0559 ug/L		0.03811	5.0559 ppb	0.03811	0.75%
QC value within limits for Ba 233.527 Recovery = 101.12%							
Be 313.107†	11052.5	5.1721 ug/L		0.02033	5.1721 ppb	0.02033	0.39%
QC value within limits for Be 313.107 Recovery = 103.44%							
Ca 317.933Radial†	84.1	188.52 ug/L		5.373	188.52 ppb	5.373	2.85%



QC value within limits for Ca 317.933 Radial Recovery = 94.26%							
Cd 226.502†	327.9	5.3351 ug/L	0.19785	5.3351 ppb	0.19785	3.71%	
QC value within limits for Cd 226.502 Recovery = 106.70%							
Co 228.616†	174.8	5.0334 ug/L	0.09598	5.0334 ppb	0.09598	1.91%	
QC value within limits for Co 228.616 Recovery = 100.67%							
Cr 267.716†	326.2	4.9870 ug/L	0.50497	4.9870 ppb	0.50497	10.13%	
QC value within limits for Cr 267.716 Recovery = 99.74%							
Cu 324.752†	2573.8	9.1585 ug/L	0.21642	9.1585 ppb	0.21642	2.36%	
QC value within limits for Cu 324.752 Recovery = 91.58%							
Fe 238.204 Radial†	5.9	78.109 ug/L	13.7478	78.109 ppb	13.7478	17.60%	
QC value within limits for Fe 238.204 Radial Recovery = 78.11%							
K 766.490 Radial†	467.1	102.94 ug/L	26.338	102.94 ppb	26.338	25.59%	
QC value less than the lower limit for K 766.490 Radial Recovery = 68.63%							
Mg 279.077 IEC†	4.7	222.90 ug/L	48.514	222.90 ppb	48.514	21.76%	
QC value within limits for Mg 279.077 IEC Recovery = 74.30%							
Mn 257.610†	7215.2	10.529 ug/L	0.0090	10.529 ppb	0.0090	0.09%	
QC value within limits for Mn 257.610 Recovery = 105.29%							
Mo 202.031†	93.4	9.4429 ug/L	0.53515	9.4429 ppb	0.53515	5.67%	
QC value within limits for Mo 202.031 Recovery = 94.43%							
Na 589.592 Radial†	727.6	292.57 ug/L	23.810	292.57 ppb	23.810	8.14%	
QC value within limits for Na 589.592 Radial Recovery = 97.52%							
Ni 231.604†	135.9	4.8719 ug/L	0.07204	4.8719 ppb	0.07204	1.48%	
QC value within limits for Ni 231.604 Recovery = 97.44%							
P 214.914†	179.0	142.93 ug/L	6.636	142.93 ppb	6.636	4.64%	
QC value within limits for P 214.914 Recovery = 95.29%							
Pb 220.353†	70.3	12.213 ug/L	0.3840	12.213 ppb	0.3840	3.14%	
QC value within limits for Pb 220.353 Recovery = 122.13%							
S 181.975 Axial†	54.3	105.54 ug/L	4.556	105.54 ppb	4.556	4.32%	
QC value within limits for S 181.975 Axial Recovery = 105.54%							
Sb 206.836†	20.8	9.9562 ug/L	2.49289	9.9562 ppb	2.49289	25.04%	
QC value within limits for Sb 206.836 Recovery = 99.56%							
Se 196.026†	35.8	32.463 ug/L	5.9006	32.463 ppb	5.9006	18.18%	
QC value within limits for Se 196.026 Recovery = 108.21%							
Si 251.611†	2342.9	96.678 ug/L	3.1416	96.678 ppb	3.1416	3.25%	
QC value within limits for Si 251.611 Recovery = 96.68%							
Sn 189.927†	33.4	8.4922 ug/L	1.92849	8.4922 ppb	1.92849	22.71%	
QC value within limits for Sn 189.927 Recovery = 84.92%							
Sr 421.552†	512.9	4.6550 ug/L	0.22282	4.6550 ppb	0.22282	4.79%	
QC value within limits for Sr 421.552 Recovery = 93.10%							
Ti 334.940†	2744.8	5.2278 ug/L	0.07770	5.2278 ppb	0.07770	1.49%	
QC value within limits for Ti 334.940 Recovery = 104.56%							
Tl 190.801†	49.5	21.390 ug/L	3.2038	21.390 ppb	3.2038	14.98%	
QC value within limits for Tl 190.801 Recovery = 106.95%							
U 409.014†	1769.4	60.149 ug/L	1.4514	60.149 ppb	1.4514	2.41%	
QC value within limits for U 409.014 Recovery = 120.30%							
V 292.402†	612.8	5.7354 ug/L	0.33710	5.7354 ppb	0.33710	5.88%	
QC value within limits for V 292.402 Recovery = 114.71%							
Zn 213.857†	728.7	9.6754 ug/L	0.33193	9.6754 ppb	0.33193	3.43%	
QC value within limits for Zn 213.857 Recovery = 96.75%							
SiO2†	2486.0	218.55 ug/L	5.911	218.55 ppb	5.911	2.70%	
QC value within limits for SiO2 Recovery = 102.60%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/26/2010 19:54:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3936.7	3936.7	104 %		19:56:53
1	Y RADIAL	4216.2	4216.2	103.3 %		19:56:53
1	Al 396.153Radial†	441754.7	425143.8	505890 ug/L	505890 ppb	19:56:33
1	Ca 317.933Radial†	215313.6	207160.0	464120 ug/L	464120 ppb	19:56:33
1	Fe 238.204 Radial†	14268.9	13721.5	181390 ug/L	181390 ppb	19:56:53
1	K 766.490 Radial†	2302.9	-262.6	-213.25 ug/L	-213.25 ppb	19:56:33
1	Mg 279.077 IEC†	10650.4	10245.4	484360 ug/L	484360 ppb	19:56:53
1	Na 589.592 Radial†	-178.0	215.0	86.465 ug/L	86.465 ppb	19:56:53
1	Sr 421.552†	433.4	377.7	-0.0363 ug/L	-0.0363 ppb	19:56:53
1	Sc 361.383	699922.4	699922.4	95.513 %		19:57:50
1	Y 371.029	568757.6	568757.6	94.099 %		19:57:50
1	Ag 328.068†	-8425.2	-8973.2	-1.2327 ug/L	-1.2327 ppb	19:57:50
1	As 188.979†	-87.9	-69.7	0.0453 ug/L	0.0453 ppb	19:58:11
1	B 249.677†	433.2	788.5	-5.7279 ug/L	-5.7279 ppb	19:57:50
1	Ba 233.527†	-465.0	-489.4	0.4282 ug/L	0.4282 ppb	19:58:11
1	Be 313.107†	-4147.7	-450.9	-0.2584 ug/L	-0.2584 ppb	19:57:50
1	Cd 226.502†	1060.8	1281.7	2.1013 ug/L	2.1013 ppb	19:58:11
1	Co 228.616†	6.1	53.1	-1.0975 ug/L	-1.0975 ppb	19:58:11
1	Cr 267.716†	-1205.1	-1356.8	-1.5479 ug/L	-1.5479 ppb	19:58:11
1	Cu 324.752†	3270.7	-2292.6	1.3917 ug/L	1.3917 ppb	19:57:50
1	Mn 257.610†	130.4	-289.0	-2.3182 ug/L	-2.3182 ppb	19:57:50
1	Mo 202.031†	-203.4	-229.7	-3.5927 ug/L	-3.5927 ppb	19:58:11
1	Ni 231.604†	183.0	109.0	3.9105 ug/L	3.9105 ppb	19:58:11
1	P 214.914†	161.4	-19.5	-34.903 ug/L	-34.903 ppb	19:58:11
1	Pb 220.353†	-623.2	-603.5	-11.821 ug/L	-11.821 ppb	19:58:11
1	S 181.975 Axial†	28.2	2.5	-90.024 ug/L	-90.024 ppb	19:58:11
1	Sb 206.836†	54.2	31.1	-2.9640 ug/L	-2.9640 ppb	19:58:11
1	Se 196.026†	-718.0	-730.0	-34.859 ug/L	-34.859 ppb	19:58:11
1	Si 251.611†	422.8	-13.0	-0.2526 ug/L	-0.2526 ppb	19:58:11
1	Sn 189.927†	-323.1	-352.0	-17.191 ug/L	-17.191 ppb	19:58:11
1	Ti 334.940†	-11527.0	-11024.2	1.5787 ug/L	1.5787 ppb	19:57:50
1	Tl 190.801†	-52.7	-32.9	-14.396 ug/L	-14.396 ppb	19:58:11
1	U 409.014†	-458.7	1353.7	25.400 ug/L	25.400 ppb	19:57:50
1	V 292.402†	577.7	1985.4	0.5556 ug/L	0.5556 ppb	19:58:11
1	Zn 213.857†	2596.9	2059.1	0.3356 ug/L	0.3356 ppb	19:58:11
1	SiO2†	379.1	-67.0	-5.2670 ug/L	-5.2670 ppb	19:59:07
2	Sc Radial	3807.7	3807.7	101 %		19:57:18
2	Y RADIAL	4082.6	4082.6	100.00 %		19:57:18
2	Al 396.153Radial†	440338.2	438137.4	521350 ug/L	521350 ppb	19:56:58
2	Ca 317.933Radial†	214634.4	213504.1	478330 ug/L	478330 ppb	19:56:58
2	Fe 238.204 Radial†	13846.2	13766.2	181980 ug/L	181980 ppb	19:57:18
2	K 766.490 Radial†	2253.8	-236.4	-212.20 ug/L	-212.20 ppb	19:56:58
2	Mg 279.077 IEC†	10293.1	10237.1	483970 ug/L	483970 ppb	19:57:18
2	Na 589.592 Radial†	-203.0	184.3	74.126 ug/L	74.126 ppb	19:57:18
2	Sr 421.552†	428.1	386.6	-0.0618 ug/L	-0.0618 ppb	19:57:18
2	Sc 361.383	705919.3	705919.3	96.331 %		19:58:16
2	Y 371.029	573669.7	573669.7	94.912 %		19:58:16
2	Ag 328.068†	-8490.2	-8965.7	-1.1983 ug/L	-1.1983 ppb	19:58:16
2	As 188.979†	-74.0	-54.5	9.4164 ug/L	9.4164 ppb	19:58:36
2	B 249.677†	386.4	736.1	-7.4047 ug/L	-7.4047 ppb	19:58:16
2	Ba 233.527†	-476.1	-496.7	0.3697 ug/L	0.3697 ppb	19:58:36
2	Be 313.107†	-4190.2	-458.2	-0.2619 ug/L	-0.2619 ppb	19:58:16
2	Cd 226.502†	1046.9	1257.9	1.6515 ug/L	1.6515 ppb	19:58:36
2	Co 228.616†	27.6	75.3	-0.4643 ug/L	-0.4643 ppb	19:58:36
2	Cr 267.716†	-1241.9	-1384.3	-1.9052 ug/L	-1.9052 ppb	19:58:36
2	Cu 324.752†	3225.9	-2368.2	1.1545 ug/L	1.1545 ppb	19:58:16
2	Mn 257.610†	124.0	-296.8	-2.2553 ug/L	-2.2553 ppb	19:58:16
2	Mo 202.031†	-197.7	-222.0	-2.5971 ug/L	-2.5971 ppb	19:58:36
2	Ni 231.604†	153.5	76.7	2.7521 ug/L	2.7521 ppb	19:58:36

2	P 214.914†	154.5	-28.1	-38.427 ug/L	-38.427 ppb	19:58:36
2	Pb 220.353†	-626.9	-601.7	-7.9714 ug/L	-7.9714 ppb	19:58:36
2	S 181.975 Axial†	42.9	17.4	-63.850 ug/L	-63.850 ppb	19:58:36
2	Sb 206.836†	58.7	35.3	-1.4520 ug/L	-1.4520 ppb	19:58:36
2	Se 196.026†	-725.8	-731.7	-30.551 ug/L	-30.551 ppb	19:58:36
2	Si 251.611†	398.6	-41.9	-1.4547 ug/L	-1.4547 ppb	19:58:36
2	Sn 189.927†	-328.6	-354.7	-15.402 ug/L	-15.402 ppb	19:58:36
2	Ti 334.940†	-11662.2	-11062.1	3.4459 ug/L	3.4459 ppb	19:58:16
2	Tl 190.801†	-66.6	-46.9	-20.425 ug/L	-20.425 ppb	19:58:36
2	U 409.014†	-545.2	1268.0	22.420 ug/L	22.420 ppb	19:58:16
2	V 292.402†	584.9	1987.7	0.4886 ug/L	0.4886 ppb	19:58:36
2	Zn 213.857†	2582.8	2021.4	-0.2487 ug/L	-0.2487 ppb	19:58:36
2	SiO2†	363.8	-86.4	-6.9907 ug/L	-6.9907 ppb	19:59:12
3	Sc Radial	3802.2	3802.2	100 %		19:57:44
3	Y RADIAL	4077.2	4077.2	99.86 %		19:57:44
3	Al 396.153Radial†	437938.5	436377.6	519260 ug/L	519260 ppb	19:57:24
3	Ca 317.933Radial†	212905.5	212089.3	475160 ug/L	475160 ppb	19:57:24
3	Fe 238.204 Radial†	13801.4	13741.5	181660 ug/L	181660 ppb	19:57:44
3	K 766.490 Radial†	2223.0	-263.8	-217.19 ug/L	-217.19 ppb	19:57:24
3	Mg 279.077 IEC†	10273.9	10232.7	483760 ug/L	483760 ppb	19:57:44
3	Na 589.592 Radial†	-198.8	188.3	75.717 ug/L	75.717 ppb	19:57:44
3	Sr 421.552†	430.0	389.2	-0.0149 ug/L	-0.0149 ppb	19:57:44
3	Sc 361.383	714015.7	714015.7	97.436 %		19:58:41
3	Y 371.029	580004.0	580004.0	95.960 %		19:58:41
3	Ag 328.068†	-8768.0	-9150.9	-2.3219 ug/L	-2.3219 ppb	19:58:41
3	As 188.979†	-80.3	-60.1	5.9033 ug/L	5.9033 ppb	19:59:01
3	B 249.677†	512.7	861.2	-3.5820 ug/L	-3.5820 ppb	19:58:41
3	Ba 233.527†	-452.4	-466.8	0.6719 ug/L	0.6719 ppb	19:59:01
3	Be 313.107†	-4356.5	-579.6	-0.3227 ug/L	-0.3227 ppb	19:58:41
3	Cd 226.502†	1050.9	1249.8	1.5552 ug/L	1.5552 ppb	19:59:01
3	Co 228.616†	-4.7	41.9	-1.4139 ug/L	-1.4139 ppb	19:59:01
3	Cr 267.716†	-1199.1	-1325.8	-1.0494 ug/L	-1.0494 ppb	19:59:01
3	Cu 324.752†	3340.3	-2288.8	1.4147 ug/L	1.4147 ppb	19:58:41
3	Mn 257.610†	119.4	-303.0	-2.2881 ug/L	-2.2881 ppb	19:58:41
3	Mo 202.031†	-188.2	-209.9	-1.4433 ug/L	-1.4433 ppb	19:59:01
3	Ni 231.604†	157.7	79.3	2.8438 ug/L	2.8438 ppb	19:59:01
3	P 214.914†	167.2	-16.9	-29.632 ug/L	-29.632 ppb	19:59:01
3	Pb 220.353†	-620.1	-587.4	-5.9586 ug/L	-5.9586 ppb	19:59:01
3	S 181.975 Axial†	28.2	1.8	-93.763 ug/L	-93.763 ppb	19:59:01
3	Sb 206.836†	63.4	39.5	0.7150 ug/L	0.7150 ppb	19:59:01
3	Se 196.026†	-724.3	-721.7	-22.958 ug/L	-22.958 ppb	19:59:01
3	Si 251.611†	401.9	-43.3	-1.5261 ug/L	-1.5261 ppb	19:59:01
3	Sn 189.927†	-301.2	-322.8	-7.8535 ug/L	-7.8535 ppb	19:59:01
3	Ti 334.940†	-12702.2	-11992.2	1.2537 ug/L	1.2537 ppb	19:58:41
3	Tl 190.801†	-67.5	-47.0	-20.492 ug/L	-20.492 ppb	19:59:01
3	U 409.014†	-227.4	1600.6	33.765 ug/L	33.765 ppb	19:58:41
3	V 292.402†	516.6	1910.8	-0.1183 ug/L	-0.1183 ppb	19:59:01
3	Zn 213.857†	2568.0	1975.7	-0.8098 ug/L	-0.8098 ppb	19:59:01
3	SiO2†	367.5	-86.8	-7.0653 ug/L	-7.0653 ppb	19:59:17

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	706619.1	96.427 %		0.9651			1.00%
Sc Radial	3848.9	102 %		2.0			1.98%
Y 371.029	574143.8	94.990 %		0.9328			0.98%
Y RADIAL	4125.3	101.0 %		1.93			1.91%
Ag 328.068†	-9029.9	-1.5843 ug/L		0.63902	-1.5843 ppb	0.63902	40.34%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	433219.6	515500 ug/L		8387.7	515500 ppb	8387.7	1.63%
QC value within limits for Al 396.153Radial Recovery = 103.10%							
As 188.979†	-61.4	5.1217 ug/L		4.73416	5.1217 ppb	4.73416	92.43%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	795.3	-5.5716 ug/L		1.91617	-5.5716 ppb	1.91617	34.39%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-484.3	0.4899 ug/L		0.16026	0.4899 ppb	0.16026	32.71%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-496.2	-0.2810 ug/L		0.03612	-0.2810 ppb	0.03612	12.85%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	210917.8	472540 ug/L		7461.4	472540 ppb	7461.4	1.58%

QC value within limits for Ca 317.933 Radial Recovery = 94.51%

Cd 226.502†	1263.1	1.7693 ug/L	0.29148	1.7693 ppb	0.29148	16.47%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	56.8	-0.9919 ug/L	0.48352	-0.9919 ppb	0.48352	48.75%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1355.6	-1.5009 ug/L	0.42982	-1.5009 ppb	0.42982	28.64%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-2316.5	1.3203 ug/L	0.14406	1.3203 ppb	0.14406	10.91%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	13743.1	181680 ug/L	295.7	181680 ppb	295.7	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 90.84%						
K 766.490 Radial†	-254.3	-214.21 ug/L	2.633	-214.21 ppb	2.633	1.23%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	10238.4	484030 ug/L	303.3	484030 ppb	303.3	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 96.81%						
Mn 257.610†	-296.3	-2.2872 ug/L	0.03145	-2.2872 ppb	0.03145	1.38%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-220.5	-2.5444 ug/L	1.07570	-2.5444 ppb	1.07570	42.28%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	195.9	78.769 ug/L	6.7123	78.769 ppb	6.7123	8.52%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	88.3	3.1688 ug/L	0.64398	3.1688 ppb	0.64398	20.32%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-21.5	-34.320 ug/L	4.4261	-34.320 ppb	4.4261	12.90%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-597.5	-8.5836 ug/L	2.97868	-8.5836 ppb	2.97868	34.70%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	7.2	-82.546 ug/L	16.2989	-82.546 ppb	16.2989	19.75%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	35.3	-1.2337 ug/L	1.84917	-1.2337 ppb	1.84917	149.89%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-727.8	-29.456 ug/L	6.0254	-29.456 ppb	6.0254	20.46%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-32.7	-1.0778 ug/L	0.71552	-1.0778 ppb	0.71552	66.39%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-343.2	-13.482 ug/L	4.9558	-13.482 ppb	4.9558	36.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	384.5	-0.0377 ug/L	0.02349	-0.0377 ppb	0.02349	62.36%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-11359.5	2.0928 ug/L	1.18307	2.0928 ppb	1.18307	56.53%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-42.2	-18.438 ug/L	3.5005	-18.438 ppb	3.5005	18.99%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1407.5	27.195 ug/L	5.8813	27.195 ppb	5.8813	21.63%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	1961.3	0.3086 ug/L	0.37123	0.3086 ppb	0.37123	120.28%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2018.7	-0.2409 ug/L	0.57274	-0.2409 ppb	0.57274	237.73%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-80.1	-6.4410 ug/L	1.01737	-6.4410 ppb	1.01737	15.80%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 3/26/2010 20:01:29  
 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	3946.8	3946.8	104 %		20:03:42
1	Y RADIAL	4232.2	4232.2	103.7 %		20:03:42
1	Al 396.153Radial†	445871.0	428008.0	509280 ug/L	509280 ppb	20:03:22
1	Ca 317.933Radial†	216033.3	207321.1	464480 ug/L	464480 ppb	20:03:22
1	Fe 238.204 Radial†	13831.9	13267.0	175400 ug/L	175400 ppb	20:03:42
1	K 766.490 Radial†	25889.1	22369.1	4780.6 ug/L	4780.6 ppb	20:03:22
1	Mg 279.077 IEC†	10309.3	9891.8	467640 ug/L	467640 ppb	20:03:42
1	Na 589.592 Radial†	12721.3	12595.8	5065.2 ug/L	5065.2 ppb	20:03:22
1	Sr 421.552†	54084.0	51869.1	467.43 ug/L	467.43 ppb	20:03:22
1	Sc 361.383	742976.8	742976.8	101.39 %		20:04:40
1	Y 371.029	601813.9	601813.9	99.568 %		20:04:40
1	Ag 328.068†	39360.9	38669.9	269.58 ug/L	269.58 ppb	20:04:40
1	As 188.979†	778.8	790.5	524.05 ug/L	524.05 ppb	20:05:00
1	B 249.677†	17644.9	17738.3	504.15 ug/L	504.15 ppb	20:04:40
1	Ba 233.527†	46337.1	45700.2	485.46 ug/L	485.46 ppb	20:04:40
1	Be 313.107†	531119.2	527739.8	247.48 ug/L	247.48 ppb	20:04:40
1	Cd 226.502†	29375.4	29144.4	455.82 ug/L	455.82 ppb	20:05:00
1	Co 228.616†	15594.0	15427.3	440.86 ug/L	440.86 ppb	20:05:00
1	Cr 267.716†	30599.4	30085.4	479.71 ug/L	479.71 ppb	20:04:40
1	Cu 324.752†	158471.6	150585.1	546.54 ug/L	546.54 ppb	20:04:40
1	Mn 257.610†	330397.5	325448.8	473.20 ug/L	473.20 ppb	20:04:40
1	Mo 202.031†	4619.0	4539.0	477.50 ug/L	477.50 ppb	20:05:00
1	Ni 231.604†	12791.9	12534.2	449.44 ug/L	449.44 ppb	20:05:00
1	P 214.914†	3292.4	3058.9	2355.1 ug/L	2355.1 ppb	20:05:00
1	Pb 220.353†	2000.1	2021.8	444.78 ug/L	444.78 ppb	20:05:00
1	S 181.975 Axial†	1393.4	1347.2	2524.3 ug/L	2524.3 ppb	20:05:00
1	Sb 206.836†	1226.5	1184.1	549.20 ug/L	549.20 ppb	20:05:00
1	Se 196.026†	2032.7	2026.6	2431.9 ug/L	2431.9 ppb	20:05:00
1	Si 251.611†	127381.1	125181.6	5166.0 ug/L	5166.0 ppb	20:04:40
1	Sn 189.927†	1585.9	1550.6	465.56 ug/L	465.56 ppb	20:05:00
1	Ti 334.940†	253904.0	251472.3	504.59 ug/L	504.59 ppb	20:04:40
1	Tl 190.801†	976.3	985.2	428.18 ug/L	428.18 ppb	20:05:00
1	U 409.014†	14012.9	15655.1	511.32 ug/L	511.32 ppb	20:04:40
1	V 292.402†	56909.3	57510.8	506.65 ug/L	506.65 ppb	20:04:40
1	Zn 213.857†	40091.0	38882.4	489.36 ug/L	489.36 ppb	20:04:40
1	SiO2†	126990.5	124788.0	10970 ug/L	10970 ppb	20:05:57
2	Sc Radial	3845.5	3845.5	102 %		20:04:07
2	Y RADIAL	4129.6	4129.6	101.1 %		20:04:07
2	Al 396.153Radial†	435144.4	428717.4	510120 ug/L	510120 ppb	20:03:47
2	Ca 317.933Radial†	211620.5	208437.5	466980 ug/L	466980 ppb	20:03:47
2	Fe 238.204 Radial†	13939.2	13722.5	181420 ug/L	181420 ppb	20:04:07
2	K 766.490 Radial†	25489.4	22630.1	4837.3 ug/L	4837.3 ppb	20:03:47
2	Mg 279.077 IEC†	10376.7	10218.9	483110 ug/L	483110 ppb	20:04:07
2	Na 589.592 Radial†	12536.8	12735.9	5121.5 ug/L	5121.5 ppb	20:03:47
2	Sr 421.552†	52912.9	52083.2	469.36 ug/L	469.36 ppb	20:03:47
2	Sc 361.383	723107.1	723107.1	98.677 %		20:05:06
2	Y 371.029	585407.7	585407.7	96.854 %		20:05:06
2	Ag 328.068†	38455.8	38819.4	272.27 ug/L	272.27 ppb	20:05:06
2	As 188.979†	766.3	798.9	530.57 ug/L	530.57 ppb	20:05:26
2	B 249.677†	17283.6	17850.4	506.52 ug/L	506.52 ppb	20:05:06
2	Ba 233.527†	45428.1	46034.8	489.16 ug/L	489.16 ppb	20:05:06
2	Be 313.107†	520717.8	531593.3	249.29 ug/L	249.29 ppb	20:05:06
2	Cd 226.502†	29133.5	29695.3	464.16 ug/L	464.16 ppb	20:05:26
2	Co 228.616†	15440.1	15693.9	448.46 ug/L	448.46 ppb	20:05:26
2	Cr 267.716†	29873.0	30178.6	481.78 ug/L	481.78 ppb	20:05:06
2	Cu 324.752†	154617.5	150974.3	548.24 ug/L	548.24 ppb	20:05:06
2	Mn 257.610†	324553.1	328480.5	477.59 ug/L	477.59 ppb	20:05:06
2	Mo 202.031†	4608.6	4653.7	489.57 ug/L	489.57 ppb	20:05:26
2	Ni 231.604†	12644.8	12731.8	456.52 ug/L	456.52 ppb	20:05:26

2	P 214.914†	3253.7	3108.8	2390.7 ug/L	2390.7 ppb	20:05:26
2	Pb 220.353†	1995.8	2071.7	452.80 ug/L	452.80 ppb	20:05:26
2	S 181.975 Axial†	1379.4	1370.8	2569.9 ug/L	2569.9 ppb	20:05:26
2	Sb 206.836†	1182.2	1172.5	544.11 ug/L	544.11 ppb	20:05:26
2	Se 196.026†	2036.3	2085.3	2501.0 ug/L	2501.0 ppb	20:05:26
2	Si 251.611†	124609.9	125825.5	5192.4 ug/L	5192.4 ppb	20:05:06
2	Sn 189.927†	1584.4	1592.0	476.15 ug/L	476.15 ppb	20:05:26
2	Ti 334.940†	248963.2	253346.6	507.24 ug/L	507.24 ppb	20:05:06
2	Tl 190.801†	968.8	1004.1	436.34 ug/L	436.34 ppb	20:05:26
2	U 409.014†	13906.5	15927.0	519.88 ug/L	519.88 ppb	20:05:06
2	V 292.402†	55756.1	57884.5	509.61 ug/L	509.61 ppb	20:05:06
2	Zn 213.857†	39350.7	39218.7	492.90 ug/L	492.90 ppb	20:05:06
2	SiO2†	126073.9	127300.9	11191 ug/L	11191 ppb	20:06:02
3	Sc Radial	3880.7	3880.7	102 %		20:04:32
3	Y RADIAL	4167.7	4167.7	102.1 %		20:04:32
3	Al 396.153Radial†	446881.8	436285.0	519130 ug/L	519130 ppb	20:04:12
3	Ca 317.933Radial†	216158.1	210975.3	472670 ug/L	472670 ppb	20:04:12
3	Fe 238.204 Radial†	13983.4	13641.1	180340 ug/L	180340 ppb	20:04:32
3	K 766.490 Radial†	25843.2	22747.7	4861.4 ug/L	4861.4 ppb	20:04:12
3	Mg 279.077 IEC†	10421.5	10169.8	480790 ug/L	480790 ppb	20:04:32
3	Na 589.592 Radial†	12705.0	12788.0	5142.4 ug/L	5142.4 ppb	20:04:12
3	Sr 421.552†	54276.7	52941.6	477.11 ug/L	477.11 ppb	20:04:12
3	Sc 361.383	729841.3	729841.3	99.596 %		20:05:32
3	Y 371.029	591151.2	591151.2	97.804 %		20:05:32
3	Ag 328.068†	38675.4	38680.3	271.06 ug/L	271.06 ppb	20:05:32
3	As 188.979†	751.5	776.9	516.93 ug/L	516.93 ppb	20:05:52
3	B 249.677†	17416.7	17822.4	505.86 ug/L	505.86 ppb	20:05:32
3	Ba 233.527†	45476.2	45658.3	485.17 ug/L	485.17 ppb	20:05:32
3	Be 313.107†	520801.8	526808.5	247.05 ug/L	247.05 ppb	20:05:32
3	Cd 226.502†	29346.3	29636.6	463.31 ug/L	463.31 ppb	20:05:52
3	Co 228.616†	15548.2	15658.1	447.44 ug/L	447.44 ppb	20:05:52
3	Cr 267.716†	30065.1	30092.1	480.34 ug/L	480.34 ppb	20:05:32
3	Cu 324.752†	155954.6	150871.0	547.81 ug/L	547.81 ppb	20:05:32
3	Mn 257.610†	324689.5	325582.6	473.35 ug/L	473.35 ppb	20:05:32
3	Mo 202.031†	4626.9	4628.9	487.05 ug/L	487.05 ppb	20:05:52
3	Ni 231.604†	12748.3	12717.5	456.01 ug/L	456.01 ppb	20:05:52
3	P 214.914†	3273.5	3098.3	2385.4 ug/L	2385.4 ppb	20:05:52
3	Pb 220.353†	1998.8	2056.0	452.31 ug/L	452.31 ppb	20:05:52
3	S 181.975 Axial†	1394.7	1373.3	2573.1 ug/L	2573.1 ppb	20:05:52
3	Sb 206.836†	1222.2	1201.5	557.32 ug/L	557.32 ppb	20:05:52
3	Se 196.026†	2040.9	2070.9	2487.6 ug/L	2487.6 ppb	20:05:52
3	Si 251.611†	125186.8	125239.5	5168.2 ug/L	5168.2 ppb	20:05:32
3	Sn 189.927†	1601.7	1594.6	477.89 ug/L	477.89 ppb	20:05:52
3	Ti 334.940†	249097.2	251153.2	504.00 ug/L	504.00 ppb	20:05:32
3	Tl 190.801†	960.7	986.9	428.90 ug/L	428.90 ppb	20:05:52
3	U 409.014†	13910.2	15800.7	515.71 ug/L	515.71 ppb	20:05:32
3	V 292.402†	55969.0	57576.9	506.92 ug/L	506.92 ppb	20:05:32
3	Zn 213.857†	39437.4	38937.7	489.31 ug/L	489.31 ppb	20:05:32
3	SiO2†	126471.7	126521.3	11123 ug/L	11123 ppb	20:06:07

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	731975.1	99.887 %	1.3790			1.38%
Sc Radial	3891.0	103 %	1.4			1.32%
Y 371.029	592790.9	98.075 %	1.3774			1.40%
Y RADIAL	4176.5	102.3 %	1.27			1.24%
Ag 328.068†	38723.2	270.97 ug/L	1.344	270.97 ppb	1.344	0.50%
QC value within limits for Ag 328.068 Recovery = 108.39%						
Al 396.153Radial†	431003.5	512840 ug/L	5458.9	512840 ppb	5458.9	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.57%						
As 188.979†	788.7	523.85 ug/L	6.823	523.85 ppb	6.823	1.30%
QC value within limits for As 188.979 Recovery = 104.77%						
B 249.677†	17803.7	505.51 ug/L	1.225	505.51 ppb	1.225	0.24%
QC value within limits for B 249.677 Recovery = 101.10%						
Ba 233.527†	45797.8	486.59 ug/L	2.222	486.59 ppb	2.222	0.46%
QC value within limits for Ba 233.527 Recovery = 97.32%						
Be 313.107†	528713.9	247.94 ug/L	1.190	247.94 ppb	1.190	0.48%
QC value within limits for Be 313.107 Recovery = 99.18%						
Ca 317.933Radial†	208911.3	468040 ug/L	4195.3	468040 ppb	4195.3	0.90%

QC value within limits for Ca 317.933 Radial Recovery = 93.61%							
Cd	226.502†	29492.1	461.10 ug/L	4.588	461.10 ppb	4.588	1.00%
QC value within limits for Cd 226.502 Recovery = 92.22%							
Co	228.616†	15593.1	445.59 ug/L	4.124	445.59 ppb	4.124	0.93%
QC value within limits for Co 228.616 Recovery = 89.12%							
Cr	267.716†	30118.7	480.61 ug/L	1.059	480.61 ppb	1.059	0.22%
QC value within limits for Cr 267.716 Recovery = 96.12%							
Cu	324.752†	150810.1	547.53 ug/L	0.887	547.53 ppb	0.887	0.16%
QC value within limits for Cu 324.752 Recovery = 109.51%							
Fe	238.204 Radial†	13543.5	179050 ug/L	3211.0	179050 ppb	3211.0	1.79%
QC value within limits for Fe 238.204 Radial Recovery = 89.53%							
K	766.490 Radial†	22582.3	4826.4 ug/L	41.48	4826.4 ppb	41.48	0.86%
QC value within limits for K 766.490 Radial Recovery = 96.53%							
Mg	279.077 IEC†	10093.5	477180 ug/L	8340.9	477180 ppb	8340.9	1.75%
QC value within limits for Mg 279.077 IEC Recovery = 95.44%							
Mn	257.610†	326503.9	474.71 ug/L	2.492	474.71 ppb	2.492	0.52%
QC value within limits for Mn 257.610 Recovery = 94.94%							
Mo	202.031†	4607.2	484.71 ug/L	6.369	484.71 ppb	6.369	1.31%
QC value within limits for Mo 202.031 Recovery = 96.94%							
Na	589.592 Radial†	12706.6	5109.7 ug/L	39.96	5109.7 ppb	39.96	0.78%
QC value within limits for Na 589.592 Radial Recovery = 102.19%							
Ni	231.604†	12661.2	453.99 ug/L	3.951	453.99 ppb	3.951	0.87%
QC value within limits for Ni 231.604 Recovery = 90.80%							
P	214.914†	3088.7	2377.1 ug/L	19.20	2377.1 ppb	19.20	0.81%
QC value within limits for P 214.914 Recovery = 95.08%							
Pb	220.353†	2049.8	449.97 ug/L	4.499	449.97 ppb	4.499	1.00%
QC value within limits for Pb 220.353 Recovery = 89.99%							
S	181.975 Axial†	1363.7	2555.8 ug/L	27.31	2555.8 ppb	27.31	1.07%
QC value within limits for S 181.975 Axial Recovery = 102.23%							
Sb	206.836†	1186.0	550.21 ug/L	6.660	550.21 ppb	6.660	1.21%
QC value within limits for Sb 206.836 Recovery = 110.04%							
Se	196.026†	2060.9	2473.5 ug/L	36.67	2473.5 ppb	36.67	1.48%
QC value within limits for Se 196.026 Recovery = 98.94%							
Si	251.611†	125415.5	5175.5 ug/L	14.66	5175.5 ppb	14.66	0.28%
QC value within limits for Si 251.611 Recovery = 103.51%							
Sn	189.927†	1579.0	473.20 ug/L	6.674	473.20 ppb	6.674	1.41%
QC value within limits for Sn 189.927 Recovery = 94.64%							
Sr	421.552†	52298.0	471.30 ug/L	5.122	471.30 ppb	5.122	1.09%
QC value within limits for Sr 421.552 Recovery = 94.26%							
Ti	334.940†	251990.7	505.28 ug/L	1.726	505.28 ppb	1.726	0.34%
QC value within limits for Ti 334.940 Recovery = 101.06%							
Tl	190.801†	992.0	431.14 ug/L	4.518	431.14 ppb	4.518	1.05%
QC value within limits for Tl 190.801 Recovery = 86.23%							
U	409.014†	15794.3	515.64 ug/L	4.280	515.64 ppb	4.280	0.83%
QC value within limits for U 409.014 Recovery = 103.13%							
V	292.402†	57657.4	507.73 ug/L	1.634	507.73 ppb	1.634	0.32%
QC value within limits for V 292.402 Recovery = 101.55%							
Zn	213.857†	39012.9	490.52 ug/L	2.058	490.52 ppb	2.058	0.42%
QC value within limits for Zn 213.857 Recovery = 98.10%							
SiO2†		126203.4	11095 ug/L	113.0	11095 ppb	113.0	1.02%
QC value within limits for SiO2 Recovery = 103.74%							

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/26/2010 20:08:17

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	3822.5	3822.5	101 %		20:10:30
1	Y RADIAL	4100.4	4100.4	100.4 %		20:10:30
1	Al 396.153Radial†	431570.0	427745.1	508990 ug/L	508990 ppb	20:10:10
1	Ca 317.933Radial†	212458.4	210517.6	471640 ug/L	471640 ppb	20:10:10
1	Fe 238.204 Radial†	32027.2	31729.5	419450 ug/L	419450 ppb	20:10:30
1	K 766.490 Radial†	2202.0	-296.4	-419.94 ug/L	-419.94 ppb	20:10:10
1	Mg 279.077 IEC†	10161.4	10066.8	475660 ug/L	475660 ppb	20:10:30
1	Na 589.592 Radial†	1265627.9	1254583.6	504510 ug/L	504510 ppb	20:10:10
1	Sr 421.552†	1370.4	1318.8	8.4512 ug/L	8.4512 ppb	20:10:30
1	Sc 361.383	699374.1	699374.1	95.438 %		20:11:28
1	Y 371.029	570313.7	570313.7	94.356 %		20:11:28
1	Ag 328.068†	-19819.5	-20919.0	-7.6713 ug/L	-7.6713 ppb	20:11:28
1	As 188.979†	-143.0	-127.6	20.738 ug/L	20.738 ppb	20:11:49
1	B 249.677†	1236.1	1630.2	-19.071 ug/L	-19.071 ppb	20:11:28
1	Ba 233.527†	-1327.7	-1393.7	-1.7850 ug/L	-1.7850 ppb	20:11:49
1	Be 313.107†	-9842.6	-6421.5	-3.0418 ug/L	-3.0418 ppb	20:11:28
1	Cd 226.502†	2711.7	3012.5	8.5048 ug/L	8.5048 ppb	20:11:49
1	Co 228.616†	210.0	266.8	1.5510 ug/L	1.5510 ppb	20:11:49
1	Cr 267.716†	-1164.6	-1315.3	18.480 ug/L	18.480 ppb	20:11:49
1	Cu 324.752†	1099.4	-4565.0	-2.2779 ug/L	-2.2779 ppb	20:11:28
1	Mn 257.610†	-19113.7	-20452.9	-7.8910 ug/L	-7.8910 ppb	20:11:28
1	Mo 202.031†	-384.3	-419.4	-4.1797 ug/L	-4.1797 ppb	20:11:49
1	Ni 231.604†	249.1	178.5	6.3985 ug/L	6.3985 ppb	20:11:49
1	P 214.914†	458.2	291.6	27.155 ug/L	27.155 ppb	20:11:49
1	Pb 220.353†	-452.8	-425.4	-14.151 ug/L	-14.151 ppb	20:11:49
1	S 181.975 Axial†	60.2	36.0	-25.457 ug/L	-25.457 ppb	20:11:49
1	Sb 206.836†	64.3	41.7	-1.2164 ug/L	-1.2164 ppb	20:11:49
1	Se 196.026†	-1729.2	-1790.1	-355.20 ug/L	-355.20 ppb	20:11:49
1	Si 251.611†	-451.6	-928.9	-37.854 ug/L	-37.854 ppb	20:11:49
1	Sn 189.927†	-340.8	-370.8	-34.294 ug/L	-34.294 ppb	20:11:49
1	Ti 334.940†	-10612.2	-10075.1	-1.3793 ug/L	-1.3793 ppb	20:11:28
1	Tl 190.801†	-86.8	-68.7	-29.996 ug/L	-29.996 ppb	20:11:49
1	U 409.014†	413137.2	434719.9	14735 ug/L	14735 ppb	20:11:28
1	V 292.402†	1631.2	3089.7	3.5663 ug/L	3.5663 ppb	20:11:49
1	Zn 213.857†	4615.9	4176.7	-7.0176 ug/L	-7.0176 ppb	20:11:49
1	SiO2†	-355.8	-836.8	-72.492 ug/L	-72.492 ppb	20:12:45
2	Sc Radial	3763.1	3763.1	99.3 %		20:10:56
2	Y RADIAL	4030.1	4030.1	98.71 %		20:10:56
2	Al 396.153Radial†	435595.5	438556.3	521850 ug/L	521850 ppb	20:10:36
2	Ca 317.933Radial†	213026.6	214416.9	480380 ug/L	480380 ppb	20:10:36
2	Fe 238.204 Radial†	31795.7	31998.0	423000 ug/L	423000 ppb	20:10:56
2	K 766.490 Radial†	2450.8	-11.5	-363.87 ug/L	-363.87 ppb	20:10:36
2	Mg 279.077 IEC†	10075.0	10139.0	479070 ug/L	479070 ppb	20:10:56
2	Na 589.592 Radial†	1270648.5	1279458.8	514510 ug/L	514510 ppb	20:10:36
2	Sr 421.552†	1330.6	1300.1	8.2165 ug/L	8.2165 ppb	20:10:56
2	Sc 361.383	723811.8	723811.8	98.773 %		20:11:54
2	Y 371.029	589736.3	589736.3	97.570 %		20:11:54
2	Ag 328.068†	-20523.4	-20930.6	-6.7273 ug/L	-6.7273 ppb	20:11:54
2	As 188.979†	-144.3	-123.8	23.814 ug/L	23.814 ppb	20:12:14
2	B 249.677†	1417.9	1770.5	-15.425 ug/L	-15.425 ppb	20:11:54
2	Ba 233.527†	-1333.6	-1352.7	-1.2494 ug/L	-1.2494 ppb	20:12:14
2	Be 313.107†	-10051.0	-6284.3	-2.9812 ug/L	-2.9812 ppb	20:11:54
2	Cd 226.502†	2714.4	2919.3	6.6155 ug/L	6.6155 ppb	20:12:14
2	Co 228.616†	230.4	280.0	1.8831 ug/L	1.8831 ppb	20:12:14
2	Cr 267.716†	-1180.5	-1290.2	19.256 ug/L	19.256 ppb	20:12:14
2	Cu 324.752†	1046.9	-4657.1	-2.3947 ug/L	-2.3947 ppb	20:11:54
2	Mn 257.610†	-20014.1	-20688.4	-8.0238 ug/L	-8.0238 ppb	20:11:54
2	Mo 202.031†	-397.3	-418.9	-3.7528 ug/L	-3.7528 ppb	20:12:14
2	Ni 231.604†	239.9	160.3	5.7481 ug/L	5.7481 ppb	20:12:14



2	P 214.914†	471.6	289.0	25.445 ug/L	25.445 ppb	20:12:14
2	Pb 220.353†	-453.0	-409.5	-8.9385 ug/L	-8.9385 ppb	20:12:14
2	S 181.975 Axial†	47.7	21.2	-56.498 ug/L	-56.498 ppb	20:12:14
2	Sb 206.836†	65.7	40.9	-1.9951 ug/L	-1.9951 ppb	20:12:14
2	Se 196.026†	-1721.5	-1721.2	-280.18 ug/L	-280.18 ppb	20:12:14
2	Si 251.611†	-490.5	-952.3	-38.820 ug/L	-38.820 ppb	20:12:14
2	Sn 189.927†	-351.9	-369.9	-32.732 ug/L	-32.732 ppb	20:12:14
2	Ti 334.940†	-11780.1	-10882.1	-2.0108 ug/L	-2.0108 ppb	20:11:54
2	Tl 190.801†	-89.7	-68.5	-29.947 ug/L	-29.947 ppb	20:12:14
2	U 409.014†	426312.5	433443.6	14691 ug/L	14691 ppb	20:11:54
2	V 292.402†	1568.6	2968.7	1.9475 ug/L	1.9475 ppb	20:12:14
2	Zn 213.857†	4607.0	4004.5	-9.8441 ug/L	-9.8441 ppb	20:12:14
2	SiO2†	-540.0	-1010.7	-87.801 ug/L	-87.801 ppb	20:12:50
3	Sc Radial	3777.1	3777.1	99.7 %		20:11:21
3	Y RADIAL	4062.6	4062.6	99.51 %		20:11:21
3	Al 396.153Radial†	420591.2	421880.8	502010 ug/L	502010 ppb	20:11:01
3	Ca 317.933Radial†	207041.5	207618.5	465150 ug/L	465150 ppb	20:11:01
3	Fe 238.204 Radial†	31775.4	31858.9	421160 ug/L	421160 ppb	20:11:21
3	K 766.490 Radial†	2367.9	-103.8	-371.63 ug/L	-371.63 ppb	20:11:01
3	Mg 279.077 IEC†	10089.9	10116.2	478000 ug/L	478000 ppb	20:11:21
3	Na 589.592 Radial†	1227633.3	1231571.0	495250 ug/L	495250 ppb	20:11:01
3	Sr 421.552†	1350.1	1314.7	8.4624 ug/L	8.4624 ppb	20:11:21
3	Sc 361.383	722925.1	722925.1	98.652 %		20:12:20
3	Y 371.029	588805.3	588805.3	97.416 %		20:12:20
3	Ag 328.068†	-20574.5	-21007.9	-7.5671 ug/L	-7.5671 ppb	20:12:20
3	As 188.979†	-152.8	-132.6	18.099 ug/L	18.099 ppb	20:12:40
3	B 249.677†	1337.8	1691.0	-17.518 ug/L	-17.518 ppb	20:12:20
3	Ba 233.527†	-1341.5	-1362.4	-1.4054 ug/L	-1.4054 ppb	20:12:40
3	Be 313.107†	-10077.2	-6323.3	-2.9961 ug/L	-2.9961 ppb	20:12:20
3	Cd 226.502†	2710.0	2918.2	6.7978 ug/L	6.7978 ppb	20:12:40
3	Co 228.616†	209.3	258.9	1.2985 ug/L	1.2985 ppb	20:12:40
3	Cr 267.716†	-1162.9	-1273.9	19.292 ug/L	19.292 ppb	20:12:40
3	Cu 324.752†	1007.9	-4695.3	-2.6571 ug/L	-2.6571 ppb	20:12:20
3	Mn 257.610†	-19952.1	-20650.3	-8.1058 ug/L	-8.1058 ppb	20:12:20
3	Mo 202.031†	-403.2	-425.5	-4.7365 ug/L	-4.7365 ppb	20:12:40
3	Ni 231.604†	284.9	206.2	7.3942 ug/L	7.3942 ppb	20:12:40
3	P 214.914†	488.6	306.8	36.440 ug/L	36.440 ppb	20:12:40
3	Pb 220.353†	-456.5	-413.7	-13.999 ug/L	-13.999 ppb	20:12:40
3	S 181.975 Axial†	55.5	29.1	-37.458 ug/L	-37.458 ppb	20:12:40
3	Sb 206.836†	51.1	26.2	-8.1705 ug/L	-8.1705 ppb	20:12:40
3	Se 196.026†	-1751.2	-1753.4	-319.51 ug/L	-319.51 ppb	20:12:40
3	Si 251.611†	-396.3	-857.5	-34.896 ug/L	-34.896 ppb	20:12:40
3	Sn 189.927†	-327.3	-345.5	-29.127 ug/L	-29.127 ppb	20:12:40
3	Ti 334.940†	-11000.3	-10106.3	-2.5049 ug/L	-2.5049 ppb	20:12:20
3	Tl 190.801†	-84.0	-62.8	-27.490 ug/L	-27.490 ppb	20:12:40
3	U 409.014†	427284.4	434958.1	14743 ug/L	14743 ppb	20:12:20
3	V 292.402†	1664.1	3067.5	3.1690 ug/L	3.1690 ppb	20:12:40
3	Zn 213.857†	4645.6	4049.3	-8.9809 ug/L	-8.9809 ppb	20:12:40
3	SiO2†	-486.3	-956.9	-83.048 ug/L	-83.048 ppb	20:12:56

## Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	715370.3	97.621 %	1.8914			1.94%
Sc Radial	3787.6	100.0 %	0.82			0.82%
Y 371.029	582951.8	96.447 %	1.8124			1.88%
Y RADIAL	4064.4	99.55 %	0.861			0.87%
Ag 328.068†	-20952.5	-7.3219 ug/L	0.51760	-7.3219 ppb	0.51760	7.07%
Al 396.153Radial†	429394.1	510950 ug/L	10065.7	510950 ppb	10065.7	1.97%
QC value within limits for Al 396.153Radial Recovery = 102.19%						
As 188.979†	-128.0	20.884 ug/L	2.8603	20.884 ppb	2.8603	13.70%
B 249.677†	1697.2	-17.338 ug/L	1.8296	-17.338 ppb	1.8296	10.55%
Ba 233.527†	-1369.6	-1.4799 ug/L	0.27544	-1.4799 ppb	0.27544	18.61%
Be 313.107†	-6343.0	-3.0064 ug/L	0.03157	-3.0064 ppb	0.03157	1.05%
Ca 317.933Radial†	210851.0	472390 ug/L	7643.0	472390 ppb	7643.0	1.62%
QC value within limits for Ca 317.933Radial Recovery = 94.48%						
Cd 226.502†	2950.0	7.3060 ug/L	1.04213	7.3060 ppb	1.04213	14.26%
Co 228.616†	268.5	1.5775 ug/L	0.29321	1.5775 ppb	0.29321	18.59%
Cr 267.716†	-1293.1	19.009 ug/L	0.4590	19.009 ppb	0.4590	2.41%
Cu 324.752†	-4639.1	-2.4432 ug/L	0.19420	-2.4432 ppb	0.19420	7.95%

Fe 238.204 Radial†	31862.1	421200 ug/L	1774.9	421200 ppb	1774.9	0.42%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.24%						
K 766.490 Radial†	-137.2	-385.15 ug/L	30.383	-385.15 ppb	30.383	7.89%
Mg 279.077 IEC†	10107.3	477580 ug/L	1744.3	477580 ppb	1744.3	0.37%
QC value within limits for Mg 279.077 IEC Recovery = 95.52%						
Mn 257.610†	-20597.2	-8.0069 ug/L	0.10836	-8.0069 ppb	0.10836	1.35%
Mo 202.031†	-421.3	-4.2230 ug/L	0.49330	-4.2230 ppb	0.49330	11.68%
Na 589.592 Radial†	1255204.5	504750 ug/L	9631.0	504750 ppb	9631.0	1.91%
QC value within limits for Na 589.592 Radial Recovery = 100.95%						
Ni 231.604†	181.7	6.5136 ug/L	0.82904	6.5136 ppb	0.82904	12.73%
P 214.914†	295.8	29.680 ug/L	5.9163	29.680 ppb	5.9163	19.93%
Pb 220.353†	-416.2	-12.363 ug/L	2.9667	-12.363 ppb	2.9667	24.00%
S 181.975 Axial†	28.8	-39.804 ug/L	15.6530	-39.804 ppb	15.6530	39.32%
Sb 206.836†	36.3	-3.7940 ug/L	3.81011	-3.7940 ppb	3.81011	100.42%
Se 196.026†	-1754.9	-318.30 ug/L	37.525	-318.30 ppb	37.525	11.79%
Si 251.611†	-912.9	-37.190 ug/L	2.0445	-37.190 ppb	2.0445	5.50%
Sn 189.927†	-362.1	-32.051 ug/L	2.6499	-32.051 ppb	2.6499	8.27%
Sr 421.552†	1311.2	8.3767 ug/L	0.13881	8.3767 ppb	0.13881	1.66%
Ti 334.940†	-10354.5	-1.9650 ug/L	0.56420	-1.9650 ppb	0.56420	28.71%
Tl 190.801†	-66.7	-29.144 ug/L	1.4332	-29.144 ppb	1.4332	4.92%
U 409.014†	434373.9	14723 ug/L	27.9	14723 ppb	27.9	0.19%
QC value within limits for U 409.014 Recovery = 98.15%						
V 292.402†	3042.0	2.8943 ug/L	0.84362	2.8943 ppb	0.84362	29.15%
Zn 213.857†	4076.8	-8.6142 ug/L	1.44851	-8.6142 ppb	1.44851	16.82%
SiO2†	-934.8	-81.114 ug/L	7.8359	-81.114 ppb	7.8359	9.66%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/26/2010 20:15:05

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	4074.6	4074.6	108 %		20:17:23
1	Y RADIAL	4393.0	4393.0	107.6 %		20:17:03
1	Al 396.153Radial†	339.9	388.9	-19.332 ug/L	-19.332 ppb	20:17:03
1	Ca 317.933Radial†	27.3	3.5	7.7312 ug/L	7.7312 ppb	20:17:23
1	Fe 238.204 Radial†	-15.8	-23.2	-3.7612 ug/L	-3.7612 ppb	20:17:23
1	K 766.490 Radial†	1407117.0	1305677.8	288250 ug/L	288250 ppb	20:16:58
1	Mg 279.077 IEC†	-2.3	-5.0	-131.62 ug/L	-131.62 ppb	20:17:23
1	Na 589.592 Radial†	-242.1	161.3	64.858 ug/L	64.858 ppb	20:17:03
1	Sr 421.552†	1131406.0	1051796.4	9548.9 ug/L	9548.9 ppb	20:16:58
1	Sc 361.383	753006.7	753006.7	102.76 %		20:18:40
1	Y 371.029	610259.9	610259.9	100.97 %		20:18:40
1	Ag 328.068†	-6382.3	-6363.3	6.4283 ug/L	6.4283 ppb	20:18:46
1	As 188.979†	17741.6	17287.9	10564 ug/L	10564 ppb	20:18:46
1	B 249.677†	180415.9	175910.8	5265.8 ug/L	5265.8 ppb	20:18:40
1	Ba 233.527†	1462806.0	1423560.0	14944 ug/L	14944 ppb	20:18:40
1	Be 313.107†	6817810.8	6638797.2	3123.6 ug/L	3123.6 ppb	20:18:34
1	Cd 226.502†	641199.8	624169.1	10148 ug/L	10148 ppb	20:18:40
1	Co 228.616†	361314.2	351667.7	10102 ug/L	10102 ppb	20:18:40
1	Cr 267.716†	1689933.1	1644501.2	25192 ug/L	25192 ppb	20:18:40
1	Cu 324.752†	6181317.3	6009770.7	21453 ug/L	21453 ppb	20:18:34
1	Mn 257.610†	7149579.9	6957348.6	10155 ug/L	10155 ppb	20:18:34
1	Mo 202.031†	101174.3	98443.3	9940.9 ug/L	9940.9 ppb	20:18:46
1	Ni 231.604†	298067.9	289988.9	10398 ug/L	10398 ppb	20:18:40
1	P 214.914†	23730.8	22905.7	14353 ug/L	14353 ppb	20:18:46
1	Pb 220.353†	148907.2	144961.4	25087 ug/L	25087 ppb	20:18:40
1	S 181.975 Axial†	28493.7	27702.2	53868 ug/L	53868 ppb	20:18:46
1	Sb 206.836†	24205.5	23530.5	11283 ug/L	11283 ppb	20:18:46
1	Se 196.026†	11883.1	11586.0	10455 ug/L	10455 ppb	20:18:46
1	Si 251.611†	1234090.3	1200526.9	49475 ug/L	49475 ppb	20:18:40
1	Sn 189.927†	42725.6	41565.7	10538 ug/L	10538 ppb	20:18:46
1	Ti 334.940†	5702616.3	5550673.4	10606 ug/L	10606 ppb	20:18:34
1	Tl 190.801†	23789.1	23173.1	10065 ug/L	10065 ppb	20:18:46
1	U 409.014†	-883.5	974.2	-23.183 ug/L	-23.183 ppb	20:18:40
1	V 292.402†	1208559.5	1177517.4	10692 ug/L	10692 ppb	20:18:40
1	Zn 213.857†	1122155.9	1091391.4	14478 ug/L	14478 ppb	20:18:40
1	SiO2†	1280571.4	1245752.8	109370 ug/L	109370 ppb	20:19:32
2	Sc Radial	3985.2	3985.2	105 %		20:17:53
2	Y RADIAL	4380.1	4380.1	107.3 %		20:17:33
2	Al 396.153Radial†	349.0	404.6	3.1064 ug/L	3.1064 ppb	20:17:33
2	Ca 317.933Radial†	28.3	4.9	11.054 ug/L	11.054 ppb	20:17:53
2	Fe 238.204 Radial†	-14.0	-21.8	-1.4608 ug/L	-1.4608 ppb	20:17:53
2	K 766.490 Radial†	1349903.1	1280632.6	282720 ug/L	282720 ppb	20:17:28
2	Mg 279.077 IEC†	-4.2	-6.8	-216.62 ug/L	-216.62 ppb	20:17:53
2	Na 589.592 Radial†	-268.1	131.5	52.886 ug/L	52.886 ppb	20:17:33
2	Sr 421.552†	1077631.4	1024271.9	9299.0 ug/L	9299.0 ppb	20:17:28
2	Sc 361.383	791176.8	791176.8	107.97 %		20:19:00
2	Y 371.029	641041.0	641041.0	106.06 %		20:19:00
2	Ag 328.068†	-6639.8	-6302.1	4.6074 ug/L	4.6074 ppb	20:19:06
2	As 188.979†	18663.5	17308.8	10570 ug/L	10570 ppb	20:19:06
2	B 249.677†	181259.9	168221.9	5036.0 ug/L	5036.0 ppb	20:19:00
2	Ba 233.527†	1457700.5	1350151.8	14173 ug/L	14173 ppb	20:19:00
2	Be 313.107†	6665658.2	6177771.3	2906.7 ug/L	2906.7 ppb	20:18:54
2	Cd 226.502†	639725.5	592699.1	9636.7 ug/L	9636.7 ppb	20:19:00
2	Co 228.616†	359254.0	332795.7	9561.4 ug/L	9561.4 ppb	20:19:00
2	Cr 267.716†	1683745.4	1559427.1	23889 ug/L	23889 ppb	20:19:00
2	Cu 324.752†	6054908.4	5602472.8	19999 ug/L	19999 ppb	20:18:54
2	Mn 257.610†	6987734.0	6471767.9	9445.8 ug/L	9445.8 ppb	20:18:54
2	Mo 202.031†	105483.5	97684.4	9864.2 ug/L	9864.2 ppb	20:19:06
2	Ni 231.604†	296946.6	274956.0	9859.2 ug/L	9859.2 ppb	20:19:00

2	P 214.914†	24823.0	22803.1	14558 ug/L	14558 ppb	20:19:06
2	Pb 220.353†	148387.5	137488.9	23796 ug/L	23796 ppb	20:19:00
2	S 181.975 Axial†	30032.0	27789.2	54037 ug/L	54037 ppb	20:19:06
2	Sb 206.836†	25428.9	23527.2	11279 ug/L	11279 ppb	20:19:06
2	Se 196.026†	12489.6	11589.8	10458 ug/L	10458 ppb	20:19:06
2	Si 251.611†	1234399.5	1142872.4	47094 ug/L	47094 ppb	20:19:00
2	Sn 189.927†	44447.7	41154.8	10434 ug/L	10434 ppb	20:19:06
2	Ti 334.940†	5583735.4	5172823.2	9883.7 ug/L	9883.7 ppb	20:18:54
2	Tl 190.801†	24791.8	22985.0	9978.3 ug/L	9978.3 ppb	20:19:06
2	U 409.014†	-861.3	1036.3	-18.157 ug/L	-18.157 ppb	20:19:00
2	V 292.402†	1205202.9	1117666.1	10155 ug/L	10155 ppb	20:19:00
2	Zn 213.857†	1121603.7	1038194.2	13773 ug/L	13773 ppb	20:19:00
2	SiO2†	1250264.8	1157558.8	101610 ug/L	101610 ppb	20:19:38
3	Sc Radial	4023.0	4023.0	106 %		20:18:24
3	Y RADIAL	4477.2	4477.2	109.7 %		20:18:04
3	Al 396.153Radial†	358.5	410.5	26.670 ug/L	26.670 ppb	20:18:04
3	Ca 317.933Radial†	24.4	1.0	2.3481 ug/L	2.3481 ppb	20:18:24
3	Fe 238.204 Radial†	-16.3	-23.8	-29.683 ug/L	-29.683 ppb	20:18:24
3	K 766.490 Radial†	1376005.3	1293164.3	285490 ug/L	285490 ppb	20:17:59
3	Mg 279.077 IEC†	-4.6	-7.1	-236.58 ug/L	-236.58 ppb	20:18:24
3	Na 589.592 Radial†	-253.0	148.1	59.550 ug/L	59.550 ppb	20:18:04
3	Sr 421.552†	1103157.1	1038690.4	9429.9 ug/L	9429.9 ppb	20:17:59
3	Sc 361.383	819288.6	819288.6	111.80 %		20:19:21
3	Y 371.029	663250.1	663250.1	109.73 %		20:19:21
3	Ag 328.068†	-6720.7	-6163.4	5.1680 ug/L	5.1680 ppb	20:19:26
3	As 188.979†	18687.8	16737.4	10221 ug/L	10221 ppb	20:19:26
3	B 249.677†	188397.7	168845.6	5054.9 ug/L	5054.9 ppb	20:19:21
3	Ba 233.527†	1497436.4	1339366.1	14060 ug/L	14060 ppb	20:19:21
3	Be 313.107†	6636404.5	5939764.6	2794.8 ug/L	2794.8 ppb	20:19:14
3	Cd 226.502†	657706.1	588450.5	9567.6 ug/L	9567.6 ppb	20:19:21
3	Co 228.616†	370075.6	331057.6	9511.5 ug/L	9511.5 ppb	20:19:21
3	Cr 267.716†	1729436.0	1546783.6	23696 ug/L	23696 ppb	20:19:21
3	Cu 324.752†	6043984.2	5400270.9	19277 ug/L	19277 ppb	20:19:14
3	Mn 257.610†	6966748.4	6230920.6	9094.3 ug/L	9094.3 ppb	20:19:14
3	Mo 202.031†	105439.6	94292.7	9521.8 ug/L	9521.8 ppb	20:19:26
3	Ni 231.604†	305476.7	273148.3	9794.4 ug/L	9794.4 ppb	20:19:21
3	P 214.914†	24929.9	22109.9	14137 ug/L	14137 ppb	20:19:26
3	Pb 220.353†	152600.3	136541.1	23631 ug/L	23631 ppb	20:19:21
3	S 181.975 Axial†	29984.1	26791.9	52098 ug/L	52098 ppb	20:19:26
3	Sb 206.836†	25457.4	22744.5	10904 ug/L	10904 ppb	20:19:26
3	Se 196.026†	12549.7	11246.7	10148 ug/L	10148 ppb	20:19:26
3	Si 251.611†	1279003.6	1143537.7	47126 ug/L	47126 ppb	20:19:21
3	Sn 189.927†	44327.0	39634.2	10048 ug/L	10048 ppb	20:19:26
3	Ti 334.940†	5569163.0	4982332.6	9519.5 ug/L	9519.5 ppb	20:19:14
3	Tl 190.801†	24712.4	22126.0	9603.5 ug/L	9603.5 ppb	20:19:26
3	U 409.014†	-793.1	1124.6	-14.718 ug/L	-14.718 ppb	20:19:21
3	V 292.402†	1241326.5	1111674.0	10097 ug/L	10097 ppb	20:19:21
3	Zn 213.857†	1151559.2	1029342.1	13656 ug/L	13656 ppb	20:19:21
3	SiO2†	1259686.5	1126251.4	98865 ug/L	98865 ppb	20:19:44

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	787824.1	107.51 %	4.540			4.22%
Sc Radial	4027.6	106 %	1.2			1.11%
Y 371.029	638183.7	105.59 %	4.403			4.17%
Y RADIAL	4416.8	108.2 %	1.29			1.19%
Ag 328.068†	-6276.2	5.4012 ug/L	0.93262	5.4012 ppb	0.93262	17.27%
Al 396.153Radial†	401.3	3.4815 ug/L	23.00366	3.4815 ppb	23.00366	660.75%
As 188.979†	17111.4	10452 ug/L	199.8	10452 ppb	199.8	1.91%
QC value within limits for As 188.979 Recovery = 104.52%						
B 249.677†	170992.8	5118.9 ug/L	127.61	5118.9 ppb	127.61	2.49%
QC value within limits for B 249.677 Recovery = 102.38%						
Ba 233.527†	1371026.0	14392 ug/L	480.9	14392 ppb	480.9	3.34%
QC value within limits for Ba 233.527 Recovery = 95.95%						
Be 313.107†	6252111.0	2941.7 ug/L	167.18	2941.7 ppb	167.18	5.68%
QC value within limits for Be 313.107 Recovery = 98.06%						
Ca 317.933Radial†	3.1	7.0443 ug/L	4.39317	7.0443 ppb	4.39317	62.37%
Cd 226.502†	601772.9	9784.2 ug/L	317.24	9784.2 ppb	317.24	3.24%
QC value within limits for Cd 226.502 Recovery = 97.84%						

Co 228.616†	338507.0	9725.0 ug/L	327.57	9725.0 ppb	327.57	3.37%
QC value within limits for Co 228.616 Recovery = 97.25%						
Cr 267.716†	1583570.6	24259 ug/L	814.1	24259 ppb	814.1	3.36%
QC value within limits for Cr 267.716 Recovery = 97.04%						
Cu 324.752†	5670838.2	20243 ug/L	1108.2	20243 ppb	1108.2	5.47%
QC value within limits for Cu 324.752 Recovery = 101.22%						
Fe 238.204 Radial†	-22.9	-11.635 ug/L	15.6724	-11.635 ppb	15.6724	134.70%
K 766.490 Radial†	1293158.2	285490 ug/L	2764.6	285490 ppb	2764.6	0.97%
QC value within limits for K 766.490 Radial Recovery = 95.16%						
Mg 279.077 IEC†	-6.3	-194.94 ug/L	55.741	-194.94 ppb	55.741	28.59%
Mn 257.610†	6553345.7	9564.9 ug/L	540.06	9564.9 ppb	540.06	5.65%
QC value within limits for Mn 257.610 Recovery = 95.65%						
Mo 202.031†	96806.8	9775.6 ug/L	223.18	9775.6 ppb	223.18	2.28%
QC value within limits for Mo 202.031 Recovery = 97.76%						
Na 589.592 Radial†	147.0	59.098 ug/L	5.9987	59.098 ppb	5.9987	10.15%
Ni 231.604†	279364.4	10017 ug/L	331.5	10017 ppb	331.5	3.31%
QC value within limits for Ni 231.604 Recovery = 100.17%						
P 214.914†	22606.2	14349 ug/L	210.3	14349 ppb	210.3	1.47%
QC value within limits for P 214.914 Recovery = 95.66%						
Pb 220.353†	139663.8	24171 ug/L	797.6	24171 ppb	797.6	3.30%
QC value within limits for Pb 220.353 Recovery = 96.69%						
S 181.975 Axial†	27427.8	53335 ug/L	1074.2	53335 ppb	1074.2	2.01%
QC value within limits for S 181.975 Axial Recovery = 106.67%						
Sb 206.836†	23267.4	11155 ug/L	217.7	11155 ppb	217.7	1.95%
QC value greater than the upper limit for Sb 206.836 Recovery = 111.55%						
Se 196.026†	11474.2	10353 ug/L	178.0	10353 ppb	178.0	1.72%
QC value within limits for Se 196.026 Recovery = 103.53%						
Si 251.611†	1162312.3	47898 ug/L	1365.6	47898 ppb	1365.6	2.85%
QC value within limits for Si 251.611 Recovery = 95.80%						
Sn 189.927†	40784.9	10340 ug/L	258.0	10340 ppb	258.0	2.49%
QC value within limits for Sn 189.927 Recovery = 103.40%						
Sr 421.552†	1038252.9	9425.9 ug/L	124.99	9425.9 ppb	124.99	1.33%
QC value within limits for Sr 421.552 Recovery = 94.26%						
Ti 334.940†	5235276.4	10003 ug/L	552.9	10003 ppb	552.9	5.53%
QC value within limits for Ti 334.940 Recovery = 100.03%						
Tl 190.801†	22761.4	9882.4 ug/L	245.43	9882.4 ppb	245.43	2.48%
QC value within limits for Tl 190.801 Recovery = 98.82%						
U 409.014†	1045.0	-18.686 ug/L	4.2572	-18.686 ppb	4.2572	22.78%
V 292.402†	1135619.2	10315 ug/L	328.2	10315 ppb	328.2	3.18%
QC value within limits for V 292.402 Recovery = 103.15%						
Zn 213.857†	1052975.9	13969 ug/L	444.6	13969 ppb	444.6	3.18%
QC value within limits for Zn 213.857 Recovery = 93.13%						
SiO2†	1176521.0	103280 ug/L	5448.9	103280 ppb	5448.9	5.28%
QC value within limits for SiO2 Recovery = 96.53%						
QC Failed. Continue with analysis.						

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/26/2010 20:21:53

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	4288.5	4288.5	113 %		20:23:45
1	Y RADIAL	4552.4	4552.4	111.5 %		20:23:45
1	Al 396.153Radial†	4724.0	4245.5	5027.5 ug/L	5027.5 ppb	20:23:45
1	Ca 317.933Radial†	2589.8	2265.6	5075.9 ug/L	5075.9 ppb	20:24:05
1	Fe 238.204 Radial†	442.6	382.5	5071.3 ug/L	5071.3 ppb	20:24:05
1	K 766.490 Radial†	27760.1	22041.8	4859.9 ug/L	4859.9 ppb	20:23:45
1	Mg 279.077 IEC†	125.1	107.7	5093.5 ug/L	5093.5 ppb	20:24:05
1	Na 589.592 Radial†	28295.9	25379.8	10206 ug/L	10206 ppb	20:23:45
1	Sr 421.552†	60917.9	53769.0	488.11 ug/L	488.11 ppb	20:23:45
1	Sc 361.383	829894.9	829894.9	113.25 %		20:25:03
1	Y 371.029	675246.3	675246.3	111.72 %		20:25:03
1	Ag 328.068†	99016.6	87280.4	499.66 ug/L	499.66 ppb	20:25:08
1	As 188.979†	921.4	835.9	511.69 ug/L	511.69 ppb	20:25:28
1	B 249.677†	19447.5	17507.3	524.68 ug/L	524.68 ppb	20:25:08
1	Ba 233.527†	53428.4	47175.2	495.69 ug/L	495.69 ppb	20:25:08
1	Be 313.107†	1217275.4	1078757.8	504.76 ug/L	504.76 ppb	20:25:03
1	Cd 226.502†	34515.8	30649.0	497.89 ug/L	497.89 ppb	20:25:08
1	Co 228.616†	19884.9	17605.3	505.99 ug/L	505.99 ppb	20:25:08
1	Cr 267.716†	36900.0	32488.0	498.43 ug/L	498.43 ppb	20:25:08
1	Cu 324.752†	161490.5	136880.8	488.62 ug/L	488.62 ppb	20:25:08
1	Mn 257.610†	390074.6	344014.1	502.39 ug/L	502.39 ppb	20:25:03
1	Mo 202.031†	5661.4	4982.3	503.57 ug/L	503.57 ppb	20:25:28
1	Ni 231.604†	16012.2	14056.4	504.02 ug/L	504.02 ppb	20:25:08
1	P 214.914†	3712.2	3089.4	2402.2 ug/L	2402.2 ppb	20:25:28
1	Pb 220.353†	3224.4	2896.2	502.42 ug/L	502.42 ppb	20:25:28
1	S 181.975 Axial†	623.9	523.8	1017.7 ug/L	1017.7 ppb	20:25:28
1	Sb 206.836†	1271.1	1096.8	526.90 ug/L	526.90 ppb	20:25:28
1	Se 196.026†	625.9	574.4	533.18 ug/L	533.18 ppb	20:25:28
1	Si 251.611†	68889.6	60374.5	2488.1 ug/L	2488.1 ppb	20:25:08
1	Sn 189.927†	2301.4	2018.5	512.36 ug/L	512.36 ppb	20:25:28
1	Ti 334.940†	287936.1	255294.7	488.08 ug/L	488.08 ppb	20:25:08
1	Tl 190.801†	1318.1	1186.2	514.83 ug/L	514.83 ppb	20:25:28
1	U 409.014†	14514.6	14650.6	496.50 ug/L	496.50 ppb	20:25:08
1	V 292.402†	60765.4	55037.1	500.86 ug/L	500.86 ppb	20:25:08
1	Zn 213.857†	43075.5	37376.3	494.45 ug/L	494.45 ppb	20:25:08
1	SiO2†	68678.6	60179.9	5282.9 ug/L	5282.9 ppb	20:26:35
2	Sc Radial	4976.6	4976.6	131 %		20:24:10
2	Y RADIAL	5264.2	5264.2	128.9 %		20:24:10
2	Al 396.153Radial†	4605.9	3578.7	4233.7 ug/L	4233.7 ppb	20:24:10
2	Ca 317.933Radial†	2622.5	1974.2	4423.1 ug/L	4423.1 ppb	20:24:30
2	Fe 238.204 Radial†	446.4	331.3	4395.0 ug/L	4395.0 ppb	20:24:30
2	K 766.490 Radial†	27491.7	18447.1	4067.1 ug/L	4067.1 ppb	20:24:10
2	Mg 279.077 IEC†	129.1	95.5	4516.3 ug/L	4516.3 ppb	20:24:30
2	Na 589.592 Radial†	27941.3	21654.2	8707.8 ug/L	8707.8 ppb	20:24:10
2	Sr 421.552†	60037.0	45658.6	414.48 ug/L	414.48 ppb	20:24:10
2	Sc 361.383	822782.2	822782.2	112.28 %		20:25:34
2	Y 371.029	669951.9	669951.9	110.84 %		20:25:34
2	Ag 328.068†	100560.6	89411.4	511.62 ug/L	511.62 ppb	20:25:39
2	As 188.979†	920.1	841.8	515.18 ug/L	515.18 ppb	20:25:59
2	B 249.677†	19697.7	17878.6	535.93 ug/L	535.93 ppb	20:25:39
2	Ba 233.527†	54139.2	48216.2	506.60 ug/L	506.60 ppb	20:25:39
2	Be 313.107†	1220922.2	1091297.7	510.64 ug/L	510.64 ppb	20:25:34
2	Cd 226.502†	34867.9	31226.0	507.35 ug/L	507.35 ppb	20:25:39
2	Co 228.616†	20182.0	18021.7	517.95 ug/L	517.95 ppb	20:25:39
2	Cr 267.716†	37371.4	33189.6	509.11 ug/L	509.11 ppb	20:25:39
2	Cu 324.752†	165084.0	141314.0	504.40 ug/L	504.40 ppb	20:25:39
2	Mn 257.610†	390176.0	347082.1	506.83 ug/L	506.83 ppb	20:25:34
2	Mo 202.031†	5671.9	5034.9	508.82 ug/L	508.82 ppb	20:25:59
2	Ni 231.604†	16186.4	14333.8	513.96 ug/L	513.96 ppb	20:25:39

2	P 214.914†	3734.5	3137.6	2438.4 ug/L	2438.4 ppb	20:25:59
2	Pb 220.353†	3237.6	2932.6	508.63 ug/L	508.63 ppb	20:25:59
2	S 181.975 Axial†	631.8	535.6	1040.7 ug/L	1040.7 ppb	20:25:59
2	Sb 206.836†	1257.1	1094.0	525.82 ug/L	525.82 ppb	20:25:59
2	Se 196.026†	625.7	579.0	535.34 ug/L	535.34 ppb	20:25:59
2	Si 251.611†	69994.0	61883.9	2550.3 ug/L	2550.3 ppb	20:25:39
2	Sn 189.927†	2298.8	2033.7	516.14 ug/L	516.14 ppb	20:25:59
2	Ti 334.940†	292490.8	261549.3	499.99 ug/L	499.99 ppb	20:25:39
2	Tl 190.801†	1323.7	1201.2	521.34 ug/L	521.34 ppb	20:25:59
2	U 409.014†	14913.0	15116.1	512.38 ug/L	512.38 ppb	20:25:39
2	V 292.402†	61806.8	56428.4	513.53 ug/L	513.53 ppb	20:25:39
2	Zn 213.857†	43582.9	38157.0	504.90 ug/L	504.90 ppb	20:25:39
2	SiO2†	70505.6	62331.4	5472.1 ug/L	5472.1 ppb	20:26:40
3	Sc Radial	4266.1	4266.1	113 %		20:24:36
3	Y RADIAL	4530.5	4530.5	111.0 %		20:24:36
3	Al 396.153Radial†	4670.3	4219.8	4997.0 ug/L	4997.0 ppb	20:24:36
3	Ca 317.933Radial†	2574.4	2264.0	5072.3 ug/L	5072.3 ppb	20:24:56
3	Fe 238.204 Radial†	441.5	383.6	5086.0 ug/L	5086.0 ppb	20:24:56
3	K 766.490 Radial†	27404.8	21855.3	4818.8 ug/L	4818.8 ppb	20:24:36
3	Mg 279.077 IEC†	127.0	110.0	5199.9 ug/L	5199.9 ppb	20:24:56
3	Na 589.592 Radial†	28090.0	25328.6	10185 ug/L	10185 ppb	20:24:36
3	Sr 421.552†	60395.8	53588.7	486.47 ug/L	486.47 ppb	20:24:36
3	Sc 361.383	831778.5	831778.5	113.51 %		20:26:05
3	Y 371.029	676741.9	676741.9	111.96 %		20:26:05
3	Ag 328.068†	100155.7	88086.0	504.26 ug/L	504.26 ppb	20:26:10
3	As 188.979†	917.9	831.0	508.78 ug/L	508.78 ppb	20:26:30
3	B 249.677†	19764.8	17747.9	531.91 ug/L	531.91 ppb	20:26:10
3	Ba 233.527†	53938.8	47518.0	499.29 ug/L	499.29 ppb	20:26:10
3	Be 313.107†	1231206.0	1088596.7	509.36 ug/L	509.36 ppb	20:26:05
3	Cd 226.502†	34842.3	30867.6	501.44 ug/L	501.44 ppb	20:26:10
3	Co 228.616†	20068.3	17727.1	509.47 ug/L	509.47 ppb	20:26:10
3	Cr 267.716†	37144.2	32629.4	500.60 ug/L	500.60 ppb	20:26:10
3	Cu 324.752†	164545.4	139249.2	497.07 ug/L	497.07 ppb	20:26:10
3	Mn 257.610†	393770.5	346490.3	506.01 ug/L	506.01 ppb	20:26:05
3	Mo 202.031†	5648.5	4959.6	501.28 ug/L	501.28 ppb	20:26:30
3	Ni 231.604†	16196.9	14187.0	508.70 ug/L	508.70 ppb	20:26:10
3	P 214.914†	3714.4	3084.0	2396.0 ug/L	2396.0 ppb	20:26:30
3	Pb 220.353†	3190.6	2860.0	496.14 ug/L	496.14 ppb	20:26:30
3	S 181.975 Axial†	624.4	523.0	1016.0 ug/L	1016.0 ppb	20:26:30
3	Sb 206.836†	1246.5	1072.6	515.55 ug/L	515.55 ppb	20:26:30
3	Se 196.026†	619.5	567.5	527.02 ug/L	527.02 ppb	20:26:30
3	Si 251.611†	69719.3	60967.7	2512.6 ug/L	2512.6 ppb	20:26:10
3	Sn 189.927†	2282.5	1997.2	506.96 ug/L	506.96 ppb	20:26:30
3	Ti 334.940†	291640.1	257982.2	493.21 ug/L	493.21 ppb	20:26:10
3	Tl 190.801†	1300.4	1167.9	506.97 ug/L	506.97 ppb	20:26:30
3	U 409.014†	14686.9	14773.4	500.67 ug/L	500.67 ppb	20:26:10
3	V 292.402†	61463.8	55530.8	505.26 ug/L	505.26 ppb	20:26:10
3	Zn 213.857†	43519.1	37681.0	498.48 ug/L	498.48 ppb	20:26:10
3	SiO2†	69903.8	61122.0	5365.9 ug/L	5365.9 ppb	20:26:46

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	828151.9	113.01 %	0.647			0.57%
Sc Radial	4510.4	119 %	10.7			8.96%
Y 371.029	673980.0	111.51 %	0.590			0.53%
Y RADIAL	4782.3	117.1 %	10.22			8.73%
Ag 328.068†	88259.3	505.18 ug/L	6.033	505.18 ppb	6.033	1.19%
QC value within limits for Ag 328.068 Recovery = 101.04%						
Al 396.153Radial†	4014.7	4752.7 ug/L	449.74	4752.7 ppb	449.74	9.46%
QC value within limits for Al 396.153Radial Recovery = 95.05%						
As 188.979†	836.2	511.88 ug/L	3.208	511.88 ppb	3.208	0.63%
QC value within limits for As 188.979 Recovery = 102.38%						
B 249.677†	17711.3	530.84 ug/L	5.701	530.84 ppb	5.701	1.07%
QC value within limits for B 249.677 Recovery = 106.17%						
Ba 233.527†	47636.5	500.53 ug/L	5.563	500.53 ppb	5.563	1.11%
QC value within limits for Ba 233.527 Recovery = 100.11%						
Be 313.107†	1086217.4	508.25 ug/L	3.094	508.25 ppb	3.094	0.61%
QC value within limits for Be 313.107 Recovery = 101.65%						
Ca 317.933Radial†	2168.0	4857.1 ug/L	375.88	4857.1 ppb	375.88	7.74%

QC value within limits for Ca 317.933 Radial Recovery = 97.14%							
Cd 226.502†	30914.2	502.23 ug/L	4.776	502.23 ppb	4.776	0.95%	
QC value within limits for Cd 226.502 Recovery = 100.45%							
Co 228.616†	17784.7	511.14 ug/L	6.152	511.14 ppb	6.152	1.20%	
QC value within limits for Co 228.616 Recovery = 102.23%							
Cr 267.716†	32769.0	502.72 ug/L	5.645	502.72 ppb	5.645	1.12%	
QC value within limits for Cr 267.716 Recovery = 100.54%							
Cu 324.752†	139148.0	496.70 ug/L	7.897	496.70 ppb	7.897	1.59%	
QC value within limits for Cu 324.752 Recovery = 99.34%							
Fe 238.204 Radial†	365.8	4850.8 ug/L	394.75	4850.8 ppb	394.75	8.14%	
QC value within limits for Fe 238.204 Radial Recovery = 97.02%							
K 766.490 Radial†	20781.4	4581.9 ug/L	446.34	4581.9 ppb	446.34	9.74%	
QC value within limits for K 766.490 Radial Recovery = 91.64%							
Mg 279.077 IEC†	104.4	4936.6 ug/L	367.85	4936.6 ppb	367.85	7.45%	
QC value within limits for Mg 279.077 IEC Recovery = 98.73%							
Mn 257.610†	345862.2	505.08 ug/L	2.359	505.08 ppb	2.359	0.47%	
QC value within limits for Mn 257.610 Recovery = 101.02%							
Mo 202.031†	4992.3	504.56 ug/L	3.864	504.56 ppb	3.864	0.77%	
QC value within limits for Mo 202.031 Recovery = 100.91%							
Na 589.592 Radial†	24120.9	9699.7 ug/L	859.11	9699.7 ppb	859.11	8.86%	
QC value within limits for Na 589.592 Radial Recovery = 97.00%							
Ni 231.604†	14192.4	508.89 ug/L	4.975	508.89 ppb	4.975	0.98%	
QC value within limits for Ni 231.604 Recovery = 101.78%							
P 214.914†	3103.7	2412.2 ug/L	22.88	2412.2 ppb	22.88	0.95%	
QC value within limits for P 214.914 Recovery = 96.49%							
Pb 220.353†	2896.3	502.40 ug/L	6.248	502.40 ppb	6.248	1.24%	
QC value within limits for Pb 220.353 Recovery = 100.48%							
S 181.975 Axial†	527.5	1024.8 ug/L	13.77	1024.8 ppb	13.77	1.34%	
QC value within limits for S 181.975 Axial Recovery = 102.48%							
Sb 206.836†	1087.8	522.75 ug/L	6.264	522.75 ppb	6.264	1.20%	
QC value within limits for Sb 206.836 Recovery = 104.55%							
Se 196.026†	573.6	531.85 ug/L	4.320	531.85 ppb	4.320	0.81%	
QC value within limits for Se 196.026 Recovery = 106.37%							
Si 251.611†	61075.4	2517.0 ug/L	31.38	2517.0 ppb	31.38	1.25%	
QC value within limits for Si 251.611 Recovery = 100.68%							
Sn 189.927†	2016.5	511.82 ug/L	4.613	511.82 ppb	4.613	0.90%	
QC value within limits for Sn 189.927 Recovery = 102.36%							
Sr 421.552†	51005.4	463.02 ug/L	42.044	463.02 ppb	42.044	9.08%	
QC value within limits for Sr 421.552 Recovery = 92.60%							
Ti 334.940†	258275.4	493.76 ug/L	5.974	493.76 ppb	5.974	1.21%	
QC value within limits for Ti 334.940 Recovery = 98.75%							
Tl 190.801†	1185.1	514.38 ug/L	7.193	514.38 ppb	7.193	1.40%	
QC value within limits for Tl 190.801 Recovery = 102.88%							
U 409.014†	14846.7	503.18 ug/L	8.236	503.18 ppb	8.236	1.64%	
QC value within limits for U 409.014 Recovery = 100.64%							
V 292.402†	55665.4	506.55 ug/L	6.431	506.55 ppb	6.431	1.27%	
QC value within limits for V 292.402 Recovery = 101.31%							
Zn 213.857†	37738.1	499.28 ug/L	5.266	499.28 ppb	5.266	1.05%	
QC value within limits for Zn 213.857 Recovery = 99.86%							
SiO2†	61211.1	5373.6 ug/L	94.85	5373.6 ppb	94.85	1.77%	
QC value within limits for SiO2 Recovery = 100.49%							
All analyte(s) passed QC.							



Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/26/2010 20:28:56

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	4284.7	4284.7	113 %		20:31:08
1	Y RADIAL	4748.1	4748.1	116.3 %		20:30:48
1	Al 396.153Radial†	-83.1	-0.6	-0.6448 ug/L	-0.6448 ppb	20:31:08
1	Ca 317.933Radial†	25.6	0.7	1.5025 ug/L	1.5025 ppb	20:31:08
1	Fe 238.204 Radial†	8.6	-0.9	-11.411 ug/L	-11.411 ppb	20:31:08
1	K 766.490 Radial†	2693.4	-97.4	-21.512 ug/L	-21.512 ppb	20:30:48
1	Mg 279.077 IEC†	3.7	0.5	22.442 ug/L	22.442 ppb	20:31:08
1	Na 589.592 Radial†	-374.7	55.1	22.144 ug/L	22.144 ppb	20:30:48
1	Sr 421.552†	38.1	-5.6	-0.0505 ug/L	-0.0505 ppb	20:30:48
1	Sc 361.383	818070.9	818070.9	111.64 %		20:32:05
1	Y 371.029	672076.7	672076.7	111.19 %		20:32:05
1	Ag 328.068†	185.7	14.2	0.0735 ug/L	0.0735 ppb	20:32:05
1	As 188.979†	-25.8	-0.8	-0.4709 ug/L	-0.4709 ppb	20:32:25
1	B 249.677†	573.5	848.7	25.547 ug/L	25.547 ppb	20:32:25
1	Ba 233.527†	-10.4	-11.9	-0.1227 ug/L	-0.1227 ppb	20:32:25
1	Be 313.107†	-4112.4	207.8	0.0976 ug/L	0.0976 ppb	20:32:05
1	Cd 226.502†	-137.3	48.1	0.7849 ug/L	0.7849 ppb	20:32:25
1	Co 228.616†	-46.8	4.8	0.1356 ug/L	0.1356 ppb	20:32:25
1	Cr 267.716†	189.3	74.5	1.1372 ug/L	1.1372 ppb	20:32:25
1	Cu 324.752†	6088.7	-262.9	-0.9444 ug/L	-0.9444 ppb	20:32:05
1	Mn 257.610†	448.3	-24.0	-0.0371 ug/L	-0.0371 ppb	20:32:25
1	Mo 202.031†	11.1	-6.8	-0.6905 ug/L	-0.6905 ppb	20:32:25
1	Ni 231.604†	80.9	-10.1	-0.3623 ug/L	-0.3623 ppb	20:32:25
1	P 214.914†	196.0	-12.9	-10.192 ug/L	-10.192 ppb	20:32:25
1	Pb 220.353†	-50.4	3.9	0.6738 ug/L	0.6738 ppb	20:32:25
1	S 181.975 Axial†	32.9	2.3	4.5299 ug/L	4.5299 ppb	20:32:25
1	Sb 206.836†	34.1	4.9	2.3298 ug/L	2.3298 ppb	20:32:25
1	Se 196.026†	-15.0	8.3	7.4259 ug/L	7.4259 ppb	20:32:25
1	Si 251.611†	545.8	33.2	1.3816 ug/L	1.3816 ppb	20:32:25
1	Sn 189.927†	29.0	12.4	3.1349 ug/L	3.1349 ppb	20:32:25
1	Ti 334.940†	-1017.7	132.7	0.2475 ug/L	0.2475 ppb	20:32:05
1	Tl 190.801†	-16.7	7.3	3.1363 ug/L	3.1363 ppb	20:32:25
1	U 409.014†	-1730.5	283.9	9.6521 ug/L	9.6521 ppb	20:32:05
1	V 292.402†	-1405.5	121.6	1.1019 ug/L	1.1019 ppb	20:32:05
1	Zn 213.857†	715.6	-18.8	-0.2462 ug/L	-0.2462 ppb	20:32:25
1	SiO2†	524.6	5.9	0.5422 ug/L	0.5422 ppb	20:33:36
2	Sc Radial	4150.4	4150.4	110 %		20:31:33
2	Y RADIAL	4778.9	4778.9	117.1 %		20:31:13
2	Al 396.153Radial†	-76.2	3.3	3.8852 ug/L	3.8852 ppb	20:31:33
2	Ca 317.933Radial†	22.9	-1.0	-2.2032 ug/L	-2.2032 ppb	20:31:33
2	Fe 238.204 Radial†	8.3	-0.9	-11.243 ug/L	-11.243 ppb	20:31:33
2	K 766.490 Radial†	2650.5	-59.4	-13.120 ug/L	-13.120 ppb	20:31:13
2	Mg 279.077 IEC†	0.2	-2.6	-123.24 ug/L	-123.24 ppb	20:31:33
2	Na 589.592 Radial†	-425.6	-2.1	-0.8486 ug/L	-0.8486 ppb	20:31:13
2	Sr 421.552†	19.2	-21.7	-0.1971 ug/L	-0.1971 ppb	20:31:13
2	Sc 361.383	800708.9	800708.9	109.27 %		20:32:30
2	Y 371.029	658878.9	658878.9	109.01 %		20:32:30
2	Ag 328.068†	245.3	72.3	0.4104 ug/L	0.4104 ppb	20:32:30
2	As 188.979†	-26.8	-2.3	-1.3771 ug/L	-1.3771 ppb	20:32:50
2	B 249.677†	559.6	847.1	25.497 ug/L	25.497 ppb	20:32:50
2	Ba 233.527†	14.2	10.4	0.1114 ug/L	0.1114 ppb	20:32:50
2	Be 313.107†	-3962.0	265.6	0.1245 ug/L	0.1245 ppb	20:32:30
2	Cd 226.502†	-144.8	38.7	0.6295 ug/L	0.6295 ppb	20:32:50
2	Co 228.616†	-37.2	12.7	0.3637 ug/L	0.3637 ppb	20:32:50
2	Cr 267.716†	202.0	89.8	1.3743 ug/L	1.3743 ppb	20:32:50
2	Cu 324.752†	6079.5	-153.1	-0.5487 ug/L	-0.5487 ppb	20:32:30
2	Mn 257.610†	453.8	-10.2	-0.0110 ug/L	-0.0110 ppb	20:32:50
2	Mo 202.031†	22.0	3.4	0.3385 ug/L	0.3385 ppb	20:32:50
2	Ni 231.604†	65.1	-22.9	-0.8232 ug/L	-0.8232 ppb	20:32:50

2	P 214.914†	197.6	-7.6	-6.0201 ug/L	-6.0201 ppb	20:32:50
2	Pb 220.353†	-18.2	32.4	5.6103 ug/L	5.6103 ppb	20:32:50
2	S 181.975 Axial†	31.4	1.7	3.2514 ug/L	3.2514 ppb	20:32:50
2	Sb 206.836†	32.6	4.2	2.0134 ug/L	2.0134 ppb	20:32:50
2	Se 196.026†	-14.4	8.6	7.6960 ug/L	7.6960 ppb	20:32:50
2	Si 251.611†	526.1	25.8	1.0611 ug/L	1.0611 ppb	20:32:50
2	Sn 189.927†	27.4	11.4	2.8941 ug/L	2.8941 ppb	20:32:50
2	Ti 334.940†	-1000.4	128.8	0.2542 ug/L	0.2542 ppb	20:32:30
2	Tl 190.801†	-19.9	4.1	1.7645 ug/L	1.7645 ppb	20:32:50
2	U 409.014†	-1903.7	91.7	3.1180 ug/L	3.1180 ppb	20:32:30
2	V 292.402†	-1356.3	139.3	1.2600 ug/L	1.2600 ppb	20:32:30
2	Zn 213.857†	727.4	5.8	0.0858 ug/L	0.0858 ppb	20:32:50
2	SiO2†	538.6	28.9	2.5360 ug/L	2.5360 ppb	20:33:56
3	Sc Radial	4115.1	4115.1	109 %		20:31:58
3	Y RADIAL	4814.0	4814.0	117.9 %		20:31:38
3	Al 396.153Radial†	-75.4	3.4	4.1164 ug/L	4.1164 ppb	20:31:58
3	Ca 317.933Radial†	22.8	-0.9	-2.0004 ug/L	-2.0004 ppb	20:31:58
3	Fe 238.204 Radial†	8.3	-0.9	-11.377 ug/L	-11.377 ppb	20:31:58
3	K 766.490 Radial†	2667.5	-23.0	-5.0893 ug/L	-5.0893 ppb	20:31:38
3	Mg 279.077 IEC†	3.1	0.1	3.6781 ug/L	3.6781 ppb	20:31:58
3	Na 589.592 Radial†	-329.0	83.5	33.568 ug/L	33.568 ppb	20:31:38
3	Sr 421.552†	18.1	-22.6	-0.2051 ug/L	-0.2051 ppb	20:31:38
3	Sc 361.383	801484.8	801484.8	109.37 %		20:32:56
3	Y 371.029	658792.3	658792.3	108.99 %		20:32:56
3	Ag 328.068†	147.7	-17.1	-0.1062 ug/L	-0.1062 ppb	20:32:56
3	As 188.979†	-21.9	2.3	1.4017 ug/L	1.4017 ppb	20:33:16
3	B 249.677†	541.9	830.5	24.996 ug/L	24.996 ppb	20:33:16
3	Ba 233.527†	9.9	6.5	0.0682 ug/L	0.0682 ppb	20:33:16
3	Be 313.107†	-4031.8	205.3	0.0964 ug/L	0.0964 ppb	20:32:56
3	Cd 226.502†	-132.0	50.5	0.8225 ug/L	0.8225 ppb	20:33:16
3	Co 228.616†	-33.8	15.8	0.4530 ug/L	0.4530 ppb	20:33:16
3	Cr 267.716†	192.6	81.0	1.2366 ug/L	1.2366 ppb	20:33:16
3	Cu 324.752†	6146.7	-97.0	-0.3509 ug/L	-0.3509 ppb	20:32:56
3	Mn 257.610†	466.7	1.2	0.0004 ug/L	0.0004 ppb	20:33:16
3	Mo 202.031†	15.8	-2.3	-0.2301 ug/L	-0.2301 ppb	20:33:16
3	Ni 231.604†	83.6	-6.1	-0.2197 ug/L	-0.2197 ppb	20:33:16
3	P 214.914†	181.3	-22.7	-18.259 ug/L	-18.259 ppb	20:33:16
3	Pb 220.353†	-41.4	11.3	1.9496 ug/L	1.9496 ppb	20:33:16
3	S 181.975 Axial†	35.0	4.9	9.5407 ug/L	9.5407 ppb	20:33:16
3	Sb 206.836†	28.7	0.6	0.3239 ug/L	0.3239 ppb	20:33:16
3	Se 196.026†	-17.4	5.9	5.2400 ug/L	5.2400 ppb	20:33:16
3	Si 251.611†	526.3	25.5	1.0553 ug/L	1.0553 ppb	20:33:16
3	Sn 189.927†	25.0	9.2	2.3251 ug/L	2.3251 ppb	20:33:16
3	Ti 334.940†	-1000.1	129.9	0.2442 ug/L	0.2442 ppb	20:32:56
3	Tl 190.801†	-13.8	9.6	4.1563 ug/L	4.1563 ppb	20:33:16
3	U 409.014†	-1767.1	218.4	7.4234 ug/L	7.4234 ppb	20:32:56
3	V 292.402†	-1487.8	20.3	0.1940 ug/L	0.1940 ppb	20:32:56
3	Zn 213.857†	723.9	2.0	0.0307 ug/L	0.0307 ppb	20:33:16
3	SiO2†	523.2	14.4	1.2746 ug/L	1.2746 ppb	20:34:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	806754.9	110.09 %	1.338			1.22%
Sc Radial	4183.4	110 %	2.4			2.14%
Y 371.029	663249.3	109.73 %	1.265			1.15%
Y RADIAL	4780.4	117.1 %	0.81			0.69%
Ag 328.068†	23.1	0.1259 ug/L	0.26229	0.1259 ppb	0.26229	208.31%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.1	2.4522 ug/L	2.68461	2.4522 ppb	2.68461	109.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.2	-0.1487 ug/L	1.41714	-0.1487 ppb	1.41714	952.77%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	842.1	25.347 ug/L	0.3044	25.347 ppb	0.3044	1.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.7	0.0190 ug/L	0.12456	0.0190 ppb	0.12456	656.07%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	226.2	0.1062 ug/L	0.01591	0.1062 ppb	0.01591	14.98%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-0.4	-0.9004 ug/L	2.08342	-0.9004 ppb	2.08342	231.40%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	45.8	0.7456 ug/L	0.10229	0.7456 ppb	0.10229	13.72%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	11.1	0.3174 ug/L	0.16371	0.3174 ppb	0.16371	51.57%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	81.8	1.2494 ug/L	0.11909	1.2494 ppb	0.11909	9.53%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-171.0	-0.6147 ug/L	0.30217	-0.6147 ppb	0.30217	49.16%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.9	-11.344 ug/L	0.0888	-11.344 ppb	0.0888	0.78%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-59.9	-13.241 ug/L	8.2120	-13.241 ppb	8.2120	62.02%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.7	-32.375 ug/L	79.2531	-32.375 ppb	79.2531	244.80%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-11.0	-0.0159 ug/L	0.01923	-0.0159 ppb	0.01923	121.21%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.9	-0.1941 ug/L	0.51545	-0.1941 ppb	0.51545	265.62%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	45.5	18.288 ug/L	17.5291	18.288 ppb	17.5291	95.85%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-13.1	-0.4684 ug/L	0.31540	-0.4684 ppb	0.31540	67.33%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-14.4	-11.491 ug/L	6.2220	-11.491 ppb	6.2220	54.15%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	15.9	2.7446 ug/L	2.56246	2.7446 ppb	2.56246	93.36%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.0	5.7740 ug/L	3.32410	5.7740 ppb	3.32410	57.57%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.3	1.5557 ug/L	1.07845	1.5557 ppb	1.07845	69.32%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.6	6.7873 ug/L	1.34676	6.7873 ppb	1.34676	19.84%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	28.2	1.1660 ug/L	0.18671	1.1660 ppb	0.18671	16.01%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	11.0	2.7847 ug/L	0.41580	2.7847 ppb	0.41580	14.93%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-16.6	-0.1509 ug/L	0.08702	-0.1509 ppb	0.08702	57.66%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	130.5	0.2486 ug/L	0.00509	0.2486 ppb	0.00509	2.05%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.0	3.0190 ug/L	1.20017	3.0190 ppb	1.20017	39.75%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	198.0	6.7312 ug/L	3.32158	6.7312 ppb	3.32158	49.35%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	93.7	0.8520 ug/L	0.57530	0.8520 ppb	0.57530	67.53%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-3.7	-0.0432 ug/L	0.17790	-0.0432 ppb	0.17790	411.50%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	16.4	1.4509 ug/L	1.00854	1.4509 ppb	1.00854	69.51%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 15

Sample ID: LR1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 25

Date Collected: 3/26/2010 20:36:27

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	4167.1	4167.1	110 %		20:38:40
1	Y RADIAL	4680.2	4680.2	114.6 %		20:38:20
1	Al 396.153Radial†	-97.0	-15.3	-17.056 ug/L	-17.056 ppb	20:38:40
1	Ca 317.933Radial†	10.7	-12.2	-27.275 ug/L	-27.275 ppb	20:38:40
1	Fe 238.204 Radial†	32190.0	29253.4	386720 ug/L	386720 ppb	20:38:20
1	K 766.490 Radial†	2277.7	-408.0	-90.019 ug/L	-90.019 ppb	20:38:20
1	Mg 279.077 IEC†	7.4	3.9	-221.43 ug/L	-221.43 ppb	20:38:40
1	Na 589.592 Radial†	-460.5	-32.3	-13.004 ug/L	-13.004 ppb	20:38:20
1	Sr 421.552†	82.2	35.4	0.3220 ug/L	0.3220 ppb	20:38:20
1	Sc 361.383	806617.7	806617.7	110.07 %		20:39:38
1	Y 371.029	662507.4	662507.4	109.61 %		20:39:38
1	Ag 328.068†	-22354.9	-20461.4	3.3447 ug/L	3.3447 ppb	20:39:38
1	As 188.979†	-165.2	-127.8	13.073 ug/L	13.073 ppb	20:39:58
1	B 249.677†	2137.7	2277.1	5.6845 ug/L	5.6845 ppb	20:39:38
1	Ba 233.527†	-1542.8	-1404.2	-2.8304 ug/L	-2.8304 ppb	20:39:38
1	Be 313.107†	-3915.4	334.5	0.1564 ug/L	0.1564 ppb	20:39:38
1	Cd 226.502†	2586.0	2520.5	1.0245 ug/L	1.0245 ppb	20:39:38
1	Co 228.616†	639.7	627.9	12.396 ug/L	12.396 ppb	20:39:58
1	Cr 267.716†	-402.3	-460.5	33.971 ug/L	33.971 ppb	20:39:58
1	Cu 324.752†	-972.7	-6600.6	-3.1316 ug/L	-3.1316 ppb	20:39:38
1	Mn 257.610†	-31803.3	-29318.6	-4.6048 ug/L	-4.6048 ppb	20:39:38
1	Mo 202.031†	-248.4	-242.5	5.5370 ug/L	5.5370 ppb	20:39:38
1	Ni 231.604†	174.1	75.6	2.7026 ug/L	2.7026 ppb	20:39:58
1	P 214.914†	623.9	378.3	-1.0209 ug/L	-1.0209 ppb	20:39:58
1	Pb 220.353†	174.1	207.3	-19.226 ug/L	-19.226 ppb	20:39:58
1	S 181.975 Axial†	33.3	3.1	6.1138 ug/L	6.1138 ppb	20:39:58
1	Sb 206.836†	29.2	1.0	-4.2851 ug/L	-4.2851 ppb	20:39:58
1	Se 196.026†	-1588.1	-1421.0	-250.85 ug/L	-250.85 ppb	20:39:58
1	Si 251.611†	-426.0	-842.7	-34.513 ug/L	-34.513 ppb	20:39:38
1	Sn 189.927†	-6.2	-19.3	-27.096 ug/L	-27.096 ppb	20:39:58
1	Ti 334.940†	-1086.2	57.5	0.0637 ug/L	0.0637 ppb	20:39:38
1	Tl 190.801†	-22.6	1.7	0.3662 ug/L	0.3662 ppb	20:39:58
1	U 409.014†	210.3	2025.1	24.791 ug/L	24.791 ppb	20:39:38
1	V 292.402†	5236.5	6137.9	-1.4228 ug/L	-1.4228 ppb	20:39:38
1	Zn 213.857†	3661.9	2667.0	-22.245 ug/L	-22.245 ppb	20:39:58
1	SiO2†	-460.0	-881.9	-76.949 ug/L	-76.949 ppb	20:40:55
2	Sc Radial	4156.6	4156.6	110 %		20:39:05
2	Y RADIAL	4572.3	4572.3	112.0 %		20:38:45
2	Al 396.153Radial†	-85.6	-5.2	-4.8426 ug/L	-4.8426 ppb	20:39:05
2	Ca 317.933Radial†	15.0	-8.2	-18.419 ug/L	-18.419 ppb	20:39:05
2	Fe 238.204 Radial†	31800.6	28972.1	383000 ug/L	383000 ppb	20:38:45
2	K 766.490 Radial†	2387.8	-302.5	-66.730 ug/L	-66.730 ppb	20:38:45
2	Mg 279.077 IEC†	11.4	7.6	-40.607 ug/L	-40.607 ppb	20:39:05
2	Na 589.592 Radial†	-409.1	13.5	5.4414 ug/L	5.4414 ppb	20:38:45
2	Sr 421.552†	87.7	40.7	0.3693 ug/L	0.3693 ppb	20:38:45
2	Sc 361.383	834478.0	834478.0	113.87 %		20:40:04
2	Y 371.029	684345.6	684345.6	113.22 %		20:40:04
2	Ag 328.068†	-23096.0	-20434.1	2.3537 ug/L	2.3537 ppb	20:40:04
2	As 188.979†	-170.1	-127.1	12.615 ug/L	12.615 ppb	20:40:24
2	B 249.677†	2165.3	2236.5	5.0689 ug/L	5.0689 ppb	20:40:04
2	Ba 233.527†	-1634.3	-1437.8	-3.2942 ug/L	-3.2942 ppb	20:40:04
2	Be 313.107†	-3978.8	397.6	0.1860 ug/L	0.1860 ppb	20:40:04
2	Cd 226.502†	2708.2	2549.4	1.8762 ug/L	1.8762 ppb	20:40:04
2	Co 228.616†	629.0	599.1	11.617 ug/L	11.617 ppb	20:40:24
2	Cr 267.716†	-444.7	-485.6	33.195 ug/L	33.195 ppb	20:40:24
2	Cu 324.752†	-1139.9	-6718.0	-3.7457 ug/L	-3.7457 ppb	20:40:04
2	Mn 257.610†	-33031.1	-29432.1	-5.1451 ug/L	-5.1451 ppb	20:40:04
2	Mo 202.031†	-283.0	-265.3	2.9442 ug/L	2.9442 ppb	20:40:04
2	Ni 231.604†	156.3	54.7	1.9520 ug/L	1.9520 ppb	20:40:24

2	P 214.914†	632.1	366.7	-7.3793 ug/L	-7.3793 ppb	20:40:24
2	Pb 220.353†	170.6	198.9	-20.147 ug/L	-20.147 ppb	20:40:24
2	S 181.975 Axial†	38.9	7.0	13.693 ug/L	13.693 ppb	20:40:24
2	Sb 206.836†	24.1	-4.4	-6.7676 ug/L	-6.7676 ppb	20:40:24
2	Se 196.026†	-1612.2	-1394.1	-236.46 ug/L	-236.46 ppb	20:40:24
2	Si 251.611†	-389.6	-797.9	-32.632 ug/L	-32.632 ppb	20:40:04
2	Sn 189.927†	-4.0	-17.2	-26.339 ug/L	-26.339 ppb	20:40:24
2	Ti 334.940†	-1087.7	89.1	0.1124 ug/L	0.1124 ppb	20:40:04
2	Tl 190.801†	-31.7	-5.6	-2.8049 ug/L	-2.8049 ppb	20:40:24
2	U 409.014†	113.4	1933.6	22.106 ug/L	22.106 ppb	20:40:04
2	V 292.402†	5472.0	6185.9	-0.4852 ug/L	-0.4852 ppb	20:40:04
2	Zn 213.857†	3711.1	2599.1	-22.590 ug/L	-22.590 ppb	20:40:24
2	SiO2†	-474.2	-880.4	-76.755 ug/L	-76.755 ppb	20:41:00
3	Sc Radial	4186.4	4186.4	111 %		20:39:30
3	Y RADIAL	4673.2	4673.2	114.5 %		20:39:10
3	Al 396.153Radial†	-92.2	-10.5	-11.218 ug/L	-11.218 ppb	20:39:30
3	Ca 317.933Radial†	14.1	-9.2	-20.599 ug/L	-20.599 ppb	20:39:30
3	Fe 238.204 Radial†	32166.8	29097.2	384650 ug/L	384650 ppb	20:39:10
3	K 766.490 Radial†	2214.1	-475.1	-104.84 ug/L	-104.84 ppb	20:39:10
3	Mg 279.077 IEC†	11.5	7.6	-42.679 ug/L	-42.679 ppb	20:39:30
3	Na 589.592 Radial†	-472.1	-40.9	-16.447 ug/L	-16.447 ppb	20:39:10
3	Sr 421.552†	70.7	24.7	0.2245 ug/L	0.2245 ppb	20:39:10
3	Sc 361.383	821455.8	821455.8	112.10 %		20:40:29
3	Y 371.029	673907.7	673907.7	111.50 %		20:40:29
3	Ag 328.068†	-22802.9	-20494.2	2.5207 ug/L	2.5207 ppb	20:40:29
3	As 188.979†	-171.1	-130.3	11.042 ug/L	11.042 ppb	20:40:50
3	B 249.677†	2249.1	2341.4	7.9573 ug/L	7.9573 ppb	20:40:29
3	Ba 233.527†	-1669.9	-1492.2	-3.8137 ug/L	-3.8137 ppb	20:40:29
3	Be 313.107†	-4039.1	288.4	0.1349 ug/L	0.1349 ppb	20:40:29
3	Cd 226.502†	2619.9	2508.3	1.0396 ug/L	1.0396 ppb	20:40:29
3	Co 228.616†	631.5	610.1	11.907 ug/L	11.907 ppb	20:40:50
3	Cr 267.716†	-417.9	-467.8	33.641 ug/L	33.641 ppb	20:40:50
3	Cu 324.752†	-990.4	-6600.5	-3.2420 ug/L	-3.2420 ppb	20:40:29
3	Mn 257.610†	-32227.3	-29175.0	-4.6063 ug/L	-4.6063 ppb	20:40:29
3	Mo 202.031†	-281.8	-268.1	2.7865 ug/L	2.7865 ppb	20:40:29
3	Ni 231.604†	153.8	54.6	1.9498 ug/L	1.9498 ppb	20:40:50
3	P 214.914†	624.6	368.7	-7.0953 ug/L	-7.0953 ppb	20:40:50
3	Pb 220.353†	140.4	174.3	-24.639 ug/L	-24.639 ppb	20:40:50
3	S 181.975 Axial†	39.2	7.8	15.256 ug/L	15.256 ppb	20:40:50
3	Sb 206.836†	15.0	-12.2	-10.390 ug/L	-10.390 ppb	20:40:50
3	Se 196.026†	-1603.6	-1408.8	-245.33 ug/L	-245.33 ppb	20:40:50
3	Si 251.611†	-377.7	-792.6	-32.412 ug/L	-32.412 ppb	20:40:29
3	Sn 189.927†	2.5	-11.4	-24.974 ug/L	-24.974 ppb	20:40:50
3	Ti 334.940†	-1111.7	52.6	0.0395 ug/L	0.0395 ppb	20:40:29
3	Tl 190.801†	-34.5	-8.5	-4.0661 ug/L	-4.0661 ppb	20:40:50
3	U 409.014†	311.5	2111.9	27.980 ug/L	27.980 ppb	20:40:29
3	V 292.402†	5452.4	6244.6	-0.1917 ug/L	-0.1917 ppb	20:40:29
3	Zn 213.857†	3694.5	2635.9	-22.346 ug/L	-22.346 ppb	20:40:50
3	SiO2†	-301.0	-732.5	-63.732 ug/L	-63.732 ppb	20:41:05

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820850.5	112.01 %		1.902			1.70%
Sc Radial	4170.0	110 %		0.4			0.36%
Y 371.029	673586.9	111.44 %		1.807			1.62%
Y RADIAL	4641.9	113.7 %		1.48			1.30%
Ag 328.068†	-20463.2	2.7397 ug/L		0.53053	2.7397 ppb	0.53053	19.36%
Al 396.153Radial†	-10.3	-11.039 ug/L		6.1089	-11.039 ppb	6.1089	55.34%
As 188.979†	-128.4	12.244 ug/L		1.0652	12.244 ppb	1.0652	8.70%
B 249.677†	2285.0	6.2369 ug/L		1.52138	6.2369 ppb	1.52138	24.39%
Ba 233.527†	-1444.7	-3.3128 ug/L		0.49190	-3.3128 ppb	0.49190	14.85%
Be 313.107†	340.2	0.1591 ug/L		0.02566	0.1591 ppb	0.02566	16.13%
Ca 317.933Radial†	-9.9	-22.098 ug/L		4.6143	-22.098 ppb	4.6143	20.88%
Cd 226.502†	2526.1	1.3135 ug/L		0.48745	1.3135 ppb	0.48745	37.11%
Co 228.616†	612.3	11.973 ug/L		0.3936	11.973 ppb	0.3936	3.29%
Cr 267.716†	-471.3	33.602 ug/L		0.3893	33.602 ppb	0.3893	1.16%
Cu 324.752†	-6639.7	-3.3731 ug/L		0.32738	-3.3731 ppb	0.32738	9.71%
Fe 238.204 Radial†	29107.6	384790 ug/L		1863.1	384790 ppb	1863.1	0.48%
K 766.490 Radial†	-395.2	-87.196 ug/L		19.2116	-87.196 ppb	19.2116	22.03%

Mg 279.077 IEC†	6.4	-101.57 ug/L	103.805	-101.57 ppb	103.805	102.20%
Mn 257.610†	-29308.5	-4.7854 ug/L	0.31149	-4.7854 ppb	0.31149	6.51%
Mo 202.031†	-258.6	3.7559 ug/L	1.54451	3.7559 ppb	1.54451	41.12%
Na 589.592 Radial†	-19.9	-8.0034 ug/L	11.77013	-8.0034 ppb	11.77013	147.06%
Ni 231.604†	61.7	2.2015 ug/L	0.43396	2.2015 ppb	0.43396	19.71%
P 214.914†	371.3	-5.1652 ug/L	3.59183	-5.1652 ppb	3.59183	69.54%
Pb 220.353†	193.5	-21.337 ug/L	2.8962	-21.337 ppb	2.8962	13.57%
S 181.975 Axial†	6.0	11.687 ug/L	4.8898	11.687 ppb	4.8898	41.84%
Sb 206.836†	-5.2	-7.1476 ug/L	3.07016	-7.1476 ppb	3.07016	42.95%
Se 196.026†	-1408.0	-244.21 ug/L	7.261	-244.21 ppb	7.261	2.97%
Si 251.611†	-811.1	-33.186 ug/L	1.1550	-33.186 ppb	1.1550	3.48%
Sn 189.927†	-15.9	-26.136 ug/L	1.0752	-26.136 ppb	1.0752	4.11%
Sr 421.552†	33.6	0.3053 ug/L	0.07383	0.3053 ppb	0.07383	24.18%
Ti 334.940†	66.4	0.0719 ug/L	0.03713	0.0719 ppb	0.03713	51.66%
Tl 190.801†	-4.1	-2.1683 ug/L	2.28370	-2.1683 ppb	2.28370	105.32%
U 409.014†	2023.5	24.959 ug/L	2.9406	24.959 ppb	2.9406	11.78%
V 292.402†	6189.5	-0.6999 ug/L	0.64302	-0.6999 ppb	0.64302	91.87%
Zn 213.857†	2634.0	-22.393 ug/L	0.1771	-22.393 ppb	0.1771	0.79%
SiO2†	-831.6	-72.479 ug/L	7.5753	-72.479 ppb	7.5753	10.45%

Sequence No.: 16

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/26/2010 20:43:17

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	4410.6	4410.6	116 %		20:45:09
1	Y RADIAL	4694.7	4694.7	115.0 %		20:45:09
1	Al 396.153Radial†	4798.7	4194.1	4965.9 ug/L	4965.9 ppb	20:45:09
1	Ca 317.933Radial†	2652.1	2255.8	5053.9 ug/L	5053.9 ppb	20:45:29
1	Fe 238.204 Radial†	451.0	378.8	5023.5 ug/L	5023.5 ppb	20:45:29
1	K 766.490 Radial†	27883.7	21469.2	4733.4 ug/L	4733.4 ppb	20:45:09
1	Mg 279.077 IEC†	128.1	107.2	5071.1 ug/L	5071.1 ppb	20:45:29
1	Na 589.592 Radial†	29496.7	25719.3	10342 ug/L	10342 ppb	20:45:09
1	Sr 421.552†	63153.4	54199.5	492.02 ug/L	492.02 ppb	20:45:09
1	Sc 361.383	826407.0	826407.0	112.77 %		20:46:27
1	Y 371.029	672543.8	672543.8	111.27 %		20:46:27
1	Ag 328.068†	100828.9	89256.5	510.92 ug/L	510.92 ppb	20:46:32
1	As 188.979†	935.8	852.1	521.58 ug/L	521.58 ppb	20:46:52
1	B 249.677†	19217.6	17375.9	520.70 ug/L	520.70 ppb	20:46:32
1	Ba 233.527†	54375.5	48214.2	506.60 ug/L	506.60 ppb	20:46:32
1	Be 313.107†	1233669.7	1097831.9	513.69 ug/L	513.69 ppb	20:46:27
1	Cd 226.502†	35029.5	31233.1	507.39 ug/L	507.39 ppb	20:46:32
1	Co 228.616†	20263.5	18015.1	517.76 ug/L	517.76 ppb	20:46:32
1	Cr 267.716†	37412.1	33079.6	507.50 ug/L	507.50 ppb	20:46:32
1	Cu 324.752†	165052.7	140641.3	502.03 ug/L	502.03 ppb	20:46:32
1	Mn 257.610†	393873.1	348836.2	509.43 ug/L	509.43 ppb	20:46:27
1	Mo 202.031†	5733.5	5067.4	512.16 ug/L	512.16 ppb	20:46:52
1	Ni 231.604†	16278.3	14352.0	514.61 ug/L	514.61 ppb	20:46:32
1	P 214.914†	3768.7	3153.4	2451.2 ug/L	2451.2 ppb	20:46:52
1	Pb 220.353†	3241.2	2923.1	507.08 ug/L	507.08 ppb	20:46:52
1	S 181.975 Axial†	628.4	530.2	1030.0 ug/L	1030.0 ppb	20:46:52
1	Sb 206.836†	1271.8	1102.1	529.52 ug/L	529.52 ppb	20:46:52
1	Se 196.026†	630.8	581.1	539.13 ug/L	539.13 ppb	20:46:52
1	Si 251.611†	70152.0	61750.6	2544.8 ug/L	2544.8 ppb	20:46:32
1	Sn 189.927†	2277.6	2006.0	509.18 ug/L	509.18 ppb	20:46:52
1	Ti 334.940†	293174.7	261013.1	499.01 ug/L	499.01 ppb	20:46:32
1	Tl 190.801†	1311.3	1185.0	514.39 ug/L	514.39 ppb	20:46:52
1	U 409.014†	14814.7	14970.8	507.37 ug/L	507.37 ppb	20:46:32
1	V 292.402†	61848.3	56223.8	511.65 ug/L	511.65 ppb	20:46:32
1	Zn 213.857†	43791.5	38171.7	505.00 ug/L	505.00 ppb	20:46:32
1	SiO2†	69028.8	60746.4	5332.5 ug/L	5332.5 ppb	20:47:59
2	Sc Radial	4338.8	4338.8	115 %		20:45:34
2	Y RADIAL	4595.8	4595.8	112.6 %		20:45:34
2	Al 396.153Radial†	4827.9	4287.9	5077.5 ug/L	5077.5 ppb	20:45:34
2	Ca 317.933Radial†	2672.6	2311.4	5178.5 ug/L	5178.5 ppb	20:45:54
2	Fe 238.204 Radial†	460.3	393.4	5216.5 ug/L	5216.5 ppb	20:45:54
2	K 766.490 Radial†	27896.6	21876.9	4823.3 ug/L	4823.3 ppb	20:45:34
2	Mg 279.077 IEC†	131.3	111.8	5289.0 ug/L	5289.0 ppb	20:45:54
2	Na 589.592 Radial†	29536.0	26173.0	10525 ug/L	10525 ppb	20:45:34
2	Sr 421.552†	63381.2	55296.3	501.98 ug/L	501.98 ppb	20:45:34
2	Sc 361.383	829199.8	829199.8	113.15 %		20:46:58
2	Y 371.029	674746.6	674746.6	111.63 %		20:46:58
2	Ag 328.068†	101547.5	89590.5	512.89 ug/L	512.89 ppb	20:47:03
2	As 188.979†	930.8	844.9	517.27 ug/L	517.27 ppb	20:47:23
2	B 249.677†	19291.6	17384.0	520.91 ug/L	520.91 ppb	20:47:03
2	Ba 233.527†	54761.6	48393.0	508.48 ug/L	508.48 ppb	20:47:03
2	Be 313.107†	1218517.6	1080756.6	505.72 ug/L	505.72 ppb	20:46:58
2	Cd 226.502†	35266.3	31337.8	509.08 ug/L	509.08 ppb	20:47:03
2	Co 228.616†	20328.4	18011.9	517.66 ug/L	517.66 ppb	20:47:03
2	Cr 267.716†	37752.7	33268.9	510.42 ug/L	510.42 ppb	20:47:03
2	Cu 324.752†	166943.2	141819.1	506.24 ug/L	506.24 ppb	20:47:03
2	Mn 257.610†	389132.8	343470.6	501.61 ug/L	501.61 ppb	20:46:58
2	Mo 202.031†	5747.5	5062.6	511.69 ug/L	511.69 ppb	20:47:23
2	Ni 231.604†	16414.6	14423.8	517.19 ug/L	517.19 ppb	20:47:03

2	P 214.914†	3796.1	3166.3	2460.7 ug/L	2460.7 ppb	20:47:23
2	Pb 220.353†	3285.8	2952.9	512.22 ug/L	512.22 ppb	20:47:23
2	S 181.975 Axial†	633.1	532.4	1034.3 ug/L	1034.3 ppb	20:47:23
2	Sb 206.836†	1266.7	1093.8	525.67 ug/L	525.67 ppb	20:47:23
2	Se 196.026†	635.6	583.4	541.72 ug/L	541.72 ppb	20:47:23
2	Si 251.611†	70795.5	62109.8	2559.6 ug/L	2559.6 ppb	20:47:03
2	Sn 189.927†	2287.9	2008.3	509.77 ug/L	509.77 ppb	20:47:23
2	Ti 334.940†	295774.4	262435.0	501.72 ug/L	501.72 ppb	20:47:03
2	Tl 190.801†	1319.5	1188.4	515.81 ug/L	515.81 ppb	20:47:23
2	U 409.014†	15159.4	15231.2	516.20 ug/L	516.20 ppb	20:47:03
2	V 292.402†	62416.0	56540.7	514.48 ug/L	514.48 ppb	20:47:03
2	Zn 213.857†	44082.7	38298.3	506.64 ug/L	506.64 ppb	20:47:03
2	SiO2†	70303.3	61666.6	5413.5 ug/L	5413.5 ppb	20:48:04
3	Sc Radial	4606.4	4606.4	122 %		20:45:59
3	Y RADIAL	4881.6	4881.6	119.6 %		20:45:59
3	Al 396.153Radial†	4909.5	4110.2	4866.8 ug/L	4866.8 ppb	20:45:59
3	Ca 317.933Radial†	2641.9	2150.6	4818.2 ug/L	4818.2 ppb	20:46:20
3	Fe 238.204 Radial†	453.9	364.8	4837.9 ug/L	4837.9 ppb	20:46:20
3	K 766.490 Radial†	28268.0	20767.5	4578.7 ug/L	4578.7 ppb	20:45:59
3	Mg 279.077 IEC†	127.7	102.2	4833.7 ug/L	4833.7 ppb	20:46:20
3	Na 589.592 Radial†	30073.0	25116.7	10100 ug/L	10100 ppb	20:45:59
3	Sr 421.552†	64545.6	53039.4	481.49 ug/L	481.49 ppb	20:45:59
3	Sc 361.383	841647.0	841647.0	114.85 %		20:47:29
3	Y 371.029	683793.3	683793.3	113.13 %		20:47:29
3	Ag 328.068†	102223.1	88851.4	508.56 ug/L	508.56 ppb	20:47:34
3	As 188.979†	926.0	828.6	507.28 ug/L	507.28 ppb	20:47:54
3	B 249.677†	19496.3	17310.0	518.75 ug/L	518.75 ppb	20:47:34
3	Ba 233.527†	55341.8	48182.4	506.26 ug/L	506.26 ppb	20:47:34
3	Be 313.107†	1228859.5	1073835.3	502.48 ug/L	502.48 ppb	20:47:29
3	Cd 226.502†	35694.9	31250.0	507.69 ug/L	507.69 ppb	20:47:34
3	Co 228.616†	20619.9	18000.0	517.30 ug/L	517.30 ppb	20:47:34
3	Cr 267.716†	38070.2	33051.9	507.05 ug/L	507.05 ppb	20:47:34
3	Cu 324.752†	167668.3	140268.5	500.69 ug/L	500.69 ppb	20:47:34
3	Mn 257.610†	393233.0	341954.7	499.38 ug/L	499.38 ppb	20:47:29
3	Mo 202.031†	5664.7	4915.4	496.79 ug/L	496.79 ppb	20:47:54
3	Ni 231.604†	16557.4	14333.6	513.95 ug/L	513.95 ppb	20:47:34
3	P 214.914†	3756.3	3082.1	2393.8 ug/L	2393.8 ppb	20:47:54
3	Pb 220.353†	3230.3	2861.7	496.41 ug/L	496.41 ppb	20:47:54
3	S 181.975 Axial†	625.7	517.7	1005.8 ug/L	1005.8 ppb	20:47:54
3	Sb 206.836†	1256.2	1068.1	513.26 ug/L	513.26 ppb	20:47:54
3	Se 196.026†	627.8	568.3	527.04 ug/L	527.04 ppb	20:47:54
3	Si 251.611†	71371.2	61685.8	2542.3 ug/L	2542.3 ppb	20:47:34
3	Sn 189.927†	2264.1	1957.6	496.89 ug/L	496.89 ppb	20:47:54
3	Ti 334.940†	298016.4	260521.4	498.06 ug/L	498.06 ppb	20:47:34
3	Tl 190.801†	1296.5	1151.1	499.71 ug/L	499.71 ppb	20:47:54
3	U 409.014†	15115.9	14995.1	508.22 ug/L	508.22 ppb	20:47:34
3	V 292.402†	62807.3	56065.7	510.04 ug/L	510.04 ppb	20:47:34
3	Zn 213.857†	44539.8	38120.1	504.34 ug/L	504.34 ppb	20:47:34
3	SiO2†	70925.7	61289.6	5380.8 ug/L	5380.8 ppb	20:48:09

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832417.9	113.59 %	1.107			0.97%
Sc Radial	4451.9	118 %	3.7			3.11%
Y 371.029	677027.9	112.01 %	0.986			0.88%
Y RADIAL	4724.0	115.7 %	3.55			3.07%
Ag 328.068†	89232.8	510.79 ug/L	2.167	510.79 ppb	2.167	0.42%
QC value within limits for Ag 328.068 Recovery = 102.16%						
Al 396.153Radial†	4197.4	4970.1 ug/L	105.44	4970.1 ppb	105.44	2.12%
QC value within limits for Al 396.153Radial Recovery = 99.40%						
As 188.979†	841.8	515.38 ug/L	7.336	515.38 ppb	7.336	1.42%
QC value within limits for As 188.979 Recovery = 103.08%						
B 249.677†	17356.6	520.12 ug/L	1.193	520.12 ppb	1.193	0.23%
QC value within limits for B 249.677 Recovery = 104.02%						
Ba 233.527†	48263.2	507.11 ug/L	1.200	507.11 ppb	1.200	0.24%
QC value within limits for Ba 233.527 Recovery = 101.42%						
Be 313.107†	1084141.3	507.30 ug/L	5.767	507.30 ppb	5.767	1.14%
QC value within limits for Be 313.107 Recovery = 101.46%						
Ca 317.933Radial†	2239.3	5016.9 ug/L	182.99	5016.9 ppb	182.99	3.65%



QC value within limits for Ca 317.933 Radial Recovery = 100.34%							
Cd 226.502†	31273.6	508.05 ug/L	0.900	508.05 ppb	0.900	0.18%	
QC value within limits for Cd 226.502 Recovery = 101.61%							
Co 228.616†	18009.0	517.57 ug/L	0.244	517.57 ppb	0.244	0.05%	
QC value within limits for Co 228.616 Recovery = 103.51%							
Cr 267.716†	33133.5	508.32 ug/L	1.827	508.32 ppb	1.827	0.36%	
QC value within limits for Cr 267.716 Recovery = 101.66%							
Cu 324.752†	140909.6	502.99 ug/L	2.896	502.99 ppb	2.896	0.58%	
QC value within limits for Cu 324.752 Recovery = 100.60%							
Fe 238.204 Radial†	379.0	5026.0 ug/L	189.32	5026.0 ppb	189.32	3.77%	
QC value within limits for Fe 238.204 Radial Recovery = 100.52%							
K 766.490 Radial†	21371.2	4711.8 ug/L	123.74	4711.8 ppb	123.74	2.63%	
QC value within limits for K 766.490 Radial Recovery = 94.24%							
Mg 279.077 IEC†	107.1	5064.6 ug/L	227.74	5064.6 ppb	227.74	4.50%	
QC value within limits for Mg 279.077 IEC Recovery = 101.29%							
Mn 257.610†	344753.8	503.47 ug/L	5.279	503.47 ppb	5.279	1.05%	
QC value within limits for Mn 257.610 Recovery = 100.69%							
Mo 202.031†	5015.1	506.88 ug/L	8.740	506.88 ppb	8.740	1.72%	
QC value within limits for Mo 202.031 Recovery = 101.38%							
Na 589.592 Radial†	25669.7	10323 ug/L	213.1	10323 ppb	213.1	2.06%	
QC value within limits for Na 589.592 Radial Recovery = 103.23%							
Ni 231.604†	14369.8	515.25 ug/L	1.710	515.25 ppb	1.710	0.33%	
QC value within limits for Ni 231.604 Recovery = 103.05%							
P 214.914†	3133.9	2435.2 ug/L	36.18	2435.2 ppb	36.18	1.49%	
QC value within limits for P 214.914 Recovery = 97.41%							
Pb 220.353†	2912.6	505.24 ug/L	8.064	505.24 ppb	8.064	1.60%	
QC value within limits for Pb 220.353 Recovery = 101.05%							
S 181.975 Axial†	526.8	1023.4 ug/L	15.39	1023.4 ppb	15.39	1.50%	
QC value within limits for S 181.975 Axial Recovery = 102.34%							
Sb 206.836†	1088.0	522.82 ug/L	8.495	522.82 ppb	8.495	1.62%	
QC value within limits for Sb 206.836 Recovery = 104.56%							
Se 196.026†	577.6	535.96 ug/L	7.839	535.96 ppb	7.839	1.46%	
QC value within limits for Se 196.026 Recovery = 107.19%							
Si 251.611†	61848.7	2548.9 ug/L	9.37	2548.9 ppb	9.37	0.37%	
QC value within limits for Si 251.611 Recovery = 101.96%							
Sn 189.927†	1990.6	505.28 ug/L	7.270	505.28 ppb	7.270	1.44%	
QC value within limits for Sn 189.927 Recovery = 101.06%							
Sr 421.552†	54178.4	491.83 ug/L	10.245	491.83 ppb	10.245	2.08%	
QC value within limits for Sr 421.552 Recovery = 98.37%							
Ti 334.940†	261323.2	499.59 ug/L	1.902	499.59 ppb	1.902	0.38%	
QC value within limits for Ti 334.940 Recovery = 99.92%							
Tl 190.801†	1174.9	509.97 ug/L	8.912	509.97 ppb	8.912	1.75%	
QC value within limits for Tl 190.801 Recovery = 101.99%							
U 409.014†	15065.7	510.60 ug/L	4.869	510.60 ppb	4.869	0.95%	
QC value within limits for U 409.014 Recovery = 102.12%							
V 292.402†	56276.7	512.05 ug/L	2.247	512.05 ppb	2.247	0.44%	
QC value within limits for V 292.402 Recovery = 102.41%							
Zn 213.857†	38196.7	505.33 ug/L	1.182	505.33 ppb	1.182	0.23%	
QC value within limits for Zn 213.857 Recovery = 101.07%							
SiO2†	61234.2	5375.6 ug/L	40.75	5375.6 ppb	40.75	0.76%	
QC value within limits for SiO2 Recovery = 100.53%							
All analyte(s) passed QC.							

Sequence No.: 17

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/26/2010 20:50:19

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	4019.4	4019.4	106 %		20:52:32
1	Y RADIAL	4378.4	4378.4	107.2 %		20:52:12
1	Al 396.153Radial†	-78.6	-1.2	-1.4148 ug/L	-1.4148 ppb	20:52:32
1	Ca 317.933Radial†	20.9	-2.3	-5.0465 ug/L	-5.0465 ppb	20:52:32
1	Fe 238.204 Radial†	7.1	-1.7	-23.089 ug/L	-23.089 ppb	20:52:32
1	K 766.490 Radial†	2508.6	-114.4	-25.230 ug/L	-25.230 ppb	20:52:12
1	Mg 279.077 IEC†	2.5	-0.4	-19.235 ug/L	-19.235 ppb	20:52:32
1	Na 589.592 Radial†	-545.7	-127.9	-51.446 ug/L	-51.446 ppb	20:52:12
1	Sr 421.552†	20.9	-19.6	-0.1777 ug/L	-0.1777 ppb	20:52:12
1	Sc 361.383	804049.7	804049.7	109.72 %		20:53:29
1	Y 371.029	661535.8	661535.8	109.45 %		20:53:29
1	Ag 328.068†	242.9	69.2	0.3880 ug/L	0.3880 ppb	20:53:29
1	As 188.979†	-21.1	3.1	1.8573 ug/L	1.8573 ppb	20:53:49
1	B 249.677†	289.3	598.6	18.020 ug/L	18.020 ppb	20:53:49
1	Ba 233.527†	30.0	24.8	0.2616 ug/L	0.2616 ppb	20:53:49
1	Be 313.107†	-4020.4	227.4	0.1068 ug/L	0.1068 ppb	20:53:29
1	Cd 226.502†	-150.3	34.1	0.5573 ug/L	0.5573 ppb	20:53:49
1	Co 228.616†	-40.7	9.6	0.2759 ug/L	0.2759 ppb	20:53:49
1	Cr 267.716†	135.9	28.8	0.4383 ug/L	0.4383 ppb	20:53:49
1	Cu 324.752†	6148.1	-113.6	-0.4087 ug/L	-0.4087 ppb	20:53:29
1	Mn 257.610†	431.9	-32.0	-0.0481 ug/L	-0.0481 ppb	20:53:49
1	Mo 202.031†	22.1	3.4	0.3371 ug/L	0.3371 ppb	20:53:49
1	Ni 231.604†	70.6	-18.2	-0.6532 ug/L	-0.6532 ppb	20:53:49
1	P 214.914†	190.3	-15.0	-12.034 ug/L	-12.034 ppb	20:53:49
1	Pb 220.353†	-47.4	5.9	1.0199 ug/L	1.0199 ppb	20:53:49
1	S 181.975 Axial†	33.3	3.3	6.4016 ug/L	6.4016 ppb	20:53:49
1	Sb 206.836†	24.0	-3.8	-1.7281 ug/L	-1.7281 ppb	20:53:49
1	Se 196.026†	-12.5	10.3	9.2177 ug/L	9.2177 ppb	20:53:49
1	Si 251.611†	486.5	-12.3	-0.5125 ug/L	-0.5125 ppb	20:53:49
1	Sn 189.927†	17.2	2.0	0.5194 ug/L	0.5194 ppb	20:53:49
1	Ti 334.940†	-987.1	144.7	0.2760 ug/L	0.2760 ppb	20:53:29
1	Tl 190.801†	-13.9	9.6	4.1402 ug/L	4.1402 ppb	20:53:49
1	U 409.014†	-1906.4	96.5	3.2836 ug/L	3.2836 ppb	20:53:29
1	V 292.402†	-1389.5	114.2	1.0392 ug/L	1.0392 ppb	20:53:29
1	Zn 213.857†	695.7	-25.8	-0.3358 ug/L	-0.3358 ppb	20:53:49
1	SiO2†	515.3	5.6	0.4861 ug/L	0.4861 ppb	20:55:00
2	Sc Radial	4145.7	4145.7	109 %		20:52:57
2	Y RADIAL	4623.5	4623.5	113.2 %		20:52:37
2	Al 396.153Radial†	-74.5	4.8	5.7380 ug/L	5.7380 ppb	20:52:57
2	Ca 317.933Radial†	26.2	2.0	4.5365 ug/L	4.5365 ppb	20:52:57
2	Fe 238.204 Radial†	6.3	-2.7	-35.787 ug/L	-35.787 ppb	20:52:57
2	K 766.490 Radial†	2604.0	-99.2	-21.885 ug/L	-21.885 ppb	20:52:37
2	Mg 279.077 IEC†	2.8	-0.2	-10.785 ug/L	-10.785 ppb	20:52:57
2	Na 589.592 Radial†	-531.3	-99.1	-39.863 ug/L	-39.863 ppb	20:52:37
2	Sr 421.552†	31.9	-10.1	-0.0918 ug/L	-0.0918 ppb	20:52:37
2	Sc 361.383	789616.2	789616.2	107.75 %		20:53:54
2	Y 371.029	649261.6	649261.6	107.42 %		20:53:54
2	Ag 328.068†	205.7	38.8	0.2089 ug/L	0.2089 ppb	20:53:54
2	As 188.979†	-25.5	-1.3	-0.8171 ug/L	-0.8171 ppb	20:54:14
2	B 249.677†	296.8	610.4	18.378 ug/L	18.378 ppb	20:54:14
2	Ba 233.527†	13.0	9.5	0.1002 ug/L	0.1002 ppb	20:54:14
2	Be 313.107†	-3909.8	263.1	0.1233 ug/L	0.1233 ppb	20:53:54
2	Cd 226.502†	-154.4	27.8	0.4571 ug/L	0.4571 ppb	20:54:14
2	Co 228.616†	-55.9	-5.2	-0.1499 ug/L	-0.1499 ppb	20:54:14
2	Cr 267.716†	126.9	22.7	0.3436 ug/L	0.3436 ppb	20:54:14
2	Cu 324.752†	6025.8	-124.7	-0.4493 ug/L	-0.4493 ppb	20:53:54
2	Mn 257.610†	449.1	-8.8	-0.0159 ug/L	-0.0159 ppb	20:54:14
2	Mo 202.031†	9.3	-8.1	-0.8206 ug/L	-0.8206 ppb	20:54:14
2	Ni 231.604†	93.3	4.1	0.1460 ug/L	0.1460 ppb	20:54:14

2	P 214.914†	187.6	-14.4	-11.508 ug/L	-11.508 ppb	20:54:14
2	Pb 220.353†	-59.7	-6.4	-1.0948 ug/L	-1.0948 ppb	20:54:14
2	S 181.975 Axial†	32.6	3.1	6.0965 ug/L	6.0965 ppb	20:54:14
2	Sb 206.836†	31.5	3.6	1.6499 ug/L	1.6499 ppb	20:54:14
2	Se 196.026†	-21.9	1.4	1.1457 ug/L	1.1457 ppb	20:54:14
2	Si 251.611†	488.1	-2.8	-0.1041 ug/L	-0.1041 ppb	20:54:14
2	Sn 189.927†	12.3	-2.2	-0.5519 ug/L	-0.5519 ppb	20:54:14
2	Ti 334.940†	-1013.9	103.4	0.1972 ug/L	0.1972 ppb	20:53:54
2	Tl 190.801†	-20.2	3.5	1.5273 ug/L	1.5273 ppb	20:54:14
2	U 409.014†	-1839.0	127.3	4.3333 ug/L	4.3333 ppb	20:53:54
2	V 292.402†	-1399.0	82.3	0.7400 ug/L	0.7400 ppb	20:53:54
2	Zn 213.857†	714.2	3.0	0.0446 ug/L	0.0446 ppb	20:54:14
2	SiO2†	493.7	-5.8	-0.4906 ug/L	-0.4906 ppb	20:55:20
3	Sc Radial	4121.5	4121.5	109 %		20:53:22
3	Y RADIAL	4515.2	4515.2	110.6 %		20:53:02
3	Al 396.153Radial†	-68.0	10.4	12.318 ug/L	12.318 ppb	20:53:22
3	Ca 317.933Radial†	19.1	-4.3	-9.7237 ug/L	-9.7237 ppb	20:53:22
3	Fe 238.204 Radial†	7.9	-1.2	-15.287 ug/L	-15.287 ppb	20:53:22
3	K 766.490 Radial†	2531.3	-152.0	-33.556 ug/L	-33.556 ppb	20:53:02
3	Mg 279.077 IBC†	3.3	0.3	12.248 ug/L	12.248 ppb	20:53:22
3	Na 589.592 Radial†	-475.9	-51.1	-20.542 ug/L	-20.542 ppb	20:53:02
3	Sr 421.552†	24.3	-16.9	-0.1536 ug/L	-0.1536 ppb	20:53:02
3	Sc 361.383	790190.1	790190.1	107.83 %		20:54:19
3	Y 371.029	649430.0	649430.0	107.45 %		20:54:19
3	Ag 328.068†	164.3	0.2	-0.0023 ug/L	-0.0023 ppb	20:54:19
3	As 188.979†	-21.1	2.8	1.6747 ug/L	1.6747 ppb	20:54:40
3	B 249.677†	279.0	593.7	17.871 ug/L	17.871 ppb	20:54:40
3	Ba 233.527†	3.1	0.3	0.0045 ug/L	0.0045 ppb	20:54:40
3	Be 313.107†	-3988.4	192.9	0.0903 ug/L	0.0903 ppb	20:54:19
3	Cd 226.502†	-153.3	29.0	0.4724 ug/L	0.4724 ppb	20:54:40
3	Co 228.616†	-36.6	12.8	0.3681 ug/L	0.3681 ppb	20:54:40
3	Cr 267.716†	128.6	24.2	0.3691 ug/L	0.3691 ppb	20:54:40
3	Cu 324.752†	6055.4	-101.3	-0.3638 ug/L	-0.3638 ppb	20:54:19
3	Mn 257.610†	461.2	2.2	0.0011 ug/L	0.0011 ppb	20:54:40
3	Mo 202.031†	21.4	3.1	0.3147 ug/L	0.3147 ppb	20:54:40
3	Ni 231.604†	83.8	-4.8	-0.1736 ug/L	-0.1736 ppb	20:54:40
3	P 214.914†	191.8	-10.6	-8.4841 ug/L	-8.4841 ppb	20:54:40
3	Pb 220.353†	-54.2	-1.1	-0.1928 ug/L	-0.1928 ppb	20:54:40
3	S 181.975 Axial†	32.9	3.4	6.6178 ug/L	6.6178 ppb	20:54:40
3	Sb 206.836†	29.7	2.0	0.9304 ug/L	0.9304 ppb	20:54:40
3	Se 196.026†	-16.1	6.8	6.0542 ug/L	6.0542 ppb	20:54:40
3	Si 251.611†	515.8	22.6	0.9297 ug/L	0.9297 ppb	20:54:40
3	Sn 189.927†	18.7	3.7	0.9445 ug/L	0.9445 ppb	20:54:40
3	Ti 334.940†	-1062.0	59.5	0.1104 ug/L	0.1104 ppb	20:54:19
3	Tl 190.801†	-19.2	4.4	1.9033 ug/L	1.9033 ppb	20:54:40
3	U 409.014†	-1909.4	63.2	2.1512 ug/L	2.1512 ppb	20:54:19
3	V 292.402†	-1401.6	80.8	0.7361 ug/L	0.7361 ppb	20:54:19
3	Zn 213.857†	708.0	-3.2	-0.0392 ug/L	-0.0392 ppb	20:54:40
3	SiO2†	510.0	9.0	0.7825 ug/L	0.7825 ppb	20:55:40

-----  
Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	794618.7	108.44 %	1.115			1.03%
Sc Radial	4095.5	108 %	1.8			1.64%
Y 371.029	653409.1	108.10 %	1.164			1.08%
Y RADIAL	4505.7	110.4 %	3.01			2.73%
Ag 328.068†	36.0	0.1982 ug/L	0.19536	0.1982 ppb	0.19536	98.57%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.7	5.5472 ug/L	6.86863	5.5472 ppb	6.86863	123.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.5	0.9050 ug/L	1.49416	0.9050 ppb	1.49416	165.10%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	600.9	18.090 ug/L	0.2602	18.090 ppb	0.2602	1.44%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.5	0.1221 ug/L	0.12997	0.1221 ppb	0.12997	106.44%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	227.8	0.1068 ug/L	0.01649	0.1068 ppb	0.01649	15.44%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.5	-3.4113 ug/L	7.26941	-3.4113 ppb	7.26941	213.10%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	30.3	0.4956 ug/L	0.05394	0.4956 ppb	0.05394	10.88%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	5.7	0.1647 ug/L	0.27636	0.1647 ppb	0.27636	167.79%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	25.2	0.3837 ug/L	0.04902	0.3837 ppb	0.04902	12.78%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-113.2	-0.4073 ug/L	0.04279	-0.4073 ppb	0.04279	10.51%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-1.9	-24.721 ug/L	10.3472	-24.721 ppb	10.3472	41.86%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-121.9	-26.890 ug/L	6.0100	-26.890 ppb	6.0100	22.35%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.1	-5.9241 ug/L	16.29475	-5.9241 ppb	16.29475	275.06%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-12.9	-0.0210 ug/L	0.02502	-0.0210 ppb	0.02502	119.39%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-0.5	-0.0563 ug/L	0.66203	-0.0563 ppb	0.66203	>999.9%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-92.7	-37.284 ug/L	15.6130	-37.284 ppb	15.6130	41.88%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-6.3	-0.2269 ug/L	0.40224	-0.2269 ppb	0.40224	177.24%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-13.3	-10.675 ug/L	1.9159	-10.675 ppb	1.9159	17.95%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-0.5	-0.0892 ug/L	1.06116	-0.0892 ppb	1.06116	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	3.3	6.3720 ug/L	0.26193	6.3720 ppb	0.26193	4.11%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	0.6	0.2841 ug/L	1.77933	0.2841 ppb	1.77933	626.33%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	6.2	5.4725 ug/L	4.06727	5.4725 ppb	4.06727	74.32%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	2.5	0.1044 ug/L	0.74339	0.1044 ppb	0.74339	712.26%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.2	0.3040 ug/L	0.77112	0.3040 ppb	0.77112	253.67%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-15.5	-0.1410 ug/L	0.04427	-0.1410 ppb	0.04427	31.39%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	102.5	0.1945 ug/L	0.08286	0.1945 ppb	0.08286	42.59%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.9	2.5236 ug/L	1.41256	2.5236 ppb	1.41256	55.97%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	95.7	3.2560 ug/L	1.09131	3.2560 ppb	1.09131	33.52%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	92.4	0.8384 ug/L	0.17388	0.8384 ppb	0.17388	20.74%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-8.7	-0.1101 ug/L	0.19987	-0.1101 ppb	0.19987	181.49%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		2.9	0.2593 ug/L	0.66617	0.2593 ppb	0.66617	256.91%
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 27

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/26/2010 21:59:22

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	4240.5	4240.5	112 %		22:01:34
1	Y RADIAL	4594.5	4594.5	112.5 %		22:01:14
1	Al 396.153Radial†	4741.6	4308.6	5102.5 ug/L	5102.5 ppb	22:01:14
1	Ca 317.933Radial†	2635.7	2332.6	5225.9 ug/L	5225.9 ppb	22:01:34
1	Fe 238.204 Radial†	448.5	392.2	5199.8 ug/L	5199.8 ppb	22:01:34
1	K 766.490 Radial†	27512.8	22098.8	4872.4 ug/L	4872.4 ppb	22:01:14
1	Mg 279.077 IEC†	126.3	110.1	5204.7 ug/L	5204.7 ppb	22:01:34
1	Na 589.592 Radial†	28540.3	25881.4	10408 ug/L	10408 ppb	22:01:14
1	Sr 421.552†	61349.8	54764.7	497.15 ug/L	497.15 ppb	22:01:14
1	Sc 361.383	840963.2	840963.2	114.76 %		22:02:32
1	Y 371.029	684325.7	684325.7	113.22 %		22:02:32
1	Ag 328.068†	102434.5	89108.1	510.13 ug/L	510.13 ppb	22:02:37
1	As 188.979†	936.1	838.0	513.06 ug/L	513.06 ppb	22:02:57
1	B 249.677†	19065.4	16948.4	507.81 ug/L	507.81 ppb	22:02:37
1	Ba 233.527†	55257.4	48148.1	505.91 ug/L	505.91 ppb	22:02:37
1	Be 313.107†	1244313.0	1088171.3	509.17 ug/L	509.17 ppb	22:02:32
1	Cd 226.502†	35635.6	31223.6	507.22 ug/L	507.22 ppb	22:02:37
1	Co 228.616†	20544.8	17949.2	515.85 ug/L	515.85 ppb	22:02:37
1	Cr 267.716†	37917.3	32945.6	505.46 ug/L	505.46 ppb	22:02:37
1	Cu 324.752†	166975.1	139783.2	498.98 ug/L	498.98 ppb	22:02:37
1	Mn 257.610†	395951.0	344601.5	503.26 ug/L	503.26 ppb	22:02:32
1	Mo 202.031†	5737.5	4982.8	503.63 ug/L	503.63 ppb	22:02:57
1	Ni 231.604†	16504.9	14299.6	512.74 ug/L	512.74 ppb	22:02:37
1	P 214.914†	3783.9	3108.7	2415.6 ug/L	2415.6 ppb	22:02:57
1	Pb 220.353†	3278.9	2906.3	504.15 ug/L	504.15 ppb	22:02:57
1	S 181.975 Axial†	636.1	527.2	1024.2 ug/L	1024.2 ppb	22:02:57
1	Sb 206.836†	1281.5	1091.1	524.16 ug/L	524.16 ppb	22:02:57
1	Se 196.026†	621.5	563.3	523.60 ug/L	523.60 ppb	22:02:57
1	Si 251.611†	71353.8	61721.1	2543.7 ug/L	2543.7 ppb	22:02:37
1	Sn 189.927†	2302.6	1992.8	505.85 ug/L	505.85 ppb	22:02:57
1	Ti 334.940†	297765.0	260513.2	498.06 ug/L	498.06 ppb	22:02:37
1	Tl 190.801†	1313.6	1166.9	506.54 ug/L	506.54 ppb	22:02:57
1	U 409.014†	15124.3	15013.1	508.80 ug/L	508.80 ppb	22:02:37
1	V 292.402†	62783.5	56089.4	510.30 ug/L	510.30 ppb	22:02:37
1	Zn 213.857†	44403.8	38033.2	503.14 ug/L	503.14 ppb	22:02:37
1	SiO2†	71645.0	61966.6	5440.2 ug/L	5440.2 ppb	22:04:04
2	Sc Radial	4199.8	4199.8	111 %		22:01:59
2	Y RADIAL	4612.6	4612.6	113.0 %		22:01:39
2	Al 396.153Radial†	4754.3	4361.0	5164.5 ug/L	5164.5 ppb	22:01:39
2	Ca 317.933Radial†	2612.6	2334.5	5230.2 ug/L	5230.2 ppb	22:01:59
2	Fe 238.204 Radial†	440.9	389.2	5160.6 ug/L	5160.6 ppb	22:01:59
2	K 766.490 Radial†	27531.4	22353.4	4928.5 ug/L	4928.5 ppb	22:01:39
2	Mg 279.077 IEC†	125.9	110.7	5237.7 ug/L	5237.7 ppb	22:01:59
2	Na 589.592 Radial†	28533.0	26121.7	10504 ug/L	10504 ppb	22:01:39
2	Sr 421.552†	61614.6	55533.9	504.13 ug/L	504.13 ppb	22:01:39
2	Sc 361.383	837809.8	837809.8	114.33 %		22:03:03
2	Y 371.029	681039.7	681039.7	112.68 %		22:03:03
2	Ag 328.068†	103497.9	90374.1	517.34 ug/L	517.34 ppb	22:03:08
2	As 188.979†	942.3	846.5	518.26 ug/L	518.26 ppb	22:03:28
2	B 249.677†	19215.6	17142.3	513.63 ug/L	513.63 ppb	22:03:08
2	Ba 233.527†	55930.8	48918.3	514.00 ug/L	514.00 ppb	22:03:08
2	Be 313.107†	1239360.1	1087920.2	509.08 ug/L	509.08 ppb	22:03:03
2	Cd 226.502†	35978.9	31640.7	514.01 ug/L	514.01 ppb	22:03:08
2	Co 228.616†	20779.3	18221.7	523.68 ug/L	523.68 ppb	22:03:08
2	Cr 267.716†	38388.2	33481.9	513.68 ug/L	513.68 ppb	22:03:08
2	Cu 324.752†	169328.8	142389.5	508.28 ug/L	508.28 ppb	22:03:08
2	Mn 257.610†	394909.4	344989.1	503.82 ug/L	503.82 ppb	22:03:03
2	Mo 202.031†	5797.2	5053.9	510.81 ug/L	510.81 ppb	22:03:28
2	Ni 231.604†	16772.1	14587.5	523.06 ug/L	523.06 ppb	22:03:08

2	P 214.914†	3813.9	3147.4	2445.1 ug/L	2445.1 ppb	22:03:28
2	Pb 220.353†	3305.3	2940.1	510.04 ug/L	510.04 ppb	22:03:28
2	S 181.975 Axial†	635.9	529.1	1028.0 ug/L	1028.0 ppb	22:03:28
2	Sb 206.836†	1279.4	1093.4	525.47 ug/L	525.47 ppb	22:03:28
2	Se 196.026†	632.6	575.0	534.05 ug/L	534.05 ppb	22:03:28
2	Si 251.611†	72269.0	62755.6	2586.3 ug/L	2586.3 ppb	22:03:08
2	Sn 189.927†	2312.7	2009.2	510.02 ug/L	510.02 ppb	22:03:28
2	Ti 334.940†	301629.9	264870.3	506.39 ug/L	506.39 ppb	22:03:08
2	Tl 190.801†	1337.5	1192.1	517.43 ug/L	517.43 ppb	22:03:28
2	U 409.014†	15258.4	15180.0	514.46 ug/L	514.46 ppb	22:03:08
2	V 292.402†	63500.0	56922.0	517.89 ug/L	517.89 ppb	22:03:08
2	Zn 213.857†	44906.8	38618.7	510.88 ug/L	510.88 ppb	22:03:08
2	SiO2†	70920.6	61568.0	5404.9 ug/L	5404.9 ppb	22:04:09
3	Sc Radial	4261.8	4261.8	113 %		22:02:24
3	Y RADIAL	4716.8	4716.8	115.5 %		22:02:04
3	Al 396.153Radial†	4836.7	4371.8	5177.5 ug/L	5177.5 ppb	22:02:04
3	Ca 317.933Radial†	2657.8	2340.4	5243.3 ug/L	5243.3 ppb	22:02:24
3	Fe 238.204 Radial†	450.7	392.2	5199.7 ug/L	5199.7 ppb	22:02:24
3	K 766.490 Radial†	27944.4	22359.1	4929.8 ug/L	4929.8 ppb	22:02:04
3	Mg 279.077 IEC†	128.4	111.3	5264.5 ug/L	5264.5 ppb	22:02:24
3	Na 589.592 Radial†	28835.8	26016.3	10462 ug/L	10462 ppb	22:02:04
3	Sr 421.552†	62489.7	55503.0	503.85 ug/L	503.85 ppb	22:02:04
3	Sc 361.383	834802.6	834802.6	113.92 %		22:03:34
3	Y 371.029	680824.7	680824.7	112.64 %		22:03:34
3	Ag 328.068†	102100.1	89473.2	512.22 ug/L	512.22 ppb	22:03:39
3	As 188.979†	945.7	852.4	521.84 ug/L	521.84 ppb	22:03:59
3	B 249.677†	18923.7	16946.5	507.75 ug/L	507.75 ppb	22:03:39
3	Ba 233.527†	55041.8	48314.2	507.66 ug/L	507.66 ppb	22:03:39
3	Be 313.107†	1234800.7	1087822.8	509.02 ug/L	509.02 ppb	22:03:34
3	Cd 226.502†	35408.8	31253.7	507.71 ug/L	507.71 ppb	22:03:39
3	Co 228.616†	20400.9	17955.0	516.02 ug/L	516.02 ppb	22:03:39
3	Cr 267.716†	37876.1	33153.3	508.65 ug/L	508.65 ppb	22:03:39
3	Cu 324.752†	166656.1	140576.9	501.81 ug/L	501.81 ppb	22:03:39
3	Mn 257.610†	391719.4	343433.1	501.55 ug/L	501.55 ppb	22:03:34
3	Mo 202.031†	5755.9	5035.9	508.99 ug/L	508.99 ppb	22:03:59
3	Ni 231.604†	16457.9	14364.5	515.06 ug/L	515.06 ppb	22:03:39
3	P 214.914†	3769.1	3120.1	2424.3 ug/L	2424.3 ppb	22:03:59
3	Pb 220.353†	3290.0	2937.1	509.51 ug/L	509.51 ppb	22:03:59
3	S 181.975 Axial†	641.2	535.8	1040.8 ug/L	1040.8 ppb	22:03:59
3	Sb 206.836†	1283.2	1100.8	528.90 ug/L	528.90 ppb	22:03:59
3	Se 196.026†	624.4	569.8	529.49 ug/L	529.49 ppb	22:03:59
3	Si 251.611†	71014.8	61882.4	2550.3 ug/L	2550.3 ppb	22:03:39
3	Sn 189.927†	2315.4	2018.9	512.47 ug/L	512.47 ppb	22:03:59
3	Ti 334.940†	297114.1	261856.7	500.63 ug/L	500.63 ppb	22:03:39
3	Tl 190.801†	1312.6	1174.5	509.81 ug/L	509.81 ppb	22:03:59
3	U 409.014†	14900.7	14914.1	505.42 ug/L	505.42 ppb	22:03:39
3	V 292.402†	62680.2	56402.4	513.18 ug/L	513.18 ppb	22:03:39
3	Zn 213.857†	44254.5	38187.6	505.18 ug/L	505.18 ppb	22:03:39
3	SiO2†	71264.5	62093.3	5451.2 ug/L	5451.2 ppb	22:04:14

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	837858.5	114.34 %	0.420			0.37%
Sc Radial	4234.0	112 %	0.8			0.74%
Y 371.029	682063.4	112.84 %	0.325			0.29%
Y RADIAL	4641.3	113.7 %	1.62			1.42%
Ag 328.068†	89651.8	513.23 ug/L	3.713	513.23 ppb	3.713	0.72%
QC value within limits for Ag 328.068 Recovery = 102.65%						
Al 396.153Radial†	4347.1	5148.2 ug/L	40.07	5148.2 ppb	40.07	0.78%
QC value within limits for Al 396.153Radial Recovery = 102.96%						
As 188.979†	845.6	517.72 ug/L	4.415	517.72 ppb	4.415	0.85%
QC value within limits for As 188.979 Recovery = 103.54%						
B 249.677†	17012.4	509.73 ug/L	3.376	509.73 ppb	3.376	0.66%
QC value within limits for B 249.677 Recovery = 101.95%						
Ba 233.527†	48460.2	509.19 ug/L	4.256	509.19 ppb	4.256	0.84%
QC value within limits for Ba 233.527 Recovery = 101.84%						
Be 313.107†	1087971.4	509.09 ug/L	0.079	509.09 ppb	0.079	0.02%
QC value within limits for Be 313.107 Recovery = 101.82%						
Ca 317.933Radial†	2335.8	5233.1 ug/L	9.09	5233.1 ppb	9.09	0.17%

QC value within limits for Ca 317.933 Radial Recovery = 104.66%							
Cd 226.502†	31372.7	509.65 ug/L	3.786	509.65 ppb	3.786	0.74%	
QC value within limits for Cd 226.502 Recovery = 101.93%							
Co 228.616†	18042.0	518.52 ug/L	4.473	518.52 ppb	4.473	0.86%	
QC value within limits for Co 228.616 Recovery = 103.70%							
Cr 267.716†	33193.6	509.26 ug/L	4.142	509.26 ppb	4.142	0.81%	
QC value within limits for Cr 267.716 Recovery = 101.85%							
Cu 324.752†	140916.5	503.02 ug/L	4.766	503.02 ppb	4.766	0.95%	
QC value within limits for Cu 324.752 Recovery = 100.60%							
Fe 238.204 Radial†	391.2	5186.7 ug/L	22.62	5186.7 ppb	22.62	0.44%	
QC value within limits for Fe 238.204 Radial Recovery = 103.73%							
K 766.490 Radial†	22270.4	4910.2 ug/L	32.80	4910.2 ppb	32.80	0.67%	
QC value within limits for K 766.490 Radial Recovery = 98.20%							
Mg 279.077 IEC†	110.7	5235.6 ug/L	29.97	5235.6 ppb	29.97	0.57%	
QC value within limits for Mg 279.077 IEC Recovery = 104.71%							
Mn 257.610†	344341.2	502.88 ug/L	1.181	502.88 ppb	1.181	0.23%	
QC value within limits for Mn 257.610 Recovery = 100.58%							
Mo 202.031†	5024.2	507.81 ug/L	3.730	507.81 ppb	3.730	0.73%	
QC value within limits for Mo 202.031 Recovery = 101.56%							
Na 589.592 Radial†	26006.4	10458 ug/L	48.4	10458 ppb	48.4	0.46%	
QC value within limits for Na 589.592 Radial Recovery = 104.58%							
Ni 231.604†	14417.2	516.95 ug/L	5.414	516.95 ppb	5.414	1.05%	
QC value within limits for Ni 231.604 Recovery = 103.39%							
P 214.914†	3125.4	2428.3 ug/L	15.15	2428.3 ppb	15.15	0.62%	
QC value within limits for P 214.914 Recovery = 97.13%							
Pb 220.353†	2927.8	507.90 ug/L	3.257	507.90 ppb	3.257	0.64%	
QC value within limits for Pb 220.353 Recovery = 101.58%							
S 181.975 Axial†	530.7	1031.0 ug/L	8.73	1031.0 ppb	8.73	0.85%	
QC value within limits for S 181.975 Axial Recovery = 103.10%							
Sb 206.836†	1095.1	526.18 ug/L	2.447	526.18 ppb	2.447	0.47%	
QC value within limits for Sb 206.836 Recovery = 105.24%							
Se 196.026†	569.4	529.04 ug/L	5.239	529.04 ppb	5.239	0.99%	
QC value within limits for Se 196.026 Recovery = 105.81%							
Si 251.611†	62119.7	2560.1 ug/L	22.96	2560.1 ppb	22.96	0.90%	
QC value within limits for Si 251.611 Recovery = 102.40%							
Sn 189.927†	2007.0	509.45 ug/L	3.344	509.45 ppb	3.344	0.66%	
QC value within limits for Sn 189.927 Recovery = 101.89%							
Sr 421.552†	55267.2	501.71 ug/L	3.954	501.71 ppb	3.954	0.79%	
QC value within limits for Sr 421.552 Recovery = 100.34%							
Ti 334.940†	262413.4	501.69 ug/L	4.263	501.69 ppb	4.263	0.85%	
QC value within limits for Ti 334.940 Recovery = 100.34%							
Tl 190.801†	1177.8	511.26 ug/L	5.588	511.26 ppb	5.588	1.09%	
QC value within limits for Tl 190.801 Recovery = 102.25%							
U 409.014†	15035.7	509.56 ug/L	4.565	509.56 ppb	4.565	0.90%	
QC value within limits for U 409.014 Recovery = 101.91%							
V 292.402†	56471.3	513.79 ug/L	3.828	513.79 ppb	3.828	0.75%	
QC value within limits for V 292.402 Recovery = 102.76%							
Zn 213.857†	38279.8	506.40 ug/L	4.014	506.40 ppb	4.014	0.79%	
QC value within limits for Zn 213.857 Recovery = 101.28%							
SiO2†	61876.0	5432.1 ug/L	24.18	5432.1 ppb	24.18	0.45%	
QC value within limits for SiO2 Recovery = 101.58%							
All analyte(s) passed QC.							

Sequence No.: 28  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 3/26/2010 22:06:24  
 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	4140.6	4140.6	109 %		22:08:36
1	Y RADIAL	4645.1	4645.1	113.8 %		22:08:16
1	Al 396.153Radial†	-69.4	9.3	11.142 ug/L	11.142 ppb	22:08:36
1	Ca 317.933Radial†	24.2	0.2	0.4976 ug/L	0.4976 ppb	22:08:36
1	Fe 238.204 Radial†	7.8	-1.3	-17.703 ug/L	-17.703 ppb	22:08:36
1	K 766.490 Radial†	2537.2	-157.4	-34.740 ug/L	-34.740 ppb	22:08:16
1	Mg 279.077 IEC†	0.7	-2.2	-102.06 ug/L	-102.06 ppb	22:08:36
1	Na 589.592 Radial†	-525.0	-94.0	-37.797 ug/L	-37.797 ppb	22:08:16
1	Sr 421.552†	67.8	22.8	0.2066 ug/L	0.2066 ppb	22:08:16
1	Sc 361.383	826714.8	826714.8	112.82 %		22:09:33
1	Y 371.029	678959.1	678959.1	112.33 %		22:09:33
1	Ag 328.068†	280.4	96.4	0.5443 ug/L	0.5443 ppb	22:09:33
1	As 188.979†	-29.1	-3.5	-2.1487 ug/L	-2.1487 ppb	22:09:53
1	B 249.677†	-59.9	281.9	8.4860 ug/L	8.4860 ppb	22:09:53
1	Ba 233.527†	11.2	7.4	0.0789 ug/L	0.0789 ppb	22:09:53
1	Be 313.107†	-4023.0	325.6	0.1523 ug/L	0.1523 ppb	22:09:33
1	Cd 226.502†	-169.1	21.3	0.3481 ug/L	0.3481 ppb	22:09:53
1	Co 228.616†	-39.7	11.5	0.3302 ug/L	0.3302 ppb	22:09:53
1	Cr 267.716†	133.2	23.0	0.3502 ug/L	0.3502 ppb	22:09:53
1	Cu 324.752†	6074.8	-332.2	-1.1886 ug/L	-1.1886 ppb	22:09:33
1	Mn 257.610†	447.0	-29.3	-0.0404 ug/L	-0.0404 ppb	22:09:53
1	Mo 202.031†	15.2	-3.2	-0.3291 ug/L	-0.3291 ppb	22:09:53
1	Ni 231.604†	88.0	-4.6	-0.1636 ug/L	-0.1636 ppb	22:09:53
1	P 214.914†	199.2	-11.9	-9.3656 ug/L	-9.3656 ppb	22:09:53
1	Pb 220.353†	-43.4	10.6	1.8447 ug/L	1.8447 ppb	22:09:53
1	S 181.975 Axial†	28.6	-1.7	-3.3243 ug/L	-3.3243 ppb	22:09:53
1	Sb 206.836†	29.3	0.3	0.1149 ug/L	0.1149 ppb	22:09:53
1	Se 196.026†	-20.4	3.7	3.2536 ug/L	3.2536 ppb	22:09:53
1	Si 251.611†	493.5	-18.3	-0.7517 ug/L	-0.7517 ppb	22:09:53
1	Sn 189.927†	4.4	-9.7	-2.4666 ug/L	-2.4666 ppb	22:09:53
1	Ti 334.940†	-1104.9	64.9	0.1310 ug/L	0.1310 ppb	22:09:33
1	Tl 190.801†	-17.1	7.1	3.0639 ug/L	3.0639 ppb	22:09:53
1	U 409.014†	-1966.4	91.0	3.0952 ug/L	3.0952 ppb	22:09:33
1	V 292.402†	-1432.6	110.7	0.9955 ug/L	0.9955 ppb	22:09:33
1	Zn 213.857†	628.5	-102.7	-1.3663 ug/L	-1.3663 ppb	22:09:53
1	SiO2†	499.6	-21.1	-1.8503 ug/L	-1.8503 ppb	22:11:04
2	Sc Radial	4159.1	4159.1	110 %		22:09:01
2	Y RADIAL	4712.8	4712.8	115.4 %		22:08:41
2	Al 396.153Radial†	-75.2	4.4	5.1844 ug/L	5.1844 ppb	22:09:01
2	Ca 317.933Radial†	25.9	1.7	3.7283 ug/L	3.7283 ppb	22:09:01
2	Fe 238.204 Radial†	6.9	-2.2	-29.025 ug/L	-29.025 ppb	22:09:01
2	K 766.490 Radial†	2524.9	-178.9	-39.477 ug/L	-39.477 ppb	22:08:41
2	Mg 279.077 IEC†	0.5	-2.4	-113.37 ug/L	-113.37 ppb	22:09:01
2	Na 589.592 Radial†	-523.7	-90.7	-36.454 ug/L	-36.454 ppb	22:08:41
2	Sr 421.552†	44.2	1.0	0.0088 ug/L	0.0088 ppb	22:08:41
2	Sc 361.383	828154.1	828154.1	113.01 %		22:09:58
2	Y 371.029	680992.4	680992.4	112.67 %		22:09:58
2	Ag 328.068†	278.0	93.8	0.5249 ug/L	0.5249 ppb	22:09:58
2	As 188.979†	-16.6	7.6	4.5962 ug/L	4.5962 ppb	22:10:18
2	B 249.677†	-31.9	306.8	9.2378 ug/L	9.2378 ppb	22:10:18
2	Ba 233.527†	13.8	9.7	0.1037 ug/L	0.1037 ppb	22:10:18
2	Be 313.107†	-3975.3	374.0	0.1753 ug/L	0.1753 ppb	22:09:58
2	Cd 226.502†	-165.0	25.2	0.4128 ug/L	0.4128 ppb	22:10:18
2	Co 228.616†	-44.3	7.5	0.2168 ug/L	0.2168 ppb	22:10:18
2	Cr 267.716†	109.4	1.7	0.0227 ug/L	0.0227 ppb	22:10:18
2	Cu 324.752†	5961.3	-442.0	-1.5832 ug/L	-1.5832 ppb	22:09:58
2	Mn 257.610†	436.6	-39.2	-0.0555 ug/L	-0.0555 ppb	22:10:18
2	Mo 202.031†	23.4	4.0	0.4015 ug/L	0.4015 ppb	22:10:18
2	Ni 231.604†	64.7	-25.3	-0.9089 ug/L	-0.9089 ppb	22:10:18



2	P 214.914†	181.0	-28.3	-22.556 ug/L	-22.556 ppb	22:10:18
2	Pb 220.353†	-59.0	-3.1	-0.5309 ug/L	-0.5309 ppb	22:10:18
2	S 181.975 Axial†	28.3	-2.1	-4.0744 ug/L	-4.0744 ppb	22:10:18
2	Sb 206.836†	25.6	-3.0	-1.3970 ug/L	-1.3970 ppb	22:10:18
2	Se 196.026†	-17.0	6.7	5.9487 ug/L	5.9487 ppb	22:10:18
2	Si 251.611†	486.3	-25.4	-1.0553 ug/L	-1.0553 ppb	22:10:18
2	Sn 189.927†	6.9	-7.5	-1.9081 ug/L	-1.9081 ppb	22:10:18
2	Ti 334.940†	-990.6	167.8	0.3276 ug/L	0.3276 ppb	22:09:58
2	Tl 190.801†	-27.0	-1.6	-0.6897 ug/L	-0.6897 ppb	22:10:18
2	U 409.014†	-1838.0	207.7	7.0649 ug/L	7.0649 ppb	22:09:58
2	V 292.402†	-1372.2	166.4	1.5148 ug/L	1.5148 ppb	22:09:58
2	Zn 213.857†	609.6	-120.4	-1.5957 ug/L	-1.5957 ppb	22:10:18
2	SiO2†	501.1	-20.5	-1.8186 ug/L	-1.8186 ppb	22:11:24
3	Sc Radial	4131.9	4131.9	109 %		22:09:26
3	Y RADIAL	4583.1	4583.1	112.3 %		22:09:06
3	Al 396.153Radial†	-65.8	12.5	14.923 ug/L	14.923 ppb	22:09:26
3	Ca 317.933Radial†	22.0	-1.8	-4.0218 ug/L	-4.0218 ppb	22:09:26
3	Fe 238.204 Radial†	8.0	-1.1	-14.362 ug/L	-14.362 ppb	22:09:26
3	K 766.490 Radial†	2544.9	-145.4	-32.089 ug/L	-32.089 ppb	22:09:06
3	Mg 279.077 IEC†	2.9	-0.2	-8.1053 ug/L	-8.1053 ppb	22:09:26
3	Na 589.592 Radial†	-551.8	-119.6	-48.088 ug/L	-48.088 ppb	22:09:06
3	Sr 421.552†	11.4	-28.8	-0.2613 ug/L	-0.2613 ppb	22:09:06
3	Sc 361.383	815508.0	815508.0	111.29 %		22:10:24
3	Y 371.029	671126.6	671126.6	111.04 %		22:10:24
3	Ag 328.068†	131.8	-33.7	-0.1980 ug/L	-0.1980 ppb	22:10:24
3	As 188.979†	-29.2	-4.0	-2.4067 ug/L	-2.4067 ppb	22:10:44
3	B 249.677†	-64.8	276.7	8.3316 ug/L	8.3316 ppb	22:10:44
3	Ba 233.527†	0.6	-2.0	-0.0196 ug/L	-0.0196 ppb	22:10:44
3	Be 313.107†	-4062.8	240.8	0.1132 ug/L	0.1132 ppb	22:10:24
3	Cd 226.502†	-166.9	21.2	0.3467 ug/L	0.3467 ppb	22:10:44
3	Co 228.616†	-54.6	-2.4	-0.0700 ug/L	-0.0700 ppb	22:10:44
3	Cr 267.716†	122.4	14.9	0.2257 ug/L	0.2257 ppb	22:10:44
3	Cu 324.752†	6026.6	-301.5	-1.0806 ug/L	-1.0806 ppb	22:10:24
3	Mn 257.610†	443.5	-27.0	-0.0405 ug/L	-0.0405 ppb	22:10:44
3	Mo 202.031†	13.4	-4.7	-0.4736 ug/L	-0.4736 ppb	22:10:44
3	Ni 231.604†	81.8	-9.1	-0.3247 ug/L	-0.3247 ppb	22:10:44
3	P 214.914†	199.8	-8.9	-7.0155 ug/L	-7.0155 ppb	22:10:44
3	Pb 220.353†	-60.9	-5.6	-0.9722 ug/L	-0.9722 ppb	22:10:44
3	S 181.975 Axial†	25.5	-4.2	-8.2024 ug/L	-8.2024 ppb	22:10:44
3	Sb 206.836†	20.6	-7.1	-3.3441 ug/L	-3.3441 ppb	22:10:44
3	Se 196.026†	-18.9	4.7	4.2348 ug/L	4.2348 ppb	22:10:44
3	Si 251.611†	487.3	-17.9	-0.7318 ug/L	-0.7318 ppb	22:10:44
3	Sn 189.927†	8.3	-6.2	-1.5799 ug/L	-1.5799 ppb	22:10:44
3	Ti 334.940†	-953.7	187.3	0.3555 ug/L	0.3555 ppb	22:10:24
3	Tl 190.801†	-16.4	7.6	3.2647 ug/L	3.2647 ppb	22:10:44
3	U 409.014†	-1833.0	186.9	6.3565 ug/L	6.3565 ppb	22:10:24
3	V 292.402†	-1434.2	91.8	0.8311 ug/L	0.8311 ppb	22:10:24
3	Zn 213.857†	601.3	-119.5	-1.5906 ug/L	-1.5906 ppb	22:10:44
3	SiO2†	501.4	-13.4	-1.1702 ug/L	-1.1702 ppb	22:11:44

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823459.0	112.37 %	0.945			0.84%
Sc Radial	4143.9	109 %	0.4			0.33%
Y 371.029	677026.1	112.01 %	0.862			0.77%
Y RADIAL	4647.0	113.8 %	1.59			1.40%
Ag 328.068†	52.2	0.2904 ug/L	0.42306	0.2904 ppb	0.42306	145.67%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.7	10.416 ug/L	4.9095	10.416 ppb	4.9095	47.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.0	0.0136 ug/L	3.97076	0.0136 ppb	3.97076	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	288.5	8.6851 ug/L	0.48480	8.6851 ppb	0.48480	5.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.0	0.0544 ug/L	0.06522	0.0544 ppb	0.06522	119.98%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	313.5	0.1470 ug/L	0.03139	0.1470 ppb	0.03139	21.36%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.0	0.0680 ug/L	3.89283	0.0680 ppb	3.89283	>999.9%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	22.5	0.3692 ug/L	0.03777	0.3692 ppb	0.03777	10.23%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	5.6	0.1590 ug/L	0.20629	0.1590 ppb	0.20629	129.75%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	13.2	0.1995 ug/L	0.16531	0.1995 ppb	0.16531	82.85%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	-358.6	-1.2842 ug/L	0.26457	-1.2842 ppb	0.26457	20.60%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-1.5	-20.363 ug/L	7.6853	-20.363 ppb	7.6853	37.74%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	-160.6	-35.435 ug/L	3.7426	-35.435 ppb	3.7426	10.56%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	-1.6	-74.512 ug/L	57.7873	-74.512 ppb	57.7873	77.55%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	-31.9	-0.0455 ug/L	0.00869	-0.0455 ppb	0.00869	19.12%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	-1.3	-0.1338 ug/L	0.46913	-0.1338 ppb	0.46913	350.74%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	-101.4	-40.780 ug/L	6.3649	-40.780 ppb	6.3649	15.61%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	-13.0	-0.4657 ug/L	0.39211	-0.4657 ppb	0.39211	84.19%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-16.4	-12.979 ug/L	8.3766	-12.979 ppb	8.3766	64.54%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	0.6	0.1138 ug/L	1.51507	0.1138 ppb	1.51507	>999.9%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	-2.7	-5.2004 ug/L	2.62674	-5.2004 ppb	2.62674	50.51%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	-3.3	-1.5421 ug/L	1.73405	-1.5421 ppb	1.73405	112.45%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	5.0	4.4790 ug/L	1.36404	4.4790 ppb	1.36404	30.45%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	-20.5	-0.8463 ug/L	0.18133	-0.8463 ppb	0.18133	21.43%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	-7.8	-1.9849 ug/L	0.44833	-1.9849 ppb	0.44833	22.59%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	-1.7	-0.0153 ug/L	0.23488	-0.0153 ppb	0.23488	>999.9%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	140.0	0.2714 ug/L	0.12234	0.2714 ppb	0.12234	45.09%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	4.4	1.8796 ug/L	2.22738	1.8796 ppb	2.22738	118.50%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	161.8	5.5055 ug/L	2.11724	5.5055 ppb	2.11724	38.46%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	123.0	1.1138 ug/L	0.35683	1.1138 ppb	0.35683	32.04%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	-114.2	-1.5175 ug/L	0.13103	-1.5175 ppb	0.13103	8.63%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		-18.4	-1.6130 ug/L	0.38383	-1.6130 ppb	0.38383	23.80%		
QC value within limits for SiO2 Recovery = Not calculated									
All analyte(s) passed QC.									

Sequence No.: 29

Sample ID: 1202056808|959089|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 46

Date Collected: 3/26/2010 22:13:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056808|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4253.7	4253.7	112 %		22:16:07
1	Y RADIAL	4511.8	4511.8	110.5 %		22:15:47
1	Al 396.153Radial†	-70.8	9.8	11.711 ug/L	11.711 ppb	22:16:07
1	Ca 317.933Radial†	22.9	-1.5	-3.3349 ug/L	-3.3349 ppb	22:16:07
1	Fe 238.204 Radial†	8.8	-0.6	-7.8272 ug/L	-7.8272 ppb	22:16:07
1	K 766.490 Radial†	2480.9	-269.2	-59.429 ug/L	-59.429 ppb	22:15:47
1	Mg 279.077 IEC†	0.8	-2.1	-97.670 ug/L	-97.670 ppb	22:16:07
1	Na 589.592 Radial†	-512.9	-70.4	-28.328 ug/L	-28.328 ppb	22:15:47
1	Sr 421.552†	44.4	0.3	0.0024 ug/L	0.0024 ppb	22:15:47
1	Sc 361.383	830716.8	830716.8	113.36 %		22:17:04
1	Y 371.029	682649.9	682649.9	112.94 %		22:17:04
1	Ag 328.068†	192.7	17.8	0.0965 ug/L	0.0965 ppb	22:17:04
1	As 188.979†	-23.0	2.0	1.2279 ug/L	1.2279 ppb	22:17:24
1	B 249.677†	-116.7	232.1	6.9833 ug/L	6.9833 ppb	22:17:24
1	Ba 233.527†	31.3	25.1	0.2660 ug/L	0.2660 ppb	22:17:24
1	Be 313.107†	-4041.7	326.2	0.1533 ug/L	0.1533 ppb	22:17:04
1	Cd 226.502†	-169.5	21.7	0.3548 ug/L	0.3548 ppb	22:17:24
1	Co 228.616†	-19.4	29.6	0.8488 ug/L	0.8488 ppb	22:17:24
1	Cr 267.716†	153.3	40.2	0.6123 ug/L	0.6123 ppb	22:17:24
1	Cu 324.752†	6130.6	-309.0	-1.1089 ug/L	-1.1089 ppb	22:17:04
1	Mn 257.610†	586.1	91.5	0.1368 ug/L	0.1368 ppb	22:17:24
1	Mo 202.031†	18.9	-0.1	-0.0127 ug/L	-0.0127 ppb	22:17:24
1	Ni 231.604†	96.0	2.2	0.0768 ug/L	0.0768 ppb	22:17:24
1	P 214.914†	186.5	-24.0	-19.153 ug/L	-19.153 ppb	22:17:24
1	Pb 220.353†	-50.0	5.0	0.8698 ug/L	0.8698 ppb	22:17:24
1	S 181.975 Axial†	29.1	-1.4	-2.7897 ug/L	-2.7897 ppb	22:17:24
1	Sb 206.836†	39.2	9.0	4.1363 ug/L	4.1363 ppb	22:17:24
1	Se 196.026†	-13.7	9.7	8.6881 ug/L	8.6881 ppb	22:17:24
1	Si 251.611†	851.6	295.5	12.209 ug/L	12.209 ppb	22:17:24
1	Sn 189.927†	5.1	-9.2	-2.3242 ug/L	-2.3242 ppb	22:17:24
1	Ti 334.940†	-922.8	230.3	0.4433 ug/L	0.4433 ppb	22:17:04
1	Tl 190.801†	-30.1	-4.3	-1.8450 ug/L	-1.8450 ppb	22:17:24
1	U 409.014†	-1742.7	296.7	10.088 ug/L	10.088 ppb	22:17:04
1	V 292.402†	-1379.9	163.4	1.4844 ug/L	1.4844 ppb	22:17:04
1	Zn 213.857†	751.6	3.2	0.0447 ug/L	0.0447 ppb	22:17:24
1	SiO2†	839.1	276.2	24.313 ug/L	24.313 ppb	22:18:20
2	Sc Radial	4188.5	4188.5	111 %		22:16:33
2	Y RADIAL	4526.9	4526.9	110.9 %		22:16:12
2	Al 396.153Radial†	-69.1	10.4	12.333 ug/L	12.333 ppb	22:16:33
2	Ca 317.933Radial†	29.7	5.0	11.150 ug/L	11.150 ppb	22:16:33
2	Fe 238.204 Radial†	8.8	-0.5	-6.4822 ug/L	-6.4822 ppb	22:16:33
2	K 766.490 Radial†	2564.8	-159.0	-35.103 ug/L	-35.103 ppb	22:16:12
2	Mg 279.077 IEC†	3.4	0.3	12.434 ug/L	12.434 ppb	22:16:33
2	Na 589.592 Radial†	-489.9	-56.7	-22.807 ug/L	-22.807 ppb	22:16:12
2	Sr 421.552†	45.4	1.8	0.0159 ug/L	0.0159 ppb	22:16:12
2	Sc 361.383	843335.8	843335.8	115.08 %		22:17:30
2	Y 371.029	692867.1	692867.1	114.63 %		22:17:30
2	Ag 328.068†	224.7	43.1	0.2365 ug/L	0.2365 ppb	22:17:30
2	As 188.979†	-27.6	-1.7	-1.0523 ug/L	-1.0523 ppb	22:17:50
2	B 249.677†	-112.5	237.2	7.1385 ug/L	7.1385 ppb	22:17:50
2	Ba 233.527†	16.9	12.1	0.1284 ug/L	0.1284 ppb	22:17:50
2	Be 313.107†	-4032.3	387.7	0.1821 ug/L	0.1821 ppb	22:17:30
2	Cd 226.502†	-160.1	32.1	0.5238 ug/L	0.5238 ppb	22:17:50
2	Co 228.616†	-35.7	15.7	0.4515 ug/L	0.4515 ppb	22:17:50
2	Cr 267.716†	150.6	35.8	0.5445 ug/L	0.5445 ppb	22:17:50
2	Cu 324.752†	6271.7	-267.2	-0.9608 ug/L	-0.9608 ppb	22:17:30
2	Mn 257.610†	554.8	56.5	0.0814 ug/L	0.0814 ppb	22:17:50
2	Mo 202.031†	22.0	2.4	0.2408 ug/L	0.2408 ppb	22:17:50
2	Ni 231.604†	84.0	-9.6	-0.3433 ug/L	-0.3433 ppb	22:17:50

2	P 214.914†	204.5	-10.7	-8.5018 ug/L	-8.5018 ppb	22:17:50
2	Pb 220.353†	-56.3	0.1	0.0246 ug/L	0.0246 ppb	22:17:50
2	S 181.975 Axial†	27.5	-3.2	-6.2342 ug/L	-6.2342 ppb	22:17:50
2	Sb 206.836†	34.6	4.5	2.0516 ug/L	2.0516 ppb	22:17:50
2	Se 196.026†	-16.1	7.8	6.9883 ug/L	6.9883 ppb	22:17:50
2	Si 251.611†	833.0	268.1	11.072 ug/L	11.072 ppb	22:17:50
2	Sn 189.927†	10.1	-4.9	-1.2387 ug/L	-1.2387 ppb	22:17:50
2	Ti 334.940†	-921.4	243.7	0.4611 ug/L	0.4611 ppb	22:17:30
2	Tl 190.801†	-21.5	3.6	1.5530 ug/L	1.5530 ppb	22:17:50
2	U 409.014†	-1713.8	344.8	11.725 ug/L	11.725 ppb	22:17:30
2	V 292.402†	-1489.0	86.7	0.8051 ug/L	0.8051 ppb	22:17:30
2	Zn 213.857†	765.1	5.0	0.0717 ug/L	0.0717 ppb	22:17:50
2	SiO2†	849.2	273.9	24.101 ug/L	24.101 ppb	22:18:25
3	Sc Radial	4247.0	4247.0	112 %		22:16:58
3	Y RADIAL	4672.3	4672.3	114.4 %		22:16:38
3	Al 396.153Radial†	-67.4	12.8	15.162 ug/L	15.162 ppb	22:16:58
3	Ca 317.933Radial†	31.5	6.2	13.897 ug/L	13.897 ppb	22:16:58
3	Fe 238.204 Radial†	7.7	-1.6	-21.365 ug/L	-21.365 ppb	22:16:58
3	K 766.490 Radial†	2520.6	-230.3	-50.849 ug/L	-50.849 ppb	22:16:38
3	Mg 279.077 IEC†	0.3	-2.6	-122.30 ug/L	-122.30 ppb	22:16:58
3	Na 589.592 Radial†	-465.3	-28.7	-11.529 ug/L	-11.529 ppb	22:16:38
3	Sr 421.552†	53.7	8.7	0.0784 ug/L	0.0784 ppb	22:16:38
3	Sc 361.383	830999.7	830999.7	113.40 %		22:17:55
3	Y 371.029	682462.3	682462.3	112.91 %		22:17:55
3	Ag 328.068†	134.0	-34.0	-0.1999 ug/L	-0.1999 ppb	22:17:55
3	As 188.979†	-26.0	-0.6	-0.3727 ug/L	-0.3727 ppb	22:18:15
3	B 249.677†	-132.1	218.4	6.5775 ug/L	6.5775 ppb	22:18:15
3	Ba 233.527†	37.1	30.2	0.3185 ug/L	0.3185 ppb	22:18:15
3	Be 313.107†	-3909.7	443.9	0.2084 ug/L	0.2084 ppb	22:17:55
3	Cd 226.502†	-171.9	19.6	0.3217 ug/L	0.3217 ppb	22:18:15
3	Co 228.616†	-39.8	11.6	0.3344 ug/L	0.3344 ppb	22:18:15
3	Cr 267.716†	165.6	51.0	0.7776 ug/L	0.7776 ppb	22:18:15
3	Cu 324.752†	6275.7	-182.8	-0.6571 ug/L	-0.6571 ppb	22:17:55
3	Mn 257.610†	580.2	86.1	0.1285 ug/L	0.1285 ppb	22:18:15
3	Mo 202.031†	28.4	8.3	0.8401 ug/L	0.8401 ppb	22:18:15
3	Ni 231.604†	92.1	-1.3	-0.0465 ug/L	-0.0465 ppb	22:18:15
3	P 214.914†	192.2	-19.0	-15.209 ug/L	-15.209 ppb	22:18:15
3	Pb 220.353†	-45.9	8.6	1.4990 ug/L	1.4990 ppb	22:18:15
3	S 181.975 Axial†	31.4	0.6	1.2217 ug/L	1.2217 ppb	22:18:15
3	Sb 206.836†	27.9	-1.0	-0.4749 ug/L	-0.4749 ppb	22:18:15
3	Se 196.026†	-21.6	2.7	2.3645 ug/L	2.3645 ppb	22:18:15
3	Si 251.611†	812.2	260.5	10.752 ug/L	10.752 ppb	22:18:15
3	Sn 189.927†	11.9	-3.2	-0.7976 ug/L	-0.7976 ppb	22:18:15
3	Ti 334.940†	-897.1	253.2	0.4932 ug/L	0.4932 ppb	22:17:55
3	Tl 190.801†	-34.4	-8.1	-3.4798 ug/L	-3.4798 ppb	22:18:15
3	U 409.014†	-1878.4	177.6	6.0396 ug/L	6.0396 ppb	22:17:55
3	V 292.402†	-1400.5	145.6	1.3304 ug/L	1.3304 ppb	22:17:55
3	Zn 213.857†	768.9	18.2	0.2477 ug/L	0.2477 ppb	22:18:15
3	SiO2†	835.3	272.6	23.972 ug/L	23.972 ppb	22:18:30

Mean Data: 1202056808|959089|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	835017.4	113.95 %		0.983				0.86%
Sc Radial	4229.8	112 %		0.9				0.85%
Y 371.029	685993.1	113.50 %		0.985				0.87%
Y RADIAL	4570.3	111.9 %		2.17				1.94%
Ag 328.068†	9.0	0.0444 ug/L		0.22284	0.0444 ppb		0.22284	502.22%
Al 396.153Radial†	11.0	13.069 ug/L		1.8393	13.069 ppb		1.8393	14.07%
As 188.979†	-0.1	-0.0657 ug/L		1.17066	-0.0657 ppb		1.17066	>999.9%
B 249.677†	229.2	6.8998 ug/L		0.28967	6.8998 ppb		0.28967	4.20%
Ba 233.527†	22.5	0.2376 ug/L		0.09814	0.2376 ppb		0.09814	41.30%
Be 313.107†	386.0	0.1813 ug/L		0.02753	0.1813 ppb		0.02753	15.19%
Ca 317.933Radial†	3.2	7.2374 ug/L		9.25830	7.2374 ppb		9.25830	127.92%
Cd 226.502†	24.4	0.4001 ug/L		0.10840	0.4001 ppb		0.10840	27.09%
Co 228.616†	19.0	0.5449 ug/L		0.26962	0.5449 ppb		0.26962	49.48%
Cr 267.716†	42.3	0.6448 ug/L		0.11993	0.6448 ppb		0.11993	18.60%
Cu 324.752†	-253.0	-0.9089 ug/L		0.23036	-0.9089 ppb		0.23036	25.34%
Fe 238.204 Radial†	-0.9	-11.892 ug/L		8.2320	-11.892 ppb		8.2320	69.23%
K 766.490 Radial†	-219.5	-48.460 ug/L		12.3380	-48.460 ppb		12.3380	25.46%

Mg 279.077 IEC†	-1.5	-69.178 ug/L	71.7431	-69.178 ppb	71.7431	103.71%
Mn 257.610†	78.0	0.1156 ug/L	0.02989	0.1156 ppb	0.02989	25.87%
Mo 202.031†	3.5	0.3561 ug/L	0.43795	0.3561 ppb	0.43795	123.00%
Na 589.592 Radial†	-51.9	-20.888 ug/L	8.5621	-20.888 ppb	8.5621	40.99%
Ni 231.604†	-2.9	-0.1043 ug/L	0.21593	-0.1043 ppb	0.21593	206.98%
P 214.914†	-17.9	-14.288 ug/L	5.3850	-14.288 ppb	5.3850	37.69%
Pb 220.353†	4.6	0.7978 ug/L	0.73985	0.7978 ppb	0.73985	92.74%
S 181.975 Axial†	-1.3	-2.6007 ug/L	3.73158	-2.6007 ppb	3.73158	143.48%
Sb 206.836†	4.1	1.9043 ug/L	2.30913	1.9043 ppb	2.30913	121.26%
Se 196.026†	6.7	6.0136 ug/L	3.27252	6.0136 ppb	3.27252	54.42%
Si 251.611†	274.7	11.345 ug/L	0.7658	11.345 ppb	0.7658	6.75%
Sn 189.927†	-5.7	-1.4535 ug/L	0.78560	-1.4535 ppb	0.78560	54.05%
Sr 421.552†	3.6	0.0322 ug/L	0.04057	0.0322 ppb	0.04057	125.83%
Ti 334.940†	242.4	0.4659 ug/L	0.02529	0.4659 ppb	0.02529	5.43%
Tl 190.801†	-2.9	-1.2573 ug/L	2.56739	-1.2573 ppb	2.56739	204.21%
U 409.014†	273.0	9.2842 ug/L	2.92660	9.2842 ppb	2.92660	31.52%
V 292.402†	131.9	1.2066 ug/L	0.35616	1.2066 ppb	0.35616	29.52%
Zn 213.857†	8.8	0.1214 ug/L	0.11025	0.1214 ppb	0.11025	90.83%
SiO2†	274.3	24.129 ug/L	0.1725	24.129 ppb	0.1725	0.71%

Sequence No.: 30

Sample ID: 1202056809|959089|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 3/26/2010 22:20:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056809|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4272.6	4272.6	113 %			22:22:54
1	Y RADIAL	4776.6	4776.6	117.0 %			22:22:34
1	Al 396.153Radial†	5013.2	4517.5	5351.0 ug/L		5351.0 ppb	22:22:34
1	Ca 317.933Radial†	2637.3	2316.3	5189.4 ug/L		5189.4 ppb	22:22:54
1	Fe 238.204 Radial†	435.3	377.4	5004.7 ug/L		5004.7 ppb	22:22:54
1	K 766.490 Radial†	27900.5	22257.7	4909.6 ug/L		4909.6 ppb	22:22:34
1	Mg 279.077 IEC†	127.4	110.1	5207.3 ug/L		5207.3 ppb	22:22:54
1	Na 589.592 Radial†	13537.6	12388.7	4981.8 ug/L		4981.8 ppb	22:22:34
1	Sr 421.552†	61640.4	54610.5	495.75 ug/L		495.75 ppb	22:22:34
1	Sc 361.383	842631.0	842631.0	114.99 %			22:23:52
1	Y 371.029	685006.2	685006.2	113.33 %			22:23:52
1	Ag 328.068†	100330.6	87101.7	498.66 ug/L		498.66 ppb	22:23:57
1	As 188.979†	948.4	847.1	518.54 ug/L		518.54 ppb	22:24:17
1	B 249.677†	19173.7	17009.7	509.70 ug/L		509.70 ppb	22:23:57
1	Ba 233.527†	56584.1	49206.5	517.01 ug/L		517.01 ppb	22:23:57
1	Be 313.107†	1252054.2	1092757.5	511.32 ug/L		511.32 ppb	22:23:52
1	Cd 226.502†	35606.6	31136.9	505.84 ug/L		505.84 ppb	22:23:57
1	Co 228.616†	20404.3	17791.6	511.33 ug/L		511.33 ppb	22:23:57
1	Cr 267.716†	38218.4	33142.1	508.45 ug/L		508.45 ppb	22:23:57
1	Cu 324.752†	171383.7	143329.2	511.62 ug/L		511.62 ppb	22:23:57
1	Mn 257.610†	397935.0	345644.0	504.76 ug/L		504.76 ppb	22:23:52
1	Mo 202.031†	5770.0	5001.2	505.48 ug/L		505.48 ppb	22:24:17
1	Ni 231.604†	16737.5	14473.4	518.97 ug/L		518.97 ppb	22:23:57
1	P 214.914†	1019.6	698.3	464.89 ug/L		464.89 ppb	22:24:17
1	Pb 220.353†	3318.9	2935.4	509.27 ug/L		509.27 ppb	22:24:17
1	S 181.975 Axial†	3090.9	2660.9	5173.3 ug/L		5173.3 ppb	22:24:17
1	Sb 206.836†	1330.8	1131.7	543.15 ug/L		543.15 ppb	22:24:17
1	Se 196.026†	620.8	561.6	521.61 ug/L		521.61 ppb	22:24:17
1	Si 251.611†	139347.8	120730.0	4981.5 ug/L		4981.5 ppb	22:23:57
1	Sn 189.927†	2330.7	2013.2	511.04 ug/L		511.04 ppb	22:24:17
1	Ti 334.940†	298459.5	260603.6	498.22 ug/L		498.22 ppb	22:23:57
1	Tl 190.801†	1323.2	1173.0	509.17 ug/L		509.17 ppb	22:24:17
1	U 409.014†	15719.8	15504.9	525.54 ug/L		525.54 ppb	22:23:57
1	V 292.402†	63789.1	56855.7	517.27 ug/L		517.27 ppb	22:23:57
1	Zn 213.857†	44413.6	37965.1	502.20 ug/L		502.20 ppb	22:23:57
1	SiO2†	137714.3	119301.1	10486 ug/L		10486 ppb	22:25:24
2	Sc Radial	4253.5	4253.5	112 %			22:23:19
2	Y RADIAL	4793.5	4793.5	117.4 %			22:22:59
2	Al 396.153Radial†	5131.3	4642.6	5500.4 ug/L		5500.4 ppb	22:22:59
2	Ca 317.933Radial†	2656.0	2343.4	5250.2 ug/L		5250.2 ppb	22:23:19
2	Fe 238.204 Radial†	440.6	383.9	5090.3 ug/L		5090.3 ppb	22:23:19
2	K 766.490 Radial†	28470.5	22876.3	5046.1 ug/L		5046.1 ppb	22:22:59
2	Mg 279.077 IEC†	127.7	110.9	5247.1 ug/L		5247.1 ppb	22:23:19
2	Na 589.592 Radial†	13725.3	12609.6	5070.7 ug/L		5070.7 ppb	22:22:59
2	Sr 421.552†	62883.5	55962.7	508.02 ug/L		508.02 ppb	22:22:59
2	Sc 361.383	857369.0	857369.0	117.00 %			22:24:23
2	Y 371.029	697895.9	697895.9	115.46 %			22:24:23
2	Ag 328.068†	101243.1	86381.7	494.56 ug/L		494.56 ppb	22:24:28
2	As 188.979†	947.3	832.0	509.40 ug/L		509.40 ppb	22:24:48
2	B 249.677†	19398.4	16915.0	506.86 ug/L		506.86 ppb	22:24:28
2	Ba 233.527†	56927.9	48654.5	511.22 ug/L		511.22 ppb	22:24:28
2	Be 313.107†	1265540.9	1085567.4	507.95 ug/L		507.95 ppb	22:24:23
2	Cd 226.502†	35653.9	30645.0	497.84 ug/L		497.84 ppb	22:24:28
2	Co 228.616†	20423.5	17502.9	503.02 ug/L		503.02 ppb	22:24:28
2	Cr 267.716†	38367.7	32698.4	501.66 ug/L		501.66 ppb	22:24:28
2	Cu 324.752†	173821.1	142850.4	509.91 ug/L		509.91 ppb	22:24:28
2	Mn 257.610†	401414.2	342668.9	500.43 ug/L		500.43 ppb	22:24:23
2	Mo 202.031†	5753.0	4900.4	495.30 ug/L		495.30 ppb	22:24:48
2	Ni 231.604†	16839.7	14310.5	513.13 ug/L		513.13 ppb	22:24:28

2	P 214.914†	1025.7	688.3	457.03 ug/L	457.03 ppb	22:24:48
2	Pb 220.353†	3320.5	2887.2	500.92 ug/L	500.92 ppb	22:24:48
2	S 181.975 Axial†	3089.1	2613.2	5080.5 ug/L	5080.5 ppb	22:24:48
2	Sb 206.836†	1338.9	1118.8	536.79 ug/L	536.79 ppb	22:24:48
2	Se 196.026†	611.8	544.7	506.62 ug/L	506.62 ppb	22:24:48
2	Si 251.611†	140740.8	119837.4	4944.7 ug/L	4944.7 ppb	22:24:28
2	Sn 189.927†	2327.7	1975.9	501.59 ug/L	501.59 ppb	22:24:48
2	Ti 334.940†	301532.0	258768.0	494.72 ug/L	494.72 ppb	22:24:28
2	Tl 190.801†	1327.0	1156.4	502.04 ug/L	502.04 ppb	22:24:48
2	U 409.014†	16331.7	15793.0	535.34 ug/L	535.34 ppb	22:24:28
2	V 292.402†	64208.2	56260.3	511.79 ug/L	511.79 ppb	22:24:28
2	Zn 213.857†	44623.0	37480.0	495.75 ug/L	495.75 ppb	22:24:28
2	SiO2†	142255.2	121123.5	10647 ug/L	10647 ppb	22:25:30
3	Sc Radial	4350.8	4350.8	115 %		22:23:45
3	Y RADIAL	4651.9	4651.9	113.9 %		22:23:24
3	Al 396.153Radial†	5020.2	4443.7	5263.6 ug/L	5263.6 ppb	22:23:24
3	Ca 317.933Radial†	2715.8	2342.6	5248.3 ug/L	5248.3 ppb	22:23:45
3	Fe 238.204 Radial†	453.4	386.3	5121.7 ug/L	5121.7 ppb	22:23:45
3	K 766.490 Radial†	28182.7	22058.8	4865.7 ug/L	4865.7 ppb	22:23:24
3	Mg 279.077 IEC†	126.7	107.5	5085.7 ug/L	5085.7 ppb	22:23:45
3	Na 589.592 Radial†	13430.2	12079.3	4857.5 ug/L	4857.5 ppb	22:23:24
3	Sr 421.552†	61587.3	53581.9	486.41 ug/L	486.41 ppb	22:23:24
3	Sc 361.383	847720.4	847720.4	115.68 %		22:24:54
3	Y 371.029	689626.0	689626.0	114.10 %		22:24:54
3	Ag 328.068†	99085.1	85501.2	489.56 ug/L	489.56 ppb	22:24:59
3	As 188.979†	941.4	836.1	511.85 ug/L	511.85 ppb	22:25:19
3	B 249.677†	18952.4	16718.2	500.93 ug/L	500.93 ppb	22:24:59
3	Ba 233.527†	55942.9	48356.8	508.09 ug/L	508.09 ppb	22:24:59
3	Be 313.107†	1264049.2	1096589.3	513.08 ug/L	513.08 ppb	22:24:54
3	Cd 226.502†	35244.5	30638.0	497.72 ug/L	497.72 ppb	22:24:59
3	Co 228.616†	20155.0	17469.5	502.07 ug/L	502.07 ppb	22:24:59
3	Cr 267.716†	37826.8	32604.0	500.21 ug/L	500.21 ppb	22:24:59
3	Cu 324.752†	169006.7	140379.6	501.10 ug/L	501.10 ppb	22:24:59
3	Mn 257.610†	400964.9	346185.5	505.57 ug/L	505.57 ppb	22:24:54
3	Mo 202.031†	5715.9	4924.3	497.72 ug/L	497.72 ppb	22:25:19
3	Ni 231.604†	16609.3	14275.2	511.87 ug/L	511.87 ppb	22:24:59
3	P 214.914†	1010.4	685.0	456.09 ug/L	456.09 ppb	22:25:19
3	Pb 220.353†	3298.8	2900.7	503.21 ug/L	503.21 ppb	22:25:19
3	S 181.975 Axial†	3073.6	2629.8	5112.9 ug/L	5112.9 ppb	22:25:19
3	Sb 206.836†	1335.0	1128.4	541.37 ug/L	541.37 ppb	22:25:19
3	Se 196.026†	618.7	556.5	517.30 ug/L	517.30 ppb	22:25:19
3	Si 251.611†	137685.0	118565.0	4892.1 ug/L	4892.1 ppb	22:24:59
3	Sn 189.927†	2324.3	1995.6	506.57 ug/L	506.57 ppb	22:25:19
3	Ti 334.940†	294996.0	256051.3	489.54 ug/L	489.54 ppb	22:24:59
3	Tl 190.801†	1321.9	1165.0	505.71 ug/L	505.71 ppb	22:25:19
3	U 409.014†	15747.6	15446.9	523.57 ug/L	523.57 ppb	22:24:59
3	V 292.402†	62970.9	55815.3	507.81 ug/L	507.81 ppb	22:24:59
3	Zn 213.857†	43911.0	37298.7	493.34 ug/L	493.34 ppb	22:24:59
3	SiO2†	140817.0	121264.2	10659 ug/L	10659 ppb	22:25:35

Mean Data: 1202056809|959089|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	849240.1	115.89	%	1.021			0.88%
Sc Radial	4292.3	113	%	1.4			1.20%
Y 371.029	690842.7	114.30	%	1.080			0.95%
Y RADIAL	4740.7	116.1	%	1.89			1.63%
Ag 328.068†	86328.2	494.26	ug/L	4.561	494.26 ppb	4.561	0.92%
Al 396.153Radial†	4534.6	5371.7	ug/L	119.71	5371.7 ppb	119.71	2.23%
As 188.979†	838.4	513.27	ug/L	4.731	513.27 ppb	4.731	0.92%
B 249.677†	16881.0	505.83	ug/L	4.472	505.83 ppb	4.472	0.88%
Ba 233.527†	48739.3	512.11	ug/L	4.527	512.11 ppb	4.527	0.88%
Be 313.107†	1091638.1	510.78	ug/L	2.608	510.78 ppb	2.608	0.51%
Ca 317.933Radial†	2334.1	5229.3	ug/L	34.56	5229.3 ppb	34.56	0.66%
Cd 226.502†	30806.7	500.47	ug/L	4.656	500.47 ppb	4.656	0.93%
Co 228.616†	17588.0	505.47	ug/L	5.094	505.47 ppb	5.094	1.01%
Cr 267.716†	32814.8	503.44	ug/L	4.399	503.44 ppb	4.399	0.87%
Cu 324.752†	142186.4	507.54	ug/L	5.646	507.54 ppb	5.646	1.11%
Fe 238.204 Radial†	382.5	5072.2	ug/L	60.52	5072.2 ppb	60.52	1.19%
K 766.490 Radial†	22397.6	4940.5	ug/L	94.09	4940.5 ppb	94.09	1.90%

Mg 279.077 IEC†	109.5	5180.0 ug/L	84.08	5180.0 ppb	84.08	1.62%
Mn 257.610†	344832.8	503.59 ug/L	2.766	503.59 ppb	2.766	0.55%
Mo 202.031†	4942.0	499.50 ug/L	5.316	499.50 ppb	5.316	1.06%
Na 589.592 Radial†	12359.2	4970.0 ug/L	107.10	4970.0 ppb	107.10	2.15%
Ni 231.604†	14353.1	514.66 ug/L	3.790	514.66 ppb	3.790	0.74%
P 214.914†	690.5	459.34 ug/L	4.836	459.34 ppb	4.836	1.05%
Pb 220.353†	2907.8	504.47 ug/L	4.315	504.47 ppb	4.315	0.86%
S 181.975 Axial†	2634.7	5122.2 ug/L	47.10	5122.2 ppb	47.10	0.92%
Sb 206.836†	1126.3	540.44 ug/L	3.283	540.44 ppb	3.283	0.61%
Se 196.026†	554.3	515.18 ug/L	7.717	515.18 ppb	7.717	1.50%
Si 251.611†	119710.8	4939.5 ug/L	44.91	4939.5 ppb	44.91	0.91%
Sn 189.927†	1994.9	506.40 ug/L	4.732	506.40 ppb	4.732	0.93%
Sr 421.552†	54718.3	496.73 ug/L	10.840	496.73 ppb	10.840	2.18%
Ti 334.940†	258474.3	494.16 ug/L	4.369	494.16 ppb	4.369	0.88%
Tl 190.801†	1164.8	505.64 ug/L	3.568	505.64 ppb	3.568	0.71%
U 409.014†	15581.6	528.15 ug/L	6.304	528.15 ppb	6.304	1.19%
V 292.402†	56310.4	512.29 ug/L	4.750	512.29 ppb	4.750	0.93%
Zn 213.857†	37581.3	497.10 ug/L	4.579	497.10 ppb	4.579	0.92%
SiO2†	120562.9	10598 ug/L	96.5	10598 ppb	96.5	0.91%



Sequence No.: 36

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/26/2010 23:02:27

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	4285.2	4285.2	113 %		23:04:39
1	Y RADIAL	4602.1	4602.1	112.7 %		23:04:19
1	Al 396.153Radial†	4790.2	4307.3	5100.8 ug/L	5100.8 ppb	23:04:19
1	Ca 317.933Radial†	2670.3	2338.6	5239.4 ug/L	5239.4 ppb	23:04:39
1	Fe 238.204 Radial†	443.4	383.5	5084.9 ug/L	5084.9 ppb	23:04:39
1	K 766.490 Radial†	27346.6	21695.3	4783.7 ug/L	4783.7 ppb	23:04:19
1	Mg 279.077 IEC†	126.3	108.9	5148.5 ug/L	5148.5 ppb	23:04:39
1	Na 589.592 Radial†	26012.9	23381.2	9402.3 ug/L	9402.3 ppb	23:04:19
1	Sr 421.552†	59277.5	52360.9	475.33 ug/L	475.33 ppb	23:04:19
1	Sc 361.383	834302.6	834302.6	113.85 %		23:05:36
1	Y 371.029	679064.9	679064.9	112.35 %		23:05:36
1	Ag 328.068†	100861.0	88438.5	506.27 ug/L	506.27 ppb	23:05:41
1	As 188.979†	927.5	837.0	512.39 ug/L	512.39 ppb	23:06:01
1	B 249.677†	18470.8	16558.7	496.11 ug/L	496.11 ppb	23:05:41
1	Ba 233.527†	54485.1	47854.1	502.82 ug/L	502.82 ppb	23:05:41
1	Be 313.107†	1232739.8	1086662.3	508.46 ug/L	508.46 ppb	23:05:36
1	Cd 226.502†	35170.8	31063.3	504.63 ug/L	504.63 ppb	23:05:41
1	Co 228.616†	20238.7	17823.3	512.24 ug/L	512.24 ppb	23:05:41
1	Cr 267.716†	37405.8	32760.1	502.61 ug/L	502.61 ppb	23:05:41
1	Cu 324.752†	164403.0	138685.6	495.06 ug/L	495.06 ppb	23:05:41
1	Mn 257.610†	386284.2	338865.2	494.88 ug/L	494.88 ppb	23:05:41
1	Mo 202.031†	5725.1	5011.8	506.56 ug/L	506.56 ppb	23:06:01
1	Ni 231.604†	16309.1	14242.5	510.69 ug/L	510.69 ppb	23:05:41
1	P 214.914†	3770.0	3122.9	2427.9 ug/L	2427.9 ppb	23:06:01
1	Pb 220.353†	3265.9	2917.7	506.15 ug/L	506.15 ppb	23:06:01
1	S 181.975 Axial†	636.3	531.7	1033.1 ug/L	1033.1 ppb	23:06:01
1	Sb 206.836†	1270.9	1090.6	524.05 ug/L	524.05 ppb	23:06:01
1	Se 196.026†	615.7	562.6	522.62 ug/L	522.62 ppb	23:06:01
1	Si 251.611†	70299.2	61291.3	2525.9 ug/L	2525.9 ppb	23:05:41
1	Sn 189.927†	2291.3	1998.9	507.41 ug/L	507.41 ppb	23:06:01
1	Ti 334.940†	293483.1	258823.7	494.84 ug/L	494.84 ppb	23:05:41
1	Tl 190.801†	1324.9	1186.0	514.71 ug/L	514.71 ppb	23:06:01
1	U 409.014†	14845.1	14873.2	504.06 ug/L	504.06 ppb	23:05:41
1	V 292.402†	61987.3	55826.8	508.00 ug/L	508.00 ppb	23:05:41
1	Zn 213.857†	43848.1	37854.0	500.78 ug/L	500.78 ppb	23:05:41
1	SiO2†	71398.5	62248.6	5464.9 ug/L	5464.9 ppb	23:07:08
2	Sc Radial	4311.7	4311.7	114 %		23:05:04
2	Y RADIAL	4723.0	4723.0	115.7 %		23:04:44
2	Al 396.153Radial†	4936.3	4409.6	5222.4 ug/L	5222.4 ppb	23:04:44
2	Ca 317.933Radial†	2683.5	2335.6	5232.7 ug/L	5232.7 ppb	23:05:04
2	Fe 238.204 Radial†	442.8	380.5	5045.9 ug/L	5045.9 ppb	23:05:04
2	K 766.490 Radial†	28017.4	22135.9	4880.9 ug/L	4880.9 ppb	23:04:44
2	Mg 279.077 IEC†	128.2	109.8	5192.5 ug/L	5192.5 ppb	23:05:04
2	Na 589.592 Radial†	26668.1	23815.3	9576.8 ug/L	9576.8 ppb	23:04:44
2	Sr 421.552†	61110.5	53648.7	487.02 ug/L	487.02 ppb	23:04:44
2	Sc 361.383	828430.8	828430.8	113.05 %		23:06:07
2	Y 371.029	674633.3	674633.3	111.62 %		23:06:07
2	Ag 328.068†	100382.4	88643.1	507.43 ug/L	507.43 ppb	23:06:12
2	As 188.979†	943.1	856.5	524.28 ug/L	524.28 ppb	23:06:32
2	B 249.677†	18382.9	16595.9	497.24 ug/L	497.24 ppb	23:06:12
2	Ba 233.527†	54104.0	47856.3	502.84 ug/L	502.84 ppb	23:06:12
2	Be 313.107†	1226341.5	1088677.0	509.41 ug/L	509.41 ppb	23:06:07
2	Cd 226.502†	34830.3	30981.0	503.29 ug/L	503.29 ppb	23:06:12
2	Co 228.616†	20074.7	17804.2	511.70 ug/L	511.70 ppb	23:06:12
2	Cr 267.716†	37188.9	32801.2	503.23 ug/L	503.23 ppb	23:06:12
2	Cu 324.752†	164040.2	139388.2	497.56 ug/L	497.56 ppb	23:06:12
2	Mn 257.610†	384013.2	339261.1	495.45 ug/L	495.45 ppb	23:06:12
2	Mo 202.031†	5713.7	5037.4	509.13 ug/L	509.13 ppb	23:06:32
2	Ni 231.604†	16212.8	14258.8	511.27 ug/L	511.27 ppb	23:06:12

2	P 214.914†	3756.5	3134.4	2436.8 ug/L	2436.8 ppb	23:06:32
2	Pb 220.353†	3232.3	2908.3	504.56 ug/L	504.56 ppb	23:06:32
2	S 181.975 Axial†	626.9	527.4	1024.6 ug/L	1024.6 ppb	23:06:32
2	Sb 206.836†	1280.1	1106.7	531.54 ug/L	531.54 ppb	23:06:32
2	Se 196.026†	614.9	565.7	525.36 ug/L	525.36 ppb	23:06:32
2	Si 251.611†	69801.4	61288.6	2525.7 ug/L	2525.7 ppb	23:06:12
2	Sn 189.927†	2277.5	2001.0	507.95 ug/L	507.95 ppb	23:06:32
2	Ti 334.940†	292224.0	259537.1	496.20 ug/L	496.20 ppb	23:06:12
2	Tl 190.801†	1317.0	1187.2	515.26 ug/L	515.26 ppb	23:06:32
2	U 409.014†	14677.0	14816.8	502.14 ug/L	502.14 ppb	23:06:12
2	V 292.402†	61471.5	55756.5	507.40 ug/L	507.40 ppb	23:06:12
2	Zn 213.857†	43626.4	37930.8	501.80 ug/L	501.80 ppb	23:06:12
2	SiO2†	71826.3	63071.5	5537.3 ug/L	5537.3 ppb	23:07:13
3	Sc Radial	4257.9	4257.9	112 %		23:05:29
3	Y RADIAL	4842.5	4842.5	118.6 %		23:05:09
3	Al 396.153Radial†	5038.4	4555.2	5395.7 ug/L	5395.7 ppb	23:05:09
3	Ca 317.933Radial†	2648.3	2334.1	5229.3 ug/L	5229.3 ppb	23:05:29
3	Fe 238.204 Radial†	440.9	383.8	5089.1 ug/L	5089.1 ppb	23:05:29
3	K 766.490 Radial†	28419.6	22804.7	5028.4 ug/L	5028.4 ppb	23:05:09
3	Mg 279.077 IEC†	126.3	109.5	5180.5 ug/L	5180.5 ppb	23:05:29
3	Na 589.592 Radial†	27409.7	24771.1	9961.2 ug/L	9961.2 ppb	23:05:09
3	Sr 421.552†	62661.4	55706.8	505.70 ug/L	505.70 ppb	23:05:09
3	Sc 361.383	844823.9	844823.9	115.29 %		23:06:38
3	Y 371.029	687249.5	687249.5	113.70 %		23:06:38
3	Ag 328.068†	102513.2	88768.4	508.16 ug/L	508.16 ppb	23:06:43
3	As 188.979†	954.5	850.2	520.46 ug/L	520.46 ppb	23:07:03
3	B 249.677†	18906.3	16734.4	501.39 ug/L	501.39 ppb	23:06:43
3	Ba 233.527†	55342.4	48001.8	504.37 ug/L	504.37 ppb	23:06:43
3	Be 313.107†	1251781.0	1089694.0	509.88 ug/L	509.88 ppb	23:06:38
3	Cd 226.502†	35606.2	31056.2	504.51 ug/L	504.51 ppb	23:06:43
3	Co 228.616†	20552.7	17874.3	513.71 ug/L	513.71 ppb	23:06:43
3	Cr 267.716†	37938.8	32813.3	503.42 ug/L	503.42 ppb	23:06:43
3	Cu 324.752†	167503.9	139577.0	498.24 ug/L	498.24 ppb	23:06:43
3	Mn 257.610†	392536.1	340062.7	496.63 ug/L	496.63 ppb	23:06:43
3	Mo 202.031†	5823.6	5034.6	508.86 ug/L	508.86 ppb	23:07:03
3	Ni 231.604†	16517.7	14245.0	510.78 ug/L	510.78 ppb	23:06:43
3	P 214.914†	3817.8	3123.1	2427.5 ug/L	2427.5 ppb	23:07:03
3	Pb 220.353†	3302.3	2913.5	505.50 ug/L	505.50 ppb	23:07:03
3	S 181.975 Axial†	644.9	532.2	1034.0 ug/L	1034.0 ppb	23:07:03
3	Sb 206.836†	1278.9	1083.7	520.84 ug/L	520.84 ppb	23:07:03
3	Se 196.026†	627.6	566.1	525.93 ug/L	525.93 ppb	23:07:03
3	Si 251.611†	71526.0	61586.4	2538.1 ug/L	2538.1 ppb	23:06:43
3	Sn 189.927†	2316.6	1995.8	506.61 ug/L	506.61 ppb	23:07:03
3	Ti 334.940†	298851.2	260269.7	497.60 ug/L	497.60 ppb	23:06:43
3	Tl 190.801†	1326.5	1172.8	509.07 ug/L	509.07 ppb	23:07:03
3	U 409.014†	15196.0	15015.1	508.88 ug/L	508.88 ppb	23:06:43
3	V 292.402†	62988.2	56017.0	509.74 ug/L	509.74 ppb	23:06:43
3	Zn 213.857†	44417.8	37868.4	500.97 ug/L	500.97 ppb	23:06:43
3	SiO2†	72224.0	62183.6	5459.1 ug/L	5459.1 ppb	23:07:19

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	835852.5	114.06 %	1.133			0.99%
Sc Radial	4284.9	113 %	0.7			0.63%
Y 371.029	680315.9	112.56 %	1.059			0.94%
Y RADIAL	4722.5	115.7 %	2.94			2.55%
Ag 328.068†	88616.7	507.29 ug/L	0.949	507.29 ppb	0.949	0.19%
QC value within limits for Ag 328.068 Recovery = 101.46%						
Al 396.153Radial†	4424.0	5239.7 ug/L	148.20	5239.7 ppb	148.20	2.83%
QC value within limits for Al 396.153Radial Recovery = 104.79%						
As 188.979†	847.9	519.04 ug/L	6.071	519.04 ppb	6.071	1.17%
QC value within limits for As 188.979 Recovery = 103.81%						
B 249.677†	16629.7	498.24 ug/L	2.782	498.24 ppb	2.782	0.56%
QC value within limits for B 249.677 Recovery = 99.65%						
Ba 233.527†	47904.1	503.34 ug/L	0.890	503.34 ppb	0.890	0.18%
QC value within limits for Ba 233.527 Recovery = 100.67%						
Be 313.107†	1088344.4	509.25 ug/L	0.723	509.25 ppb	0.723	0.14%
QC value within limits for Be 313.107 Recovery = 101.85%						
Ca 317.933Radial†	2336.1	5233.8 ug/L	5.12	5233.8 ppb	5.12	0.10%

QC value within limits for Ca 317.933 Radial Recovery = 104.68%

Cd 226.502†	31033.5	504.14 ug/L	0.738	504.14 ppb	0.738	0.15%
QC value within limits for Cd 226.502 Recovery = 100.83%						
Co 228.616†	17833.9	512.55 ug/L	1.039	512.55 ppb	1.039	0.20%
QC value within limits for Co 228.616 Recovery = 102.51%						
Cr 267.716†	32791.5	503.09 ug/L	0.426	503.09 ppb	0.426	0.08%
QC value within limits for Cr 267.716 Recovery = 100.62%						
Cu 324.752†	139216.9	496.95 ug/L	1.676	496.95 ppb	1.676	0.34%
QC value within limits for Cu 324.752 Recovery = 99.39%						
Fe 238.204 Radial†	382.6	5073.3 ug/L	23.81	5073.3 ppb	23.81	0.47%
QC value within limits for Fe 238.204 Radial Recovery = 101.47%						
K 766.490 Radial†	22211.9	4897.7 ug/L	123.21	4897.7 ppb	123.21	2.52%
QC value within limits for K 766.490 Radial Recovery = 97.95%						
Mg 279.077 IEC†	109.4	5173.8 ug/L	22.74	5173.8 ppb	22.74	0.44%
QC value within limits for Mg 279.077 IEC Recovery = 103.48%						
Mn 257.610†	339396.3	495.65 ug/L	0.891	495.65 ppb	0.891	0.18%
QC value within limits for Mn 257.610 Recovery = 99.13%						
Mo 202.031†	5028.0	508.18 ug/L	1.416	508.18 ppb	1.416	0.28%
QC value within limits for Mo 202.031 Recovery = 101.64%						
Na 589.592 Radial†	23989.2	9646.8 ug/L	285.95	9646.8 ppb	285.95	2.96%
QC value within limits for Na 589.592 Radial Recovery = 96.47%						
Ni 231.604†	14248.7	510.91 ug/L	0.315	510.91 ppb	0.315	0.06%
QC value within limits for Ni 231.604 Recovery = 102.18%						
P 214.914†	3126.8	2430.7 ug/L	5.24	2430.7 ppb	5.24	0.22%
QC value within limits for P 214.914 Recovery = 97.23%						
Pb 220.353†	2913.2	505.40 ug/L	0.801	505.40 ppb	0.801	0.16%
QC value within limits for Pb 220.353 Recovery = 101.08%						
S 181.975 Axial†	530.5	1030.5 ug/L	5.18	1030.5 ppb	5.18	0.50%
QC value within limits for S 181.975 Axial Recovery = 103.05%						
Sb 206.836†	1093.7	525.48 ug/L	5.491	525.48 ppb	5.491	1.04%
QC value within limits for Sb 206.836 Recovery = 105.10%						
Se 196.026†	564.8	524.64 ug/L	1.771	524.64 ppb	1.771	0.34%
QC value within limits for Se 196.026 Recovery = 104.93%						
Si 251.611†	61388.7	2529.9 ug/L	7.06	2529.9 ppb	7.06	0.28%
QC value within limits for Si 251.611 Recovery = 101.20%						
Sn 189.927†	1998.5	507.32 ug/L	0.670	507.32 ppb	0.670	0.13%
QC value within limits for Sn 189.927 Recovery = 101.46%						
Sr 421.552†	53905.5	489.35 ug/L	15.322	489.35 ppb	15.322	3.13%
QC value within limits for Sr 421.552 Recovery = 97.87%						
Ti 334.940†	259543.5	496.22 ug/L	1.379	496.22 ppb	1.379	0.28%
QC value within limits for Ti 334.940 Recovery = 99.24%						
Tl 190.801†	1182.0	513.01 ug/L	3.426	513.01 ppb	3.426	0.67%
QC value within limits for Tl 190.801 Recovery = 102.60%						
U 409.014†	14901.7	505.03 ug/L	3.471	505.03 ppb	3.471	0.69%
QC value within limits for U 409.014 Recovery = 101.01%						
V 292.402†	55866.8	508.38 ug/L	1.216	508.38 ppb	1.216	0.24%
QC value within limits for V 292.402 Recovery = 101.68%						
Zn 213.857†	37884.4	501.18 ug/L	0.546	501.18 ppb	0.546	0.11%
QC value within limits for Zn 213.857 Recovery = 100.24%						
SiO2†	62501.2	5487.1 ug/L	43.54	5487.1 ppb	43.54	0.79%
QC value within limits for SiO2 Recovery = 102.61%						

All analyte(s) passed QC.

Sequence No.: 37

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/26/2010 23:09:28

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	4155.5	4155.5	110 %		23:11:40
1	Y RADIAL	4622.6	4622.6	113.2 %		23:11:20
1	Al 396.153Radial†	-62.4	16.0	19.055 ug/L	19.055 ppb	23:11:40
1	Ca 317.933Radial†	29.8	5.2	11.733 ug/L	11.733 ppb	23:11:40
1	Fe 238.204 Radial†	6.5	-2.5	-33.139 ug/L	-33.139 ppb	23:11:40
1	K 766.490 Radial†	2476.7	-220.9	-48.748 ug/L	-48.748 ppb	23:11:20
1	Mg 279.077 IEC†	2.1	-0.9	-43.570 ug/L	-43.570 ppb	23:11:40
1	Na 589.592 Radial†	-624.1	-182.6	-73.422 ug/L	-73.422 ppb	23:11:20
1	Sr 421.552†	45.8	2.5	0.0223 ug/L	0.0223 ppb	23:11:20
1	Sc 361.383	821266.7	821266.7	112.07 %		23:12:37
1	Y 371.029	674762.1	674762.1	111.64 %		23:12:37
1	Ag 328.068†	166.3	-3.8	-0.0310 ug/L	-0.0310 ppb	23:12:37
1	As 188.979†	-23.3	1.5	0.9258 ug/L	0.9258 ppb	23:12:57
1	B 249.677†	-169.1	184.1	5.5459 ug/L	5.5459 ppb	23:12:57
1	Ba 233.527†	14.0	9.9	0.1052 ug/L	0.1052 ppb	23:12:57
1	Be 313.107†	-4097.9	235.1	0.1104 ug/L	0.1104 ppb	23:12:37
1	Cd 226.502†	-168.7	20.6	0.3393 ug/L	0.3393 ppb	23:12:57
1	Co 228.616†	-37.3	13.5	0.3854 ug/L	0.3854 ppb	23:12:57
1	Cr 267.716†	107.4	0.8	0.0082 ug/L	0.0082 ppb	23:12:57
1	Cu 324.752†	5952.5	-405.6	-1.4522 ug/L	-1.4522 ppb	23:12:37
1	Mn 257.610†	458.5	-16.4	-0.0255 ug/L	-0.0255 ppb	23:12:57
1	Mo 202.031†	12.9	-5.2	-0.5306 ug/L	-0.5306 ppb	23:12:57
1	Ni 231.604†	82.3	-9.1	-0.3257 ug/L	-0.3257 ppb	23:12:57
1	P 214.914†	187.3	-21.3	-16.896 ug/L	-16.896 ppb	23:12:57
1	Pb 220.353†	-48.8	5.5	0.9602 ug/L	0.9602 ppb	23:12:57
1	S 181.975 Axial†	23.4	-6.3	-12.158 ug/L	-12.158 ppb	23:12:57
1	Sb 206.836†	27.1	-1.4	-0.6771 ug/L	-0.6771 ppb	23:12:57
1	Se 196.026†	-24.1	0.3	0.1456 ug/L	0.1456 ppb	23:12:57
1	Si 251.611†	465.5	-40.4	-1.6611 ug/L	-1.6611 ppb	23:12:57
1	Sn 189.927†	16.2	0.8	0.2171 ug/L	0.2171 ppb	23:12:57
1	Ti 334.940†	-1019.5	134.6	0.2606 ug/L	0.2606 ppb	23:12:37
1	Tl 190.801†	-19.3	5.0	2.1751 ug/L	2.1751 ppb	23:12:57
1	U 409.014†	-1910.8	129.0	4.3912 ug/L	4.3912 ppb	23:12:37
1	V 292.402†	-1402.1	129.5	1.1672 ug/L	1.1672 ppb	23:12:37
1	Zn 213.857†	611.4	-114.3	-1.5173 ug/L	-1.5173 ppb	23:12:57
1	SiO2†	488.6	-28.0	-2.4537 ug/L	-2.4537 ppb	23:14:08
2	Sc Radial	4204.2	4204.2	111 %		23:12:05
2	Y RADIAL	4571.1	4571.1	112.0 %		23:11:45
2	Al 396.153Radial†	-76.0	4.4	5.2640 ug/L	5.2640 ppb	23:12:05
2	Ca 317.933Radial†	22.7	-1.5	-3.3849 ug/L	-3.3849 ppb	23:12:05
2	Fe 238.204 Radial†	8.6	-0.7	-9.5198 ug/L	-9.5198 ppb	23:12:05
2	K 766.490 Radial†	2515.5	-212.1	-46.804 ug/L	-46.804 ppb	23:11:45
2	Mg 279.077 IEC†	1.2	-1.7	-81.106 ug/L	-81.106 ppb	23:12:05
2	Na 589.592 Radial†	-563.0	-120.9	-48.622 ug/L	-48.622 ppb	23:11:45
2	Sr 421.552†	69.5	23.4	0.2122 ug/L	0.2122 ppb	23:11:45
2	Sc 361.383	804056.6	804056.6	109.72 %		23:13:02
2	Y 371.029	661231.6	661231.6	109.40 %		23:13:02
2	Ag 328.068†	140.9	-23.8	-0.1362 ug/L	-0.1362 ppb	23:13:02
2	As 188.979†	-17.0	6.8	4.1327 ug/L	4.1327 ppb	23:13:22
2	B 249.677†	-159.8	189.4	5.7008 ug/L	5.7008 ppb	23:13:22
2	Ba 233.527†	16.6	12.6	0.1336 ug/L	0.1336 ppb	23:13:22
2	Be 313.107†	-4082.8	170.6	0.0801 ug/L	0.0801 ppb	23:13:02
2	Cd 226.502†	-162.2	23.4	0.3806 ug/L	0.3806 ppb	23:13:22
2	Co 228.616†	-50.5	0.7	0.0170 ug/L	0.0170 ppb	23:13:22
2	Cr 267.716†	101.8	-2.3	-0.0356 ug/L	-0.0356 ppb	23:13:22
2	Cu 324.752†	5912.9	-328.0	-1.1724 ug/L	-1.1724 ppb	23:13:02
2	Mn 257.610†	458.5	-7.7	-0.0088 ug/L	-0.0088 ppb	23:13:22
2	Mo 202.031†	7.9	-9.5	-0.9619 ug/L	-0.9619 ppb	23:13:22
2	Ni 231.604†	82.9	-7.0	-0.2513 ug/L	-0.2513 ppb	23:13:22

2	P 214.914†	187.5	-17.5	-13.944 ug/L	-13.944 ppb	23:13:22
2	Pb 220.353†	-63.4	-8.7	-1.5002 ug/L	-1.5002 ppb	23:13:22
2	S 181.975 Axial†	27.6	-2.0	-3.8484 ug/L	-3.8484 ppb	23:13:22
2	Sb 206.836†	17.8	-9.4	-4.4080 ug/L	-4.4080 ppb	23:13:22
2	Se 196.026†	-20.1	3.4	3.0155 ug/L	3.0155 ppb	23:13:22
2	Si 251.611†	487.2	-11.7	-0.4715 ug/L	-0.4715 ppb	23:13:22
2	Sn 189.927†	7.6	-6.7	-1.6984 ug/L	-1.6984 ppb	23:13:22
2	Ti 334.940†	-1039.8	96.6	0.1902 ug/L	0.1902 ppb	23:13:02
2	Tl 190.801†	-29.6	-4.7	-2.0239 ug/L	-2.0239 ppb	23:13:22
2	U 409.014†	-1955.2	52.1	1.7725 ug/L	1.7725 ppb	23:13:02
2	V 292.402†	-1408.0	97.4	0.8636 ug/L	0.8636 ppb	23:13:02
2	Zn 213.857†	591.6	-120.6	-1.6059 ug/L	-1.6059 ppb	23:13:22
2	SiO2†	500.3	-8.0	-0.6821 ug/L	-0.6821 ppb	23:14:28
3	Sc Radial	4112.8	4112.8	109 %		23:12:30
3	Y RADIAL	4492.2	4492.2	110.0 %		23:12:10
3	Al 396.153Radial†	-69.1	9.3	11.039 ug/L	11.039 ppb	23:12:30
3	Ca 317.933Radial†	25.2	1.2	2.7892 ug/L	2.7892 ppb	23:12:30
3	Fe 238.204 Radial†	8.7	-0.5	-6.3075 ug/L	-6.3075 ppb	23:12:30
3	K 766.490 Radial†	2524.6	-153.3	-33.811 ug/L	-33.811 ppb	23:12:10
3	Mg 279.077 IEC†	-0.2	-3.0	-142.38 ug/L	-142.38 ppb	23:12:30
3	Na 589.592 Radial†	-678.3	-238.5	-95.891 ug/L	-95.891 ppb	23:12:10
3	Sr 421.552†	37.8	-4.4	-0.0403 ug/L	-0.0403 ppb	23:12:10
3	Sc 361.383	817977.2	817977.2	111.62 %		23:13:27
3	Y 371.029	672221.2	672221.2	111.22 %		23:13:27
3	Ag 328.068†	114.6	-49.5	-0.2848 ug/L	-0.2848 ppb	23:13:27
3	As 188.979†	-24.3	0.6	0.3388 ug/L	0.3388 ppb	23:13:47
3	B 249.677†	-163.0	189.0	5.6873 ug/L	5.6873 ppb	23:13:47
3	Ba 233.527†	8.8	5.3	0.0582 ug/L	0.0582 ppb	23:13:47
3	Be 313.107†	-4111.9	207.9	0.0975 ug/L	0.0975 ppb	23:13:27
3	Cd 226.502†	-157.7	29.9	0.4876 ug/L	0.4876 ppb	23:13:47
3	Co 228.616†	-40.3	10.6	0.3023 ug/L	0.3023 ppb	23:13:47
3	Cr 267.716†	114.2	7.2	0.1091 ug/L	0.1091 ppb	23:13:47
3	Cu 324.752†	5922.8	-410.8	-1.4706 ug/L	-1.4706 ppb	23:13:27
3	Mn 257.610†	421.0	-48.4	-0.0654 ug/L	-0.0654 ppb	23:13:47
3	Mo 202.031†	13.2	-5.0	-0.5016 ug/L	-0.5016 ppb	23:13:47
3	Ni 231.604†	86.3	-5.3	-0.1890 ug/L	-0.1890 ppb	23:13:47
3	P 214.914†	189.6	-18.6	-14.725 ug/L	-14.725 ppb	23:13:47
3	Pb 220.353†	-62.0	-6.5	-1.1169 ug/L	-1.1169 ppb	23:13:47
3	S 181.975 Axial†	32.8	2.3	4.4821 ug/L	4.4821 ppb	23:13:47
3	Sb 206.836†	29.6	0.9	0.3818 ug/L	0.3818 ppb	23:13:47
3	Se 196.026†	-26.6	-2.1	-1.9196 ug/L	-1.9196 ppb	23:13:47
3	Si 251.611†	489.8	-16.9	-0.6926 ug/L	-0.6926 ppb	23:13:47
3	Sn 189.927†	10.9	-3.8	-0.9724 ug/L	-0.9724 ppb	23:13:47
3	Ti 334.940†	-1038.8	113.7	0.2264 ug/L	0.2264 ppb	23:13:27
3	Tl 190.801†	-21.1	3.4	1.4651 ug/L	1.4651 ppb	23:13:47
3	U 409.014†	-1827.9	196.4	6.6790 ug/L	6.6790 ppb	23:13:27
3	V 292.402†	-1407.4	119.8	1.0789 ug/L	1.0789 ppb	23:13:27
3	Zn 213.857†	611.3	-112.2	-1.4934 ug/L	-1.4934 ppb	23:13:47
3	SiO2†	484.1	-30.3	-2.6507 ug/L	-2.6507 ppb	23:14:48

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814433.5	111.14 %	1.247			1.12%
Sc Radial	4157.5	110 %	1.2			1.10%
Y 371.029	669405.0	110.75 %	1.190			1.07%
Y RADIAL	4562.0	111.7 %	1.61			1.44%
Ag 328.068†	-25.7	-0.1506 ug/L	0.12751	-0.1506 ppb	0.12751	84.65%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.9	11.786 ug/L	6.9260	11.786 ppb	6.9260	58.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.0	1.7991 ug/L	2.04215	1.7991 ppb	2.04215	113.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	187.5	5.6447 ug/L	0.08578	5.6447 ppb	0.08578	1.52%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.3	0.0990 ug/L	0.03808	0.0990 ppb	0.03808	38.46%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	204.5	0.0960 ug/L	0.01521	0.0960 ppb	0.01521	15.84%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.7	3.7123 ug/L	7.60105	3.7123 ppb	7.60105	204.75%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	24.6 0.4025 ug/L	0.07655 0.4025 ppb	0.07655 19.02%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	8.2 0.2349 ug/L	0.19322 0.2349 ppb	0.19322 82.27%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	1.9 0.0272 ug/L	0.07420 0.0272 ppb	0.07420 272.35%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-381.5 -1.3651 ug/L	0.16712 -1.3651 ppb	0.16712 12.24%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.2 -16.322 ug/L	14.6523 -16.322 ppb	14.6523 89.77%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-195.4 -43.121 ug/L	8.1213 -43.121 ppb	8.1213 18.83%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-1.9 -89.019 ug/L	49.8777 -89.019 ppb	49.8777 56.03%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	-24.2 -0.0332 ug/L	0.02910 -0.0332 ppb	0.02910 87.55%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	-6.6 -0.6647 ug/L	0.25776 -0.6647 ppb	0.25776 38.78%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-180.7 -72.645 ug/L	23.6443 -72.645 ppb	23.6443 32.55%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-7.1 -0.2553 ug/L	0.06848 -0.2553 ppb	0.06848 26.82%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-19.1 -15.188 ug/L	1.5299 -15.188 ppb	1.5299 10.07%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-3.2 -0.5523 ug/L	1.32381 -0.5523 ppb	1.32381 239.70%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-2.0 -3.8414 ug/L	8.32002 -3.8414 ppb	8.32002 216.59%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-3.3 -1.5677 ug/L	2.51605 -1.5677 ppb	2.51605 160.49%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	0.5 0.4138 ug/L	2.47848 0.4138 ppb	2.47848 598.90%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	-23.0 -0.9417 ug/L	0.63268 -0.9417 ppb	0.63268 67.18%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-3.2 -0.8179 ug/L	0.96705 -0.8179 ppb	0.96705 118.23%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	7.1 0.0647 ug/L	0.13147 0.0647 ppb	0.13147 203.16%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	115.0 0.2257 ug/L	0.03520 0.2257 ppb	0.03520 15.59%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	1.3 0.5387 ug/L	2.24756 0.5387 ppb	2.24756 417.18%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	125.8 4.2809 ug/L	2.45512 4.2809 ppb	2.45512 57.35%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	115.5 1.0366 ug/L	0.15615 1.0366 ppb	0.15615 15.06%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	-115.7 -1.5389 ug/L	0.05924 -1.5389 ppb	0.05924 3.85%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	-22.1 -1.9288 ug/L	1.08420 -1.9288 ppb	1.08420 56.21%
QC value within limits for SiO2	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: 248046001|959089|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 3/26/2010 23:30:31  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 248046001|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4259.0	4259.0	112 %		23:32:44
1	Y RADIAL	4748.7	4748.7	116.3 %		23:32:24
1	Al 396.153Radial†	-42.9	34.7	41.278 ug/L	41.278 ppb	23:32:44
1	Ca 317.933Radial†	65.9	36.7	82.172 ug/L	82.172 ppb	23:32:44
1	Fe 238.204 Radial†	11.5	1.8	23.368 ug/L	23.368 ppb	23:32:44
1	K 766.490 Radial†	4135.4	1199.6	264.75 ug/L	264.75 ppb	23:32:24
1	Mg 279.077 IEC†	2.7	-0.4	-19.361 ug/L	-19.361 ppb	23:32:44
1	Na 589.592 Radial†	70.9	449.4	180.71 ug/L	180.71 ppb	23:32:24
1	Sr 421.552†	79.1	31.1	0.2819 ug/L	0.2819 ppb	23:32:24
1	Sc 361.383	848914.1	848914.1	115.84 %		23:33:41
1	Y 371.029	696385.6	696385.6	115.21 %		23:33:41
1	Ag 328.068†	141.0	-30.4	-0.1679 ug/L	-0.1679 ppb	23:33:41
1	As 188.979†	-21.3	3.9	2.3633 ug/L	2.3633 ppb	23:34:01
1	B 249.677†	754.4	986.2	29.679 ug/L	29.679 ppb	23:33:41
1	Ba 233.527†	74.6	61.8	0.6527 ug/L	0.6527 ppb	23:34:01
1	Be 313.107†	-3884.2	538.7	0.2541 ug/L	0.2541 ppb	23:33:41
1	Cd 226.502†	-164.8	28.9	0.4688 ug/L	0.4688 ppb	23:34:01
1	Co 228.616†	-30.0	20.8	0.5945 ug/L	0.5945 ppb	23:34:01
1	Cr 267.716†	161.7	44.5	0.6828 ug/L	0.6828 ppb	23:34:01
1	Cu 324.752†	8515.7	1634.0	5.8288 ug/L	5.8288 ppb	23:33:41
1	Mn 257.610†	1012.1	448.1	0.6572 ug/L	0.6572 ppb	23:34:01
1	Mo 202.031†	13.1	-5.4	-0.5429 ug/L	-0.5429 ppb	23:34:01
1	Ni 231.604†	104.1	7.4	0.2634 ug/L	0.2634 ppb	23:34:01
1	P 214.914†	203.7	-12.7	-11.409 ug/L	-11.409 ppb	23:34:01
1	Pb 220.353†	-51.7	4.5	0.7744 ug/L	0.7744 ppb	23:34:01
1	S 181.975 Axial†	63.1	27.3	53.154 ug/L	53.154 ppb	23:34:01
1	Sb 206.836†	21.8	-6.8	-3.1622 ug/L	-3.1622 ppb	23:34:01
1	Se 196.026†	-23.1	1.8	1.6962 ug/L	1.6962 ppb	23:34:01
1	Si 251.611†	62379.2	53391.7	2205.8 ug/L	2205.8 ppb	23:33:41
1	Sn 189.927†	10.1	-4.9	-1.2287 ug/L	-1.2287 ppb	23:34:01
1	Ti 334.940†	-528.9	587.8	1.1321 ug/L	1.1321 ppb	23:33:41
1	Tl 190.801†	-22.2	3.1	1.3603 ug/L	1.3603 ppb	23:34:01
1	U 409.014†	-1788.6	290.1	9.8594 ug/L	9.8594 ppb	23:33:41
1	V 292.402†	-1375.1	193.5	1.7437 ug/L	1.7437 ppb	23:33:41
1	Zn 213.857†	1296.9	459.7	6.1247 ug/L	6.1247 ppb	23:34:01
1	SiO2†	60144.2	51454.1	4528.6 ug/L	4528.6 ppb	23:34:57
2	Sc Radial	4286.5	4286.5	113 %		23:33:09
2	Y RADIAL	4690.7	4690.7	114.9 %		23:32:49
2	Al 396.153Radial†	-63.2	17.0	20.187 ug/L	20.187 ppb	23:33:09
2	Ca 317.933Radial†	69.4	39.4	88.291 ug/L	88.291 ppb	23:33:09
2	Fe 238.204 Radial†	11.0	1.3	17.157 ug/L	17.157 ppb	23:33:09
2	K 766.490 Radial†	4131.2	1172.3	258.72 ug/L	258.72 ppb	23:32:49
2	Mg 279.077 IEC†	3.8	0.6	26.878 ug/L	26.878 ppb	23:33:09
2	Na 589.592 Radial†	-19.1	369.4	148.55 ug/L	148.55 ppb	23:32:49
2	Sr 421.552†	54.3	8.7	0.0787 ug/L	0.0787 ppb	23:32:49
2	Sc 361.383	843371.8	843371.8	115.09 %		23:34:06
2	Y 371.029	693023.9	693023.9	114.66 %		23:34:06
2	Ag 328.068†	224.5	42.9	0.2475 ug/L	0.2475 ppb	23:34:06
2	As 188.979†	-24.5	1.0	0.6170 ug/L	0.6170 ppb	23:34:26
2	B 249.677†	848.4	1072.2	32.267 ug/L	32.267 ppb	23:34:06
2	Ba 233.527†	73.3	61.1	0.6453 ug/L	0.6453 ppb	23:34:26
2	Be 313.107†	-3747.6	635.3	0.2994 ug/L	0.2994 ppb	23:34:06
2	Cd 226.502†	-163.4	29.2	0.4745 ug/L	0.4745 ppb	23:34:26
2	Co 228.616†	-40.0	12.0	0.3421 ug/L	0.3421 ppb	23:34:26
2	Cr 267.716†	171.2	53.7	0.8222 ug/L	0.8222 ppb	23:34:26
2	Cu 324.752†	8502.4	1670.8	5.9597 ug/L	5.9597 ppb	23:34:06
2	Mn 257.610†	1038.8	477.1	0.6969 ug/L	0.6969 ppb	23:34:26
2	Mo 202.031†	24.0	4.1	0.4187 ug/L	0.4187 ppb	23:34:26
2	Ni 231.604†	95.4	0.3	0.0112 ug/L	0.0112 ppb	23:34:26

2	P 214.914†	206.1	-9.4	-8.7989 ug/L	-8.7989 ppb	23:34:26
2	Pb 220.353†	-50.5	5.2	0.8940 ug/L	0.8940 ppb	23:34:26
2	S 181.975 Axial†	59.8	24.8	48.251 ug/L	48.251 ppb	23:34:26
2	Sb 206.836†	31.1	1.4	0.6204 ug/L	0.6204 ppb	23:34:26
2	Se 196.026†	-16.6	7.3	6.5900 ug/L	6.5900 ppb	23:34:26
2	Si 251.611†	61846.4	53282.6	2201.3 ug/L	2201.3 ppb	23:34:06
2	Sn 189.927†	7.5	-7.1	-1.7883 ug/L	-1.7883 ppb	23:34:26
2	Ti 334.940†	-463.0	642.0	1.2328 ug/L	1.2328 ppb	23:34:06
2	Tl 190.801†	-26.1	-0.4	-0.1523 ug/L	-0.1523 ppb	23:34:26
2	U 409.014†	-1782.4	285.3	9.6961 ug/L	9.6961 ppb	23:34:06
2	V 292.402†	-1357.1	201.4	1.8289 ug/L	1.8289 ppb	23:34:06
2	Zn 213.857†	1288.0	459.3	6.1223 ug/L	6.1223 ppb	23:34:26
2	SiO2†	61387.2	52875.3	4653.7 ug/L	4653.7 ppb	23:35:02
3	Sc Radial	4269.1	4269.1	113 %		23:33:34
3	Y RADIAL	4623.6	4623.6	113.2 %		23:33:14
3	Al 396.153Radial†	-54.5	24.5	29.168 ug/L	29.168 ppb	23:33:34
3	Ca 317.933Radial†	67.1	37.6	84.184 ug/L	84.184 ppb	23:33:34
3	Fe 238.204 Radial†	10.6	1.0	12.886 ug/L	12.886 ppb	23:33:34
3	K 766.490 Radial†	4083.7	1145.0	252.71 ug/L	252.71 ppb	23:33:14
3	Mg 279.077 IEC†	3.5	0.3	15.238 ug/L	15.238 ppb	23:33:34
3	Na 589.592 Radial†	-32.9	357.1	143.60 ug/L	143.60 ppb	23:33:14
3	Sr 421.552†	30.2	-12.5	-0.1141 ug/L	-0.1141 ppb	23:33:14
3	Sc 361.383	836337.7	836337.7	114.13 %		23:34:31
3	Y 371.029	688534.4	688534.4	113.92 %		23:34:31
3	Ag 328.068†	200.2	23.3	0.1305 ug/L	0.1305 ppb	23:34:31
3	As 188.979†	-20.8	4.1	2.4912 ug/L	2.4912 ppb	23:34:51
3	B 249.677†	759.9	1000.8	30.119 ug/L	30.119 ppb	23:34:31
3	Ba 233.527†	63.1	52.7	0.5549 ug/L	0.5549 ppb	23:34:51
3	Be 313.107†	-3821.3	543.4	0.2570 ug/L	0.2570 ppb	23:34:31
3	Cd 226.502†	-163.0	28.3	0.4604 ug/L	0.4604 ppb	23:34:51
3	Co 228.616†	-35.3	15.8	0.4527 ug/L	0.4527 ppb	23:34:51
3	Cr 267.716†	167.8	52.0	0.7941 ug/L	0.7941 ppb	23:34:51
3	Cu 324.752†	8504.2	1734.5	6.1869 ug/L	6.1869 ppb	23:34:31
3	Mn 257.610†	1007.3	457.0	0.6677 ug/L	0.6677 ppb	23:34:51
3	Mo 202.031†	25.1	5.3	0.5349 ug/L	0.5349 ppb	23:34:51
3	Ni 231.604†	86.1	-7.1	-0.2544 ug/L	-0.2544 ppb	23:34:51
3	P 214.914†	207.0	-7.1	-7.0005 ug/L	-7.0005 ppb	23:34:51
3	Pb 220.353†	-44.1	10.4	1.8051 ug/L	1.8051 ppb	23:34:51
3	S 181.975 Axial†	60.1	25.5	49.622 ug/L	49.622 ppb	23:34:51
3	Sb 206.836†	22.8	-5.7	-2.6542 ug/L	-2.6542 ppb	23:34:51
3	Se 196.026†	-9.0	13.9	12.538 ug/L	12.538 ppb	23:34:51
3	Si 251.611†	61129.5	53106.4	2194.0 ug/L	2194.0 ppb	23:34:31
3	Sn 189.927†	6.4	-8.1	-2.0310 ug/L	-2.0310 ppb	23:34:51
3	Ti 334.940†	-329.8	755.4	1.4500 ug/L	1.4500 ppb	23:34:31
3	Tl 190.801†	-36.7	-9.9	-4.2691 ug/L	-4.2691 ppb	23:34:51
3	U 409.014†	-1765.6	287.0	9.7566 ug/L	9.7566 ppb	23:34:31
3	V 292.402†	-1472.4	90.4	0.8347 ug/L	0.8347 ppb	23:34:31
3	Zn 213.857†	1289.2	469.8	6.2641 ug/L	6.2641 ppb	23:34:51
3	SiO2†	60075.1	52174.2	4592.0 ug/L	4592.0 ppb	23:35:07

Mean Data: 248046001|959089|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	842874.5	115.02	%	0.860				0.75%
Sc Radial	4271.5	113	%	0.4				0.33%
Y 371.029	692648.0	114.60	%	0.652				0.57%
Y RADIAL	4687.6	114.8	%	1.53				1.34%
Ag 328.068†	11.9	0.0700	ug/L	0.21421	0.0700	ppb	0.21421	305.91%
Al 396.153Radial†	25.4	30.211	ug/L	10.5841	30.211	ppb	10.5841	35.03%
As 188.979†	3.0	1.8238	ug/L	1.04709	1.8238	ppb	1.04709	57.41%
B 249.677†	1019.7	30.688	ug/L	1.3848	30.688	ppb	1.3848	4.51%
Ba 233.527†	58.6	0.6176	ug/L	0.05444	0.6176	ppb	0.05444	8.82%
Be 313.107†	572.5	0.2701	ug/L	0.02539	0.2701	ppb	0.02539	9.40%
Ca 317.933Radial†	37.9	84.882	ug/L	3.1190	84.882	ppb	3.1190	3.67%
Cd 226.502†	28.8	0.4679	ug/L	0.00710	0.4679	ppb	0.00710	1.52%
Co 228.616†	16.2	0.4631	ug/L	0.12653	0.4631	ppb	0.12653	27.32%
Cr 267.716†	50.1	0.7664	ug/L	0.07375	0.7664	ppb	0.07375	9.62%
Cu 324.752†	1679.8	5.9918	ug/L	0.18122	5.9918	ppb	0.18122	3.02%
Fe 238.204 Radial†	1.3	17.804	ug/L	5.2710	17.804	ppb	5.2710	29.61%
K 766.490 Radial†	1172.3	258.73	ug/L	6.021	258.73	ppb	6.021	2.33%



Mg 279.077 IEC†	0.2	7.5851 ug/L	24.05113	7.5851 ppb	24.05113	317.09%
Mn 257.610†	460.8	0.6739 ug/L	0.02060	0.6739 ppb	0.02060	3.06%
Mo 202.031†	1.3	0.1369 ug/L	0.59156	0.1369 ppb	0.59156	432.16%
Na 589.592 Radial†	392.0	157.62 ug/L	20.146	157.62 ppb	20.146	12.78%
Ni 231.604†	0.2	0.0067 ug/L	0.25891	0.0067 ppb	0.25891	>999.9%
P 214.914†	-9.7	-9.0695 ug/L	2.21671	-9.0695 ppb	2.21671	24.44%
Pb 220.353†	6.7	1.1578 ug/L	0.56370	1.1578 ppb	0.56370	48.69%
S 181.975 Axial†	25.9	50.342 ug/L	2.5296	50.342 ppb	2.5296	5.02%
Sb 206.836†	-3.7	-1.7320 ug/L	2.05305	-1.7320 ppb	2.05305	118.54%
Se 196.026†	7.7	6.9413 ug/L	5.42920	6.9413 ppb	5.42920	78.22%
Si 251.611†	53260.2	2200.3 ug/L	5.95	2200.3 ppb	5.95	0.27%
Sn 189.927†	-6.7	-1.6827 ug/L	0.41143	-1.6827 ppb	0.41143	24.45%
Sr 421.552†	9.1	0.0821 ug/L	0.19802	0.0821 ppb	0.19802	241.09%
Ti 334.940†	661.7	1.2716 ug/L	0.16247	1.2716 ppb	0.16247	12.78%
Tl 190.801†	-2.4	-1.0204 ug/L	2.91337	-1.0204 ppb	2.91337	285.52%
U 409.014†	287.4	9.7707 ug/L	0.08258	9.7707 ppb	0.08258	0.85%
V 292.402†	161.8	1.4691 ug/L	0.55105	1.4691 ppb	0.55105	37.51%
Zn 213.857†	462.9	6.1703 ug/L	0.08117	6.1703 ppb	0.08117	1.32%
SiO2†	52167.9	4591.4 ug/L	62.53	4591.4 ppb	62.53	1.36%

Sequence No.: 41

Sample ID: 1202056810|959089|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 56

Date Collected: 3/26/2010 23:37:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056810|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4195.1	4195.1	111 %			23:39:31
1	Y RADIAL	4628.4	4628.4	113.4 %			23:39:11
1	Al 396.153Radial†	-53.6	24.4	29.055 ug/L		29.055 ppb	23:39:31
1	Ca 317.933Radial†	54.9	27.7	61.999 ug/L		61.999 ppb	23:39:31
1	Fe 238.204 Radial†	10.2	0.7	9.4849 ug/L		9.4849 ppb	23:39:31
1	K 766.490 Radial†	4105.9	1229.0	271.25 ug/L		271.25 ppb	23:39:11
1	Mg 279.077 IEC†	3.1	-0.0	-2.0962 ug/L		-2.0962 ppb	23:39:31
1	Na 589.592 Radial†	56.3	437.2	175.81 ug/L		175.81 ppb	23:39:11
1	Sr 421.552†	66.2	20.5	0.1859 ug/L		0.1859 ppb	23:39:11
1	Sc 361.383	848064.9	848064.9	115.73 %			23:40:27
1	Y 371.029	696727.7	696727.7	115.27 %			23:40:27
1	Ag 328.068†	215.1	33.7	0.1964 ug/L		0.1964 ppb	23:40:27
1	As 188.979†	-27.2	-1.2	-0.7153 ug/L		-0.7153 ppb	23:40:47
1	B 249.677†	690.9	931.9	28.046 ug/L		28.046 ppb	23:40:47
1	Ba 233.527†	80.8	67.2	0.7092 ug/L		0.7092 ppb	23:40:47
1	Be 313.107†	-3940.1	487.0	0.2289 ug/L		0.2289 ppb	23:40:27
1	Cd 226.502†	-174.3	20.5	0.3341 ug/L		0.3341 ppb	23:40:47
1	Co 228.616†	-20.0	29.4	0.8441 ug/L		0.8441 ppb	23:40:47
1	Cr 267.716†	170.6	52.4	0.8031 ug/L		0.8031 ppb	23:40:47
1	Cu 324.752†	8328.1	1479.3	5.2779 ug/L		5.2779 ppb	23:40:27
1	Mn 257.610†	1009.1	446.4	0.6526 ug/L		0.6526 ppb	23:40:47
1	Mo 202.031†	22.8	3.0	0.3002 ug/L		0.3002 ppb	23:40:47
1	Ni 231.604†	99.2	3.1	0.1115 ug/L		0.1115 ppb	23:40:47
1	P 214.914†	197.8	-17.5	-15.255 ug/L		-15.255 ppb	23:40:47
1	Pb 220.353†	-52.4	3.8	0.6610 ug/L		0.6610 ppb	23:40:47
1	S 181.975 Axial†	63.2	27.6	53.568 ug/L		53.568 ppb	23:40:47
1	Sb 206.836†	30.4	0.6	0.2660 ug/L		0.2660 ppb	23:40:47
1	Se 196.026†	-22.8	2.0	1.8215 ug/L		1.8215 ppb	23:40:47
1	Si 251.611†	60202.8	51565.0	2130.3 ug/L		2130.3 ppb	23:40:27
1	Sn 189.927†	4.0	-10.1	-2.5626 ug/L		-2.5626 ppb	23:40:47
1	Ti 334.940†	-806.3	347.6	0.6703 ug/L		0.6703 ppb	23:40:27
1	Tl 190.801†	-26.6	-0.7	-0.3030 ug/L		-0.3030 ppb	23:40:47
1	U 409.014†	-1916.3	178.1	6.0541 ug/L		6.0541 ppb	23:40:27
1	V 292.402†	-1354.7	210.0	1.8989 ug/L		1.8989 ppb	23:40:27
1	Zn 213.857†	1229.9	402.9	5.3711 ug/L		5.3711 ppb	23:40:47
1	SiO2†	59172.3	50666.3	4459.3 ug/L		4459.3 ppb	23:41:44
2	Sc Radial	4269.3	4269.3	113 %			23:39:56
2	Y RADIAL	4717.8	4717.8	115.6 %			23:39:36
2	Al 396.153Radial†	-54.2	24.8	29.504 ug/L		29.504 ppb	23:39:56
2	Ca 317.933Radial†	63.0	34.0	76.132 ug/L		76.132 ppb	23:39:56
2	Fe 238.204 Radial†	9.6	0.1	1.0245 ug/L		1.0245 ppb	23:39:56
2	K 766.490 Radial†	4098.9	1158.3	255.65 ug/L		255.65 ppb	23:39:36
2	Mg 279.077 IEC†	2.9	-0.3	-12.660 ug/L		-12.660 ppb	23:39:56
2	Na 589.592 Radial†	-16.5	371.6	149.45 ug/L		149.45 ppb	23:39:36
2	Sr 421.552†	46.4	1.9	0.0169 ug/L		0.0169 ppb	23:39:36
2	Sc 361.383	827513.8	827513.8	112.92 %			23:40:53
2	Y 371.029	679920.6	679920.6	112.49 %			23:40:53
2	Ag 328.068†	86.9	-75.2	-0.4321 ug/L		-0.4321 ppb	23:40:53
2	As 188.979†	-24.7	0.4	0.2626 ug/L		0.2626 ppb	23:41:13
2	B 249.677†	697.7	952.8	28.677 ug/L		28.677 ppb	23:41:13
2	Ba 233.527†	70.8	60.1	0.6325 ug/L		0.6325 ppb	23:41:13
2	Be 313.107†	-3926.1	414.8	0.1949 ug/L		0.1949 ppb	23:40:53
2	Cd 226.502†	-164.9	25.1	0.4103 ug/L		0.4103 ppb	23:41:13
2	Co 228.616†	-40.5	10.8	0.3110 ug/L		0.3110 ppb	23:41:13
2	Cr 267.716†	156.7	43.7	0.6671 ug/L		0.6671 ppb	23:41:13
2	Cu 324.752†	8298.4	1631.7	5.8194 ug/L		5.8194 ppb	23:40:53
2	Mn 257.610†	1017.6	475.6	0.6948 ug/L		0.6948 ppb	23:41:13
2	Mo 202.031†	24.9	5.3	0.5318 ug/L		0.5318 ppb	23:41:13
2	Ni 231.604†	111.7	16.4	0.5884 ug/L		0.5884 ppb	23:41:13

2	P 214.914†	199.8	-11.5	-10.470 ug/L	-10.470 ppb	23:41:13
2	Pb 220.353†	-46.0	8.3	1.4436 ug/L	1.4436 ppb	23:41:13
2	S 181.975 Axial†	62.2	28.0	54.354 ug/L	54.354 ppb	23:41:13
2	Sb 206.836†	25.4	-3.1	-1.4496 ug/L	-1.4496 ppb	23:41:13
2	Se 196.026†	-22.2	2.1	1.8824 ug/L	1.8824 ppb	23:41:13
2	Si 251.611†	58752.2	51572.3	2130.6 ug/L	2130.6 ppb	23:40:53
2	Sn 189.927†	7.4	-7.1	-1.7915 ug/L	-1.7915 ppb	23:41:13
2	Ti 334.940†	-856.2	286.1	0.5538 ug/L	0.5538 ppb	23:40:53
2	Tl 190.801†	-28.0	-2.5	-1.0923 ug/L	-1.0923 ppb	23:41:13
2	U 409.014†	-1742.8	290.7	9.8840 ug/L	9.8840 ppb	23:40:53
2	V 292.402†	-1421.7	121.6	1.1174 ug/L	1.1174 ppb	23:40:53
2	Zn 213.857†	1216.7	417.6	5.5651 ug/L	5.5651 ppb	23:41:13
2	SiO2†	58200.2	51075.2	4495.3 ug/L	4495.3 ppb	23:41:49
3	Sc Radial	4297.9	4297.9	113 %		23:40:21
3	Y RADIAL	4750.0	4750.0	116.3 %		23:40:01
3	Al 396.153Radial†	-53.0	26.1	31.133 ug/L	31.133 ppb	23:40:21
3	Ca 317.933Radial†	56.3	27.7	62.019 ug/L	62.019 ppb	23:40:21
3	Fe 238.204 Radial†	8.9	-0.6	-8.0823 ug/L	-8.0823 ppb	23:40:21
3	K 766.490 Radial†	4064.5	1103.7	243.60 ug/L	243.60 ppb	23:40:01
3	Mg 279.077 IEC†	3.8	0.6	26.939 ug/L	26.939 ppb	23:40:21
3	Na 589.592 Radial†	32.1	414.6	166.71 ug/L	166.71 ppb	23:40:01
3	Sr 421.552†	73.4	25.5	0.2306 ug/L	0.2306 ppb	23:40:01
3	Sc 361.383	820660.7	820660.7	111.99 %		23:41:18
3	Y 371.029	674829.3	674829.3	111.65 %		23:41:18
3	Ag 328.068†	249.7	70.8	0.3963 ug/L	0.3963 ppb	23:41:18
3	As 188.979†	-36.6	-10.4	-6.2900 ug/L	-6.2900 ppb	23:41:38
3	B 249.677†	699.6	959.7	28.885 ug/L	28.885 ppb	23:41:38
3	Ba 233.527†	73.7	63.3	0.6661 ug/L	0.6661 ppb	23:41:38
3	Be 313.107†	-3768.4	526.6	0.2473 ug/L	0.2473 ppb	23:41:18
3	Cd 226.502†	-168.3	20.9	0.3427 ug/L	0.3427 ppb	23:41:38
3	Co 228.616†	-38.7	12.2	0.3461 ug/L	0.3461 ppb	23:41:38
3	Cr 267.716†	168.6	55.5	0.8460 ug/L	0.8460 ppb	23:41:38
3	Cu 324.752†	8189.2	1595.5	5.6889 ug/L	5.6889 ppb	23:41:18
3	Mn 257.610†	1007.6	474.2	0.6901 ug/L	0.6901 ppb	23:41:38
3	Mo 202.031†	7.9	-9.7	-0.9832 ug/L	-0.9832 ppb	23:41:38
3	Ni 231.604†	101.5	8.1	0.2900 ug/L	0.2900 ppb	23:41:38
3	P 214.914†	206.9	-3.7	-4.1629 ug/L	-4.1629 ppb	23:41:38
3	Pb 220.353†	-46.4	7.6	1.3235 ug/L	1.3235 ppb	23:41:38
3	S 181.975 Axial†	63.6	29.7	57.660 ug/L	57.660 ppb	23:41:38
3	Sb 206.836†	33.6	4.4	1.9698 ug/L	1.9698 ppb	23:41:38
3	Se 196.026†	-18.5	5.2	4.6369 ug/L	4.6369 ppb	23:41:38
3	Si 251.611†	58140.6	51460.7	2126.0 ug/L	2126.0 ppb	23:41:18
3	Sn 189.927†	-1.2	-14.7	-3.7255 ug/L	-3.7255 ppb	23:41:38
3	Ti 334.940†	-796.8	332.8	0.6373 ug/L	0.6373 ppb	23:41:18
3	Tl 190.801†	-32.7	-6.9	-2.9690 ug/L	-2.9690 ppb	23:41:38
3	U 409.014†	-1678.8	334.9	11.388 ug/L	11.388 ppb	23:41:18
3	V 292.402†	-1358.5	167.5	1.5124 ug/L	1.5124 ppb	23:41:18
3	Zn 213.857†	1220.9	430.4	5.7386 ug/L	5.7386 ppb	23:41:38
3	SiO2†	59117.2	52324.4	4605.3 ug/L	4605.3 ppb	23:41:54

Mean Data: 1202056810|959089|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	832079.8	113.55	%	1.946			1.71%
Sc Radial	4254.1	112	%	1.4			1.25%
Y 371.029	683825.9	113.14	%	1.896			1.68%
Y RADIAL	4698.8	115.1	%	1.54			1.34%
Ag 328.068†	9.8	0.0535	ug/L	0.43226	0.0535 ppb	0.43226	807.77%
Al 396.153Radial†	25.1	29.897	ug/L	1.0936	29.897 ppb	1.0936	3.66%
As 188.979†	-3.7	-2.2476	ug/L	3.53480	-2.2476 ppb	3.53480	157.27%
B 249.677†	948.1	28.536	ug/L	0.4368	28.536 ppb	0.4368	1.53%
Ba 233.527†	63.5	0.6692	ug/L	0.03842	0.6692 ppb	0.03842	5.74%
Be 313.107†	476.2	0.2237	ug/L	0.02659	0.2237 ppb	0.02659	11.88%
Ca 317.933Radial†	29.8	66.717	ug/L	8.1539	66.717 ppb	8.1539	12.22%
Cd 226.502†	22.2	0.3624	ug/L	0.04175	0.3624 ppb	0.04175	11.52%
Co 228.616†	17.5	0.5004	ug/L	0.29820	0.5004 ppb	0.29820	59.59%
Cr 267.716†	50.5	0.7721	ug/L	0.09338	0.7721 ppb	0.09338	12.09%
Cu 324.752†	1568.9	5.5954	ug/L	0.28260	5.5954 ppb	0.28260	5.05%
Fe 238.204 Radial†	0.1	0.8091	ug/L	8.78558	0.8091 ppb	8.78558	>999.9%
K 766.490 Radial†	1163.7	256.83	ug/L	13.861	256.83 ppb	13.861	5.40%

Mg 279.077 IEC†	0.1	4.0607 ug/L	20.50490	4.0607 ppb	20.50490	504.96%
Mn 257.610†	465.4	0.6792 ug/L	0.02311	0.6792 ppb	0.02311	3.40%
Mo 202.031†	-0.5	-0.0504 ug/L	0.81609	-0.0504 ppb	0.81609	>999.9%
Na 589.592 Radial†	407.8	163.99 ug/L	13.391	163.99 ppb	13.391	8.17%
Ni 231.604†	9.2	0.3300 ug/L	0.24096	0.3300 ppb	0.24096	73.02%
P 214.914†	-10.9	-9.9627 ug/L	5.56358	-9.9627 ppb	5.56358	55.84%
Pb 220.353†	6.6	1.1427 ug/L	0.42144	1.1427 ppb	0.42144	36.88%
S 181.975 Axial†	28.4	55.194 ug/L	2.1716	55.194 ppb	2.1716	3.93%
Sb 206.836†	0.7	0.2621 ug/L	1.70971	0.2621 ppb	1.70971	652.32%
Se 196.026†	3.1	2.7803 ug/L	1.60817	2.7803 ppb	1.60817	57.84%
Si 251.611†	51532.7	2129.0 ug/L	2.57	2129.0 ppb	2.57	0.12%
Sn 189.927†	-10.7	-2.6932 ug/L	0.97359	-2.6932 ppb	0.97359	36.15%
Sr 421.552†	16.0	0.1445 ug/L	0.11276	0.1445 ppb	0.11276	78.05%
Ti 334.940†	322.2	0.6205 ug/L	0.06004	0.6205 ppb	0.06004	9.68%
Tl 190.801†	-3.4	-1.4548 ug/L	1.36946	-1.4548 ppb	1.36946	94.14%
U 409.014†	267.9	9.1086 ug/L	2.75005	9.1086 ppb	2.75005	30.19%
V 292.402†	166.4	1.5096 ug/L	0.39077	1.5096 ppb	0.39077	25.89%
Zn 213.857†	417.0	5.5582 ug/L	0.18387	5.5582 ppb	0.18387	3.31%
SiO2†	51355.3	4519.9 ug/L	76.05	4519.9 ppb	76.05	1.68%

Sequence No.: 42

Sample ID: 1202056811|959089|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 57

Date Collected: 3/26/2010 23:44:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056811|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4319.7	4319.7	114 %			23:46:17
1	Y RADIAL	4633.9	4633.9	113.5 %			23:45:57
1	Al 396.153Radial†	4791.6	4274.7	5062.9 ug/L		5062.9 ppb	23:45:57
1	Ca 317.933Radial†	2649.8	2301.7	5156.8 ug/L		5156.8 ppb	23:46:17
1	Fe 238.204 Radial†	432.9	371.2	4921.1 ug/L		4921.1 ppb	23:46:17
1	K 766.490 Radial†	28613.3	22612.9	4988.1 ug/L		4988.1 ppb	23:45:57
1	Mg 279.077 IEC†	125.2	106.9	5058.0 ug/L		5058.0 ppb	23:46:17
1	Na 589.592 Radial†	13492.2	12217.8	4913.1 ug/L		4913.1 ppb	23:45:57
1	Sr 421.552†	59567.7	52196.5	473.83 ug/L		473.83 ppb	23:45:57
1	Sc 361.383	850126.8	850126.8	116.01 %			23:47:14
1	Y 371.029	691854.2	691854.2	114.46 %			23:47:14
1	Ag 328.068†	96010.4	82608.4	472.99 ug/L		472.99 ppb	23:47:19
1	As 188.979†	923.9	818.7	501.12 ug/L		501.12 ppb	23:47:39
1	B 249.677†	19109.4	16807.2	503.70 ug/L		503.70 ppb	23:47:19
1	Ba 233.527†	54177.4	46698.1	490.66 ug/L		490.66 ppb	23:47:19
1	Be 313.107†	1231378.9	1065334.7	498.46 ug/L		498.46 ppb	23:47:14
1	Cd 226.502†	33949.1	29435.1	478.18 ug/L		478.18 ppb	23:47:19
1	Co 228.616†	19452.6	16814.7	483.27 ug/L		483.27 ppb	23:47:19
1	Cr 267.716†	36758.5	31590.6	484.66 ug/L		484.66 ppb	23:47:19
1	Cu 324.752†	166987.7	138225.7	493.41 ug/L		493.41 ppb	23:47:19
1	Mn 257.610†	379306.7	326535.1	476.87 ug/L		476.87 ppb	23:47:19
1	Mo 202.031†	5617.0	4825.1	487.69 ug/L		487.69 ppb	23:47:39
1	Ni 231.604†	16089.4	13786.4	494.34 ug/L		494.34 ppb	23:47:19
1	P 214.914†	1002.3	675.6	450.02 ug/L		450.02 ppb	23:47:39
1	Pb 220.353†	3225.9	2829.8	490.92 ug/L		490.92 ppb	23:47:39
1	S 181.975 Axial†	3020.8	2576.8	5009.8 ug/L		5009.8 ppb	23:47:39
1	Sb 206.836†	1297.4	1092.7	524.48 ug/L		524.48 ppb	23:47:39
1	Se 196.026†	603.5	542.0	503.59 ug/L		503.59 ppb	23:47:39
1	Si 251.611†	191065.0	164241.4	6779.3 ug/L		6779.3 ppb	23:47:19
1	Sn 189.927†	2284.1	1955.3	496.35 ug/L		496.35 ppb	23:47:39
1	Ti 334.940†	286821.3	248283.0	474.69 ug/L		474.69 ppb	23:47:19
1	Tl 190.801†	1289.7	1134.0	492.20 ug/L		492.20 ppb	23:47:39
1	U 409.014†	15205.2	14940.8	506.42 ug/L		506.42 ppb	23:47:19
1	V 292.402†	61214.7	54147.4	492.71 ug/L		492.71 ppb	23:47:19
1	Zn 213.857†	43025.4	36427.9	481.87 ug/L		481.87 ppb	23:47:19
1	SiO2†	201693.8	173395.2	15248 ug/L		15248 ppb	23:48:46
2	Sc Radial	4313.0	4313.0	114 %			23:46:42
2	Y RADIAL	4763.4	4763.4	116.7 %			23:46:22
2	Al 396.153Radial†	4920.1	4394.0	5204.6 ug/L		5204.6 ppb	23:46:22
2	Ca 317.933Radial†	2640.7	2297.3	5146.9 ug/L		5146.9 ppb	23:46:42
2	Fe 238.204 Radial†	434.8	373.4	4950.9 ug/L		4950.9 ppb	23:46:42
2	K 766.490 Radial†	29297.0	23252.2	5129.2 ug/L		5129.2 ppb	23:46:22
2	Mg 279.077 IEC†	124.5	106.5	5038.2 ug/L		5038.2 ppb	23:46:42
2	Na 589.592 Radial†	13818.6	12522.8	5035.8 ug/L		5035.8 ppb	23:46:22
2	Sr 421.552†	61386.9	53875.1	489.07 ug/L		489.07 ppb	23:46:22
2	Sc 361.383	847111.6	847111.6	115.60 %			23:47:45
2	Y 371.029	688994.4	688994.4	113.99 %			23:47:45
2	Ag 328.068†	99649.3	86050.8	492.65 ug/L		492.65 ppb	23:47:50
2	As 188.979†	938.1	833.8	510.48 ug/L		510.48 ppb	23:48:10
2	B 249.677†	19874.6	17527.8	525.32 ug/L		525.32 ppb	23:47:50
2	Ba 233.527†	56272.0	48676.3	511.44 ug/L		511.44 ppb	23:47:50
2	Be 313.107†	1230489.9	1068343.7	499.91 ug/L		499.91 ppb	23:47:45
2	Cd 226.502†	35267.1	30679.4	498.41 ug/L		498.41 ppb	23:47:50
2	Co 228.616†	20182.0	17505.4	503.08 ug/L		503.08 ppb	23:47:50
2	Cr 267.716†	38141.5	32899.7	504.73 ug/L		504.73 ppb	23:47:50
2	Cu 324.752†	173870.4	144692.0	516.48 ug/L		516.48 ppb	23:47:50
2	Mn 257.610†	393690.9	340142.2	496.73 ug/L		496.73 ppb	23:47:50
2	Mo 202.031†	5667.6	4886.1	493.85 ug/L		493.85 ppb	23:48:10
2	Ni 231.604†	16639.5	14311.7	513.17 ug/L		513.17 ppb	23:47:50

2	P 214.914†	988.3	666.5	438.17 ug/L	438.17 ppb	23:48:10
2	Pb 220.353†	3244.5	2855.8	495.44 ug/L	495.44 ppb	23:48:10
2	S 181.975 Axial†	3048.4	2609.9	5074.1 ug/L	5074.1 ppb	23:48:10
2	Sb 206.836†	1311.4	1108.8	532.11 ug/L	532.11 ppb	23:48:10
2	Se 196.026†	604.7	544.8	506.26 ug/L	506.26 ppb	23:48:10
2	Si 251.611†	198725.3	171454.3	7077.2 ug/L	7077.2 ppb	23:47:50
2	Sn 189.927†	2294.4	1971.2	500.38 ug/L	500.38 ppb	23:48:10
2	Ti 334.940†	298530.0	259291.8	495.72 ug/L	495.72 ppb	23:47:50
2	Tl 190.801†	1311.1	1156.4	502.01 ug/L	502.01 ppb	23:48:10
2	U 409.014†	16027.4	15698.7	532.14 ug/L	532.14 ppb	23:47:50
2	V 292.402†	63626.9	56421.9	513.23 ug/L	513.23 ppb	23:47:50
2	Zn 213.857†	44556.3	37884.2	501.16 ug/L	501.16 ppb	23:47:50
2	SiO2†	200651.9	173112.7	15223 ug/L	15223 ppb	23:48:52
3	Sc Radial	4271.2	4271.2	113 %		23:47:07
3	Y RADIAL	4704.4	4704.4	115.2 %		23:46:47
3	Al 396.153Radial†	4834.8	4360.8	5165.3 ug/L	5165.3 ppb	23:46:47
3	Ca 317.933Radial†	2629.9	2310.5	5176.4 ug/L	5176.4 ppb	23:47:07
3	Fe 238.204 Radial†	429.3	372.3	4935.9 ug/L	4935.9 ppb	23:47:07
3	K 766.490 Radial†	28844.7	23103.4	5096.3 ug/L	5096.3 ppb	23:46:47
3	Mg 279.077 IEC†	124.9	108.0	5107.2 ug/L	5107.2 ppb	23:47:07
3	Na 589.592 Radial†	13523.6	12380.1	4978.4 ug/L	4978.4 ppb	23:46:47
3	Sr 421.552†	60186.9	53339.5	484.21 ug/L	484.21 ppb	23:46:47
3	Sc 361.383	858661.0	858661.0	117.17 %		23:48:15
3	Y 371.029	698944.4	698944.4	115.64 %		23:48:15
3	Ag 328.068†	98072.2	83545.4	478.34 ug/L	478.34 ppb	23:48:21
3	As 188.979†	956.0	838.2	513.00 ug/L	513.00 ppb	23:48:41
3	B 249.677†	19566.4	17033.5	510.49 ug/L	510.49 ppb	23:48:21
3	Ba 233.527†	55280.8	47175.6	495.68 ug/L	495.68 ppb	23:48:21
3	Be 313.107†	1245806.5	1067097.8	499.30 ug/L	499.30 ppb	23:48:15
3	Cd 226.502†	34656.6	29748.1	483.27 ug/L	483.27 ppb	23:48:21
3	Co 228.616†	19809.7	16952.8	487.23 ug/L	487.23 ppb	23:48:21
3	Cr 267.716†	37478.1	31889.8	489.25 ug/L	489.25 ppb	23:48:21
3	Cu 324.752†	171098.0	140302.8	500.82 ug/L	500.82 ppb	23:48:21
3	Mn 257.610†	386703.6	329598.1	481.34 ug/L	481.34 ppb	23:48:21
3	Mo 202.031†	5702.8	4850.1	490.22 ug/L	490.22 ppb	23:48:41
3	Ni 231.604†	16359.6	13879.2	497.67 ug/L	497.67 ppb	23:48:21
3	P 214.914†	996.9	662.3	437.86 ug/L	437.86 ppb	23:48:41
3	Pb 220.353†	3254.9	2826.9	490.44 ug/L	490.44 ppb	23:48:41
3	S 181.975 Axial†	3075.1	2597.3	5049.6 ug/L	5049.6 ppb	23:48:41
3	Sb 206.836†	1329.6	1109.1	532.10 ug/L	532.10 ppb	23:48:41
3	Se 196.026†	612.9	544.8	506.18 ug/L	506.18 ppb	23:48:41
3	Si 251.611†	195348.6	166260.2	6862.7 ug/L	6862.7 ppb	23:48:21
3	Sn 189.927†	2300.8	1949.9	494.99 ug/L	494.99 ppb	23:48:41
3	Ti 334.940†	293473.2	251502.6	480.84 ug/L	480.84 ppb	23:48:21
3	Tl 190.801†	1317.1	1146.3	497.55 ug/L	497.55 ppb	23:48:41
3	U 409.014†	15729.7	15258.2	517.19 ug/L	517.19 ppb	23:48:21
3	V 292.402†	62540.3	54754.2	498.20 ug/L	498.20 ppb	23:48:21
3	Zn 213.857†	43863.3	36774.4	486.46 ug/L	486.46 ppb	23:48:21
3	SiO2†	195866.2	166693.7	14658 ug/L	14658 ppb	23:48:57

Mean Data: 1202056811|959089|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	851966.5	116.26 %	%	0.817			0.70%
Sc Radial	4301.3	114 %	%	0.7			0.61%
Y 371.029	693264.3	114.70 %	%	0.848			0.74%
Y RADIAL	4700.6	115.1 %	%	1.59			1.38%
Ag 328.068†	84068.2	481.33 ug/L	ug/L	10.163	481.33 ppb	10.163	2.11%
Al 396.153Radial†	4343.2	5144.3 ug/L	ug/L	73.17	5144.3 ppb	73.17	1.42%
As 188.979†	830.2	508.20 ug/L	ug/L	6.260	508.20 ppb	6.260	1.23%
B 249.677†	17122.8	513.17 ug/L	ug/L	11.059	513.17 ppb	11.059	2.16%
Ba 233.527†	47516.7	499.26 ug/L	ug/L	10.843	499.26 ppb	10.843	2.17%
Be 313.107†	1066925.4	499.22 ug/L	ug/L	0.729	499.22 ppb	0.729	0.15%
Ca 317.933Radial†	2303.2	5160.0 ug/L	ug/L	14.99	5160.0 ppb	14.99	0.29%
Cd 226.502†	29954.2	486.62 ug/L	ug/L	10.524	486.62 ppb	10.524	2.16%
Co 228.616†	17091.0	491.19 ug/L	ug/L	10.487	491.19 ppb	10.487	2.13%
Cr 267.716†	32126.7	492.88 ug/L	ug/L	10.514	492.88 ppb	10.514	2.13%
Cu 324.752†	141073.5	503.57 ug/L	ug/L	11.778	503.57 ppb	11.778	2.34%
Fe 238.204 Radial†	372.3	4935.9 ug/L	ug/L	14.91	4935.9 ppb	14.91	0.30%
K 766.490 Radial†	22989.5	5071.2 ug/L	ug/L	73.83	5071.2 ppb	73.83	1.46%

Mg 279.077 IEC†	107.2	5067.8 ug/L	35.56	5067.8 ppb	35.56	0.70%
Mn 257.610†	332091.8	484.98 ug/L	10.420	484.98 ppb	10.420	2.15%
Mo 202.031†	4853.8	490.58 ug/L	3.098	490.58 ppb	3.098	0.63%
Na 589.592 Radial†	12373.6	4975.8 ug/L	61.36	4975.8 ppb	61.36	1.23%
Ni 231.604†	13992.4	501.73 ug/L	10.052	501.73 ppb	10.052	2.00%
P 214.914†	668.1	442.02 ug/L	6.930	442.02 ppb	6.930	1.57%
Pb 220.353†	2837.5	492.27 ug/L	2.757	492.27 ppb	2.757	0.56%
S 181.975 Axial†	2594.7	5044.5 ug/L	32.48	5044.5 ppb	32.48	0.64%
Sb 206.836†	1103.6	529.56 ug/L	4.405	529.56 ppb	4.405	0.83%
Se 196.026†	543.8	505.34 ug/L	1.523	505.34 ppb	1.523	0.30%
Si 251.611†	167318.7	6906.4 ug/L	153.69	6906.4 ppb	153.69	2.23%
Sn 189.927†	1958.8	497.24 ug/L	2.804	497.24 ppb	2.804	0.56%
Sr 421.552†	53137.0	482.37 ug/L	7.784	482.37 ppb	7.784	1.61%
Ti 334.940†	253025.8	483.75 ug/L	10.815	483.75 ppb	10.815	2.24%
Tl 190.801†	1145.6	497.26 ug/L	4.913	497.26 ppb	4.913	0.99%
U 409.014†	15299.2	518.58 ug/L	12.918	518.58 ppb	12.918	2.49%
V 292.402†	55107.8	501.38 ug/L	10.624	501.38 ppb	10.624	2.12%
Zn 213.857†	37028.8	489.83 ug/L	10.077	489.83 ppb	10.077	2.06%
SiO2†	171067.2	15043 ug/L	333.6	15043 ppb	333.6	2.22%

Sequence No.: 43  
 Sample ID: 1202056812|959089|5  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 58  
 Date Collected: 3/26/2010 23:51:07  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 1202056812|959089|5

Rep#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4086.7	4086.7	108 %			23:53:20
1	Y RADIAL	4351.7	4351.7	106.6 %			23:53:00
1	Al 396.153Radial†	-72.6	5.6	6.6328 ug/L		6.6328 ppb	23:53:20
1	Ca 317.933Radial†	30.8	6.6	14.898 ug/L		14.898 ppb	23:53:20
1	Fe 238.204 Radial†	8.2	-0.9	-11.243 ug/L		-11.243 ppb	23:53:20
1	K 766.490 Radial†	2782.7	100.8	22.271 ug/L		22.271 ppb	23:53:00
1	Mg 279.077 IEC†	2.3	-0.7	-33.783 ug/L		-33.783 ppb	23:53:20
1	Na 589.592 Radial†	-501.5	-78.5	-31.562 ug/L		-31.562 ppb	23:53:00
1	Sr 421.552†	43.3	0.8	0.0075 ug/L		0.0075 ppb	23:53:00
1	Sc 361.383	813764.2	813764.2	111.05 %			23:54:17
1	Y 371.029	667764.2	667764.2	110.48 %			23:54:17
1	Ag 328.068†	207.9	35.1	0.1918 ug/L		0.1918 ppb	23:54:17
1	As 188.979†	-20.8	3.6	2.1666 ug/L		2.1666 ppb	23:54:37
1	B 249.677†	-30.9	307.1	9.2449 ug/L		9.2449 ppb	23:54:37
1	Ba 233.527†	29.5	24.0	0.2524 ug/L		0.2524 ppb	23:54:37
1	Be 313.107†	-3923.8	358.1	0.1678 ug/L		0.1678 ppb	23:54:17
1	Cd 226.502†	-157.0	29.8	0.4859 ug/L		0.4859 ppb	23:54:37
1	Co 228.616†	-35.1	15.1	0.4320 ug/L		0.4320 ppb	23:54:37
1	Cr 267.716†	121.1	13.9	0.2101 ug/L		0.2101 ppb	23:54:37
1	Cu 324.752†	6375.5	24.3	0.0819 ug/L		0.0819 ppb	23:54:17
1	Mn 257.610†	557.6	76.6	0.1121 ug/L		0.1121 ppb	23:54:37
1	Mo 202.031†	14.2	-3.9	-0.3981 ug/L		-0.3981 ppb	23:54:37
1	Ni 231.604†	86.4	-4.8	-0.1718 ug/L		-0.1718 ppb	23:54:37
1	P 214.914†	191.3	-16.2	-13.124 ug/L		-13.124 ppb	23:54:37
1	Pb 220.353†	-53.7	0.7	0.1195 ug/L		0.1195 ppb	23:54:37
1	S 181.975 Axial†	42.5	11.1	21.650 ug/L		21.650 ppb	23:54:37
1	Sb 206.836†	33.6	4.6	2.1114 ug/L		2.1114 ppb	23:54:37
1	Se 196.026†	-16.2	7.2	6.4337 ug/L		6.4337 ppb	23:54:37
1	Si 251.611†	12431.7	10739.2	443.67 ug/L		443.67 ppb	23:54:17
1	Sn 189.927†	8.8	-5.7	-1.4445 ug/L		-1.4445 ppb	23:54:37
1	Ti 334.940†	-1012.2	132.8	0.2553 ug/L		0.2553 ppb	23:54:17
1	Tl 190.801†	-22.4	2.1	0.8913 ug/L		0.8913 ppb	23:54:37
1	U 409.014†	-1786.8	225.0	7.6508 ug/L		7.6508 ppb	23:54:17
1	V 292.402†	-1467.1	59.4	0.5430 ug/L		0.5430 ppb	23:54:17
1	Zn 213.857†	813.1	72.4	0.9694 ug/L		0.9694 ppb	23:54:37
1	SiO2†	12498.3	10790.9	949.75 ug/L		949.75 ppb	23:55:33
2	Sc Radial	4234.2	4234.2	112 %			23:53:45
2	Y RADIAL	4657.3	4657.3	114.1 %			23:53:25
2	Al 396.153Radial†	-76.5	4.4	5.2899 ug/L		5.2899 ppb	23:53:45
2	Ca 317.933Radial†	32.0	6.7	15.037 ug/L		15.037 ppb	23:53:45
2	Fe 238.204 Radial†	8.2	-1.1	-14.797 ug/L		-14.797 ppb	23:53:45
2	K 766.490 Radial†	2813.6	38.6	8.5197 ug/L		8.5197 ppb	23:53:25
2	Mg 279.077 IEC†	1.3	-1.6	-75.990 ug/L		-75.990 ppb	23:53:45
2	Na 589.592 Radial†	-510.9	-70.8	-28.459 ug/L		-28.459 ppb	23:53:25
2	Sr 421.552†	6.1	-33.8	-0.3066 ug/L		-0.3066 ppb	23:53:25
2	Sc 361.383	815971.6	815971.6	111.35 %			23:54:42
2	Y 371.029	670193.0	670193.0	110.88 %			23:54:42
2	Ag 328.068†	98.8	-63.4	-0.3673 ug/L		-0.3673 ppb	23:54:42
2	As 188.979†	-20.4	4.0	2.4116 ug/L		2.4116 ppb	23:55:02
2	B 249.677†	-33.3	305.1	9.1850 ug/L		9.1850 ppb	23:55:02
2	Ba 233.527†	10.0	6.4	0.0689 ug/L		0.0689 ppb	23:55:02
2	Be 313.107†	-3987.2	310.8	0.1457 ug/L		0.1457 ppb	23:54:42
2	Cd 226.502†	-166.0	22.0	0.3608 ug/L		0.3608 ppb	23:55:02
2	Co 228.616†	-50.6	1.3	0.0336 ug/L		0.0336 ppb	23:55:02
2	Cr 267.716†	117.8	10.7	0.1608 ug/L		0.1608 ppb	23:55:02
2	Cu 324.752†	6409.3	39.1	0.1349 ug/L		0.1349 ppb	23:54:42
2	Mn 257.610†	564.0	80.9	0.1198 ug/L		0.1198 ppb	23:55:02
2	Mo 202.031†	7.0	-10.5	-1.0613 ug/L		-1.0613 ppb	23:55:02
2	Ni 231.604†	85.2	-6.0	-0.2155 ug/L		-0.2155 ppb	23:55:02



2	P 214.914†	195.8	-12.6	-10.243 ug/L	-10.243 ppb	23:55:02
2	Pb 220.353†	-49.2	4.9	0.8425 ug/L	0.8425 ppb	23:55:02
2	S 181.975 Axial†	34.9	4.2	8.1908 ug/L	8.1908 ppb	23:55:02
2	Sb 206.836†	28.8	0.2	0.0397 ug/L	0.0397 ppb	23:55:02
2	Se 196.026†	-14.8	8.4	7.5161 ug/L	7.5161 ppb	23:55:02
2	Si 251.611†	12399.6	10680.1	441.24 ug/L	441.24 ppb	23:54:42
2	Sn 189.927†	0.7	-13.0	-3.3006 ug/L	-3.3006 ppb	23:55:02
2	Ti 334.940†	-1016.4	131.5	0.2566 ug/L	0.2566 ppb	23:54:42
2	Tl 190.801†	-11.7	11.8	5.0755 ug/L	5.0755 ppb	23:55:02
2	U 409.014†	-1819.9	199.6	6.7875 ug/L	6.7875 ppb	23:54:42
2	V 292.402†	-1416.6	108.3	0.9711 ug/L	0.9711 ppb	23:54:42
2	Zn 213.857†	824.1	80.3	1.0753 ug/L	1.0753 ppb	23:55:02
2	SiO2†	12323.7	10603.7	933.29 ug/L	933.29 ppb	23:55:38
3	Sc Radial	4174.4	4174.4	110 %		23:54:10
3	Y RADIAL	4556.6	4556.6	111.6 %		23:53:50
3	Al 396.153Radial†	-69.4	9.9	11.766 ug/L	11.766 ppb	23:54:10
3	Ca 317.933Radial†	33.9	8.9	19.859 ug/L	19.859 ppb	23:54:10
3	Fe 238.204 Radial†	6.8	-2.3	-30.507 ug/L	-30.507 ppb	23:54:10
3	K 766.490 Radial†	2850.4	108.0	23.863 ug/L	23.863 ppb	23:53:50
3	Mg 279.077 IEC†	1.2	-1.8	-83.399 ug/L	-83.399 ppb	23:54:10
3	Na 589.592 Radial†	-533.9	-98.1	-39.463 ug/L	-39.463 ppb	23:53:50
3	Sr 421.552†	52.1	8.0	0.0722 ug/L	0.0722 ppb	23:53:50
3	Sc 361.383	818272.9	818272.9	111.66 %		23:55:08
3	Y 371.029	672935.5	672935.5	111.33 %		23:55:08
3	Ag 328.068†	227.3	51.4	0.2847 ug/L	0.2847 ppb	23:55:08
3	As 188.979†	-16.4	7.6	4.6133 ug/L	4.6133 ppb	23:55:28
3	B 249.677†	-11.7	324.5	9.7699 ug/L	9.7699 ppb	23:55:28
3	Ba 233.527†	14.9	10.8	0.1141 ug/L	0.1141 ppb	23:55:28
3	Be 313.107†	-3875.6	420.8	0.1971 ug/L	0.1971 ppb	23:55:08
3	Cd 226.502†	-160.5	27.4	0.4490 ug/L	0.4490 ppb	23:55:28
3	Co 228.616†	-41.6	9.5	0.2728 ug/L	0.2728 ppb	23:55:28
3	Cr 267.716†	127.0	18.7	0.2837 ug/L	0.2837 ppb	23:55:28
3	Cu 324.752†	6365.8	-16.1	-0.0600 ug/L	-0.0600 ppb	23:55:08
3	Mn 257.610†	575.2	89.6	0.1311 ug/L	0.1311 ppb	23:55:28
3	Mo 202.031†	18.5	-0.2	-0.0227 ug/L	-0.0227 ppb	23:55:28
3	Ni 231.604†	86.9	-4.8	-0.1709 ug/L	-0.1709 ppb	23:55:28
3	P 214.914†	180.5	-26.8	-21.650 ug/L	-21.650 ppb	23:55:28
3	Pb 220.353†	-51.6	2.9	0.5040 ug/L	0.5040 ppb	23:55:28
3	S 181.975 Axial†	33.8	3.2	6.1843 ug/L	6.1843 ppb	23:55:28
3	Sb 206.836†	36.3	6.9	3.1811 ug/L	3.1811 ppb	23:55:28
3	Se 196.026†	-18.4	5.3	4.6612 ug/L	4.6612 ppb	23:55:28
3	Si 251.611†	12319.1	10576.6	436.95 ug/L	436.95 ppb	23:55:08
3	Sn 189.927†	9.9	-4.8	-1.2117 ug/L	-1.2117 ppb	23:55:28
3	Ti 334.940†	-997.3	151.2	0.2978 ug/L	0.2978 ppb	23:55:08
3	Tl 190.801†	-16.8	7.2	3.1240 ug/L	3.1240 ppb	23:55:28
3	U 409.014†	-1990.9	51.1	1.7392 ug/L	1.7392 ppb	23:55:08
3	V 292.402†	-1434.1	96.3	0.8697 ug/L	0.8697 ppb	23:55:08
3	Zn 213.857†	823.7	77.8	1.0451 ug/L	1.0451 ppb	23:55:28
3	SiO2†	12292.5	10544.6	928.06 ug/L	928.06 ppb	23:55:43

Mean Data: 1202056812|959089|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	816002.9	111.35 %		0.308			0.28%
Sc Radial	4165.1	110 %		2.0			1.78%
Y 371.029	670297.6	110.90 %		0.428			0.39%
Y RADIAL	4521.9	110.8 %		3.81			3.44%
Ag 328.068†	7.7	0.0364 ug/L		0.35267	0.0364 ppb	0.35267	968.58%
Al 396.153Radial†	6.6	7.8963 ug/L		3.41800	7.8963 ppb	3.41800	43.29%
As 188.979†	5.0	3.0638 ug/L		1.34749	3.0638 ppb	1.34749	43.98%
B 249.677†	312.2	9.4000 ug/L		0.32180	9.4000 ppb	0.32180	3.42%
Ba 233.527†	13.7	0.1452 ug/L		0.09559	0.1452 ppb	0.09559	65.85%
Be 313.107†	363.2	0.1702 ug/L		0.02581	0.1702 ppb	0.02581	15.17%
Ca 317.933Radial†	7.4	16.598 ug/L		2.8251	16.598 ppb	2.8251	17.02%
Cd 226.502†	26.4	0.4319 ug/L		0.06427	0.4319 ppb	0.06427	14.88%
Co 228.616†	8.6	0.2461 ug/L		0.20055	0.2461 ppb	0.20055	81.48%
Cr 267.716†	14.4	0.2182 ug/L		0.06185	0.2182 ppb	0.06185	28.35%
Cu 324.752†	15.8	0.0523 ug/L		0.10078	0.0523 ppb	0.10078	192.85%
Fe 238.204 Radial†	-1.4	-18.849 ug/L		10.2513	-18.849 ppb	10.2513	54.39%
K 766.490 Radial†	82.5	18.218 ug/L		8.4365	18.218 ppb	8.4365	46.31%

Mg 279.077 IEC†	-1.4	-64.391 ug/L	26.7646	-64.391 ppb	26.7646	41.57%
Mn 257.610†	82.4	0.1210 ug/L	0.00960	0.1210 ppb	0.00960	7.94%
Mo 202.031†	-4.9	-0.4941 ug/L	0.52592	-0.4941 ppb	0.52592	106.45%
Na 589.592 Radial†	-82.5	-33.161 ug/L	5.6740	-33.161 ppb	5.6740	17.11%
Ni 231.604†	-5.2	-0.1861 ug/L	0.02551	-0.1861 ppb	0.02551	13.71%
P 214.914†	-18.5	-15.005 ug/L	5.9318	-15.005 ppb	5.9318	39.53%
Pb 220.353†	2.8	0.4887 ug/L	0.36173	0.4887 ppb	0.36173	74.02%
S 181.975 Axial†	6.2	12.008 ug/L	8.4102	12.008 ppb	8.4102	70.04%
Sb 206.836†	3.9	1.7774 ug/L	1.59713	1.7774 ppb	1.59713	89.86%
Se 196.026†	6.9	6.2037 ug/L	1.44126	6.2037 ppb	1.44126	23.23%
Si 251.611†	10665.3	440.62 ug/L	3.403	440.62 ppb	3.403	0.77%
Sn 189.927†	-7.8	-1.9856 ug/L	1.14479	-1.9856 ppb	1.14479	57.65%
Sr 421.552†	-8.3	-0.0757 ug/L	0.20264	-0.0757 ppb	0.20264	267.86%
Ti 334.940†	138.5	0.2699 ug/L	0.02415	0.2699 ppb	0.02415	8.95%
Tl 190.801†	7.0	3.0302 ug/L	2.09368	3.0302 ppb	2.09368	69.09%
U 409.014†	158.5	5.3925 ug/L	3.19314	5.3925 ppb	3.19314	59.21%
V 292.402†	88.0	0.7946 ug/L	0.22369	0.7946 ppb	0.22369	28.15%
Zn 213.857†	76.8	1.0300 ug/L	0.05454	1.0300 ppb	0.05454	5.30%
SiO2†	10646.4	937.04 ug/L	11.320	937.04 ppb	11.320	1.21%

Sequence No.: 44  
 Sample ID: 248046002|959089|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 59  
 Date Collected: 3/26/2010 23:57:54  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 248046002|959089|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4533.6	4533.6	120 %		23:59:47
1	Y RADIAL	4852.8	4852.8	118.9 %		23:59:47
1	Al 396.153Radial†	-30.1	47.7	56.735 ug/L	56.735 ppb	00:00:07
1	Ca 317.933Radial†	56.2	25.0	56.080 ug/L	56.080 ppb	00:00:07
1	Fe 238.204 Radial†	10.1	0.0	0.0456 ug/L	0.0456 ppb	00:00:07
1	K 766.490 Radial†	4334.5	1143.2	252.30 ug/L	252.30 ppb	23:59:47
1	Mg 279.077 IEC†	2.7	-0.6	-27.415 ug/L	-27.415 ppb	00:00:07
1	Na 589.592 Radial†	68.6	443.6	178.39 ug/L	178.39 ppb	23:59:47
1	Sr 421.552†	77.1	25.2	0.2282 ug/L	0.2282 ppb	23:59:47
1	Sc 361.383	826982.0	826982.0	112.85 %		00:01:04
1	Y 371.029	678957.9	678957.9	112.33 %		00:01:04
1	Ag 328.068†	135.1	-32.4	-0.1859 ug/L	-0.1859 ppb	00:01:04
1	As 188.979†	-25.2	-0.0	-0.0115 ug/L	-0.0115 ppb	00:01:24
1	B 249.677†	729.4	981.3	29.535 ug/L	29.535 ppb	00:01:24
1	Ba 233.527†	60.8	51.4	0.5409 ug/L	0.5409 ppb	00:01:24
1	Be 313.107†	-3401.8	877.2	0.4119 ug/L	0.4119 ppb	00:01:04
1	Cd 226.502†	-156.9	32.1	0.5235 ug/L	0.5235 ppb	00:01:24
1	Co 228.616†	-41.2	10.2	0.2896 ug/L	0.2896 ppb	00:01:24
1	Cr 267.716†	227.1	106.2	1.6249 ug/L	1.6249 ppb	00:01:24
1	Cu 324.752†	8421.9	1745.8	6.2284 ug/L	6.2284 ppb	00:01:04
1	Mn 257.610†	1666.7	1051.3	1.5356 ug/L	1.5356 ppb	00:01:24
1	Mo 202.031†	18.4	-0.4	-0.0412 ug/L	-0.0412 ppb	00:01:24
1	Ni 231.604†	87.6	-4.9	-0.1769 ug/L	-0.1769 ppb	00:01:24
1	P 214.914†	214.0	1.1	-0.3262 ug/L	-0.3262 ppb	00:01:24
1	Pb 220.353†	-58.5	-2.7	-0.4651 ug/L	-0.4651 ppb	00:01:24
1	S 181.975 Axial†	57.5	23.9	46.437 ug/L	46.437 ppb	00:01:24
1	Sb 206.836†	19.6	-8.3	-3.8688 ug/L	-3.8688 ppb	00:01:24
1	Se 196.026†	-17.3	6.4	5.8109 ug/L	5.8109 ppb	00:01:24
1	Si 251.611†	61166.8	53745.4	2220.4 ug/L	2220.4 ppb	00:01:04
1	Sn 189.927†	7.0	-7.5	-1.8816 ug/L	-1.8816 ppb	00:01:24
1	Ti 334.940†	-572.0	537.5	1.0341 ug/L	1.0341 ppb	00:01:04
1	Tl 190.801†	-28.6	-3.1	-1.3265 ug/L	-1.3265 ppb	00:01:24
1	U 409.014†	-1844.8	199.3	6.7744 ug/L	6.7744 ppb	00:01:04
1	V 292.402†	-1408.2	132.8	1.2022 ug/L	1.2022 ppb	00:01:04
1	Zn 213.857†	1259.2	456.0	6.0812 ug/L	6.0812 ppb	00:01:24
1	SiO2†	60560.9	53200.2	4682.3 ug/L	4682.3 ppb	00:02:20
2	Sc Radial	4270.7	4270.7	113 %		00:00:12
2	Y RADIAL	4581.2	4581.2	112.2 %		00:00:12
2	Al 396.153Radial†	-32.8	43.8	52.065 ug/L	52.065 ppb	00:00:32
2	Ca 317.933Radial†	54.1	26.1	58.441 ug/L	58.441 ppb	00:00:32
2	Fe 238.204 Radial†	10.5	0.9	11.663 ug/L	11.663 ppb	00:00:32
2	K 766.490 Radial†	4281.9	1319.4	291.22 ug/L	291.22 ppb	00:00:12
2	Mg 279.077 IEC†	2.3	-0.7	-35.111 ug/L	-35.111 ppb	00:00:32
2	Na 589.592 Radial†	-22.2	366.6	147.44 ug/L	147.44 ppb	00:00:12
2	Sr 421.552†	73.4	25.8	0.2341 ug/L	0.2341 ppb	00:00:12
2	Sc 361.383	826378.1	826378.1	112.77 %		00:01:29
2	Y 371.029	679581.7	679581.7	112.43 %		00:01:29
2	Ag 328.068†	213.2	36.9	0.2122 ug/L	0.2122 ppb	00:01:29
2	As 188.979†	-29.1	-3.5	-2.1077 ug/L	-2.1077 ppb	00:01:49
2	B 249.677†	758.8	1007.9	30.333 ug/L	30.333 ppb	00:01:49
2	Ba 233.527†	77.8	66.5	0.7003 ug/L	0.7003 ppb	00:01:49
2	Be 313.107†	-3527.4	763.6	0.3591 ug/L	0.3591 ppb	00:01:29
2	Cd 226.502†	-153.4	35.1	0.5713 ug/L	0.5713 ppb	00:01:49
2	Co 228.616†	-41.1	10.3	0.2921 ug/L	0.2921 ppb	00:01:49
2	Cr 267.716†	222.0	101.8	1.5591 ug/L	1.5591 ppb	00:01:49
2	Cu 324.752†	8401.0	1732.7	6.1815 ug/L	6.1815 ppb	00:01:29
2	Mn 257.610†	1633.4	1022.9	1.4955 ug/L	1.4955 ppb	00:01:49
2	Mo 202.031†	18.4	-0.5	-0.0453 ug/L	-0.0453 ppb	00:01:49
2	Ni 231.604†	94.5	1.3	0.0452 ug/L	0.0452 ppb	00:01:49

2	P 214.914†	205.8	-6.0	-6.0668 ug/L	-6.0668 ppb	00:01:49
2	Pb 220.353†	-56.7	-1.2	-0.2042 ug/L	-0.2042 ppb	00:01:49
2	S 181.975 Axial†	58.8	25.0	48.640 ug/L	48.640 ppb	00:01:49
2	Sb 206.836†	22.9	-5.3	-2.4900 ug/L	-2.4900 ppb	00:01:49
2	Se 196.026†	-16.3	7.3	6.5798 ug/L	6.5798 ppb	00:01:49
2	Si 251.611†	61217.0	53829.5	2223.9 ug/L	2223.9 ppb	00:01:29
2	Sn 189.927†	7.4	-7.1	-1.7846 ug/L	-1.7846 ppb	00:01:49
2	Ti 334.940†	-507.6	594.2	1.1429 ug/L	1.1429 ppb	00:01:29
2	Tl 190.801†	-26.5	-1.2	-0.5046 ug/L	-0.5046 ppb	00:01:49
2	U 409.014†	-1795.9	241.5	8.2071 ug/L	8.2071 ppb	00:01:29
2	V 292.402†	-1369.7	166.0	1.5009 ug/L	1.5009 ppb	00:01:29
2	Zn 213.857†	1260.9	458.3	6.1098 ug/L	6.1098 ppb	00:01:49
2	SiO2†	62325.6	54804.4	4823.5 ug/L	4823.5 ppb	00:02:25
3	Sc Radial	4353.7	4353.7	115 %		00:00:37
3	Y RADIAL	4667.2	4667.2	114.3 %		00:00:37
3	Al 396.153Radial†	-27.4	49.0	58.286 ug/L	58.286 ppb	00:00:57
3	Ca 317.933Radial†	59.9	30.2	67.712 ug/L	67.712 ppb	00:00:57
3	Fe 238.204 Radial†	9.9	0.1	1.9889 ug/L	1.9889 ppb	00:00:57
3	K 766.490 Radial†	4166.2	1146.4	253.03 ug/L	253.03 ppb	00:00:37
3	Mg 279.077 IEC†	3.8	0.5	23.966 ug/L	23.966 ppb	00:00:57
3	Na 589.592 Radial†	-44.3	347.8	139.86 ug/L	139.86 ppb	00:00:37
3	Sr 421.552†	81.5	31.6	0.2867 ug/L	0.2867 ppb	00:00:37
3	Sc 361.383	839374.1	839374.1	114.54 %		00:01:55
3	Y 371.029	690168.9	690168.9	114.19 %		00:01:55
3	Ag 328.068†	158.2	-14.0	-0.0857 ug/L	-0.0857 ppb	00:01:55
3	As 188.979†	-28.9	-3.0	-1.7866 ug/L	-1.7866 ppb	00:02:15
3	B 249.677†	762.3	1000.5	30.111 ug/L	30.111 ppb	00:02:15
3	Ba 233.527†	78.4	65.9	0.6934 ug/L	0.6934 ppb	00:02:15
3	Be 313.107†	-3529.6	810.1	0.3810 ug/L	0.3810 ppb	00:01:55
3	Cd 226.502†	-149.9	40.3	0.6573 ug/L	0.6573 ppb	00:02:15
3	Co 228.616†	-31.7	19.0	0.5460 ug/L	0.5460 ppb	00:02:15
3	Cr 267.716†	238.0	112.7	1.7220 ug/L	1.7220 ppb	00:02:15
3	Cu 324.752†	8526.5	1727.0	6.1577 ug/L	6.1577 ppb	00:01:55
3	Mn 257.610†	1672.4	1034.5	1.5091 ug/L	1.5091 ppb	00:02:15
3	Mo 202.031†	29.3	8.8	0.8913 ug/L	0.8913 ppb	00:02:15
3	Ni 231.604†	89.8	-4.1	-0.1483 ug/L	-0.1483 ppb	00:02:15
3	P 214.914†	194.4	-18.7	-16.365 ug/L	-16.365 ppb	00:02:15
3	Pb 220.353†	-53.9	2.0	0.3557 ug/L	0.3557 ppb	00:02:15
3	S 181.975 Axial†	62.8	27.7	53.872 ug/L	53.872 ppb	00:02:15
3	Sb 206.836†	20.4	-7.8	-3.6323 ug/L	-3.6323 ppb	00:02:15
3	Se 196.026†	-15.3	8.3	7.5345 ug/L	7.5345 ppb	00:02:15
3	Si 251.611†	62106.9	53766.0	2221.2 ug/L	2221.2 ppb	00:01:55
3	Sn 189.927†	7.4	-7.2	-1.8120 ug/L	-1.8120 ppb	00:02:15
3	Ti 334.940†	-460.6	642.2	1.2286 ug/L	1.2286 ppb	00:01:55
3	Tl 190.801†	-33.4	-6.9	-2.9738 ug/L	-2.9738 ppb	00:02:15
3	U 409.014†	-1647.6	395.6	13.449 ug/L	13.449 ppb	00:01:55
3	V 292.402†	-1412.7	147.2	1.3582 ug/L	1.3582 ppb	00:01:55
3	Zn 213.857†	1261.1	441.1	5.8829 ug/L	5.8829 ppb	00:02:15
3	SiO2†	61637.6	53348.0	4695.3 ug/L	4695.3 ppb	00:02:30

Mean Data: 248046002|959089|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	830911.4	113.39	%	1.001				0.88%
Sc Radial	4386.0	116	%	3.5				3.06%
Y 371.029	682902.8	112.98	%	1.042				0.92%
Y RADIAL	4700.4	115.1	%	3.40				2.95%
Ag 328.068†	-3.2	-0.0198	ug/L	0.20706	-0.0198	ppb	0.20706	>999.9%
Al 396.153Radial†	46.8	55.695	ug/L	3.2381	55.695	ppb	3.2381	5.81%
As 188.979†	-2.2	-1.3019	ug/L	1.12902	-1.3019	ppb	1.12902	86.72%
B 249.677†	996.6	29.993	ug/L	0.4116	29.993	ppb	0.4116	1.37%
Ba 233.527†	61.2	0.6449	ug/L	0.09011	0.6449	ppb	0.09011	13.97%
Be 313.107†	817.0	0.3840	ug/L	0.02651	0.3840	ppb	0.02651	6.90%
Ca 317.933Radial†	27.1	60.744	ug/L	6.1485	60.744	ppb	6.1485	10.12%
Cd 226.502†	35.9	0.5841	ug/L	0.06782	0.5841	ppb	0.06782	11.61%
Co 228.616†	13.2	0.3759	ug/L	0.14733	0.3759	ppb	0.14733	39.19%
Cr 267.716†	106.9	1.6353	ug/L	0.08193	1.6353	ppb	0.08193	5.01%
Cu 324.752†	1735.2	6.1892	ug/L	0.03597	6.1892	ppb	0.03597	0.58%
Fe 238.204 Radial†	0.3	4.5657	ug/L	6.22238	4.5657	ppb	6.22238	136.29%
K 766.490 Radial†	1203.0	265.51	ug/L	22.265	265.51	ppb	22.265	8.39%

Mg 279.077 IEC†	-0.3	-12.853 ug/L	32.1181	-12.853 ppb	32.1181	249.88%
Mn 257.610†	1036.2	1.5134 ug/L	0.02036	1.5134 ppb	0.02036	1.35%
Mo 202.031†	2.6	0.2683 ug/L	0.53956	0.2683 ppb	0.53956	201.12%
Na 589.592 Radial†	386.0	155.23 ug/L	20.413	155.23 ppb	20.413	13.15%
Ni 231.604†	-2.6	-0.0933 ug/L	0.12082	-0.0933 ppb	0.12082	129.48%
P 214.914†	-7.9	-7.5859 ug/L	8.12647	-7.5859 ppb	8.12647	107.13%
Pb 220.353†	-0.7	-0.1046 ug/L	0.41942	-0.1046 ppb	0.41942	401.16%
S 181.975 Axial†	25.5	49.650 ug/L	3.8192	49.650 ppb	3.8192	7.69%
Sb 206.836†	-7.1	-3.3304 ug/L	0.73731	-3.3304 ppb	0.73731	22.14%
Se 196.026†	7.4	6.6417 ug/L	0.86344	6.6417 ppb	0.86344	13.00%
Si 251.611†	53780.3	2221.8 ug/L	1.81	2221.8 ppb	1.81	0.08%
Sn 189.927†	-7.2	-1.8261 ug/L	0.05001	-1.8261 ppb	0.05001	2.74%
Sr 421.552†	27.6	0.2497 ug/L	0.03223	0.2497 ppb	0.03223	12.91%
Ti 334.940†	591.3	1.1352 ug/L	0.09749	1.1352 ppb	0.09749	8.59%
Tl 190.801†	-3.7	-1.6016 ug/L	1.25742	-1.6016 ppb	1.25742	78.51%
U 409.014†	278.8	9.4767 ug/L	3.51361	9.4767 ppb	3.51361	37.08%
V 292.402†	148.6	1.3538 ug/L	0.14937	1.3538 ppb	0.14937	11.03%
Zn 213.857†	451.8	6.0246 ug/L	0.12357	6.0246 ppb	0.12357	2.05%
SiO2†	53784.2	4733.7 ug/L	78.04	4733.7 ppb	78.04	1.65%

Sequence No.: 45

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/27/2010 00:04:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc Radial	4205.2	4205.2	111 %			00:06:53
1	Y RADIAL	4653.7	4653.7	114.0 %			00:06:33
1	Al 396.153Radial†	4789.3	4387.0	5195.4 ug/L		5195.4 ppb	00:06:33
1	Ca 317.933Radial†	2576.0	2298.5	5149.6 ug/L		5149.6 ppb	00:06:53
1	Fe 238.204 Radial†	422.1	371.8	4929.9 ug/L		4929.9 ppb	00:06:53
1	K 766.490 Radial†	27113.0	21944.5	4838.8 ug/L		4838.8 ppb	00:06:33
1	Mg 279.077 IEC†	122.2	107.2	5071.4 ug/L		5071.4 ppb	00:06:53
1	Na 589.592 Radial†	25164.1	23053.8	9270.6 ug/L		9270.6 ppb	00:06:33
1	Sr 421.552†	58287.3	52465.2	476.27 ug/L		476.27 ppb	00:06:33
1	Sc 361.383	838515.4	838515.4	114.43 %			00:07:51
1	Y 371.029	683287.2	683287.2	113.05 %			00:07:51
1	Ag 328.068†	103243.2	90075.4	515.57 ug/L		515.57 ppb	00:07:56
1	As 188.979†	942.9	846.3	518.11 ug/L		518.11 ppb	00:08:16
1	B 249.677†	18855.4	16813.3	503.78 ug/L		503.78 ppb	00:07:56
1	Ba 233.527†	55576.1	48567.2	510.31 ug/L		510.31 ppb	00:07:56
1	Be 313.107†	1240187.1	1087730.7	508.98 ug/L		508.98 ppb	00:07:51
1	Cd 226.502†	35742.0	31407.2	510.24 ug/L		510.24 ppb	00:07:56
1	Co 228.616†	20605.1	18054.1	518.88 ug/L		518.88 ppb	00:07:56
1	Cr 267.716†	38245.5	33328.9	511.31 ug/L		511.31 ppb	00:07:56
1	Cu 324.752†	169241.6	142188.6	507.55 ug/L		507.55 ppb	00:07:56
1	Mn 257.610†	392552.1	342638.3	500.37 ug/L		500.37 ppb	00:07:51
1	Mo 202.031†	5824.4	5073.4	512.76 ug/L		512.76 ppb	00:08:16
1	Ni 231.604†	16714.7	14525.0	520.82 ug/L		520.82 ppb	00:07:56
1	P 214.914†	3811.1	3142.2	2441.1 ug/L		2441.1 ppb	00:08:16
1	Pb 220.353†	3297.4	2930.8	508.47 ug/L		508.47 ppb	00:08:16
1	S 181.975 Axial†	635.5	528.3	1026.3 ug/L		1026.3 ppb	00:08:16
1	Sb 206.836†	1297.1	1107.9	532.23 ug/L		532.23 ppb	00:08:16
1	Se 196.026†	630.7	573.0	531.60 ug/L		531.60 ppb	00:08:16
1	Si 251.611†	71825.7	62315.1	2568.1 ug/L		2568.1 ppb	00:07:56
1	Sn 189.927†	2310.0	2005.1	508.98 ug/L		508.98 ppb	00:08:16
1	Ti 334.940†	300764.1	263891.7	504.52 ug/L		504.52 ppb	00:07:56
1	Tl 190.801†	1329.7	1184.4	514.07 ug/L		514.07 ppb	00:08:16
1	U 409.014†	15429.6	15318.5	519.20 ug/L		519.20 ppb	00:07:56
1	V 292.402†	63483.1	56860.5	517.40 ug/L		517.40 ppb	00:07:56
1	Zn 213.857†	44725.0	38426.8	508.37 ug/L		508.37 ppb	00:07:56
1	SiO2†	70610.7	61245.0	5376.4 ug/L		5376.4 ppb	00:09:23
2	Sc Radial	4195.5	4195.5	111 %			00:07:18
2	Y RADIAL	4633.0	4633.0	113.5 %			00:06:58
2	Al 396.153Radial†	4814.4	4419.6	5234.9 ug/L		5234.9 ppb	00:06:58
2	Ca 317.933Radial†	2590.2	2316.7	5190.2 ug/L		5190.2 ppb	00:07:18
2	Fe 238.204 Radial†	424.7	375.0	4972.2 ug/L		4972.2 ppb	00:07:18
2	K 766.490 Radial†	27283.5	22154.9	4885.2 ug/L		4885.2 ppb	00:06:58
2	Mg 279.077 IEC†	122.6	107.9	5101.6 ug/L		5101.6 ppb	00:07:18
2	Na 589.592 Radial†	25222.8	23159.2	9313.0 ug/L		9313.0 ppb	00:06:58
2	Sr 421.552†	58802.8	53051.9	481.60 ug/L		481.60 ppb	00:06:58
2	Sc 361.383	852862.4	852862.4	116.38 %			00:08:22
2	Y 371.029	694023.9	694023.9	114.82 %			00:08:22
2	Ag 328.068†	102823.8	88197.2	504.86 ug/L		504.86 ppb	00:08:27
2	As 188.979†	935.7	826.3	505.88 ug/L		505.88 ppb	00:08:47
2	B 249.677†	18923.9	16595.0	497.23 ug/L		497.23 ppb	00:08:27
2	Ba 233.527†	55239.6	47461.0	498.69 ug/L		498.69 ppb	00:08:27
2	Be 313.107†	1263462.1	1089496.9	509.78 ug/L		509.78 ppb	00:08:22
2	Cd 226.502†	35521.7	30692.5	498.61 ug/L		498.61 ppb	00:08:27
2	Co 228.616†	20455.7	17622.8	506.47 ug/L		506.47 ppb	00:08:27
2	Cr 267.716†	38041.7	32591.6	500.01 ug/L		500.01 ppb	00:08:27
2	Cu 324.752†	168625.2	139171.0	496.78 ug/L		496.78 ppb	00:08:27
2	Mn 257.610†	400803.3	343956.9	502.30 ug/L		502.30 ppb	00:08:22
2	Mo 202.031†	5756.3	4929.3	498.21 ug/L		498.21 ppb	00:08:47
2	Ni 231.604†	16585.9	14168.6	508.04 ug/L		508.04 ppb	00:08:27

2	P 214.914†	3780.0	3059.4	2376.3 ug/L	2376.3 ppb	00:08:47
2	Pb 220.353†	3281.8	2868.9	497.73 ug/L	497.73 ppb	00:08:47
2	S 181.975 Axial†	632.4	516.3	1003.0 ug/L	1003.0 ppb	00:08:47
2	Sb 206.836†	1278.8	1073.2	515.61 ug/L	515.61 ppb	00:08:47
2	Se 196.026†	620.1	554.5	515.12 ug/L	515.12 ppb	00:08:47
2	Si 251.611†	71594.6	61060.6	2516.5 ug/L	2516.5 ppb	00:08:27
2	Sn 189.927†	2291.7	1955.4	496.39 ug/L	496.39 ppb	00:08:47
2	Ti 334.940†	299185.9	258114.0	493.48 ug/L	493.48 ppb	00:08:27
2	Tl 190.801†	1305.8	1144.2	496.77 ug/L	496.77 ppb	00:08:47
2	U 409.014†	15257.9	14944.0	506.48 ug/L	506.48 ppb	00:08:27
2	V 292.402†	63097.1	55595.6	505.83 ug/L	505.83 ppb	00:08:27
2	Zn 213.857†	44540.9	37611.0	497.57 ug/L	497.57 ppb	00:08:27
2	SiO2†	69790.8	59502.4	5223.4 ug/L	5223.4 ppb	00:09:28
3	Sc Radial	4205.2	4205.2	111 %		00:07:44
3	Y RADIAL	4682.4	4682.4	114.7 %		00:07:24
3	Al 396.153Radial†	4880.1	4468.9	5293.3 ug/L	5293.3 ppb	00:07:24
3	Ca 317.933Radial†	2610.7	2329.8	5219.7 ug/L	5219.7 ppb	00:07:44
3	Fe 238.204 Radial†	428.9	377.9	5011.2 ug/L	5011.2 ppb	00:07:44
3	K 766.490 Radial†	27604.1	22387.3	4936.5 ug/L	4936.5 ppb	00:07:24
3	Mg 279.077 IEC†	123.5	108.4	5127.5 ug/L	5127.5 ppb	00:07:44
3	Na 589.592 Radial†	25314.0	23189.2	9325.1 ug/L	9325.1 ppb	00:07:24
3	Sr 421.552†	59377.3	53447.9	485.19 ug/L	485.19 ppb	00:07:24
3	Sc 361.383	842276.9	842276.9	114.94 %		00:08:53
3	Y 371.029	686076.6	686076.6	113.51 %		00:08:53
3	Ag 328.068†	101459.8	88120.8	504.43 ug/L	504.43 ppb	00:08:58
3	As 188.979†	930.4	831.8	509.20 ug/L	509.20 ppb	00:09:18
3	B 249.677†	18599.1	16516.7	494.87 ug/L	494.87 ppb	00:08:58
3	Ba 233.527†	54662.0	47555.0	499.67 ug/L	499.67 ppb	00:08:58
3	Be 313.107†	1247319.7	1089096.0	509.59 ug/L	509.59 ppb	00:08:53
3	Cd 226.502†	35169.8	30769.9	499.86 ug/L	499.86 ppb	00:08:58
3	Co 228.616†	20230.4	17647.8	507.20 ug/L	507.20 ppb	00:08:58
3	Cr 267.716†	37558.7	32582.1	499.87 ug/L	499.87 ppb	00:08:58
3	Cu 324.752†	165517.6	138288.1	493.64 ug/L	493.64 ppb	00:08:58
3	Mn 257.610†	396066.3	344163.6	502.61 ug/L	502.61 ppb	00:08:53
3	Mo 202.031†	5727.1	4966.0	501.92 ug/L	501.92 ppb	00:09:18
3	Ni 231.604†	16293.4	14093.2	505.33 ug/L	505.33 ppb	00:08:58
3	P 214.914†	3741.4	3066.7	2382.8 ug/L	2382.8 ppb	00:09:18
3	Pb 220.353†	3259.7	2885.1	500.56 ug/L	500.56 ppb	00:09:18
3	S 181.975 Axial†	626.6	518.0	1006.3 ug/L	1006.3 ppb	00:09:18
3	Sb 206.836†	1280.0	1088.0	522.59 ug/L	522.59 ppb	00:09:18
3	Se 196.026†	607.8	550.5	511.62 ug/L	511.62 ppb	00:09:18
3	Si 251.611†	70536.4	60913.0	2510.3 ug/L	2510.3 ppb	00:08:58
3	Sn 189.927†	2273.7	1964.5	498.69 ug/L	498.69 ppb	00:09:18
3	Ti 334.940†	294796.7	257526.0	492.36 ug/L	492.36 ppb	00:08:58
3	Tl 190.801†	1305.5	1158.1	502.73 ug/L	502.73 ppb	00:09:18
3	U 409.014†	14890.6	14789.2	501.22 ug/L	501.22 ppb	00:08:58
3	V 292.402†	62157.4	55459.3	504.64 ug/L	504.64 ppb	00:08:58
3	Zn 213.857†	43972.7	37597.7	497.40 ug/L	497.40 ppb	00:08:58
3	SiO2†	72009.6	62186.4	5459.6 ug/L	5459.6 ppb	00:09:34

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	844551.6	115.25 %	1.015			0.88%
Sc Radial	4202.0	111 %	0.1			0.13%
Y 371.029	687795.9	113.79 %	0.922			0.81%
Y RADIAL	4656.4	114.1 %	0.61			0.53%
Ag 328.068†	88797.8	508.29 ug/L	6.309	508.29 ppb	6.309	1.24%
QC value within limits for Ag 328.068 Recovery = 101.66%						
Al 396.153Radial†	4425.2	5241.2 ug/L	49.30	5241.2 ppb	49.30	0.94%
QC value within limits for Al 396.153Radial Recovery = 104.82%						
As 188.979†	834.8	511.07 ug/L	6.324	511.07 ppb	6.324	1.24%
QC value within limits for As 188.979 Recovery = 102.21%						
B 249.677†	16641.7	498.63 ug/L	4.613	498.63 ppb	4.613	0.93%
QC value within limits for B 249.677 Recovery = 99.73%						
Ba 233.527†	47861.0	502.89 ug/L	6.442	502.89 ppb	6.442	1.28%
QC value within limits for Ba 233.527 Recovery = 100.58%						
Be 313.107†	1088774.5	509.45 ug/L	0.418	509.45 ppb	0.418	0.08%
QC value within limits for Be 313.107 Recovery = 101.89%						
Ca 317.933Radial†	2315.0	5186.5 ug/L	35.23	5186.5 ppb	35.23	0.68%

QC value within limits for Ca 317.933 Radial Recovery = 103.73%

Cd 226.502†	30956.5	502.90 ug/L	6.383	502.90 ppb	6.383	1.27%
QC value within limits for Cd 226.502 Recovery = 100.58%						
Co 228.616†	17774.9	510.85 ug/L	6.962	510.85 ppb	6.962	1.36%
QC value within limits for Co 228.616 Recovery = 102.17%						
Cr 267.716†	32834.2	503.73 ug/L	6.562	503.73 ppb	6.562	1.30%
QC value within limits for Cr 267.716 Recovery = 100.75%						
Cu 324.752†	139882.6	499.32 ug/L	7.294	499.32 ppb	7.294	1.46%
QC value within limits for Cu 324.752 Recovery = 99.86%						
Fe 238.204 Radial†	374.9	4971.1 ug/L	40.70	4971.1 ppb	40.70	0.82%
QC value within limits for Fe 238.204 Radial Recovery = 99.42%						
K 766.490 Radial†	22162.3	4886.8 ug/L	48.89	4886.8 ppb	48.89	1.00%
QC value within limits for K 766.490 Radial Recovery = 97.74%						
Mg 279.077 IEC†	107.8	5100.2 ug/L	28.09	5100.2 ppb	28.09	0.55%
QC value within limits for Mg 279.077 IEC Recovery = 102.00%						
Mn 257.610†	343586.3	501.76 ug/L	1.210	501.76 ppb	1.210	0.24%
QC value within limits for Mn 257.610 Recovery = 100.35%						
Mo 202.031†	4989.5	504.30 ug/L	7.562	504.30 ppb	7.562	1.50%
QC value within limits for Mo 202.031 Recovery = 100.86%						
Na 589.592 Radial†	23134.1	9302.9 ug/L	28.60	9302.9 ppb	28.60	0.31%
QC value within limits for Na 589.592 Radial Recovery = 93.03%						
Ni 231.604†	14262.3	511.40 ug/L	8.271	511.40 ppb	8.271	1.62%
QC value within limits for Ni 231.604 Recovery = 102.28%						
P 214.914†	3089.4	2400.1 ug/L	35.73	2400.1 ppb	35.73	1.49%
QC value within limits for P 214.914 Recovery = 96.00%						
Pb 220.353†	2894.9	502.25 ug/L	5.566	502.25 ppb	5.566	1.11%
QC value within limits for Pb 220.353 Recovery = 100.45%						
S 181.975 Axial†	520.9	1011.9 ug/L	12.60	1011.9 ppb	12.60	1.24%
QC value within limits for S 181.975 Axial Recovery = 101.19%						
Sb 206.836†	1089.7	523.47 ug/L	8.344	523.47 ppb	8.344	1.59%
QC value within limits for Sb 206.836 Recovery = 104.69%						
Se 196.026†	559.3	519.45 ug/L	10.674	519.45 ppb	10.674	2.05%
QC value within limits for Se 196.026 Recovery = 103.89%						
Si 251.611†	61429.5	2531.6 ug/L	31.74	2531.6 ppb	31.74	1.25%
QC value within limits for Si 251.611 Recovery = 101.27%						
Sn 189.927†	1975.0	501.35 ug/L	6.705	501.35 ppb	6.705	1.34%
QC value within limits for Sn 189.927 Recovery = 100.27%						
Sr 421.552†	52988.4	481.02 ug/L	4.489	481.02 ppb	4.489	0.93%
QC value within limits for Sr 421.552 Recovery = 96.20%						
Ti 334.940†	259843.9	496.79 ug/L	6.719	496.79 ppb	6.719	1.35%
QC value within limits for Ti 334.940 Recovery = 99.36%						
Tl 190.801†	1162.2	504.53 ug/L	8.789	504.53 ppb	8.789	1.74%
QC value within limits for Tl 190.801 Recovery = 100.91%						
U 409.014†	15017.2	508.97 ug/L	9.243	508.97 ppb	9.243	1.82%
QC value within limits for U 409.014 Recovery = 101.79%						
V 292.402†	55971.8	509.29 ug/L	7.051	509.29 ppb	7.051	1.38%
QC value within limits for V 292.402 Recovery = 101.86%						
Zn 213.857†	37878.5	501.11 ug/L	6.285	501.11 ppb	6.285	1.25%
QC value within limits for Zn 213.857 Recovery = 100.22%						
SiO2†	60977.9	5353.1 ug/L	119.77	5353.1 ppb	119.77	2.24%
QC value within limits for SiO2 Recovery = 100.11%						

All analyte(s) passed QC.



Sequence No.: 46

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/27/2010 00:11:43

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	4234.9	4234.9	112 %		00:13:55
1	Y RADIAL	4547.8	4547.8	111.4 %		00:13:35
1	Al 396.153Radial†	-69.9	10.4	12.348 ug/L	12.348 ppb	00:13:55
1	Ca 317.933Radial†	26.4	1.7	3.8659 ug/L	3.8659 ppb	00:13:55
1	Fe 238.204 Radial†	4.8	-4.1	-54.792 ug/L	-54.792 ppb	00:13:55
1	K 766.490 Radial†	2601.1	-151.9	-33.518 ug/L	-33.518 ppb	00:13:35
1	Mg 279.077 IEC†	2.2	-0.8	-39.243 ug/L	-39.243 ppb	00:13:55
1	Na 589.592 Radial†	-582.4	-134.6	-54.143 ug/L	-54.143 ppb	00:13:35
1	Sr 421.552†	46.4	2.3	0.0205 ug/L	0.0205 ppb	00:13:35
1	Sc 361.383	823631.4	823631.4	112.39 %		00:14:52
1	Y 371.029	678592.1	678592.1	112.27 %		00:14:52
1	Ag 328.068†	232.1	54.4	0.2974 ug/L	0.2974 ppb	00:14:52
1	As 188.979†	-24.6	0.4	0.2236 ug/L	0.2236 ppb	00:15:12
1	B 249.677†	-194.5	161.9	4.8825 ug/L	4.8825 ppb	00:15:12
1	Ba 233.527†	19.1	14.4	0.1523 ug/L	0.1523 ppb	00:15:12
1	Be 313.107†	-3975.0	354.9	0.1660 ug/L	0.1660 ppb	00:14:52
1	Cd 226.502†	-175.9	14.6	0.2434 ug/L	0.2434 ppb	00:15:12
1	Co 228.616†	-44.9	6.8	0.1958 ug/L	0.1958 ppb	00:15:12
1	Cr 267.716†	106.5	-0.3	-0.0085 ug/L	-0.0085 ppb	00:15:12
1	Cu 324.752†	5898.3	-469.1	-1.6774 ug/L	-1.6774 ppb	00:14:52
1	Mn 257.610†	451.7	-23.6	-0.0383 ug/L	-0.0383 ppb	00:15:12
1	Mo 202.031†	19.3	0.5	0.0420 ug/L	0.0420 ppb	00:15:12
1	Ni 231.604†	92.1	-0.6	-0.0206 ug/L	-0.0206 ppb	00:15:12
1	P 214.914†	192.1	-17.5	-13.795 ug/L	-13.795 ppb	00:15:12
1	Pb 220.353†	-70.5	-13.7	-2.3540 ug/L	-2.3540 ppb	00:15:12
1	S 181.975 Axial†	30.4	-0.1	-0.1430 ug/L	-0.1430 ppb	00:15:12
1	Sb 206.836†	23.4	-4.8	-2.2279 ug/L	-2.2279 ppb	00:15:12
1	Se 196.026†	-15.6	7.9	6.9482 ug/L	6.9482 ppb	00:15:12
1	Si 251.611†	495.4	-14.9	-0.6170 ug/L	-0.6170 ppb	00:15:12
1	Sn 189.927†	9.0	-5.6	-1.4204 ug/L	-1.4204 ppb	00:15:12
1	Ti 334.940†	-1089.5	75.0	0.1472 ug/L	0.1472 ppb	00:14:52
1	Tl 190.801†	-32.1	-6.3	-2.7282 ug/L	-2.7282 ppb	00:15:12
1	U 409.014†	-2071.2	-8.8	-0.2915 ug/L	-0.2915 ppb	00:14:52
1	V 292.402†	-1400.2	134.8	1.2176 ug/L	1.2176 ppb	00:14:52
1	Zn 213.857†	598.5	-127.3	-1.6892 ug/L	-1.6892 ppb	00:15:12
1	SiO2†	482.1	-35.1	-3.0875 ug/L	-3.0875 ppb	00:16:23
2	Sc Radial	4240.8	4240.8	112 %		00:14:20
2	Y RADIAL	4660.6	4660.6	114.2 %		00:14:00
2	Al 396.153Radial†	-68.2	12.0	14.311 ug/L	14.311 ppb	00:14:20
2	Ca 317.933Radial†	27.5	2.6	5.8281 ug/L	5.8281 ppb	00:14:20
2	Fe 238.204 Radial†	6.9	-2.3	-30.312 ug/L	-30.312 ppb	00:14:20
2	K 766.490 Radial†	2707.9	-59.7	-13.164 ug/L	-13.164 ppb	00:14:00
2	Mg 279.077 IEC†	2.8	-0.3	-13.280 ug/L	-13.280 ppb	00:14:20
2	Na 589.592 Radial†	-621.2	-168.5	-67.764 ug/L	-67.764 ppb	00:14:00
2	Sr 421.552†	44.9	0.8	0.0075 ug/L	0.0075 ppb	00:14:00
2	Sc 361.383	821666.0	821666.0	112.13 %		00:15:17
2	Y 371.029	676773.7	676773.7	111.97 %		00:15:17
2	Ag 328.068†	217.8	42.1	0.2297 ug/L	0.2297 ppb	00:15:17
2	As 188.979†	-28.0	-2.7	-1.6467 ug/L	-1.6467 ppb	00:15:37
2	B 249.677†	-209.7	147.9	4.4563 ug/L	4.4563 ppb	00:15:37
2	Ba 233.527†	15.0	10.8	0.1141 ug/L	0.1141 ppb	00:15:37
2	Be 313.107†	-3950.6	368.2	0.1722 ug/L	0.1722 ppb	00:15:17
2	Cd 226.502†	-164.0	24.9	0.4085 ug/L	0.4085 ppb	00:15:37
2	Co 228.616†	-33.8	16.6	0.4745 ug/L	0.4745 ppb	00:15:37
2	Cr 267.716†	113.9	6.5	0.0955 ug/L	0.0955 ppb	00:15:37
2	Cu 324.752†	5938.1	-421.0	-1.5067 ug/L	-1.5067 ppb	00:15:17
2	Mn 257.610†	433.7	-38.8	-0.0590 ug/L	-0.0590 ppb	00:15:37
2	Mo 202.031†	3.9	-13.2	-1.3387 ug/L	-1.3387 ppb	00:15:37
2	Ni 231.604†	76.2	-14.6	-0.5244 ug/L	-0.5244 ppb	00:15:37

2	P 214.914†	190.5	-18.6	-14.716 ug/L	-14.716 ppb	00:15:37
2	Pb 220.353†	-57.8	-2.5	-0.4195 ug/L	-0.4195 ppb	00:15:37
2	S 181.975 Axial†	22.2	-7.3	-14.282 ug/L	-14.282 ppb	00:15:37
2	Sb 206.836†	32.5	3.4	1.5174 ug/L	1.5174 ppb	00:15:37
2	Se 196.026†	-5.7	16.6	14.883 ug/L	14.883 ppb	00:15:37
2	Si 251.611†	473.8	-33.1	-1.3527 ug/L	-1.3527 ppb	00:15:37
2	Sn 189.927†	5.7	-8.5	-2.1598 ug/L	-2.1598 ppb	00:15:37
2	Ti 334.940†	-1092.1	70.4	0.1348 ug/L	0.1348 ppb	00:15:17
2	Tl 190.801†	-30.8	-5.2	-2.2628 ug/L	-2.2628 ppb	00:15:37
2	U 409.014†	-1933.0	110.0	3.7444 ug/L	3.7444 ppb	00:15:17
2	V 292.402†	-1456.6	81.5	0.7243 ug/L	0.7243 ppb	00:15:17
2	Zn 213.857†	600.9	-123.9	-1.6445 ug/L	-1.6445 ppb	00:15:37
2	SiO2†	507.9	-11.0	-0.9353 ug/L	-0.9353 ppb	00:16:43
3	Sc Radial	4273.5	4273.5	113 %		00:14:45
3	Y RADIAL	4585.1	4585.1	112.3 %		00:14:25
3	Al 396.153Radial†	-68.8	11.9	14.161 ug/L	14.161 ppb	00:14:45
3	Ca 317.933Radial†	28.0	2.9	6.5212 ug/L	6.5212 ppb	00:14:45
3	Fe 238.204 Radial†	9.0	-0.5	-6.2495 ug/L	-6.2495 ppb	00:14:45
3	K 766.490 Radial†	2618.4	-157.6	-34.777 ug/L	-34.777 ppb	00:14:25
3	Mg 279.077 IEC†	3.5	0.3	13.753 ug/L	13.753 ppb	00:14:45
3	Na 589.592 Radial†	-616.2	-159.9	-64.298 ug/L	-64.298 ppb	00:14:25
3	Sr 421.552†	42.1	-2.0	-0.0178 ug/L	-0.0178 ppb	00:14:25
3	Sc 361.383	804119.7	804119.7	109.73 %		00:15:43
3	Y 371.029	662186.8	662186.8	109.56 %		00:15:43
3	Ag 328.068†	196.4	26.8	0.1472 ug/L	0.1472 ppb	00:15:43
3	As 188.979†	-22.1	2.1	1.2995 ug/L	1.2995 ppb	00:16:03
3	B 249.677†	-191.5	160.5	4.8316 ug/L	4.8316 ppb	00:16:03
3	Ba 233.527†	13.9	10.1	0.1073 ug/L	0.1073 ppb	00:16:03
3	Be 313.107†	-3940.9	300.2	0.1405 ug/L	0.1405 ppb	00:15:43
3	Cd 226.502†	-171.1	15.2	0.2486 ug/L	0.2486 ppb	00:16:03
3	Co 228.616†	-49.9	1.3	0.0339 ug/L	0.0339 ppb	00:16:03
3	Cr 267.716†	102.4	-1.7	-0.0290 ug/L	-0.0290 ppb	00:16:03
3	Cu 324.752†	5850.6	-385.3	-1.3800 ug/L	-1.3800 ppb	00:15:43
3	Mn 257.610†	433.7	-30.4	-0.0455 ug/L	-0.0455 ppb	00:16:03
3	Mo 202.031†	8.2	-9.3	-0.9415 ug/L	-0.9415 ppb	00:16:03
3	Ni 231.604†	72.9	-16.2	-0.5796 ug/L	-0.5796 ppb	00:16:03
3	P 214.914†	192.8	-12.8	-10.072 ug/L	-10.072 ppb	00:16:03
3	Pb 220.353†	-56.5	-2.4	-0.4111 ug/L	-0.4111 ppb	00:16:03
3	S 181.975 Axial†	29.6	-0.1	-0.1697 ug/L	-0.1697 ppb	00:16:03
3	Sb 206.836†	24.1	-3.6	-1.7417 ug/L	-1.7417 ppb	00:16:03
3	Se 196.026†	-23.2	0.6	0.5056 ug/L	0.5056 ppb	00:16:03
3	Si 251.611†	489.7	-9.5	-0.3804 ug/L	-0.3804 ppb	00:16:03
3	Sn 189.927†	6.1	-8.1	-2.0585 ug/L	-2.0585 ppb	00:16:03
3	Ti 334.940†	-1052.4	85.3	0.1593 ug/L	0.1593 ppb	00:15:43
3	Tl 190.801†	-26.7	-2.1	-0.8998 ug/L	-0.8998 ppb	00:16:03
3	U 409.014†	-1756.8	233.0	7.9248 ug/L	7.9248 ppb	00:15:43
3	V 292.402†	-1418.9	87.5	0.7887 ug/L	0.7887 ppb	00:15:43
3	Zn 213.857†	606.4	-107.2	-1.4247 ug/L	-1.4247 ppb	00:16:03
3	SiO2†	499.0	-9.2	-0.7848 ug/L	-0.7848 ppb	00:17:03

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	816472.4	111.42 %	1.466			1.32%
Sc Radial	4249.7	112 %	0.5			0.49%
Y 371.029	672517.5	111.27 %	1.488			1.34%
Y RADIAL	4597.8	112.6 %	1.41			1.25%
Ag 328.068†	41.1	0.2247 ug/L	0.07522	0.2247 ppb	0.07522	33.47%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	11.4	13.607 ug/L	1.0923	13.607 ppb	1.0923	8.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.1	-0.0412 ug/L	1.49081	-0.0412 ppb	1.49081	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	156.8	4.7235 ug/L	0.23278	4.7235 ppb	0.23278	4.93%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.8	0.1246 ug/L	0.02430	0.1246 ppb	0.02430	19.51%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	341.1	0.1596 ug/L	0.01680	0.1596 ppb	0.01680	10.53%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.4	5.4051 ug/L	1.37726	5.4051 ppb	1.37726	25.48%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd 226.502†	18.3	0.3002 ug/L	0.09387	0.3002 ppb	0.09387	31.27%			
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co 228.616†	8.2	0.2348 ug/L	0.22287	0.2348 ppb	0.22287	94.94%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	1.5	0.0193 ug/L	0.06676	0.0193 ppb	0.06676	345.06%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	-425.1	-1.5214 ug/L	0.14926	-1.5214 ppb	0.14926	9.81%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	-2.3	-30.451 ug/L	24.2716	-30.451 ppb	24.2716	79.71%			
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K 766.490 Radial†	-123.1	-27.153 ug/L	12.1315	-27.153 ppb	12.1315	44.68%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	-0.3	-12.923 ug/L	26.4998	-12.923 ppb	26.4998	205.06%			
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn 257.610†	-30.9	-0.0476 ug/L	0.01052	-0.0476 ppb	0.01052	22.10%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	-7.4	-0.7460 ug/L	0.71078	-0.7460 ppb	0.71078	95.28%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	-154.3	-62.069 ug/L	7.0789	-62.069 ppb	7.0789	11.40%			
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	-10.4	-0.3748 ug/L	0.30803	-0.3748 ppb	0.30803	82.17%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	-16.3	-12.861 ug/L	2.4590	-12.861 ppb	2.4590	19.12%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	-6.2	-1.0615 ug/L	1.11930	-1.0615 ppb	1.11930	105.44%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	-2.5	-4.8649 ug/L	8.15542	-4.8649 ppb	8.15542	167.64%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	-1.7	-0.8174 ug/L	2.03656	-0.8174 ppb	2.03656	249.15%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	8.4	7.4455 ug/L	7.20146	7.4455 ppb	7.20146	96.72%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Si 251.611†	-19.2	-0.7834 ug/L	0.50705	-0.7834 ppb	0.50705	64.73%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	-7.4	-1.8795 ug/L	0.40086	-1.8795 ppb	0.40086	21.33%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	0.4	0.0034 ug/L	0.01945	0.0034 ppb	0.01945	572.22%			
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	76.9	0.1471 ug/L	0.01228	0.1471 ppb	0.01228	8.34%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	-4.5	-1.9636 ug/L	0.95019	-1.9636 ppb	0.95019	48.39%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	111.4	3.7926 ug/L	4.10834	3.7926 ppb	4.10834	108.33%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	101.3	0.9102 ug/L	0.26818	0.9102 ppb	0.26818	29.46%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	-119.5	-1.5861 ug/L	0.14158	-1.5861 ppb	0.14158	8.93%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†	-18.4	-1.6025 ug/L	1.28823	-1.6025 ppb	1.28823	80.39%			
QC value within limits for SiO2 Recovery = Not calculated									

All analyte(s) passed QC.

## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Sunday, April 11, 2010 14:25:07

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\100125\Sample.718

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

### Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	1476.9	1476.876	69.851	4.7
Mg	24.0	20563.4	20563.391	243.887	1.2
Co	58.9	60201.8	60201.792	593.479	1.0
Rh	102.9	118302.4	118302.431	575.695	0.5
In	114.9	144990.3	144990.303	1225.130	0.8
Pb	208.0	62594.6	62594.639	440.991	0.7
[> Ba	137.9	132866.7	132866.686	904.406	0.7
[ Ba++	69.0	2162.0	0.016	0.001	4.8
[> Ce	139.9	160176.6	160176.628	1412.329	0.9
[ CeO	155.9	3192.0	0.020	0.000	1.4
Bkgd	220.0	7.3	7.300	1.789	24.5

### Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
4.25	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	1447.7
Co	59	13	6.0	52914.8
In	115	13	6.8	126833.9

## ICPMS #4 TUNING REPORT

File Name: 100411.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	602	2085	0.624
Be	9.0	9.0	2054	2075	0.628
Mg	24.0	24.0	5659	2110	0.557
Mg	25.0	25.0	5959	2125	0.584
Mg	26.0	26.0	6140	2110	0.602
Co	58.9	58.9	14170	2165	0.603
Rh	102.9	102.9	24875	2255	0.608
In	114.9	114.8	27768	2285	0.615
Ce	139.9	139.9	33849	2320	0.631
Pb	206.0	206.0	49939	2485	0.628
Pb	207.0	207.0	50101	2400	0.596
Pb	208.0	208.0	50448	2480	0.675
U	238.1	238.0	57686	2500	0.623

## ICPMS#4 - Summary Report

Sample ID: Blank  
 Sample Date/Time: Sunday, April 11, 2010 23:26:06  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020.mth  
 Dataset File: c:\elandata\Dataset\100408\Blank.518

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		30	
Be	9		ug/L		6	
B	11		ug/L		98	
Na	23		ug/L		7336	
Mg	24		ug/L		2334	
Al	27		ug/L		2000	
P	31		ug/L		3895	
K	39		ug/L		374171	
Ca	43		ug/L		159	
> Sc	45		ug/L		637214	
Ti	47		ug/L		174	
V	51		ug/L		17195	
Cr	52		ug/L		-12415	
Cr	53		ug/L		123321	
Mn	55		ug/L		725	
Fe	57		ug/L		5525	
Co	59		ug/L		139	
Ni	60		ug/L		78	
Cu	63		ug/L		6175	
Cu	65		ug/L		3029	
Zn	66		ug/L		4008	
Zn	67		ug/L		7467	
Zn	68		ug/L		3465	
> Ge	74		ug/L		257622	
As	75		ug/L		227	
Se	77		ug/L		4111	
Se	82		ug/L		27	
Kr	83		ug/L		52	
Sr	88		ug/L		163	
Y	89		ug/L		21	
Zr	90		ug/L		498	
Mo	98		ug/L		974	
Ag	107		ug/L		299	
Cd	111		ug/L		12	
Cd	114		ug/L		28	
> In	115		ug/L		164544	
Sn	120		ug/L		1178	
Sb	121		ug/L		786	
Sb	123		ug/L		632	
Ba	135		ug/L		21	
Ba	137		ug/L		30	
Ho	165		ug/L		8	
> Lu	175		ug/L		194680	
Tl	205		ug/L		457	
Pb	208		ug/L		6246	
Th	232		ug/L		1048	
U	238		ug/L		1281	

Sample ID: Blank  
 Report Date/Time: Sunday, April 11, 2010 23:28:51  
 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	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	0.9963
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	
Zr	90Linear Thru Zero	1.0000
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	0.9999
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
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Blank

Report Date/Time: Sunday, April 11, 2010 23:28:51

Page 2

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	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				
	Zr	90				
	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				
	Th	232				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Sunday, April 11, 2010 23:28:51

Page 3



## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Sunday, April 11, 2010 23:32:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\Standard 1.519

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	0.617	5656	0.009
Be	9	10.000	ug/L	2.217	1474	0.002
B	11	20.000	ug/L	5.522	2754	0.004
Na	23	1000.000	ug/L	6.766	1771326	2.724
Mg	24	1000.000	ug/L	4.787	1134024	1.747
Al	27	1000.000	ug/L	6.548	1693691	2.612
P	31	1000.000	ug/L	2.169	102415	0.152
K	39	1000.000	ug/L	3.875	3508351	4.831
Ca	43	1000.000	ug/L	1.298	6217	0.009
> Sc	45		ug/L		647601	647601.313
Ti	47	10.000	ug/L	1.476	3450	0.005
V	51	10.000	ug/L	13.224	59247	0.065
Cr	52	10.000	ug/L	1.435	17978	0.047
Cr	53		ug/L		127317	0.003
Mn	55	10.000	ug/L	1.444	51356	0.078
Fe	57	1000.000	ug/L	2.094	110377	0.162
Co	59	10.000	ug/L	0.682	39833	0.061
Ni	60	10.000	ug/L	1.159	8527	0.013
Cu	63		ug/L		24802	0.029
Cu	65	10.000	ug/L	0.518	12222	0.014
Zn	66	10.000	ug/L	2.198	9022	0.019
Zn	67		ug/L		8335	0.003
Zn	68		ug/L		7102	0.014
> Ge	74		ug/L		260427	260426.780
As	75	10.000	ug/L	7.715	6458	0.024
Se	77		ug/L		4437	0.001
Se	82	10.000	ug/L	9.763	515	0.002
Kr	83		ug/L		71	0.000
Sr	88	10.000	ug/L	2.015	90247	0.538
Y	89		ug/L		33	0.000
Zr	90	10.000	ug/L	0.976	48540	0.287
Mo	98	10.000	ug/L	3.210	22197	0.127
Ag	107	10.000	ug/L	1.065	35293	0.209
Cd	111	10.000	ug/L	2.765	8084	0.048
Cd	114		ug/L		19054	0.114
> In	115		ug/L		167435	167435.373
Sn	120	10.000	ug/L	1.400	37542	0.217
Sb	121	10.000	ug/L	14.123	20883	0.120
Sb	123		ug/L		15932	0.091
Ba	135		ug/L		8771	0.045
Ba	137	10.000	ug/L	2.099	15207	0.078
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		195483	195482.758
Tl	205	10.000	ug/L	2.030	54039	0.274
Pb	208	10.000	ug/L	0.352	109562	0.528
Th	232	10.000	ug/L	3.063	99432	0.503
U	238	10.000	ug/L	2.442	102217	0.516

Sample ID: Standard 1

Report Date/Time: Sunday, April 11, 2010 23:34:57

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	
Zr	90Linear Thru Zero	1.0000
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
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 % Diff	Dup. Rel. % Diff
[	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				
	Zr	90				
	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				
	Th	232				
[	U	238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Sunday, April 11, 2010 23:34:57

Page 3

## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Sunday, April 11, 2010 23:38:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\Standard 2.520

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	100.022	ug/L	1.654	56685	0.089
Be	9	100.025	ug/L	2.207	14848	0.023
B	11	200.001	ug/L	2.596	26263	0.041
Na	23	10006.646	ug/L	3.118	18631244	29.199
Mg	24	10010.812	ug/L	7.360	12526874	19.613
Al	27	10002.568	ug/L	1.583	17115880	26.817
P	31	10002.600	ug/L	2.616	999898	1.561
K	39	9997.334	ug/L	4.556	30372710	47.039
Ca	43	10004.272	ug/L	2.676	62496	0.098
Sc	45		ug/L		638051	638050.886
Ti	47	100.008	ug/L	0.859	32694	0.051
V	51	100.007	ug/L	1.766	431637	0.650
Cr	52	100.014	ug/L	1.454	293302	0.479
Cr	53		ug/L		138045	0.023
Mn	55	100.019	ug/L	3.817	508908	0.797
Fe	57	10000.799	ug/L	3.573	1045687	1.631
Co	59	100.011	ug/L	3.314	395568	0.620
Ni	60	100.019	ug/L	2.660	84937	0.133
Cu	63		ug/L		198518	0.302
Cu	65	100.019	ug/L	2.689	94809	0.144
Zn	66	100.078	ug/L	1.071	58006	0.207
Zn	67		ug/L		15052	0.029
Zn	68		ug/L		42305	0.149
Ge	74		ug/L		260512	260511.829
As	75	100.048	ug/L	1.699	65689	0.251
Se	77		ug/L		7708	0.014
Se	82	100.189	ug/L	2.279	6059	0.023
Kr	83		ug/L		69	0.000
Sr	88	100.025	ug/L	0.555	899319	5.522
Y	89		ug/L		100	0.000
Zr	90	100.062	ug/L	0.754	498987	3.061
Mo	98	100.067	ug/L	1.804	222152	1.358
Ag	107	100.003	ug/L	1.027	341585	2.096
Cd	111	100.047	ug/L	0.963	82378	0.506
Cd	114		ug/L		190949	1.173
In	115		ug/L		162834	162834.445
Sn	120	100.030	ug/L	1.798	365593	2.238
Sb	121	100.223	ug/L	11.289	252626	1.547
Sb	123		ug/L		194841	1.193
Ba	135		ug/L		88293	0.460
Ba	137	100.031	ug/L	1.582	153884	0.802
Ho	165		ug/L		11	0.000
Lu	175		ug/L		191958	191958.191
Tl	205	100.005	ug/L	1.246	529159	2.755
Pb	208	100.000	ug/L	1.426	1020718	5.286
Th	232	100.052	ug/L	1.441	1020346	5.311
U	238	99.993	ug/L	1.188	985623	5.129

Sample ID: Standard 2

Report Date/Time: Sunday, April 11, 2010 23:41:03

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
	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				
	Zr	90				
	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				
	Th	232				
	U	238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Sunday, April 11, 2010 23:41:03

Page 3

# ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Sunday, April 11, 2010 23:44:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 1.521

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.029	ug/L	1.262	29761	0.046
Be	9	51.344	ug/L	2.324	7691	0.012
B	11	103.995	ug/L	1.650	13826	0.021
Na	23	4997.812	ug/L	6.727	9390382	14.584
Mg	24	5307.531	ug/L	8.251	6691854	10.398
Al	27	5402.464	ug/L	8.634	9319373	14.484
P	31	4918.163	ug/L	1.196	498035	0.768
K	39	4958.027	ug/L	1.168	15393071	23.328
Ca	43	4785.618	ug/L	1.069	30248	0.047
Sc	45		ug/L		643616	643615.763
Ti	47	50.468	ug/L	2.909	16727	0.026
V	51	51.180	ug/L	1.524	231335	0.332
Cr	52	52.544	ug/L	1.713	149503	0.252
Cr	53		ug/L		123687	-0.001
Mn	55	52.710	ug/L	2.194	270964	0.420
Fe	57	4918.064	ug/L	0.954	521742	0.802
Co	59	49.957	ug/L	1.102	199453	0.310
Ni	60	51.939	ug/L	1.811	44539	0.069
Cu	63		ug/L		105887	0.155
Cu	65	52.316	ug/L	2.158	51492	0.075
Zn	66	51.884	ug/L	1.460	31903	0.107
Zn	67		ug/L		10944	0.013
Zn	68		ug/L		23591	0.077
Ge	74		ug/L		259536	259535.738
As	75	51.416	ug/L	2.084	33738	0.129
Se	77		ug/L		5896	0.007
Se	82	53.150	ug/L	2.349	3214	0.012
Kr	83		ug/L		57	0.000
Sr	88	52.620	ug/L	1.312	475877	2.905
Y	89		ug/L		44	0.000
Zr	90	49.695	ug/L	1.506	249486	1.520
Mo	98	49.919	ug/L	1.582	111948	0.678
Ag	107	53.002	ug/L	0.521	182224	1.111
Cd	111	51.786	ug/L	0.515	42893	0.262
Cd	114		ug/L		102194	0.624
In	115		ug/L		163777	163776.812
Sn	120	50.890	ug/L	0.697	187660	1.139
Sb	121	62.693	ug/L	0.478	159229	0.967
Sb	123		ug/L		123183	0.748
Ba	135		ug/L		45098	0.233
Ba	137	50.015	ug/L	2.868	77586	0.401
Ho	165		ug/L		10	0.000
Lu	175		ug/L		193558	193558.282
Tl	205	50.956	ug/L	1.747	272078	1.404
Pb	208	51.956	ug/L	1.317	537721	2.746
Th	232	51.789	ug/L	0.688	533109	2.749
U	238	53.455	ug/L	0.774	531900	2.742

Sample ID: QC Std 1

Report Date/Time: Sunday, April 11, 2010 23:47:10

Page 1

## Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	104.059				
Be	9	102.689				
B	11	103.995				
Na	23	99.956				
Mg	24	106.151				
Al	27	106.979				
P	31	98.363				
K	39	99.161				
Ca	43	95.712				
> Sc	45		101.0			
Ti	47	100.935				
V	51	102.361				
Cr	52	105.088				
Cr	53					
Mn	55	105.419				
Fe	57	98.361				
Co	59	99.914				
Ni	60	103.878				
Cu	63					
Cu	65	104.632				
Zn	66	103.768				
Zn	67					
Zn	68					
> Ge	74		100.7			
As	75	102.831				
Se	77					
Se	82	106.300				
Kr	83					
Sr	88	105.240				
Y	89					
Zr	90	99.390				
Mo	98	99.839				
Ag	107	106.003				
Cd	111	103.571				
Cd	114					
> In	115		99.5			
Sn	120	101.780				
Sb	121	125.386				
Sb	123					
Ba	135					
Ba	137	100.030				
Ho	165					
> Lu	175		99.4			
Tl	205	101.911				
Pb	208	103.912				
Th	232	103.578				
U	238	106.909				

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 1	Sb	121ICV is out of limits ( +/- 10%)

### QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Sunday, April 11, 2010 23:50:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 2.522

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.025	ug/L	52.243	45	0.000
Be	9	0.013	ug/L	126.902	8	0.000
B	11	1.860	ug/L	14.899	342	0.000
Na	23	1.599	ug/L	153.275	10338	0.005
Mg	24	-0.812	ug/L	148.275	1333	-0.002
Al	27	0.978	ug/L	151.938	3667	0.003
P	31	3.579	ug/L	27.763	4268	0.001
K	39	4.422	ug/L	43.511	388890	0.021
Ca	43	1.806	ug/L	215.456	171	0.000
> Sc	45		ug/L		639641	639640.858
Ti	47	0.050	ug/L	37.255	191	0.000
V	51	-0.569	ug/L	116.282	14879	-0.004
Cr	52	0.021	ug/L	167.814	-12397	0.000
Cr	53		ug/L		125525	0.003
Mn	55	0.007	ug/L	125.827	765	0.000
Fe	57	2.747	ug/L	64.839	5834	0.000
Co	59	0.012	ug/L	33.777	189	0.000
Ni	60	0.007	ug/L	299.524	84	0.000
Cu	63		ug/L		5323	-0.001
Cu	65	-0.539	ug/L	5.155	2545	-0.001
Zn	66	-1.307	ug/L	10.019	3291	-0.003
Zn	67		ug/L		7524	0.000
Zn	68		ug/L		3138	-0.001
> Ge	74		ug/L		256053	256052.707
As	75	0.154	ug/L	214.806	323	0.000
Se	77		ug/L		4554	0.002
Se	82	1.482	ug/L	10.442	114	0.000
Kr	83		ug/L		63	0.000
Sr	88	0.008	ug/L	13.690	234	0.000
Y	89		ug/L		20	-0.000
Zr	90	0.216	ug/L	23.823	1574	0.007
Mo	98	0.366	ug/L	19.894	1780	0.005
Ag	107	0.047	ug/L	29.738	459	0.001
Cd	111	0.016	ug/L	71.222	25	0.000
Cd	114		ug/L		62	0.000
> In	115		ug/L		163620	163620.458
Sn	120	0.115	ug/L	34.885	1593	0.003
Sb	121	2.281	ug/L	22.865	6540	0.035
Sb	123		ug/L		5170	0.028
Ba	135		ug/L		31	0.000
Ba	137	0.011	ug/L	21.877	46	0.000
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		192618	192618.156
Tl	205	0.153	ug/L	26.723	1266	0.004
Pb	208	0.001	ug/L	1327.782	6193	0.000
Th	232	0.356	ug/L	23.660	4679	0.019
U	238	-0.001	ug/L	3603.512	1260	-0.000

Sample ID: QC Std 2

Report Date/Time: Sunday, April 11, 2010 23:53:21

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.4			
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		99.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.9			
Tl	205					
Pb	208					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Sunday, April 11, 2010 23:53:21

Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Sunday, April 11, 2010 23:56:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 3.523

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	12.504	ug/L	1.318	6936	0.011
Be	9	0.653	ug/L	6.785	100	0.000
B	11	18.538	ug/L	1.795	2461	0.004
Na	23	268.828	ug/L	10.432	494803	0.784
Mg	24	17.312	ug/L	20.705	23353	0.034
Al	27	36.672	ug/L	13.879	63141	0.098
P	31	50.309	ug/L	3.665	8688	0.008
K	39	345.909	ug/L	6.201	1378210	1.628
Ca	43	235.253	ug/L	2.398	1585	0.002
> Sc	45		ug/L		622093	622093.484
Ti	47	9.580	ug/L	0.811	3207	0.005
V	51	11.717	ug/L	4.612	64121	0.076
Cr	52	12.522	ug/L	1.711	25206	0.060
Cr	53		ug/L		104117	-0.026
Mn	55	6.135	ug/L	0.780	31117	0.049
Fe	57	118.336	ug/L	1.894	17397	0.019
Co	59	1.174	ug/L	1.786	4663	0.007
Ni	60	2.333	ug/L	4.241	2006	0.003
Cu	63		ug/L		5757	-0.000
Cu	65	-0.051	ug/L	29.935	2911	-0.000
Zn	66	10.989	ug/L	2.582	9617	0.023
Zn	67		ug/L		6840	-0.002
Zn	68		ug/L		7323	0.016
> Ge	74		ug/L		251148	251147.981
As	75	4.911	ug/L	22.221	3324	0.012
Se	77		ug/L		3531	-0.002
Se	82	4.375	ug/L	8.607	280	0.001
Kr	83		ug/L		57	0.000
Sr	88	12.036	ug/L	1.086	106609	0.664
Y	89		ug/L		18	-0.000
Zr	90	2.126	ug/L	3.677	10900	0.065
Mo	98	0.481	ug/L	9.696	1993	0.007
Ag	107	1.021	ug/L	1.050	3720	0.021
Cd	111	1.183	ug/L	3.871	970	0.006
Cd	114		ug/L		2243	0.014
> In	115		ug/L		160224	160223.669
Sn	120	5.523	ug/L	5.079	20934	0.124
Sb	121	2.631	ug/L	11.969	7267	0.041
Sb	123		ug/L		5598	0.031
Ba	135		ug/L		2043	0.011
Ba	137	2.300	ug/L	2.540	3472	0.018
Ho	165		ug/L		13	0.000
> Lu	175		ug/L		186869	186869.491
Tl	205	1.194	ug/L	0.271	6582	0.033
Pb	208	2.253	ug/L	1.679	28246	0.119
Th	232	1.181	ug/L	3.288	12722	0.063
U	238	0.280	ug/L	10.106	3912	0.014

Sample ID: QC Std 3

Report Date/Time: Sunday, April 11, 2010 23:59:28

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	125.043				
Be	9	130.643				
B	11	123.584				
Na	23	107.531				
Mg	24	115.416				
Al	27	122.239				
P	31	100.619				
K	39	115.303				
Ca	43	117.627				
> Sc	45		97.6			
Ti	47	95.799				
V	51	117.168				
Cr	52	125.221				
Cr	53					
Mn	55	122.710				
Fe	57	118.336				
Co	59	117.396				
Ni	60	116.635				
Cu	63					
Cu	65	-5.118				
Zn	66	109.891				
Zn	67					
Zn	68					
> Ge	74		97.5			
As	75	98.223				
Se	77					
Se	82	87.504				
Kr	83					
Sr	88	120.364				
Y	89					
Zr	90	106.277				
Mo	98	96.115				
Ag	107	102.119				
Cd	111	118.307				
Cd	114					
> In	115		97.4			
Sn	120	110.451				
Sb	121	87.714				
Sb	123					
Ba	135					
Ba	137	114.986				
Ho	165					
> Lu	175		96.0			
Tl	205	119.350				
Pb	208	112.634				
Th	232	118.099				
U	238	139.988				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Be	9CRDL is out of limits
QC Std 3	Cu	65CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

### QC Action

Sample ID: QC Std 3  
Report Date/Time: Sunday, April 11, 2010 23:59:28  
Page 3

QC Action Line: Continue



## ICPMS#4 - Summary Report

Sample ID: QC Std 4  
 Sample Date/Time: Monday, April 12, 2010 00:02:52  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020.mth  
 Dataset File: c:\elandata\Dataset\100408\QC Std 4.524

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.169	ug/L	49.015	127	0.000
Be	9	0.086	ug/L	14.439	19	0.000
B	11	1.159	ug/L	10.266	253	0.000
Na	23	91441.011	ug/L	6.013	172875200	266.823
Mg	24	92590.954	ug/L	7.507	117362368	181.401
Al	27	91561.336	ug/L	4.238	159038489	245.479
P	31	91900.584	ug/L	3.112	9289498	14.345
K	39	94063.917	ug/L	3.093	286956887	442.588
Ca	43	92164.693	ug/L	2.040	582937	0.900
> Sc	45		ug/L		647528	647527.874
Ti	47	1557.634	ug/L	2.337	514071	0.794
V	51	-0.125	ug/L	204.565	16937	-0.001
Cr	52	2.681	ug/L	2.580	-4299	0.013
Cr	53		ug/L		123667	-0.003
Mn	55	5.790	ug/L	4.535	30589	0.046
Fe	57	97922.365	ug/L	4.126	10340966	15.969
Co	59	0.236	ug/L	6.668	1087	0.001
Ni	60	3.264	ug/L	0.828	2890	0.004
Cu	63		ug/L		11024	0.007
Cu	65	3.007	ug/L	2.303	5879	0.004
Zn	66	4.632	ug/L	8.372	6558	0.010
Zn	67		ug/L		8883	0.005
Zn	68		ug/L		4088	0.002
> Ge	74		ug/L		260864	260864.175
As	75	0.032	ug/L	1714.357	250	0.000
Se	77		ug/L		6320	0.008
Se	82	0.907	ug/L	54.051	82	0.000
Kr	83		ug/L		134	0.000
Sr	88	2.922	ug/L	1.675	26432	0.161
Y	89		ug/L		253	0.001
Zr	90	0.795	ug/L	46.307	4452	0.024
Mo	98	2088.043	ug/L	1.782	4617128	28.345
Ag	107	0.093	ug/L	9.722	613	0.002
Cd	111	0.214	ug/L	96.194	189	0.001
Cd	114		ug/L		5544	0.034
> In	115		ug/L		162870	162869.842
Sn	120	1.678	ug/L	12.061	7278	0.038
Sb	121	1.581	ug/L	31.941	4750	0.024
Sb	123		ug/L		3653	0.019
Ba	135		ug/L		675	0.003
Ba	137	0.704	ug/L	4.174	1119	0.006
Ho	165		ug/L		4021	0.021
> Lu	175		ug/L		192909	192908.793
Tl	205	0.027	ug/L	16.531	598	0.001
Pb	208	0.220	ug/L	16.491	8426	0.012
Th	232	0.357	ug/L	35.720	4700	0.019
U	238	-0.036	ug/L	60.001	912	-0.002

Sample ID: QC Std 4  
 Report Date/Time: Monday, April 12, 2010 00:05:36  
 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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
[	Li	7					
	Be	9					
	B	11					
	Na	23	91.441				
	Mg	24	92.591				
	Al	27	91.561				
	P	31	91.901				
	K	39	94.064				
	Ca	43	92.165				
>	Sc	45		101.6			
	Ti	47	77.882				
	V	51					
	Cr	52	81.231				
	Cr	53					
	Mn	55	99.827				
	Fe	57	97.922				
	Co	59	100.275				
	Ni	60	98.607				
	Cu	63					
	Cu	65	90.040				
	Zn	66	123.199				
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	98.718				
	Y	89					
	Zr	90					
	Mo	98	104.402				
	Ag	107					
	Cd	111	48.147				
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	88.271				
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208	116.210				
	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

Sample ID: QC Std 4  
 Report Date/Time: Monday, April 12, 2010 00:05:36  
 Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, April 12, 2010 00:09:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 5.525

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.803	ug/L	1.787	10852	0.017
Be	9	18.269	ug/L	2.846	2761	0.004
B	11	18.200	ug/L	1.534	2519	0.004
Na	23	87169.616	ug/L	4.761	164874624	254.359
Mg	24	88514.851	ug/L	0.677	112408207	173.415
Al	27	94251.243	ug/L	3.567	163775031	252.690
P	31	92336.730	ug/L	1.021	9346567	14.414
K	39	96429.163	ug/L	11.152	294596649	453.717
Ca	43	92936.246	ug/L	1.136	588553	0.908
> Sc	45		ug/L		648204	648203.621
Ti	47	1558.970	ug/L	0.069	515199	0.795
V	51	19.036	ug/L	4.938	97633	0.124
Cr	52	22.112	ug/L	1.755	56049	0.106
Cr	53		ug/L		127794	0.004
Mn	55	25.512	ug/L	1.580	132489	0.203
Fe	57	100096.900	ug/L	0.917	10586127	16.323
Co	59	19.034	ug/L	2.778	76620	0.118
Ni	60	21.744	ug/L	2.629	18824	0.029
Cu	63		ug/L		47236	0.063
Cu	65	22.028	ug/L	0.528	23622	0.032
Zn	66	21.393	ug/L	2.143	15751	0.044
Zn	67		ug/L		10445	0.011
Zn	68		ug/L		10987	0.028
> Ge	74		ug/L		263290	263290.105
As	75	20.605	ug/L	5.586	13851	0.052
Se	77		ug/L		7293	0.012
Se	82	20.578	ug/L	4.866	1279	0.005
Kr	83		ug/L		139	0.000
Sr	88	23.485	ug/L	1.401	211429	1.296
Y	89		ug/L		271	0.002
Zr	90	20.449	ug/L	1.504	102423	0.626
Mo	98	2113.533	ug/L	2.646	4674372	28.691
Ag	107	19.298	ug/L	2.190	66182	0.404
Cd	111	18.900	ug/L	2.441	15578	0.096
Cd	114		ug/L		41625	0.255
> In	115		ug/L		162949	162949.484
Sn	120	20.154	ug/L	2.846	74642	0.451
Sb	121	21.808	ug/L	2.232	55628	0.337
Sb	123		ug/L		42903	0.259
Ba	135		ug/L		17781	0.091
Ba	137	19.444	ug/L	0.858	30565	0.156
Ho	165		ug/L		4043	0.021
> Lu	175		ug/L		195973	195973.100
Tl	205	17.643	ug/L	0.678	95699	0.486
Pb	208	18.661	ug/L	2.456	199571	0.986
Th	232	19.358	ug/L	0.704	202428	1.028
U	238	20.155	ug/L	0.365	203873	1.034

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 00:11:44

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 00:11:44

Page 2

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	94.014				
Be	9	91.346				
B	11	91.001				
Na	23	87.170				
Mg	24	88.515				
Al	27	94.251				
P	31	92.337				
K	39	96.429				
Ca	43	92.936				
> Sc	45		101.7			
Ti	47	77.948				
V	51	95.181				
Cr	52	94.903				
Cr	53					
Mn	55	98.886				
Fe	57	100.097				
Co	59	94.067				
Ni	60	93.280				
Cu	63					
Cu	65	94.379				
Zn	66	90.040				
Zn	67					
Zn	68					
> Ge	74		102.2			
As	75	103.023				
Se	77					
Se	82	102.889				
Kr	83					
Sr	88	102.285				
Y	89					
Zr	90	102.247				
Mo	98	105.677				
Ag	107	96.490				
Cd	111	92.446				
Cd	114					
> In	115		99.0			
Sn	120	100.770				
Sb	121	109.040				
Sb	123					
Ba	135					
Ba	137	93.489				
Ho	165					
> Lu	175		100.7			
Tl	205	88.213				
Pb	208	92.434				
Th	232	96.790				
U	238	100.773				

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

### QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 00:15:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 6.526

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.367	ug/L	1.246	29804	0.046
Be	9	51.131	ug/L	0.847	7770	0.012
B	11	100.040	ug/L	2.810	13494	0.021
Na	23	4830.645	ug/L	6.593	9206546	14.096
Mg	24	4912.183	ug/L	5.203	6283456	9.624
Al	27	5265.238	ug/L	2.810	9216900	14.116
P	31	4879.270	ug/L	1.329	501192	0.762
K	39	4977.805	ug/L	3.253	15675486	23.421
Ca	43	4868.414	ug/L	0.688	31207	0.048
> Sc	45		ug/L		652836	652835.672
Ti	47	51.730	ug/L	0.824	17390	0.026
V	51	52.287	ug/L	0.736	239345	0.340
Cr	52	53.153	ug/L	0.727	153551	0.255
Cr	53		ug/L		122668	-0.006
Mn	55	53.562	ug/L	1.502	279297	0.427
Fe	57	5040.468	ug/L	2.366	542208	0.822
Co	59	51.862	ug/L	2.042	210009	0.322
Ni	60	53.357	ug/L	0.510	46413	0.071
Cu	63		ug/L		111121	0.161
Cu	65	54.248	ug/L	1.229	54046	0.078
Zn	66	52.373	ug/L	0.958	33132	0.108
Zn	67		ug/L		11094	0.013
Zn	68		ug/L		24450	0.078
> Ge	74		ug/L		267316	267315.857
As	75	51.499	ug/L	3.105	34805	0.129
Se	77		ug/L		6274	0.008
Se	82	50.602	ug/L	2.662	3153	0.012
Kr	83		ug/L		55	0.000
Sr	88	51.979	ug/L	0.891	481915	2.869
Y	89		ug/L		53	0.000
Zr	90	49.514	ug/L	0.394	254832	1.515
Mo	98	50.777	ug/L	1.531	116709	0.689
Ag	107	52.135	ug/L	1.045	183745	1.093
Cd	111	51.065	ug/L	1.376	43358	0.258
Cd	114		ug/L		102143	0.608
> In	115		ug/L		167884	167884.251
Sn	120	49.734	ug/L	2.105	188017	1.113
Sb	121	56.995	ug/L	3.539	148447	0.880
Sb	123		ug/L		113662	0.673
Ba	135		ug/L		45058	0.231
Ba	137	49.883	ug/L	2.218	78138	0.400
Ho	165		ug/L		10	0.000
> Lu	175		ug/L		195401	195400.941
Tl	205	50.645	ug/L	1.493	273026	1.395
Pb	208	51.667	ug/L	1.612	539906	2.731
Th	232	51.054	ug/L	1.095	530584	2.710
U	238	54.568	ug/L	1.072	548139	2.799

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 00:17:54

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	102.734				
Be	9	102.262				
B	11	100.040				
Na	23	96.613				
Mg	24	98.244				
Al	27	104.262				
P	31	97.585				
K	39	99.556				
Ca	43	97.368				
> Sc	45		102.5			
Ti	47	103.460				
V	51	104.573				
Cr	52	106.306				
Cr	53					
Mn	55	107.125				
Fe	57	100.809				
Co	59	103.724				
Ni	60	106.714				
Cu	63					
Cu	65	108.495				
Zn	66	104.747				
Zn	67					
Zn	68					
> Ge	74		103.8			
As	75	102.999				
Se	77					
Se	82	101.204				
Kr	83					
Sr	88	103.958				
Y	89					
Zr	90	99.029				
Mo	98	101.554				
Ag	107	104.271				
Cd	111	102.131				
Cd	114					
> In	115		102.0			
Sn	120	99.469				
Sb	121	113.991				
Sb	123					
Ba	135					
Ba	137	99.767				
Ho	165					
> Lu	175		100.4			
Tl	205	101.291				
Pb	208	103.335				
Th	232	102.107				
U	238	109.136				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Sb	121CCV is out of limits ( +/- 10%)

### QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 00:21:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 7.527

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.085	ug/L	22.845	81	0.000
Be	9	0.001	ug/L	2041.921	6	0.000
B	11	1.063	ug/L	24.635	245	0.000
Na	23	6.985	ug/L	31.387	21016	0.020
Mg	24	4.591	ug/L	43.527	8336	0.009
Al	27	4.119	ug/L	30.252	9336	0.011
P	31	0.432	ug/L	462.821	4077	0.000
K	39	2.825	ug/L	506.078	395771	0.013
Ca	43	13.746	ug/L	39.061	254	0.000
Sc	45		ug/L		660006	660005.544
Ti	47	0.575	ug/L	15.604	373	0.000
V	51	0.032	ug/L	1837.112	17936	0.000
Cr	52	0.418	ug/L	25.296	-11532	0.002
Cr	53		ug/L		126208	-0.002
Mn	55	0.003	ug/L	312.739	766	0.000
Fe	57	7.145	ug/L	30.935	6489	0.001
Co	59	0.005	ug/L	106.056	166	0.000
Ni	60	0.003	ug/L	286.120	83	0.000
Cu	63		ug/L		5286	-0.002
Cu	65	-0.712	ug/L	13.021	2460	-0.001
Zn	66	-2.739	ug/L	6.760	2674	-0.006
Zn	67		ug/L		7451	-0.001
Zn	68		ug/L		2418	-0.005
Ge	74		ug/L		270383	270382.605
As	75	0.215	ug/L	377.865	389	0.001
Se	77		ug/L		5464	0.004
Se	82	1.009	ug/L	16.226	91	0.000
Kr	83		ug/L		52	-0.000
Sr	88	0.007	ug/L	33.618	234	0.000
Y	89		ug/L		21	-0.000
Zr	90	0.141	ug/L	35.144	1221	0.004
Mo	98	0.531	ug/L	26.259	2190	0.007
Ag	107	0.017	ug/L	85.397	364	0.000
Cd	111	0.018	ug/L	83.532	27	0.000
Cd	114		ug/L		57	0.000
In	115		ug/L		167116	167116.344
Sn	120	0.140	ug/L	35.284	1719	0.003
Sb	121	1.289	ug/L	32.883	4106	0.020
Sb	123		ug/L		3112	0.015
Ba	135		ug/L		28	0.000
Ba	137	0.010	ug/L	107.374	44	0.000
Ho	165		ug/L		8	0.000
Lu	175		ug/L		192711	192711.016
Tl	205	0.149	ug/L	29.712	1240	0.004
Pb	208	0.037	ug/L	72.261	6551	0.002
Th	232	0.225	ug/L	32.576	3323	0.012
U	238	0.008	ug/L	599.748	1338	0.000

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 00:24:05

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
	Li	7				
	Be	9				
	B	11				
	Na	23				
	Mg	24				
	Al	27				
	P	31				
	K	39				
	Ca	43				
>	Sc	45	103.6			
	Ti	47				
	V	51				
	Cr	52				
	Cr	53				
	Mn	55				
	Fe	57				
	Co	59				
	Ni	60				
	Cu	63				
	Cu	65				
	Zn	66				
	Zn	67				
	Zn	68				
>	Ge	74	105.0			
	As	75				
	Se	77				
	Se	82				
	Kr	83				
	Sr	88				
	Y	89				
	Zr	90				
	Mo	98				
	Ag	107				
	Cd	111				
	Cd	114				
>	In	115	101.6			
	Sn	120				
	Sb	121				
	Sb	123				
	Ba	135				
	Ba	137				
	Ho	165				
>	Lu	175	99.0			
	Tl	205				
	Pb	208				
	Th	232				
	U	238				

## QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 7	Mo	98CCB is out of limits ( +/- PQL)

## QC Action

QC Action Line: Continue

Sample ID: QC Std 7  
 Report Date/Time: Monday, April 12, 2010 00:24:05  
 Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Monday, April 12, 2010 00:27:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 10.528

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	955.847	ug/L	2.047	552253	0.849
Be	9	934.488	ug/L	0.451	141450	0.217
B	11	0.454	ug/L	30.599	160	0.000
Na	23	47663.735	ug/L	3.613	90516325	139.082
Mg	24	46091.059	ug/L	3.780	58766600	90.300
Al	27	49699.402	ug/L	4.809	86715144	133.246
P	31	23362.557	ug/L	3.012	2377132	3.647
K	39	48311.724	ug/L	6.342	148323170	227.315
Ca	43	47063.198	ug/L	0.781	299291	0.460
Sc	45		ug/L		650711	650711.039
Ti	47	38.568	ug/L	3.201	12967	0.020
V	51	978.279	ug/L	0.570	4152807	6.355
Cr	52	977.604	ug/L	0.972	3035638	4.685
Cr	53		ug/L		479579	0.543
Mn	55	985.121	ug/L	1.710	5107544	7.848
Fe	57	49983.322	ug/L	1.605	5309532	8.151
Co	59	952.932	ug/L	2.697	3844194	5.907
Ni	60	920.711	ug/L	1.227	796995	1.225
Cu	63		ug/L		1774283	2.717
Cu	65	927.285	ug/L	0.679	871110	1.334
Zn	66	2204.337	ug/L	1.950	1221377	4.562
Zn	67		ug/L		201975	0.728
Zn	68		ug/L		886010	3.307
Ge	74		ug/L		266901	266901.419
As	75	931.420	ug/L	1.185	624436	2.339
Se	77		ug/L		27889	0.089
Se	82	491.638	ug/L	3.417	30344	0.114
Kr	83		ug/L		82	0.000
Sr	88	1039.913	ug/L	1.812	9231126	57.408
Y	89		ug/L		271	0.002
Zr	90	520.091	ug/L	2.230	2559117	15.912
Mo	98	1035.836	ug/L	1.866	2261978	14.061
Ag	107	254.201	ug/L	0.932	856943	5.328
Cd	111	958.081	ug/L	0.449	778912	4.844
Cd	114		ug/L		1792988	11.150
In	115		ug/L		160794	160794.376
Sn	120	1006.335	ug/L	2.020	3621797	22.517
Sb	121	317.652	ug/L	1.333	788986	4.902
Sb	123		ug/L		613101	3.809
Ba	135		ug/L		856139	4.261
Ba	137	896.314	ug/L	1.780	1443060	7.183
Ho	165		ug/L		105	0.000
Lu	175		ug/L		200941	200941.382
Tl	205	460.026	ug/L	1.249	2546200	12.671
Pb	208	4777.215	ug/L	1.719	50737939	252.524
Th	232	2422.699	ug/L	0.482	25842427	128.599
U	238	5163.035	ug/L	0.772	53206975	264.809

Sample ID: QC Std 10

Report Date/Time: Monday, April 12, 2010 00:30:11

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	95.585				
Be	9	93.449				
B	11					
Na	23	95.327				
Mg	24	92.182				
Al	27	99.399				
P	31	93.450				
K	39	96.623				
Ca	43	94.126				
> Sc	45		102.1			
Ti	47					
V	51	97.828				
Cr	52	97.760				
Cr	53					
Mn	55	98.512				
Fe	57	99.967				
Co	59	95.293				
Ni	60	92.071				
Cu	63					
Cu	65	92.729				
Zn	66	88.173				
Zn	67					
Zn	68					
> Ge	74		103.6			
As	75	93.142				
Se	77					
Se	82	98.328				
Kr	83					
Sr	88	103.991				
Y	89					
Zr	90	104.018				
Mo	98	103.584				
Ag	107	101.680				
Cd	111	95.808				
Cd	114					
> In	115		97.7			
Sn	120	100.634				
Sb	121	127.061				
Sb	123					
Ba	135					
Ba	137	89.631				
Ho	165					
> Lu	175		103.2			
Tl	205	92.005				
Pb	208	95.544				
Th	232	96.908				
U	238	103.261				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Zn	66LRS is out of limits ( +/- 10%)
QC Std 10	Sb	121LRS is out of limits ( +/- 10%)
QC Std 10	Ba	137LRS is out of limits ( +/- 10%)

### QC Action

Sample ID: QC Std 10  
 Report Date/Time: Monday, April 12, 2010 00:30:11  
 Page 3

QC Action Line: Continue



## ICPMS#4 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Monday, April 12, 2010 00:33:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 11.529

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.085	ug/L	0.806	30803	0.046
Be	9	51.045	ug/L	1.504	7907	0.012
B	11	100.801	ug/L	0.680	13859	0.021
Na	23	4821.975	ug/L	1.458	9370773	14.070
Mg	24	5092.400	ug/L	4.340	6641138	9.977
Al	27	5117.895	ug/L	6.597	9128659	13.721
P	31	4836.073	ug/L	0.921	506367	0.755
K	39	4931.744	ug/L	2.855	15829795	23.205
Ca	43	4856.600	ug/L	1.350	31732	0.047
> Sc	45		ug/L		665402	665401.571
Ti	47	49.413	ug/L	1.149	16939	0.025
V	51	51.207	ug/L	1.462	239278	0.333
Cr	52	53.907	ug/L	1.711	158901	0.258
Cr	53		ug/L		123003	-0.009
Mn	55	53.493	ug/L	0.712	284328	0.426
Fe	57	5054.347	ug/L	1.484	554270	0.824
Co	59	51.833	ug/L	0.662	213961	0.321
Ni	60	53.369	ug/L	1.265	47315	0.071
Cu	63		ug/L		112210	0.159
Cu	65	53.204	ug/L	1.223	54089	0.077
Zn	66	50.855	ug/L	1.047	33056	0.105
Zn	67		ug/L		11261	0.012
Zn	68		ug/L		24709	0.077
> Ge	74		ug/L		273631	273630.796
As	75	52.830	ug/L	1.241	36546	0.133
Se	77		ug/L		6405	0.007
Se	82	56.788	ug/L	1.174	3619	0.013
Kr	83		ug/L		60	0.000
Sr	88	52.595	ug/L	0.874	496629	2.903
Y	89		ug/L		45	0.000
Zr	90	51.718	ug/L	2.102	271045	1.582
Mo	98	51.488	ug/L	1.474	120518	0.699
Ag	107	52.629	ug/L	2.024	188896	1.103
Cd	111	51.754	ug/L	1.077	44754	0.262
Cd	114		ug/L		105433	0.616
> In	115		ug/L		170993	170993.393
Sn	120	50.859	ug/L	1.685	195788	1.138
Sb	121	57.869	ug/L	2.417	153522	0.893
Sb	123		ug/L		116357	0.677
Ba	135		ug/L		45810	0.234
Ba	137	50.770	ug/L	2.958	79789	0.407
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		196123	196123.206
Tl	205	52.014	ug/L	0.928	281423	1.433
Pb	208	54.364	ug/L	2.357	569687	2.874
Th	232	55.481	ug/L	1.999	578461	2.945
U	238	56.679	ug/L	1.242	571315	2.907

Sample ID: QC Std 11

Report Date/Time: Monday, April 12, 2010 00:36:18

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	104.171				
Be	9	102.089				
B	11	100.801				
Na	23	96.440				
Mg	24	101.848				
Al	27	101.344				
P	31	96.721				
K	39	98.635				
Ca	43	97.132				
> Sc	45		104.4			
Ti	47	98.825				
V	51	102.414				
Cr	52	107.814				
Cr	53					
Mn	55	106.986				
Fe	57	101.087				
Co	59	103.666				
Ni	60	106.737				
Cu	63					
Cu	65	106.407				
Zn	66	101.710				
Zn	67					
Zn	68					
> Ge	74		106.2			
As	75	105.661				
Se	77					
Se	82	113.576				
Kr	83					
Sr	88	105.190				
Y	89					
Zr	90	103.436				
Mo	98	102.976				
Ag	107	105.258				
Cd	111	103.508				
Cd	114					
> In	115		103.9			
Sn	120	101.717				
Sb	121	115.738				
Sb	123					
Ba	135					
Ba	137	101.539				
Ho	165					
> Lu	175		100.7			
Tl	205	104.027				
Pb	208	108.727				
Th	232	110.962				
U	238	113.358				

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 11	Se	82CCV is out of limits ( +/- 10%)
QC Std 11	Sb	121CCV is out of limits ( +/- 10%)
QC Std 11	Th	232CCV is out of limits ( +/- 10%)
QC Std 11	U	238CCV is out of limits ( +/- 10%)

Sample ID: QC Std 11

Report Date/Time: Monday, April 12, 2010 00:36:18

Page 3

## QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Monday, April 12, 2010 00:39:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 12.530

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.128	ug/L	19.443	109	0.000
Be	9	0.027	ug/L	13.476	10	0.000
B	11	1.145	ug/L	28.218	263	0.000
Na	23	3.301	ug/L	47.157	14341	0.010
Mg	24	1.412	ug/L	174.475	4334	0.003
Al	27	1.210	ug/L	159.643	4334	0.003
P	31	-0.597	ug/L	88.681	4077	-0.000
K	39	16.143	ug/L	79.670	448977	0.076
Ca	43	8.271	ug/L	31.766	224	0.000
> Sc	45		ug/L		677376	677375.669
Ti	47	0.154	ug/L	13.711	238	0.000
V	51	0.078	ug/L	1175.065	18613	0.001
Cr	52	0.646	ug/L	5.167	-11100	0.003
Cr	53		ug/L		125856	-0.008
Mn	55	0.025	ug/L	33.474	904	0.000
Fe	57	3.183	ug/L	28.922	6225	0.001
Co	59	0.037	ug/L	16.686	303	0.000
Ni	60	0.022	ug/L	17.346	103	0.000
Cu	63		ug/L		4813	-0.003
Cu	65	-0.963	ug/L	15.372	2282	-0.001
Zn	66	-3.161	ug/L	2.082	2470	-0.007
Zn	67		ug/L		7667	-0.001
Zn	68		ug/L		2427	-0.005
> Ge	74		ug/L		274004	274004.219
As	75	0.659	ug/L	42.817	695	0.002
Se	77		ug/L		5291	0.003
Se	82	2.131	ug/L	17.330	163	0.000
Kr	83		ug/L		64	0.000
Sr	88	0.048	ug/L	12.865	619	0.003
Y	89		ug/L		21	-0.000
Zr	90	0.414	ug/L	10.704	2694	0.013
Mo	98	0.729	ug/L	10.750	2713	0.010
Ag	107	0.060	ug/L	30.106	529	0.001
Cd	111	0.062	ug/L	1.721	67	0.000
Cd	114		ug/L		168	0.001
> In	115		ug/L		171495	171495.177
Sn	120	0.398	ug/L	6.060	2755	0.009
Sb	121	1.118	ug/L	20.947	3782	0.017
Sb	123		ug/L		2920	0.013
Ba	135		ug/L		60	0.000
Ba	137	0.045	ug/L	20.260	102	0.000
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		197876	197875.855
Tl	205	0.508	ug/L	15.301	3229	0.014
Pb	208	0.336	ug/L	8.508	9860	0.018
Th	232	0.822	ug/L	13.827	9686	0.044
U	238	0.265	ug/L	11.449	3990	0.014

Sample ID: QC Std 12

Report Date/Time: Monday, April 12, 2010 00:42:29

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		106.3			
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		106.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.6			
Tl	205					
Pb	208					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 12	Mo	98CCB is out of limits ( +/- PQL)
QC Std 12	U	238CCB is out of limits ( +/- PQL)

### QC Action

QC Action Line: Continue

Sample ID: QC Std 12  
 Report Date/Time: Monday, April 12, 2010 00:42:29  
 Page 3

# ICPMS#4 - Summary Report

Sample ID: 1202056813

Sample Date/Time: Monday, April 12, 2010 00:45:55

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056813.531

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.155	ug/L	15.345	125	0.000
Be	9	0.023	ug/L	67.286	10	0.000
B	11	0.663	ug/L	10.159	195	0.000
Na	23	11.855	ug/L	40.087	31036	0.035
Mg	24	0.913	ug/L	98.392	3667	0.002
Al	27	4.914	ug/L	29.048	11004	0.013
P	31	-8.107	ug/L	13.471	3265	-0.001
K	39	6.398	ug/L	73.883	415975	0.030
Ca	43	37.720	ug/L	7.485	417	0.000
Sc	45		ug/L		673807	673806.501
Ti	47	0.490	ug/L	13.392	352	0.000
V	51	0.739	ug/L	351.636	21469	0.005
Cr	52	-5.292	ug/L	13.097	-30205	-0.025
Cr	53		ug/L		337127	0.307
Mn	55	0.322	ug/L	6.098	2494	0.003
Fe	57	21.928	ug/L	6.752	8251	0.004
Co	59	0.012	ug/L	14.584	199	0.000
Ni	60	0.062	ug/L	13.129	138	0.000
Cu	63		ug/L		7583	0.002
Cu	65	0.353	ug/L	16.811	3545	0.001
Zn	66	10.280	ug/L	46.446	10205	0.021
Zn	67		ug/L		29445	0.077
Zn	68		ug/L		8671	0.018
Ge	74		ug/L		277448	277447.574
As	75	0.412	ug/L	222.814	534	0.001
Se	77		ug/L		17595	0.047
Se	82	1.484	ug/L	14.902	124	0.000
Kr	83		ug/L		62	0.000
Sr	88	0.049	ug/L	14.929	640	0.003
Y	89		ug/L		30	0.000
Zr	90	0.402	ug/L	16.111	2660	0.012
Mo	98	0.434	ug/L	12.264	2052	0.006
Ag	107	0.022	ug/L	13.743	396	0.000
Cd	111	0.052	ug/L	27.084	59	0.000
Cd	114		ug/L		98	0.000
In	115		ug/L		173670	173670.067
Sn	120	1.467	ug/L	6.580	6943	0.033
Sb	121	0.694	ug/L	13.212	2689	0.011
Sb	123		ug/L		2084	0.008
Ba	135		ug/L		278	0.001
Ba	137	0.295	ug/L	3.003	495	0.002
Ho	165		ug/L		8	-0.000
Lu	175		ug/L		196945	196945.014
Tl	205	0.302	ug/L	9.696	2101	0.008
Pb	208	1.611	ug/L	2.400	23086	0.085
Th	232	0.512	ug/L	12.018	6415	0.027
U	238	0.005	ug/L	288.648	1343	0.000

Sample ID: 1202056813

Report Date/Time: Monday, April 12, 2010 00:48:41

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			105.7		
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			107.7		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			105.5		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			101.2		
Tl	205					
Pb	208					
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

Sample ID: 1202056813

Report Date/Time: Monday, April 12, 2010 00:48:41

Page 3

# ICPMS#4 - Summary Report

Sample ID: 1202056814

Sample Date/Time: Monday, April 12, 2010 00:52:08

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056814.532

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	46.840	ug/L	2.341	28310	0.042
Be	9	49.870	ug/L	1.330	7894	0.012
B	11	101.397	ug/L	2.049	14245	0.021
Na	23	1726.961	ug/L	11.280	3434071	5.039
Mg	24	1763.429	ug/L	2.154	2351625	3.455
Al	27	1747.678	ug/L	1.943	3188057	4.686
P	31	1775.636	ug/L	0.711	192618	0.277
K	39	1831.828	ug/L	2.729	6259713	8.619
Ca	43	1885.873	ug/L	1.863	12695	0.018
> Sc	45		ug/L		679946	679945.587
Ti	47	44.433	ug/L	3.194	15583	0.023
V	51	49.220	ug/L	3.312	235748	0.320
Cr	52	43.021	ug/L	3.035	126921	0.206
Cr	53		ug/L		368269	0.348
Mn	55	49.673	ug/L	0.396	269845	0.396
Fe	57	1940.527	ug/L	0.447	221067	0.316
Co	59	47.990	ug/L	2.495	202430	0.297
Ni	60	49.060	ug/L	2.685	44453	0.065
Cu	63		ug/L		109623	0.152
Cu	65	50.838	ug/L	2.388	52960	0.073
Zn	66	50.445	ug/L	0.453	34045	0.104
Zn	67		ug/L		35523	0.096
Zn	68		ug/L		26018	0.078
> Ge	74		ug/L		283816	283816.400
As	75	47.582	ug/L	2.184	34166	0.119
Se	77		ug/L		20020	0.055
Se	82	47.431	ug/L	1.754	3140	0.011
Kr	83		ug/L		72	0.000
Sr	88	49.003	ug/L	0.536	465288	2.705
Y	89		ug/L		57	0.000
Zr	90	49.967	ug/L	1.578	263330	1.529
Mo	98	50.259	ug/L	2.211	118298	0.682
Ag	107	52.667	ug/L	2.814	190050	1.104
Cd	111	46.917	ug/L	2.053	40792	0.237
Cd	114		ug/L		96216	0.559
> In	115		ug/L		171947	171946.823
Sn	120	50.247	ug/L	1.150	194524	1.124
Sb	121	62.218	ug/L	2.128	165878	0.960
Sb	123		ug/L		128860	0.746
Ba	135		ug/L		42526	0.212
Ba	137	45.703	ug/L	2.965	73427	0.366
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		200460	200460.278
Tl	205	44.969	ug/L	1.663	248754	1.239
Pb	208	50.021	ug/L	2.024	536346	2.644
Th	232	48.190	ug/L	2.520	513756	2.558
U	238	51.174	ug/L	2.777	527288	2.625

Sample ID: 1202056814

Report Date/Time: Monday, April 12, 2010 00:54:54

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		106.7			
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		110.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115		104.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175		103.0			
Tl	205					
Pb	208					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056814

Report Date/Time: Monday, April 12, 2010 00:54:54

Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 01:41:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 6.540

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.288	ug/L	1.701	30272	0.046
Be	9	52.512	ug/L	2.249	7962	0.012
B	11	100.621	ug/L	0.937	13545	0.021
Na	23	4571.497	ug/L	5.154	8699156	13.340
Mg	24	4976.164	ug/L	7.195	6352857	9.749
Al	27	5216.604	ug/L	10.404	9120120	13.986
P	31	4844.122	ug/L	1.180	496630	0.756
K	39	4843.869	ug/L	3.133	15230027	22.791
Ca	43	4806.200	ug/L	0.906	30747	0.047
Sc	45		ug/L		651477	651477.091
Ti	47	49.133	ug/L	2.574	16490	0.025
V	51	51.410	ug/L	2.006	235155	0.334
Cr	52	52.970	ug/L	0.582	152675	0.254
Cr	53		ug/L		137947	0.018
Mn	55	53.437	ug/L	2.171	278066	0.426
Fe	57	4991.258	ug/L	1.787	535868	0.814
Co	59	51.288	ug/L	2.065	207284	0.318
Ni	60	52.524	ug/L	0.983	45591	0.070
Cu	63		ug/L		109236	0.158
Cu	65	52.377	ug/L	2.714	52175	0.075
Zn	66	49.626	ug/L	2.938	31639	0.103
Zn	67		ug/L		12098	0.016
Zn	68		ug/L		23762	0.075
Ge	74		ug/L		267603	267602.851
As	75	51.232	ug/L	2.535	34658	0.129
Se	77		ug/L		6573	0.009
Se	82	47.848	ug/L	9.648	2984	0.011
Kr	83		ug/L		62	0.000
Sr	88	52.819	ug/L	2.267	478627	2.916
Y	89		ug/L		43	0.000
Zr	90	50.039	ug/L	1.863	251729	1.531
Mo	98	49.205	ug/L	2.060	110601	0.668
Ag	107	52.594	ug/L	1.776	181179	1.102
Cd	111	51.524	ug/L	0.740	42763	0.261
Cd	114		ug/L		99913	0.609
In	115		ug/L		164114	164114.050
Sn	120	50.794	ug/L	2.119	187685	1.137
Sb	121	56.277	ug/L	2.905	143325	0.868
Sb	123		ug/L		109729	0.665
Ba	135		ug/L		44831	0.231
Ba	137	50.023	ug/L	0.783	77695	0.401
Ho	165		ug/L		12	0.000
Lu	175		ug/L		193732	193732.409
Tl	205	48.642	ug/L	2.602	259992	1.340
Pb	208	51.545	ug/L	1.088	534052	2.725
Th	232	51.056	ug/L	4.285	525981	2.710
U	238	54.309	ug/L	2.331	540861	2.785

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 01:44:28

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	104.575				
Be	9	105.025				
B	11	100.621				
Na	23	91.430				
Mg	24	99.523				
Al	27	103.299				
P	31	96.882				
K	39	96.877				
Ca	43	96.124				
> Sc	45		102.2			
Ti	47	98.266				
V	51	102.820				
Cr	52	105.941				
Cr	53					
Mn	55	106.874				
Fe	57	99.825				
Co	59	102.576				
Ni	60	105.048				
Cu	63					
Cu	65	104.755				
Zn	66	99.252				
Zn	67					
Zn	68					
> Ge	74		103.9			
As	75	102.465				
Se	77					
Se	82	95.696				
Kr	83					
Sr	88	105.638				
Y	89					
Zr	90	100.078				
Mo	98	98.409				
Ag	107	105.188				
Cd	111	103.048				
Cd	114					
> In	115		99.7			
Sn	120	101.589				
Sb	121	112.554				
Sb	123					
Ba	135					
Ba	137	100.046				
Ho	165					
> Lu	175		99.5			
Tl	205	97.285				
Pb	208	103.091				
Th	232	102.112				
U	238	108.618				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Sb	121CCV is out of limits ( +/- 10%)

### QC Action

QC Action Line: Continue



## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 01:47:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 7.541

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.007	ug/L	115.824	36	0.000
Be	9	0.009	ug/L	228.060	7	0.000
B	11	1.175	ug/L	29.159	262	0.000
Na	23	2.775	ug/L	105.561	13007	0.008
Mg	24	-1.107	ug/L	68.344	1000	-0.002
Al	27	-0.233	ug/L	142.819	1667	-0.001
P	31	-7.544	ug/L	19.662	3282	-0.001
K	39	5.739	ug/L	483.628	408245	0.027
Ca	43	9.285	ug/L	13.374	227	0.000
Sc	45		ug/L		665098	665098.256
Ti	47	-0.032	ug/L	62.065	171	-0.000
V	51	-0.475	ug/L	194.914	15882	-0.003
Cr	52	0.309	ug/L	20.945	-11974	0.001
Cr	53		ug/L		130228	0.002
Mn	55	-0.003	ug/L	114.846	740	-0.000
Fe	57	-2.111	ug/L	109.308	5537	-0.000
Co	59	0.004	ug/L	42.106	160	0.000
Ni	60	0.007	ug/L	169.595	87	0.000
Cu	63		ug/L		3313	-0.005
Cu	65	-1.687	ug/L	1.292	1547	-0.002
Zn	66	-4.789	ug/L	1.295	1518	-0.010
Zn	67		ug/L		7765	-0.000
Zn	68		ug/L		1696	-0.007
Ge	74		ug/L		269033	269033.161
As	75	0.519	ug/L	57.717	586	0.001
Se	77		ug/L		5427	0.004
Se	82	1.455	ug/L	5.993	118	0.000
Kr	83		ug/L		58	0.000
Sr	88	0.008	ug/L	47.370	236	0.000
Y	89		ug/L		22	0.000
Zr	90	0.239	ug/L	12.523	1729	0.007
Mo	98	0.157	ug/L	31.217	1347	0.002
Ag	107	-0.002	ug/L	331.467	298	-0.000
Cd	111	0.012	ug/L	90.375	22	0.000
Cd	114		ug/L		57	0.000
In	115		ug/L		167098	167098.478
Sn	120	0.067	ug/L	22.986	1446	0.001
Sb	121	1.156	ug/L	21.274	3782	0.018
Sb	123		ug/L		2998	0.014
Ba	135		ug/L		28	0.000
Ba	137	0.009	ug/L	35.292	44	0.000
Ho	165		ug/L		7	-0.000
Lu	175		ug/L		196925	196924.607
Tl	205	0.463	ug/L	16.816	2973	0.013
Pb	208	-0.093	ug/L	15.849	5354	-0.005
Th	232	0.380	ug/L	23.971	5029	0.020
U	238	-0.031	ug/L	25.385	987	-0.002

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 01:50:39

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			104.4		
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			104.4		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			101.6		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			101.2		
Tl	205					
Pb	208					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 7	Cu	65CCB is out of limits ( +/- PQL)

### QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: 248046001

Sample Date/Time: Monday, April 12, 2010 01:54:07

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\248046001.542

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.389	ug/L	2.038	257	0.000
Be	9	0.001	ug/L	1048.473	6	0.000
B	11	30.820	ug/L	5.110	4232	0.006
Na	23	185.820	ug/L	11.213	361892	0.542
Mg	24	7.769	ug/L	47.624	12339	0.015
Al	27	17.484	ug/L	18.370	32705	0.047
P	31	-5.974	ug/L	7.934	3387	-0.001
K	39	322.746	ug/L	6.064	1377089	1.519
Ca	43	95.206	ug/L	4.237	771	0.001
> Sc	45		ug/L		653812	653812.369
Ti	47	0.797	ug/L	4.930	444	0.000
V	51	-0.453	ug/L	663.428	15658	-0.003
Cr	52	-4.958	ug/L	7.720	-28266	-0.024
Cr	53		ug/L		368426	0.370
Mn	55	0.588	ug/L	4.570	3807	0.005
Fe	57	17.471	ug/L	10.427	7531	0.003
Co	59	0.007	ug/L	10.225	173	0.000
Ni	60	0.204	ug/L	11.778	257	0.000
Cu	63		ug/L		19181	0.020
Cu	65	6.468	ug/L	0.989	9191	0.009
Zn	66	5.717	ug/L	15.015	7522	0.012
Zn	67		ug/L		29773	0.079
Zn	68		ug/L		6935	0.012
> Ge	74		ug/L		274645	274644.624
As	75	-0.540	ug/L	474.950	-131	-0.001
Se	77		ug/L		22267	0.065
Se	82	0.995	ug/L	49.335	91	0.000
Kr	83		ug/L		64	0.000
Sr	88	0.214	ug/L	4.376	2146	0.012
Y	89		ug/L		196	0.001
Zr	90	0.271	ug/L	15.869	1896	0.008
Mo	98	0.037	ug/L	52.131	1078	0.001
Ag	107	-0.019	ug/L	16.659	239	-0.000
Cd	111	0.009	ug/L	135.856	20	0.000
Cd	114		ug/L		64	0.000
> In	115		ug/L		167804	167804.462
Sn	120	0.577	ug/L	2.570	3366	0.013
Sb	121	0.622	ug/L	30.292	2411	0.010
Sb	123		ug/L		1977	0.008
Ba	135		ug/L		509	0.003
Ba	137	0.537	ug/L	1.144	861	0.004
Ho	165		ug/L		17	0.000
> Lu	175		ug/L		193258	193257.705
Tl	205	0.200	ug/L	9.511	1519	0.006
Pb	208	0.850	ug/L	1.901	14883	0.045
Th	232	0.193	ug/L	18.918	3016	0.010
U	238	-0.035	ug/L	172.865	917	-0.002

Sample ID: 248046001

Report Date/Time: Monday, April 12, 2010 01:56:53

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		106.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.3			
Tl	205					
Pb	208					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248046001

Report Date/Time: Monday, April 12, 2010 01:56:53

Page 3

## ICPMS#4 - Summary Report

Sample ID: 1202056815

Sample Date/Time: Monday, April 12, 2010 02:00:19

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056815.543

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.387	ug/L	10.443	263	0.000
Be	9	0.002	ug/L	673.561	6	0.000
B	11	30.442	ug/L	0.477	4294	0.006
Na	23	177.208	ug/L	3.492	354684	0.517
Mg	24	7.506	ug/L	14.059	12339	0.015
Al	27	9.388	ug/L	19.787	19013	0.025
P	31	-6.958	ug/L	35.584	3372	-0.001
K	39	281.474	ug/L	13.004	1281900	1.324
Ca	43	84.734	ug/L	11.911	723	0.001
Sc	45		ug/L		671183	671183.125
Ti	47	0.746	ug/L	20.034	438	0.000
V	51	-0.991	ug/L	277.301	13716	-0.006
Cr	52	-4.904	ug/L	5.625	-28843	-0.023
Cr	53		ug/L		401204	0.404
Mn	55	0.597	ug/L	1.306	3957	0.005
Fe	57	21.109	ug/L	7.735	8128	0.003
Co	59	0.005	ug/L	29.272	166	0.000
Ni	60	0.170	ug/L	16.517	234	0.000
Cu	63		ug/L		19183	0.019
Cu	65	6.224	ug/L	4.186	9198	0.009
Zn	66	3.255	ug/L	11.275	6252	0.007
Zn	67		ug/L		31954	0.085
Zn	68		ug/L		6124	0.008
Ge	74		ug/L		280578	280577.781
As	75	-2.544	ug/L	22.540	-1540	-0.006
Se	77		ug/L		26543	0.079
Se	82	0.096	ug/L	124.435	35	0.000
Kr	83		ug/L		58	0.000
Sr	88	0.206	ug/L	3.005	2089	0.011
Y	89		ug/L		215	0.001
Zr	90	0.105	ug/L	9.767	1053	0.003
Mo	98	-0.106	ug/L	17.690	758	-0.001
Ag	107	-0.032	ug/L	14.037	194	-0.001
Cd	111	0.016	ug/L	80.846	26	0.000
Cd	114		ug/L		60	0.000
In	115		ug/L		168984	168984.460
Sn	120	0.447	ug/L	8.816	2901	0.010
Sb	121	0.189	ug/L	13.854	1301	0.003
Sb	123		ug/L		1052	0.002
Ba	135		ug/L		374	0.002
Ba	137	0.405	ug/L	5.615	655	0.003
Ho	165		ug/L		14	0.000
Lu	175		ug/L		192635	192635.362
Tl	205	0.086	ug/L	4.318	910	0.002
Pb	208	0.771	ug/L	3.768	14030	0.041
Th	232	0.057	ug/L	12.097	1622	0.003
U	238	-0.100	ug/L	6.155	276	-0.005

Sample ID: 1202056815

Report Date/Time: Monday, April 12, 2010 02:03:04

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			105.3		
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			108.9		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			102.7		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			98.9		
Tl	205					
Pb	208					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056815

Report Date/Time: Monday, April 12, 2010 02:03:04

Page 3

## ICPMS#4 - Summary Report

Sample ID: 1202056816

Sample Date/Time: Monday, April 12, 2010 02:06:31

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056816.544

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	46.298	ug/L	1.274	28024	0.041
Be	9	48.173	ug/L	0.824	7637	0.011
B	11	130.225	ug/L	2.495	18289	0.027
Na	23	1874.191	ug/L	2.886	3733112	5.469
Mg	24	1794.960	ug/L	2.068	2397003	3.517
Al	27	1749.039	ug/L	6.508	3193750	4.689
P	31	1713.377	ug/L	2.852	186251	0.267
K	39	2164.894	ug/L	9.045	7336966	10.186
Ca	43	1905.505	ug/L	2.099	12842	0.019
> Sc	45		ug/L		680982	680981.897
Ti	47	42.604	ug/L	1.713	14972	0.022
V	51	47.889	ug/L	6.765	230076	0.311
Cr	52	43.541	ug/L	2.302	128781	0.209
Cr	53		ug/L		383530	0.370
Mn	55	49.144	ug/L	1.084	267359	0.392
Fe	57	1952.469	ug/L	2.958	222665	0.318
Co	59	48.221	ug/L	2.429	203667	0.299
Ni	60	48.941	ug/L	2.876	44401	0.065
Cu	63		ug/L		121395	0.169
Cu	65	56.323	ug/L	0.517	58411	0.081
Zn	66	49.462	ug/L	0.838	33066	0.102
Zn	67		ug/L		35545	0.098
Zn	68		ug/L		25742	0.078
> Ge	74		ug/L		280415	280414.514
As	75	71.943	ug/L	0.689	50911	0.181
Se	77		ug/L		21576	0.061
Se	82	18.846	ug/L	3.305	1250	0.004
Kr	83		ug/L		67	0.000
Sr	88	49.557	ug/L	2.166	466497	2.736
Y	89		ug/L		240	0.001
Zr	90	49.063	ug/L	2.029	256402	1.501
Mo	98	47.992	ug/L	1.729	112068	0.651
Ag	107	51.735	ug/L	0.750	185157	1.084
Cd	111	9.655	ug/L	2.165	8334	0.049
Cd	114		ug/L		19232	0.113
> In	115		ug/L		170487	170487.383
Sn	120	48.881	ug/L	1.728	187657	1.094
Sb	121	239.672	ug/L	1.064	631315	3.699
Sb	123		ug/L		486179	2.848
Ba	135		ug/L		42314	0.215
Ba	137	46.680	ug/L	2.122	73620	0.374
Ho	165		ug/L		107	0.001
> Lu	175		ug/L		196755	196755.477
Tl	205	88.155	ug/L	4.522	478021	2.428
Pb	208	40.235	ug/L	2.135	424700	2.127
Th	232	49.770	ug/L	4.091	520662	2.642
U	238	52.960	ug/L	2.384	535615	2.716

Sample ID: 1202056816

Report Date/Time: Monday, April 12, 2010 02:09:16

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		106.9			
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		108.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.1			
Tl	205					
Pb	208					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056816

Report Date/Time: Monday, April 12, 2010 02:09:16

Page 3

## ICPMS#4 - Summary Report

Sample ID: 1202056817

Sample Date/Time: Monday, April 12, 2010 02:12:43

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959091|5|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056817.545

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.074	ug/L	13.971	73	0.000
Be	9	0.044	ug/L	63.332	12	0.000
B	11	4.970	ug/L	0.885	759	0.001
Na	23	24.536	ug/L	15.721	53769	0.072
Mg	24	0.494	ug/L	156.871	3000	0.001
Al	27	4.187	ug/L	60.583	9337	0.011
P	31	-7.931	ug/L	26.921	3156	-0.001
K	39	43.820	ug/L	14.634	513750	0.206
Ca	43	21.835	ug/L	12.331	300	0.000
Sc	45		ug/L		647592	647591.888
Ti	47	0.198	ug/L	31.903	242	0.000
V	51	1.041	ug/L	110.971	21814	0.007
Cr	52	-0.305	ug/L	23.212	-13564	-0.001
Cr	53		ug/L		175636	0.078
Mn	55	0.122	ug/L	4.199	1367	0.001
Fe	57	-0.000	ug/L	75007.894	5615	-0.000
Co	59	0.028	ug/L	13.300	254	0.000
Ni	60	0.046	ug/L	35.272	119	0.000
Cu	63		ug/L		4687	-0.002
Cu	65	-0.934	ug/L	10.586	2208	-0.001
Zn	66	-3.810	ug/L	2.501	2036	-0.008
Zn	67		ug/L		10003	0.009
Zn	68		ug/L		2164	-0.005
Ge	74		ug/L		265492	265491.893
As	75	-0.163	ug/L	733.032	126	-0.000
Se	77		ug/L		9490	0.020
Se	82	0.184	ug/L	114.493	39	0.000
Kr	83		ug/L		52	-0.000
Sr	88	0.064	ug/L	9.807	746	0.004
Y	89		ug/L		46	0.000
Zr	90	0.029	ug/L	29.693	649	0.001
Mo	98	-0.162	ug/L	12.821	616	-0.002
Ag	107	-0.001	ug/L	390.807	297	-0.000
Cd	111	-0.005	ug/L	219.900	9	-0.000
Cd	114		ug/L		38	0.000
In	115		ug/L		165841	165841.131
Sn	120	0.047	ug/L	66.651	1359	0.001
Sb	121	0.033	ug/L	107.626	877	0.001
Sb	123		ug/L		667	0.000
Ba	135		ug/L		110	0.000
Ba	137	0.113	ug/L	12.286	206	0.001
Ho	165		ug/L		10	0.000
Lu	175		ug/L		193366	193366.467
Tl	205	1.365	ug/L	15.082	7724	0.038
Pb	208	-0.042	ug/L	15.186	5773	-0.002
Th	232	0.251	ug/L	14.187	3617	0.013
U	238	-0.040	ug/L	71.660	874	-0.002

Sample ID: 1202056817

Report Date/Time: Monday, April 12, 2010 02:15:29

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			101.6		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			103.1		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			100.8		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			99.3		
Tl	205					
Pb	208					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056817

Report Date/Time: Monday, April 12, 2010 02:15:29

Page 3

## ICPMS#4 - Summary Report

Sample ID: 248046002

Sample Date/Time: Monday, April 12, 2010 02:18:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959091|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\248046002.546

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.398	ug/L	13.984	265	0.000
Be	9	0.010	ug/L	386.294	7	0.000
B	11	30.111	ug/L	1.062	4184	0.006
Na	23	191.039	ug/L	5.713	376236	0.557
Mg	24	7.641	ug/L	58.254	12339	0.015
Al	27	27.640	ug/L	16.235	51093	0.074
P	31	-9.879	ug/L	15.014	3021	-0.002
K	39	325.634	ug/L	4.198	1400824	1.532
Ca	43	92.613	ug/L	1.832	763	0.001
> Sc	45		ug/L		661074	661073.517
Ti	47	1.103	ug/L	5.339	552	0.001
V	51	2.512	ug/L	162.675	28536	0.016
Cr	52	-3.831	ug/L	5.764	-25018	-0.018
Cr	53		ug/L		383924	0.387
Mn	55	1.691	ug/L	0.426	9657	0.013
Fe	57	29.971	ug/L	1.441	8963	0.005
Co	59	0.012	ug/L	46.457	194	0.000
Ni	60	0.127	ug/L	12.779	192	0.000
Cu	63		ug/L		18897	0.019
Cu	65	6.253	ug/L	1.118	9089	0.009
Zn	66	3.666	ug/L	18.969	6392	0.008
Zn	67		ug/L		29810	0.079
Zn	68		ug/L		6050	0.008
> Ge	74		ug/L		276315	276315.018
As	75	-0.902	ug/L	345.834	-376	-0.002
Se	77		ug/L		25312	0.076
Se	82	0.351	ug/L	94.283	51	0.000
Kr	83		ug/L		59	0.000
Sr	88	0.243	ug/L	2.036	2427	0.013
Y	89		ug/L		652	0.004
Zr	90	0.061	ug/L	18.657	821	0.002
Mo	98	-0.151	ug/L	11.494	652	-0.002
Ag	107	-0.032	ug/L	15.245	195	-0.001
Cd	111	0.026	ug/L	33.700	35	0.000
Cd	114		ug/L		74	0.000
> In	115		ug/L		168445	168445.093
Sn	120	0.393	ug/L	4.868	2688	0.009
Sb	121	0.037	ug/L	25.620	900	0.001
Sb	123		ug/L		730	0.000
Ba	135		ug/L		835	0.004
Ba	137	0.920	ug/L	3.022	1433	0.007
Ho	165		ug/L		39	0.000
> Lu	175		ug/L		190423	190422.967
Tl	205	0.474	ug/L	4.412	2935	0.013
Pb	208	0.708	ug/L	2.825	13235	0.037
Th	232	0.155	ug/L	10.401	2596	0.008
U	238	-0.099	ug/L	3.370	287	-0.005

Sample ID: 248046002

Report Date/Time: Monday, April 12, 2010 02:21:42

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	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
	Li	7				
	Be	9				
	B	11				
	Na	23				
	Mg	24				
	Al	27				
	P	31				
	K	39				
	Ca	43				
>	Sc	45	103.7			
	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	107.3			
	As	75				
	Se	77				
	Se	82				
	Kr	83				
	Sr	88				
	Y	89				
	Zr	90				
	Mo	98				
	Ag	107				
	Cd	111				
	Cd	114				
>	In	115	102.4			
	Sn	120				
	Sb	121				
	Sb	123				
	Ba	135				
	Ba	137				
	Ho	165				
>	Lu	175	97.8			
	Tl	205				
	Pb	208				
	Th	232				
	U	238				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248046002

Report Date/Time: Monday, April 12, 2010 02:21:42

Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 02:25:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 6.547

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.289	ug/L	1.274	30593	0.047
Be	9	53.035	ug/L	3.534	7973	0.012
B	11	102.923	ug/L	3.679	13731	0.021
Na	23	4606.262	ug/L	5.982	8684449	13.441
Mg	24	4775.979	ug/L	3.806	6045892	9.357
Al	27	4822.015	ug/L	10.851	8351570	12.928
P	31	4834.134	ug/L	3.319	491220	0.755
K	39	4673.714	ug/L	2.230	14583675	21.991
Ca	43	4747.743	ug/L	1.408	30118	0.046
Sc	45		ug/L		646060	646060.109
Ti	47	48.971	ug/L	2.696	16295	0.025
V	51	50.907	ug/L	2.888	230987	0.331
Cr	52	52.268	ug/L	2.246	149169	0.250
Cr	53		ug/L		134666	0.015
Mn	55	52.277	ug/L	1.955	269722	0.416
Fe	57	4957.615	ug/L	2.824	527735	0.808
Co	59	50.590	ug/L	1.617	202714	0.314
Ni	60	52.949	ug/L	1.633	45569	0.070
Cu	63		ug/L		109166	0.159
Cu	65	52.658	ug/L	2.922	51991	0.076
Zn	66	48.498	ug/L	2.537	30732	0.100
Zn	67		ug/L		11521	0.014
Zn	68		ug/L		22580	0.072
Ge	74		ug/L		265141	265140.729
As	75	50.683	ug/L	3.042	33982	0.127
Se	77		ug/L		6774	0.010
Se	82	48.227	ug/L	5.796	2982	0.011
Kr	83		ug/L		55	0.000
Sr	88	52.755	ug/L	1.156	473607	2.912
Y	89		ug/L		45	0.000
Zr	90	48.744	ug/L	1.433	242908	1.491
Mo	98	48.693	ug/L	1.228	108417	0.661
Ag	107	52.623	ug/L	2.272	179559	1.103
Cd	111	51.718	ug/L	2.499	42514	0.261
Cd	114		ug/L		99737	0.613
In	115		ug/L		162573	162572.599
Sn	120	49.867	ug/L	2.892	182510	1.116
Sb	121	55.756	ug/L	0.958	140650	0.860
Sb	123		ug/L		108215	0.662
Ba	135		ug/L		43794	0.227
Ba	137	49.218	ug/L	1.321	76035	0.394
Ho	165		ug/L		12	0.000
Lu	175		ug/L		192721	192720.697
Tl	205	49.894	ug/L	2.489	265263	1.374
Pb	208	51.832	ug/L	2.766	534055	2.740
Th	232	50.799	ug/L	3.077	520679	2.696
U	238	54.551	ug/L	1.578	540392	2.798

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 02:27:51

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7	106.579				
Be	9	106.070				
B	11	102.923				
Na	23	92.125				
Mg	24	95.520				
Al	27	95.485				
P	31	96.683				
K	39	93.474				
Ca	43	94.955				
> Sc	45		101.4			
Ti	47	97.942				
V	51	101.814				
Cr	52	104.535				
Cr	53					
Mn	55	104.554				
Fe	57	99.152				
Co	59	101.180				
Ni	60	105.898				
Cu	63					
Cu	65	105.317				
Zn	66	96.997				
Zn	67					
Zn	68					
> Ge	74		102.9			
As	75	101.365				
Se	77					
Se	82	96.454				
Kr	83					
Sr	88	105.511				
Y	89					
Zr	90	97.487				
Mo	98	97.385				
Ag	107	105.245				
Cd	111	103.436				
Cd	114					
> In	115		98.8			
Sn	120	99.735				
Sb	121	111.512				
Sb	123					
Ba	135					
Ba	137	98.437				
Ho	165					
> Lu	175		99.0			
Tl	205	99.788				
Pb	208	103.664				
Th	232	101.598				
U	238	109.103				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
 QC Std 6 Sb 121CCV is out of limits ( +/- 10%)

### QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 02:31:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 7.548

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.009	ug/L	77.194	36	0.000
Be	9	0.015	ug/L	194.846	8	0.000
B	11	1.304	ug/L	24.531	273	0.000
Na	23	3.121	ug/L	62.867	13340	0.009
Mg	24	0.225	ug/L	1006.100	2667	0.000
Al	27	0.374	ug/L	327.515	2667	0.001
P	31	-4.652	ug/L	44.021	3492	-0.001
K	39	-2.050	ug/L	156.294	374513	-0.010
Ca	43	11.082	ug/L	59.173	232	0.000
> Sc	45		ug/L		648601	648601.256
Ti	47	0.019	ug/L	77.745	183	0.000
V	51	0.293	ug/L	160.607	18753	0.002
Cr	52	0.296	ug/L	10.513	-11717	0.001
Cr	53		ug/L		130121	0.007
Mn	55	0.005	ug/L	67.733	762	0.000
Fe	57	-0.146	ug/L	1108.011	5607	-0.000
Co	59	0.008	ug/L	10.752	173	0.000
Ni	60	-0.005	ug/L	360.063	75	-0.000
Cu	63		ug/L		2918	-0.005
Cu	65	-1.823	ug/L	2.381	1382	-0.003
Zn	66	-5.140	ug/L	3.648	1294	-0.011
Zn	67		ug/L		7644	0.000
Zn	68		ug/L		1538	-0.008
> Ge	74		ug/L		263064	263063.942
As	75	-0.214	ug/L	108.469	90	-0.001
Se	77		ug/L		5552	0.005
Se	82	1.619	ug/L	16.864	126	0.000
Kr	83		ug/L		55	0.000
Sr	88	0.008	ug/L	32.844	240	0.000
Y	89		ug/L		22	0.000
Zr	90	0.260	ug/L	22.749	1802	0.008
Mo	98	0.152	ug/L	57.279	1313	0.002
Ag	107	0.005	ug/L	125.644	317	0.000
Cd	111	0.015	ug/L	96.257	25	0.000
Cd	114		ug/L		60	0.000
> In	115		ug/L		164402	164402.130
Sn	120	0.052	ug/L	29.313	1367	0.001
Sb	121	1.186	ug/L	23.087	3795	0.018
Sb	123		ug/L		2931	0.014
Ba	135		ug/L		27	0.000
Ba	137	0.012	ug/L	44.210	49	0.000
Ho	165		ug/L		8	-0.000
> Lu	175		ug/L		193991	193990.904
Tl	205	0.456	ug/L	8.671	2891	0.013
Pb	208	-0.132	ug/L	6.805	4866	-0.007
Th	232	0.412	ug/L	18.741	5285	0.022
U	238	-0.043	ug/L	9.613	853	-0.002

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 02:34:02

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	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	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
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	0.9998
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
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 % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.8			
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		102.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.6			
Tl	205					
Pb	208					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 QC Std 7 Cu 65CCB is out of limits ( +/- PQL)

## QC Action

QC Action Line: Continue



## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Tuesday, April 13, 2010 11:33:12

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1054

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

### Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	1541.9	1541.883	43.705	2.8
Mg	24.0	38738.9	38738.859	434.290	1.1
Co	58.9	63185.8	63185.831	373.250	0.6
Rh	102.9	123622.6	123622.601	766.014	0.6
In	114.9	178721.4	178721.441	1254.626	0.7
Pb	208.0	214246.1	214246.105	2038.893	1.0
[> Ba	137.9	169586.4	169586.427	957.403	0.6
[ Ba++	69.0	1987.6	0.012	0.000	2.3
[> Ce	139.9	205613.0	205612.974	1509.978	0.7
[ CeO	155.9	4192.2	0.020	0.000	2.1
Bkgd	220.0	19.8	19.800	2.564	13.0

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3372.1
Co	59	21	7.8	60333.1
In	115	21	9.5	172853.8

## ICPMS #5 Instrument Tuning Report

File Name: 100413.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	606	2072	0.540
Be	9.0	9.0	2061	2088	0.543
Mg	24.0	24.0	5699	2085	0.562
Mg	25.0	25.0	5939	2085	0.540
Mg	26.0	26.0	6187	2100	0.545
Co	58.9	59.0	14193	2125	0.528
Rh	102.9	102.9	24880	2180	0.530
In	114.9	114.9	27796	2200	0.535
Ce	139.9	139.9	33878	2220	0.547
Pb	206.0	206.0	49948	2305	0.522
Pb	207.0	207.0	50171	2240	0.593
Pb	208.0	208.0	50451	2280	0.636
U	238.1	238.0	57731	2295	0.641

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 13, 2010 11:45:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Blank.001

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		185761	
	Sn	120		ug/L		601	
	Sb	121		ug/L		81	
	Sb	123		ug/L		67	
[>	Lu	175		ug/L		392643	
	U	238		ug/L		76	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
U	238	Simple Linear	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175					
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Tuesday, April 13, 2010 11:45:32

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 13, 2010 11:47:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.002

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		182036	182035.964
Sn	120	10.000	ug/L	2.014	53910	0.293
Sb	121	10.000	ug/L	2.863	41462	0.227
Sb	123		ug/L		32322	0.177
[> Lu	175		ug/L		382362	382362.256
U	238	10.000	ug/L	3.365	459323	1.201

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> In	115					
Sn	120					
Sb	121					
Sb	123					
[> Lu	175					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 11:47:57

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 13, 2010 11:49:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.003

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184236	184236.210
	Sn	120	99.964	ug/L	2.074	521119	2.826
	Sb	121	100.049	ug/L	1.558	440889	2.393
	Sb	123		ug/L		342818	1.861
[>	Lu	175		ug/L		399772	399771.738
	U	238	99.900	ug/L	1.081	4361704	10.910

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115						
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175						
	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 11:50:23

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 13, 2010 11:52:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.004

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184783	184782.938
	Sn	120	50.255	ug/L	2.353	263015	1.421
	Sb	121	53.137	ug/L	3.381	234778	1.271
	Sb	123		ug/L		182858	0.989
[>	Lu	175		ug/L		396367	396366.712
	U	238	51.729	ug/L	1.463	2238990	5.649

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dif	Duplicate Rel. % Difference
[>	In	115			99.5		
	Sn	120	100.511				
	Sb	121	106.273				
	Sb	123					
[>	Lu	175		100.9			
	U	238	103.458				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Tuesday, April 13, 2010 11:52:49

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 13, 2010 11:54:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.005

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		186749	186749.324
	Sn	120	-0.014	ug/L	83.102	532	-0.000
	Sb	121	0.344	ug/L	3.857	1616	0.008
	Sb	123		ug/L		1273	0.006
[>	Lu	175		ug/L		394533	394532.622
	U	238	0.005	ug/L	10.622	275	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	In	115		100.5				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		100.5				
	U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Tuesday, April 13, 2010 11:55:20

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 13, 2010 11:57:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.006

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
> In	115		ug/L		187234	187233.558
Sn	120	5.598	ug/L	2.621	30227	0.158
Sb	121	2.944	ug/L	1.367	13265	0.070
Sb	123		ug/L		10433	0.055
> Lu	175		ug/L		396608	396607.555
U	238	0.301	ug/L	2.546	13096	0.033

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. %	Difference
> In	115			100.8			
Sn	120	111.957					
Sb	121	98.142					
Sb	123						
> Lu	175			101.0			
U	238	150.304					

### 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

Sample ID: QC Std 3

Report Date/Time: Tuesday, April 13, 2010 11:57:47

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 13, 2010 11:59:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.007

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		163099	163099.298
	Sn	120	0.204	ug/L	2.717	1469	0.006
	Sb	121	0.265	ug/L	3.152	1103	0.006
	Sb	123		ug/L		895	0.005
[>	Lu	175		ug/L		355401	355400.625
	U	238	0.002	ug/L	19.302	147	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		87.8				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		90.5				
	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Tuesday, April 13, 2010 12:00:14

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 13, 2010 12:02:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.008

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		164246	164245.716
	Sn	120	20.117	ug/L	2.678	93906	0.569
	Sb	121	20.261	ug/L	2.170	79645	0.485
	Sb	123		ug/L		62352	0.379
[>	Lu	175		ug/L		356670	356669.933
	U	238	21.126	ug/L	0.769	822958	2.307

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		88.4				
	Sn	120	100.587					
	Sb	121	101.307					
	Sb	123						
[>	Lu	175		90.8				
	U	238	105.631					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Tuesday, April 13, 2010 12:02:42

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 13, 2010 12:04:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.009

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		180800	180799.988
	Sn	120	49.813	ug/L	3.483	255017	1.408
	Sb	121	52.557	ug/L	3.494	227209	1.257
	Sb	123		ug/L		178584	0.988
[>	Lu	175		ug/L		384201	384200.999
	U	238	52.168	ug/L	0.479	2188900	5.697

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		97.3				
	Sn	120	99.627					
	Sb	121	105.114					
	Sb	123						
[>	Lu	175		97.8				
	U	238	104.336					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Tuesday, April 13, 2010 12:05:10

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 13, 2010 12:07:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.010

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		178005	178004.541
	Sn	120	-0.027	ug/L	23.813	442	-0.001
	Sb	121	0.191	ug/L	2.212	892	0.005
	Sb	123		ug/L		687	0.004
[>	Lu	175		ug/L		382061	382060.614
	U	238	0.003	ug/L	10.893	210	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
[>	In	115		95.8			
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175		97.3			
	U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 12:07:40

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 12:31:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.020

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		179880	179879.590
Sn	120	50.183	ug/L	0.622	255755	1.419
Sb	121	52.882	ug/L	0.671	227587	1.265
Sb	123		ug/L		177328	0.985
[> Lu	175		ug/L		385933	385933.317
U	238	51.782	ug/L	2.522	2181888	5.655

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115			96.8			
Sn	120	100.367					
Sb	121	105.764					
Sb	123						
[> Lu	175			98.3			
U	238	103.564					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 12:32:13

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 12:34:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.021

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		180084	180084.005
	Sn	120	-0.039	ug/L	7.068	383	-0.001
	Sb	121	0.142	ug/L	4.782	688	0.003
	Sb	123		ug/L		548	0.003
[>	Lu	175		ug/L		382471	382471.262
	U	238	0.004	ug/L	7.628	243	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		96.9				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		97.4				
	U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 12:34:43

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056813

Sample Date/Time: Tuesday, April 13, 2010 12:36:42

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056813.022

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		182948	182947.575
	Sn	120	0.147	ug/L	7.597	1351	0.004
	Sb	121	0.097	ug/L	3.410	506	0.002
	Sb	123		ug/L		404	0.002
[>	Lu	175		ug/L		384345	384344.903
	U	238	0.016	ug/L	4.601	757	0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		98.5				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		97.9				
	U	238						

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056813

Report Date/Time: Tuesday, April 13, 2010 12:37:11

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056814

Sample Date/Time: Tuesday, April 13, 2010 12:39:09

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056814.023

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184347	184347.192
	Sn	120	53.014	ug/L	1.871	276836	1.499
	Sb	121	56.017	ug/L	1.433	247049	1.340
	Sb	123		ug/L		193795	1.051
[>	Lu	175		ug/L		388355	388354.632
	U	238	47.093	ug/L	4.802	1996875	5.143

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		99.2			
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175		98.9			
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056814

Report Date/Time: Tuesday, April 13, 2010 12:39:38

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 12:53:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.029

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		179439	179438.954
	Sn	120	49.856	ug/L	1.546	253434	1.409
	Sb	121	52.280	ug/L	2.701	224406	1.250
	Sb	123		ug/L		175814	0.980
[>	Lu	175		ug/L		380571	380570.868
	U	238	51.864	ug/L	1.091	2155752	5.664

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115			96.6			
	Sn	120	99.711					
	Sb	121	104.560					
	Sb	123						
[>	Lu	175			96.9			
	U	238	103.728					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 12:54:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 12:56:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.030

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		178375	178374.506
	Sn	120	-0.037	ug/L	13.537	393	-0.001
	Sb	121	0.145	ug/L	3.498	696	0.003
	Sb	123		ug/L		550	0.003
[>	Lu	175		ug/L		376824	376824.203
	U	238	0.004	ug/L	28.193	240	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		96.0				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		96.0				
	U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 12:56:55

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248046001

Sample Date/Time: Tuesday, April 13, 2010 13:03:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\248046001.033

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184403	184403.040
	Sn	120	0.056	ug/L	14.653	887	0.002
	Sb	121	0.036	ug/L	8.803	237	0.001
	Sb	123		ug/L		208	0.001
[>	Lu	175		ug/L		384451	384451.277
	U	238	0.006	ug/L	9.121	320	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		99.3				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		97.9				
	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248046001

Report Date/Time: Tuesday, April 13, 2010 13:04:18

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 13:21:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.039

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		181343	181343.112
Sn	120	49.625	ug/L	1.270	254948	1.403
Sb	121	51.369	ug/L	0.964	222861	1.229
Sb	123		ug/L		175048	0.965
[> Lu	175		ug/L		380870	380870.172
U	238	51.061	ug/L	0.982	2123878	5.576

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[> In	115		97.6				
Sn	120	99.251					
Sb	121	102.737					
Sb	123						
[> Lu	175		97.0				
U	238	102.121					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 13:22:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 13:24:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.040

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		182593	182593.360
	Sn	120	-0.048	ug/L	9.118	341	-0.001
	Sb	121	0.142	ug/L	3.687	700	0.003
	Sb	123		ug/L		534	0.003
[>	Lu	175		ug/L		384056	384055.625
	U	238	0.004	ug/L	3.626	253	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115			98.3		
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175			97.8		
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 13:24:54

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248046002

Sample Date/Time: Tuesday, April 13, 2010 13:26:53

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\248046002.041

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		185104	185103.650
	Sn	120	0.033	ug/L	2.981	774	0.001
	Sb	121	0.105	ug/L	1.339	544	0.003
	Sb	123		ug/L		404	0.002
[>	Lu	175		ug/L		379082	379081.869
	U	238	0.007	ug/L	10.715	366	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		99.6		
	Sn	120				
	Sb	121				
	Sb	123				
[>	Lu	175		96.5		
	U	238				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248046002

Report Date/Time: Tuesday, April 13, 2010 13:27:22

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056815

Sample Date/Time: Tuesday, April 13, 2010 13:29:21

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056815.042

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		186636	186636.140
	Sn	120	0.016	ug/L	8.740	687	0.000
	Sb	121	0.045	ug/L	6.753	281	0.001
	Sb	123		ug/L		231	0.001
[>	Lu	175		ug/L		381121	381120.525
	U	238	0.004	ug/L	15.025	254	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115			100.5		
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175			97.1		
	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056815

Report Date/Time: Tuesday, April 13, 2010 13:29:50

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056816

Sample Date/Time: Tuesday, April 13, 2010 13:31:49

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056816.043

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		182129	182128.936
	Sn	120	51.809	ug/L	0.531	267315	1.465
	Sb	121	213.423	ug/L	1.870	929701	5.105
	Sb	123		ug/L		732807	4.023
[>	Lu	175		ug/L		377501	377500.781
	U	238	46.046	ug/L	0.561	1898346	5.029

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Di	Duplicate Rel. % Difference
[>	In	115		98.0			
	Sn	120					
	Sb	121					
	Sb	123					
[>	Lu	175		96.1			
	U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056816

Report Date/Time: Tuesday, April 13, 2010 13:32:18

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202056817

Sample Date/Time: Tuesday, April 13, 2010 13:34:17

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959091|5|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056817.044

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		180322	180322.483
	Sn	120	-0.022	ug/L	13.652	474	-0.001
	Sb	121	0.122	ug/L	7.610	604	0.003
	Sb	123		ug/L		491	0.002
[>	Lu	175		ug/L		383535	383534.538
	U	238	0.027	ug/L	3.994	1195	0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115		97.1				
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175		97.7				
	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056817

Report Date/Time: Tuesday, April 13, 2010 13:34:46

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 13:36:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.045

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		169071	169071.440
Sn	120	49.887	ug/L	2.022	238915	1.410
Sb	121	52.708	ug/L	3.274	213128	1.261
Sb	123		ug/L		164071	0.970
[> Lu	175		ug/L		364393	364393.398
U	238	49.365	ug/L	2.181	1964182	5.391

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[> In	115		91.0			
Sn	120	99.775				
Sb	121	105.416				
Sb	123					
[> Lu	175		92.8			
U	238	98.730				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 13:37:15

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 13:39:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.046

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		179196	179196.267
	Sn	120	-0.042	ug/L	10.523	368	-0.001
	Sb	121	0.141	ug/L	7.956	681	0.003
	Sb	123		ug/L		547	0.003
[>	Lu	175		ug/L		383407	383407.402
	U	238	0.006	ug/L	16.687	322	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[>	In	115			96.5			
	Sn	120						
	Sb	121						
	Sb	123						
[>	Lu	175			97.6			
	U	238						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 13:39:45

Page 1

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 13, 2010 15:12:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\Blank.090

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		350450	
[	U	238		ug/L		325	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Tuesday, April 13, 2010 15:13:04

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 13, 2010 15:14:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.091

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		357385	357385.496
[	U	238	10.000	ug/L	1.263	423309	1.183

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 15:14:41

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 13, 2010 15:16:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.092

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		346400	346400.487
[	U	238	99.956	ug/L	0.528	3924964	11.330

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175						
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 15:16:18

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 13, 2010 15:17:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.093

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		349311	349311.125
[	U	238	49.627	ug/L	0.746	1965252	5.625

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		99.7				
[	U	238	99.254					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Tuesday, April 13, 2010 15:17:56

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 13, 2010 15:19:26

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.094

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		350872	350872.277
[	U	238	0.012	ug/L	5.508	815	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175		100.1				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Tuesday, April 13, 2010 15:19:38

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 13, 2010 15:21:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.095

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		341237	341237.117
[	U	238	0.216	ug/L	1.954	8686	0.025

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		97.4				
[	U	238	108.183					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Tuesday, April 13, 2010 15:21:17

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 13, 2010 15:22:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.096

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		321479	321479.366
[	U	238	-0.002	ug/L	2.476	214	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		91.7				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Tuesday, April 13, 2010 15:22:56

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 13, 2010 15:24:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.097

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		323412	323411.634
[	U	238	20.986	ug/L	1.639	769564	2.379

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		92.3				
[	U	238	104.932					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Tuesday, April 13, 2010 15:24:35

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 13, 2010 15:26:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.098

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		344845	344845.355
[	U	238	49.309	ug/L	1.762	1927882	5.589

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		98.4			
[	U	238	98.617				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Tuesday, April 13, 2010 15:26:15

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 13, 2010 15:27:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.099

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		345974	345974.197
[	U	238	0.010	ug/L	12.917	706	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		98.7				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 15:27:57

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 15:44:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.109

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		341777	341777.190
[	U	238	50.362	ug/L	1.286	1951226	5.709

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		97.5				
[	U	238	100.723					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 15:44:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 15:45:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.110

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		349790	349789.814
[ U	238	0.009	ug/L	2.899	693	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Lu	175		99.8				
[ U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 15:46:06

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056813

Sample Date/Time: Tuesday, April 13, 2010 15:47:34

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056813.111

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		349509	349508.811
[	U	238	0.012	ug/L	2.771	800	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		99.7			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056813

Report Date/Time: Tuesday, April 13, 2010 15:47:44

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202056814

Sample Date/Time: Tuesday, April 13, 2010 15:49:13

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056814.112

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		358689	358688.810
[	U	238	45.301	ug/L	2.269	1841875	5.135

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		102.4				
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 15:59:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.118

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		351399	351399.441
[	U	238	48.797 ug/L	2.328	1943686	5.531

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175		100.3			
[	U	238	97.594				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 15:59:18

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 16:00:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.119

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		348712	348712.118
[	U	238	0.009	ug/L	8.140	686	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[>	Lu	175			99.5		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 16:01:00

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248046001

Sample Date/Time: Tuesday, April 13, 2010 16:05:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959091[1]prb

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\248046001.122

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		357289	357288.672
[	U	238	-0.001	ug/L	76.463	294	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		102.0			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248046001

Report Date/Time: Tuesday, April 13, 2010 16:05:57

Page 1

## ICPMS#5 - Summary Report

Sample ID: 248046002  
Sample Date/Time: Tuesday, April 13, 2010 16:07:26  
Sample Type:  
Sample Description: LANL 6020  
Number of Replicates: 3  
Batch ID: 959091|1|prb  
Method File: c:\elandata\Method\w only.mth  
Dataset File: C:\elandata\Dataset\100413\248046002.123

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		359119	359119.324
[	U	238	0.000	ug/L	258.291	342	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[>	Lu	175			102.5		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056815

Sample Date/Time: Tuesday, April 13, 2010 16:09:05

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056815.124

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		353376	353376.063
[	U	238	-0.002	ug/L	16.442	255	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.8			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056815

Report Date/Time: Tuesday, April 13, 2010 16:09:16

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056816

Sample Date/Time: Tuesday, April 13, 2010 16:10:45

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959091|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056816.125

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		357811	357811.472
[	U	238	45.049	ug/L	1.992	1827432	5.106

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			102.1		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056816

Report Date/Time: Tuesday, April 13, 2010 16:10:56

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202056817

Sample Date/Time: Tuesday, April 13, 2010 16:12:24

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959091|5|prb

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\1202056817.126

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		351505	351505.276
[ U	238	0.030	ug/L	3.571	1540	0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Lu	175			100.3			
[ U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056817

Report Date/Time: Tuesday, April 13, 2010 16:12:35

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 16:14:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.127

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		343618	343618.256
[	U	238	50.399	ug/L	1.318	1963281	5.713

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175		98.1				
[	U	238	100.798					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
------------------	---------	------	-----------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 16:14:15

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 16:15:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.128

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		351588	351587.835
[	U	238	0.011	ug/L	7.475	771	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		100.3			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 16:15:57

Page 1

=====  
Analysis Begun

Logged In Analyst: Administrator

Technique: AA FIMS-MHS

Spectrometer Model: FIMS-100, S/N B050-9550

Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF

Batch ID:

Results Data Set: 030210W3

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 3/2/2010 08:26:33

Analyst:

Data Type: Original

-----  
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

=====  
Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 3/2/2010 08:28:26

Analyst:

Data Type: Original

-----  
Replicate Data: S0.2

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

=====  
Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 3/2/2010 08:30:21

Analyst:

Data Type: Original

-----  
Replicate Data: S0.5

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

=====  
Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 3/2/2010 08:32:17

Analyst:

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]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]  
 Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

Sequence No.: 5 Autosampler Location: 5  
 Sample ID: S5.0 Date Collected: 3/2/2010 08:34:13  
 Analyst: Data Type: Original

## Replicate Data: S5.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes	
2	[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes	
Mean:	[5.0]	0.0510					
SD:	0.0	0.0014					
%RSD:	0.0	2.77					

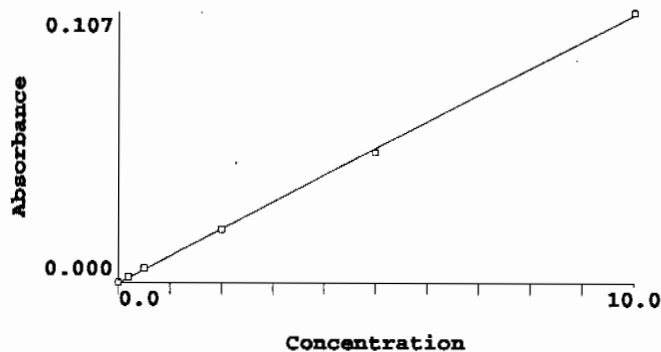
Standard number 4 applied. [5.0]  
 Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

Sequence No.: 6 Autosampler Location: 6  
 Sample ID: S10.0 Date Collected: 3/2/2010 08:36:10  
 Analyst: Data Type: Original

## Replicate Data: S10.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes	
2	[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes	
Mean:	[10.0]	0.1068					
SD:	0.0	0.0014					
%RSD:	0.0	1.27					

Standard number 5 applied. [10.0]  
 Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030



## 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	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

Sequence No.: 7  
Sample ID: ICV  
Analyst:

Autosampler Location: 9  
Date Collected: 3/2/2010 08:38:04  
Data Type: Original

-----  
Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%  
All analyte(s) passed QC.

Sequence No.: 8  
Sample ID: ICB  
Analyst:

Autosampler Location: 10  
Date Collected: 3/2/2010 08:40:00  
Data Type: Original

-----  
Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

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: 3/2/2010 08:41:56  
Data Type: Original

-----  
Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%  
All analyte(s) passed QC.

Sequence No.: 10  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/2/2010 08:43:52  
Data Type: Original

-----  
Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/2/2010 08:45:46  
Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 12

Sample ID: 1202055823|958575|1

Analyst: JXL

Autosampler Location: 12

Date Collected: 3/2/2010 08:47:41

Data Type: Original

-----  
Replicate Data: 1202055823|958575|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

=====

Sequence No.: 13

Sample ID: 1202055824|958575|1

Analyst: JXL

Autosampler Location: 13

Date Collected: 3/2/2010 08:49:38

Data Type: Original

-----  
Replicate Data: 1202055824|958575|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

=====

Sequence No.: 14

Sample ID: 247037001|958575|1

Analyst: JXL

Autosampler Location: 14

Date Collected: 3/2/2010 08:51:35

Data Type: Original

-----  
Replicate Data: 247037001|958575|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

=====

Sequence No.: 15

Sample ID: 1202055825|958575|1

Analyst: JXL

Autosampler Location: 15

Date Collected: 3/2/2010 08:53:30

Data Type: Original

-----  
Replicate Data: 1202055825|958575|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 247042004|958575|1

Date Collected: 3/2/2010 09:04:58

Analyst: JXL

Data Type: Original

Replicate Data: 247042004|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 09:06:54

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 09:08:48

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 247042005|958575|1

Date Collected: 3/2/2010 09:10:43

Analyst: JXL

Data Type: Original

Replicate Data: 247042005|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

SD: 0.003 0.003 0.0000  
%RSD: 9.252 9.252 154.88

Sequence No.: 30

Sample ID: 1202055830|958578|1

Analyst: JXL

Autosampler Location: 28

Date Collected: 3/2/2010 09:22:19

Data Type: Original

Replicate Data: 1202055830|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

Sequence No.: 31

Sample ID: 1202055831|958578|1

Analyst: JXL

Autosampler Location: 29

Date Collected: 3/2/2010 09:24:13

Data Type: Original

Replicate Data: 1202055831|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

Sequence No.: 32

Sample ID: 1202055832|958278|5

Analyst: JXL

Autosampler Location: 30

Date Collected: 3/2/2010 09:26:08

Data Type: Original

Replicate Data: 1202055832|958278|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

Sequence No.: 33

Sample ID: 247036002|958578|1

Analyst: JXL

Autosampler Location: 31

Date Collected: 3/2/2010 09:28:02

Data Type: Original

Replicate Data: 247036002|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

Sequence No.: 34

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 09:29:57

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------



#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%  
All analyte(s) passed QC.

Sequence No.: 35

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 09:31:51

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 36

Sample ID: 247036003|958578|1

Analyst: JXL

Autosampler Location: 32

Date Collected: 3/2/2010 09:33:47

Data Type: Original

Replicate Data: 247036003|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

Sequence No.: 37

Sample ID: 247036004|958578|1

Analyst: JXL

Autosampler Location: 33

Date Collected: 3/2/2010 09:35:42

Data Type: Original

Replicate Data: 247036004|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

Sequence No.: 38

Sample ID: 247036005|958578|1

Analyst: JXL

Autosampler Location: 34

Date Collected: 3/2/2010 09:37:38

Data Type: Original

Replicate Data: 247036005|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean: 0.029 0.029 0.0000  
SD: 0.004 0.004 0.0000  
%RSD: 15.71 15.71 746.11

Sequence No.: 44

Sample ID: 1202055833|958581|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 3/2/2010 09:49:16

Data Type: Original

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

Sequence No.: 45

Sample ID: 1202055834|958581|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 3/2/2010 09:51:11

Data Type: Original

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 09:53:06

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%  
All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 09:55:00

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 247817001|958581|1

Autosampler Location: 42

Date Collected: 3/2/2010 09:56:55

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

Sequence No.: 58

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 10:16:14

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%  
All analyte(s) passed QC.

Sequence No.: 59

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 10:18:09

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 60

Sample ID: 1202055843|958587|1

Analyst: JXL

Autosampler Location: 52

Date Collected: 3/2/2010 10:20:04

Data Type: Original

## Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

Sequence No.: 61

Sample ID: 1202055844|958587|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 3/2/2010 10:22:00

Data Type: Original

## Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

Sequence No.: 62

Autosampler Location: 54

%RSD: 3.709 3.709 11.51

Sequence No.: 67

Sample ID: 248044003|958587|1

Analyst: JXL

Autosampler Location: 59

Date Collected: 3/2/2010 10:33:34

Data Type: Original

Replicate Data: 248044003|958587|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:34:36	Yes
2	0.042	0.042	0.0001	0.0036	0.0008	10:35:11	Yes
Mean:	0.039	0.039	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	8.563	8.563	29.80				

Sequence No.: 68

Sample ID: 248044004|958587|1

Analyst: JXL

Autosampler Location: 60

Date Collected: 3/2/2010 10:35:31

Data Type: Original

Replicate Data: 248044004|958587|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:36:32	Yes
2	0.037	0.037	0.0001	0.0031	0.0007	10:37:07	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.860	0.860	3.53				

Sequence No.: 69

Sample ID: 248044005|958587|1

Analyst: JXL

Autosampler Location: 61

Date Collected: 3/2/2010 10:37:27

Data Type: Original

Replicate Data: 248044005|958587|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	10:38:29	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	10:39:04	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.669	7.669	260.52				

Sequence No.: 70

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 10:39:24

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.079	5.079	0.0536	0.2761	0.0542	10:40:25	Yes
2	5.044	5.044	0.0533	0.2727	0.0539	10:41:00	Yes
Mean:	5.061	5.061	0.0534				
SD:	0.025	0.025	0.0003				
%RSD:	0.487	0.487	0.49				

QC value within limits for Hg 253.7 Recovery = 101.22%  
All analyte(s) passed QC.

Sequence No.: 71

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 10:41:19

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0028	0.0006	10:42:20	Yes
2	0.037	0.037	0.0001	0.0037	0.0007	10:42:55	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.27	10.27	56.74				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 72

Sample ID: 248044006|958587|1

Analyst: JXL

Autosampler Location: 62

Date Collected: 3/2/2010 10:43:14

Data Type: Original

Replicate Data: 248044006|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0032	0.0007	10:44:16	Yes
2	0.041	0.041	0.0001	0.0037	0.0007	10:44:51	Yes
Mean:	0.038	0.038	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.62	10.62	40.88				

Sequence No.: 73

Sample ID: 248127002|958587|1

Analyst: JXL

Autosampler Location: 63

Date Collected: 3/2/2010 10:45:11

Data Type: Original

Replicate Data: 248127002|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0002	0.0042	0.0008	10:46:12	Yes
2	0.049	0.049	0.0002	0.0038	0.0008	10:46:47	Yes
Mean:	0.049	0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.072	0.072	0.17				

Sequence No.: 74

Sample ID: 248168006|958587|1

Analyst: JXL

Autosampler Location: 64

Date Collected: 3/2/2010 10:47:07

Data Type: Original

Replicate Data: 248168006|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0032	0.0006	10:48:08	Yes
2	0.039	0.039	0.0001	0.0038	0.0007	10:48:43	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	15.15	15.15	72.49				

Sequence No.: 75

Sample ID: 248169004|958587|1

Analyst: JXL

Autosampler Location: 65

Date Collected: 3/2/2010 10:49:03

Data Type: Original

Replicate Data: 248169004|958587|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.039	0.039	0.0001	0.0037	0.0007	10:50:04	Yes
2	0.041	0.041	0.0001	0.0036	0.0008	10:50:39	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.561	3.561	11.62				

## Replicate Data: 1202055863|958593|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.95	26.95	0.2859	1.4918	0.2865	10:59:45	Yes

Sample concentration is greater than that of the highest standard.

2	26.74	26.74	0.2836	1.4832	0.2842	11:00:20	Yes
---	-------	-------	--------	--------	--------	----------	-----

Sample concentration is greater than that of the highest standard.

Mean: 26.85 26.85 0.2847

SD: 0.150 0.150 0.0016

%RSD: 0.559 0.559 0.56

Sample concentration is greater than that of the highest standard.

Sequence No.: 81

Autosampler Location: 71

Sample ID: 1202055864|958593|5

Date Collected: 3/2/2010 11:00:40

Analyst: JXL

Data Type: Original

## Replicate Data: 1202055864|958593|5

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.495	5.495	0.0580	0.2982	0.0586	11:01:41	Yes
2	5.466	5.466	0.0577	0.2966	0.0583	11:02:16	Yes

Mean: 5.480 5.480 0.0579

SD: 0.020 0.020 0.0002

%RSD: 0.371 0.371 0.37

Sequence No.: 82

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 11:02:36

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.006	5.006	0.0528	0.2714	0.0535	11:03:37	Yes
2	5.022	5.022	0.0530	0.2712	0.0536	11:04:12	Yes

Mean: 5.014 5.014 0.0529

SD: 0.011 0.011 0.0001

%RSD: 0.227 0.227 0.23

QC value within limits for Hg 253.7 Recovery = 100.27%

All analyte(s) passed QC.

Sequence No.: 83

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 11:04:31

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0031	0.0007	11:05:31	Yes
2	0.048	0.048	0.0002	0.0040	0.0008	11:06:06	Yes

Mean: 0.040 0.040 0.0001

SD: 0.010 0.010 0.0001

%RSD: 26.02 26.02 85.60

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 84

Autosampler Location: 72

Sample ID: 247958002|958593|1

Date Collected: 3/2/2010 11:06:25

Analyst: JXL

Data Type: Original

## Replicate Data: 247958002|958593|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.063	0.063	0.0004	0.0052	0.0010	11:07:27	Yes

2	0.068	0.068	0.0004	0.0049	0.0010	11:08:02	Yes
Mean:	0.066	0.066	0.0004				
SD:	0.004	0.004	0.0000				
%RSD:	5.695	5.695	9.90				

Sequence No.: 85

Autosampler Location: 73

Sample ID: 247958003|958593|1

Date Collected: 3/2/2010 11:08:22

Analyst: JXL

Data Type: Original

Replicate Data: 247958003|958593|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	14.14	14.14	0.1498	0.7668	0.1504	11:09:24	Yes
Sample concentration is greater than that of the highest standard.							
2	14.18	14.18	0.1503	0.7699	0.1509	11:09:59	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	14.16	14.16	0.1501				
SD:	0.029	0.029	0.0003				
%RSD:	0.202	0.202	0.20				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 86

Autosampler Location: 74

Sample ID: 247958004|958593|1

Date Collected: 3/2/2010 11:10:19

Analyst: JXL

Data Type: Original

Replicate Data: 247958004|958593|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.261	0.261	0.0025	0.0153	0.0031	11:11:21	Yes
2	0.275	0.275	0.0026	0.0162	0.0032	11:11:56	Yes
Mean:	0.268	0.268	0.0026				
SD:	0.010	0.010	0.0001				
%RSD:	3.710	3.710	4.14				

Sequence No.: 87

Autosampler Location: 75

Sample ID: 247958005|958593|1

Date Collected: 3/2/2010 11:12:16

Analyst: JXL

Data Type: Original

Replicate Data: 247958005|958593|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.159	0.159	0.0014	0.0102	0.0020	11:13:17	Yes
2	0.170	0.170	0.0015	0.0105	0.0021	11:13:52	Yes
Mean:	0.165	0.165	0.0015				
SD:	0.007	0.007	0.0001				
%RSD:	4.420	4.420	5.32				

Sequence No.: 88

Autosampler Location: 76

Sample ID: 1202056573|958951|1

Date Collected: 3/2/2010 11:14:12

Analyst: JXL

Data Type: Original

Replicate Data: 1202056573|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.033	0.033	0.0000	0.0033	0.0007	11:15:13	Yes
2	0.046	0.046	0.0002	0.0042	0.0008	11:15:48	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	24.87	24.87	84.85				

Sequence No.: 89

Autosampler Location: 77

Sample ID: 1202056574|958951|1

Date Collected: 3/2/2010 11:16:08

Analyst: JXL

Data Type: Original

Replicate Data: 1202056574|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.200	2.200	0.0231	0.1197	0.0237	11:17:10	Yes
2	2.209	2.209	0.0232	0.1196	0.0238	11:17:45	Yes
Mean:	2.205	2.205	0.0231				
SD:	0.006	0.006	0.0001				
%RSD:	0.267	0.267	0.27				

Sequence No.: 90

Autosampler Location: 78

Sample ID: 247997001|958951|1

Date Collected: 3/2/2010 11:18:05

Analyst: JXL

Data Type: Original

Replicate Data: 247997001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.033	0.033	0.0001	0.0032	0.0007	11:19:06	Yes
2	0.041	0.041	0.0001	0.0035	0.0007	11:19:41	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.81	15.81	65.70				

Sequence No.: 91

Autosampler Location: 79

Sample ID: 248001001|958951|1

Date Collected: 3/2/2010 11:20:01

Analyst: JXL

Data Type: Original

Replicate Data: 248001001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.033	0.033	0.0001	0.0032	0.0007	11:21:03	Yes
2	0.041	0.041	0.0001	0.0038	0.0008	11:21:38	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.33	15.33	60.50				

Sequence No.: 92

Autosampler Location: 80

Sample ID: 248010001|958951|1

Date Collected: 3/2/2010 11:21:58

Analyst: JXL

Data Type: Original

Replicate Data: 248010001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.034	0.034	0.0001	0.0037	0.0007	11:22:59	Yes
2	0.035	0.035	0.0001	0.0034	0.0007	11:23:34	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.747	3.747	19.55				

Sequence No.: 93

Autosampler Location: 81

Sample ID: 248010002|958951|1

Date Collected: 3/2/2010 11:23:54

Analyst: JXL

Data Type: Original

Replicate Data: 248010002|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.039	0.039	0.0001	0.0041	0.0007	11:24:55	Yes
2	0.036	0.036	0.0001	0.0033	0.0007	11:25:30	Yes
Mean:	0.038	0.038	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.841	5.841	22.77				



Sequence No.: 94  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/2/2010 11:25:50  
Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.218	5.218	0.0551	0.2817	0.0557	11:26:50	Yes
2	5.211	5.211	0.0550	0.2791	0.0556	11:27:25	Yes
Mean:	5.214	5.214	0.0551				
SD:	0.005	0.005	0.0001				
%RSD:	0.095	0.095	0.10				

QC value within limits for Hg 253.7 Recovery = 104.29%  
All analyte(s) passed QC.

Sequence No.: 95  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/2/2010 11:27:44  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0027	0.0006	11:28:45	Yes
2	0.038	0.038	0.0001	0.0032	0.0007	11:29:20	Yes
Mean:	0.033	0.033	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	19.42	19.42	124.89				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 96  
Sample ID: 248026001|958951|1  
Analyst: JXL

Autosampler Location: 82  
Date Collected: 3/2/2010 11:29:40  
Data Type: Original

## Replicate Data: 248026001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.036	0.036	0.0001	0.0035	0.0007	11:30:41	Yes
2	0.037	0.037	0.0001	0.0031	0.0007	11:31:16	Yes
Mean:	0.036	0.036	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.939	1.939	8.63				

Sequence No.: 97  
Sample ID: 248032001|958951|1  
Analyst: JXL

Autosampler Location: 83  
Date Collected: 3/2/2010 11:31:36  
Data Type: Original

## Replicate Data: 248032001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	11:32:37	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:33:12	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.573	8.573	152.05				

Sequence No.: 98  
Sample ID: 248034001|958951|1  
Analyst: JXL

Autosampler Location: 84  
Date Collected: 3/2/2010 11:33:32  
Data Type: Original

## Replicate Data: 248034001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.033	0.033	0.0001	0.0036	0.0007	11:34:34	Yes
2	0.034	0.034	0.0001	0.0030	0.0007	11:35:09	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.319	2.319	13.14				

Sequence No.: 99

Autosampler Location: 85

Sample ID: 248038001|958951|1

Date Collected: 3/2/2010 11:35:29

Analyst: JXL

Data Type: Original

## Replicate Data: 248038001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.031	0.031	0.0000	0.0032	0.0006	11:36:31	Yes
2	0.038	0.038	0.0001	0.0037	0.0007	11:37:06	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	14.82	14.82	79.95				

Sequence No.: 100

Autosampler Location: 86

Sample ID: 248038002|958951|1

Date Collected: 3/2/2010 11:37:26

Analyst: JXL

Data Type: Original

## Replicate Data: 248038002|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.036	0.036	0.0001	0.0036	0.0007	11:38:28	Yes
2	0.035	0.035	0.0001	0.0034	0.0007	11:39:02	Yes
Mean:	0.036	0.036	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.622	1.622	7.34				

Sequence No.: 101

Autosampler Location: 87

Sample ID: 248039001|958951|1

Date Collected: 3/2/2010 11:39:23

Analyst: JXL

Data Type: Original

## Replicate Data: 248039001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	-0.0000	0.0027	0.0006	11:40:24	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	11:40:59	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	13.87	13.87	176.80				

Sequence No.: 102

Autosampler Location: 88

Sample ID: 248046001|958951|1

Date Collected: 3/2/2010 11:41:19

Analyst: JXL

Data Type: Original

## Replicate Data: 248046001|958951|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0028	0.0006	11:42:21	Yes
2	0.031	0.031	0.0000	0.0029	0.0006	11:42:56	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	6.264	6.264	101.14				

Sequence No.: 103

Autosampler Location: 89

Sample ID: 248046002|958951|1  
Analyst: JXL

Date Collected: 3/2/2010 11:43:16  
Data Type: Original

-----  
Replicate Data: 248046002|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.025	0.025	-0.0000	0.0028	0.0006	11:44:17	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:44:52	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	15.25	15.25	>999.9%				

Sequence No.: 104  
Sample ID: 248053001|958951|1  
Analyst: JXL

Autosampler Location: 90  
Date Collected: 3/2/2010 11:45:12  
Data Type: Original

-----  
Replicate Data: 248053001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0030	0.0006	11:46:14	Yes
2	0.031	0.031	0.0000	0.0030	0.0006	11:46:49	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.471	5.471	107.18				

Sequence No.: 105  
Sample ID: 248053002|958951|1  
Analyst: JXL

Autosampler Location: 91  
Date Collected: 3/2/2010 11:47:10  
Data Type: Original

-----  
Replicate Data: 248053002|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	11:48:11	Yes
2	0.028	0.028	0.0000	0.0029	0.0006	11:48:46	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.952	5.952	162.46				

Sequence No.: 106  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/2/2010 11:49:06  
Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.948	4.948	0.0522	0.2686	0.0529	11:50:06	Yes
2	4.918	4.918	0.0519	0.2653	0.0525	11:50:41	Yes
Mean:	4.933	4.933	0.0521				
SD:	0.021	0.021	0.0002				
%RSD:	0.435	0.435	0.44				

QC value within limits for Hg 253.7 Recovery = 98.67%  
All analyte(s) passed QC.

Sequence No.: 107  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/2/2010 11:51:00  
Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0025	0.0006	11:52:01	Yes
2	0.032	0.032	0.0000	0.0029	0.0007	11:52:36	Yes

Mean: 0.028 0.028 -0.0000  
SD: 0.006 0.006 0.0001  
%RSD: 20.56 20.56 >999.9%

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 108

Autosampler Location: 92

Sample ID: 248053003|958951|1

Date Collected: 3/2/2010 11:52:55

Analyst: JXL

Data Type: Original

Replicate Data: 248053003|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0032	0.0006	11:53:57	Yes
2	0.035	0.035	0.0001	0.0036	0.0007	11:54:31	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	11.99	11.99	88.45				

Sequence No.: 109

Autosampler Location: 93

Sample ID: 248108001|958951|1

Date Collected: 3/2/2010 11:54:52

Analyst: JXL

Data Type: Original

Replicate Data: 248108001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0030	0.0006	11:55:53	Yes
2	0.030	0.030	0.0000	0.0033	0.0006	11:56:28	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	9.111	9.111	>999.9%				

Sequence No.: 110

Autosampler Location: 94

Sample ID: 248117001|958951|1

Date Collected: 3/2/2010 11:56:48

Analyst: JXL

Data Type: Original

Replicate Data: 248117001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0000	0.0025	0.0006	11:57:50	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:58:25	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	19.43	19.43	681.10				

Sequence No.: 111

Autosampler Location: 95

Sample ID: 248145001|958951|1

Date Collected: 3/2/2010 11:58:45

Analyst: JXL

Data Type: Original

Replicate Data: 248145001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0032	0.0006	11:59:46	Yes
2	0.027	0.027	-0.0000	0.0029	0.0006	12:00:21	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.334	4.334	287.89				

Sequence No.: 112

Autosampler Location: 96

Sample ID: 1202056575|958951|1

Date Collected: 3/2/2010 12:00:41

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202056575|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0028	0.0006	12:01:43	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	12:02:19	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	20.52	20.52	>999.9%				

Sequence No.: 113

Autosampler Location: 97

Sample ID: 1202056576|958951|1

Date Collected: 3/2/2010 12:02:39

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202056576|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.290	2.290	0.0240	0.1266	0.0246	12:03:41	Yes
2	2.255	2.255	0.0236	0.1250	0.0243	12:04:16	Yes
Mean:	2.273	2.273	0.0238				
SD:	0.024	0.024	0.0003				
%RSD:	1.063	1.063	1.08				

Sequence No.: 114

Autosampler Location: 98

Sample ID: 1202056577|958951|5

Date Collected: 3/2/2010 12:04:36

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202056577|958951|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0032	0.0006	12:05:38	Yes
2	0.032	0.032	0.0000	0.0031	0.0006	12:06:13	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.606	4.606	53.00				

Sequence No.: 115

Autosampler Location: 99

Sample ID: 1202056608|958969|1

Date Collected: 3/2/2010 12:06:33

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202056608|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.025	0.025	-0.0000	0.0030	0.0006	12:07:35	Yes
2	0.023	0.023	-0.0000	0.0027	0.0006	12:08:10	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.800	4.800	32.24				

Sequence No.: 116

Autosampler Location: 100

Sample ID: 1202056609|958969|1

Date Collected: 3/2/2010 12:08:30

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202056609|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.265	2.265	0.0237	0.1245	0.0244	12:09:32	Yes
2	2.262	2.262	0.0237	0.1229	0.0243	12:10:08	Yes
Mean:	2.263	2.263	0.0237				
SD:	0.002	0.002	0.0000				
%RSD:	0.077	0.077	0.08				

Sequence No.: 117  
Sample ID: 248162001|958969|1  
Analyst: JXL

Autosampler Location: 101  
Date Collected: 3/2/2010 12:10:28  
Data Type: Original

-----  
Replicate Data: 248162001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	-0.0000	0.0030	0.0006	12:11:30	Yes
2	0.030	0.030	0.0000	0.0030	0.0006	12:12:05	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.485	5.485	294.70				

Sequence No.: 118  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/2/2010 12:12:25  
Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.004	5.004	0.0528	0.2717	0.0534	12:13:26	Yes
2	5.010	5.010	0.0529	0.2692	0.0535	12:14:01	Yes
Mean:	5.007	5.007	0.0529				
SD:	0.004	0.004	0.0000				
%RSD:	0.080	0.080	0.08				

QC value within limits for Hg 253.7 Recovery = 100.14%  
All analyte(s) passed QC.

Sequence No.: 119  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/2/2010 12:14:20  
Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0031	0.0006	12:15:21	Yes
2	0.038	0.038	0.0001	0.0035	0.0007	12:15:56	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	15.64	15.64	89.85				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 120  
Sample ID: 248162002|958969|1  
Analyst: JXL

Autosampler Location: 102  
Date Collected: 3/2/2010 12:16:15  
Data Type: Original

-----  
Replicate Data: 248162002|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0026	0.0006	12:17:17	Yes
2	0.032	0.032	0.0000	0.0031	0.0006	12:17:52	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	18.16	18.16	>999.9%				

Sequence No.: 121  
Sample ID: 248162003|958969|1  
Analyst: JXL

Autosampler Location: 103  
Date Collected: 3/2/2010 12:18:12  
Data Type: Original

-----  
Replicate Data: 248162003|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

# Miscellaneous

# Prep Logbook

## Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

**Batch ID:** 959090.0  
**Analyst:** Francena Armstrong  
**Method:** SW846 3005A  
**Lab SOP:** GL-MA-E-006 REV# 9  
**Instrument:** Sartorius Balance B-001

**Verified by:** \_\_\_\_\_

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056814	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE	U1100205-A	.5	mL
LCS	1202056814	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B)	U1100205-B	.5	mL
MS	1202056816	ICP-MS DOE liquid Spike Solution A	U1090930-A	.5	mL
MS	1202056816	ICP-MS DOE Liquid Spike Solution B	U1090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056813 MB	02-MAR-2010 14:30:00	Water	50	50	1	<2
1202056814 LCS	02-MAR-2010 14:30:00	Water	50	50	1	<2
247997001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248001001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248010001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248010002	02-MAR-2010 14:30:00	Water	50	50	1	<2
248032001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248034001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248039001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248046001	02-MAR-2010 14:30:00	Water	50	50	1	<2
248046002	02-MAR-2010 14:30:00	Water	50	50	1	<2
1202056815 DUP (248046002)	02-MAR-2010 14:30:00	Water	50	50	1	<2
1202056816 MS (248046002)	02-MAR-2010 14:30:00	Water	50	50	1	<2
1202056817 SDILT (248046002)	02-MAR-2010 14:30:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount	Comments:
1274969	Nitric Acid CONC.	1 mL	
1274973	HYDROCHLORIC ACID	2.5 mL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC



# Prep Logbook

## Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Batch ID:** 958949.0  
**Analyst:** Tara Griffin  
**Method:** SW846 7470A Prep  
**Lab SOP:** GL-MA-E-010 REV# 23  
**Instrument:** No analytical instrument

**Verified by:** \_\_\_\_\_

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
1202056573 MB	01-MAR-2010 12:20:00	Water	20	20	1	<2	LCS	1202056574	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
1202056574 LCS	01-MAR-2010 12:20:00	Water	20	20	1	<2	MS	1202056576	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
247997001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248001001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248010001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248010002	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248032001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248034001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248038001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248038002	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248039001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248046001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248046002	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248053001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248053002	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248053003	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248108001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248117001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
248145001	01-MAR-2010 12:20:00	Water	20	20	1	<2						
1202056575 DUP (248145001)	01-MAR-2010 12:20:00	Water	20	20	1	<2						
1202056576 MS (248145001)	01-MAR-2010 12:20:00	Water	20	20	1	<2						
1202056577 SDLT (248145001)	01-MAR-2010 12:20:00	Water	20	20	1	<2						

Reagent/Solvent Lot ID	Description	Amount	Comments:
1176183	Sulfuric Acid, Concentrated	1 mL	Digestion Start Date: 01-MAR-10 12:20
1255532-C	Hg reducing agent	1 mL	Digestion End Date: 01-MAR-10 14:20
1274391-1	NITRIC ACID	.5 mL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: 959088.0		Verified by:			
Analyst:	Louis Hall				
Method:	SW846 3005A				
Lab SOP:	GL-MA-E-006 REV# 9				
Instrument:	Metals Manual Instrument				
Type	Sample Id	Description	Serial Number	Spike Amount	Spike Unit
LCS	1202056809	Metals Spike Mix I	U1100205-01	.25	mL
LCS	1202056809	Metals Spike Mix II	U1100205-06	.25	mL
MS	1202056811	Metals Spike Mix I	U1100205-01	.25	mL
MS	1202056811	Metals Spike Mix II	U1100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056808 MB	04-MAR-2010 09:20:00	Water	50	50	1	<2
1202056809 LCS	04-MAR-2010 09:20:00	Water	50	50	1	<2
247997001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248001001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248010001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248010002	04-MAR-2010 09:20:00	Water	50	50	1	<2
248032001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248034001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248039001	04-MAR-2010 09:20:00	Water	50	50	1	<2
248046001	04-MAR-2010 09:20:00	Water	50	50	1	<2
1202056810 DUP (248046001)	04-MAR-2010 09:20:00	Water	50	50	1	<2
1202056811 MS (248046001)	04-MAR-2010 09:20:00	Water	50	50	1	<2
1202056812 SDILT (248046001)	04-MAR-2010 09:20:00	Water	50	50	1	<2
248046002	04-MAR-2010 09:20:00	Water	50	50	1	<2

Comments:

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1277919	Nitric Acid CONC.	1 mL

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI090421-40      **Opened:** 09-OCT-09      **Amount :** 250 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 21-APR-09      **Catalog Number :** HP100052-1  
**Type:** Source Material      **Expires:** 09-OCT-10      **Lot Number :** 0830227  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% 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

# Standard Logbook

**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
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:** O2SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

# Standard Logbook

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

# Standard Logbook

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Carnello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI090930-A      **Opened:** 30-SEP-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 28-SEP-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 30-SEP-10  
**Employee:** Francena Armstrong      **Verified:** 21-NOV-08  
**Supplier:** O2Si  
**Description:** ICP-MS DOE liquid Spike Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI090930-B      **Opened:** 30-SEP-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 28-SEP-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 30-SEP-10  
**Employee:** Francena Armstrong      **Verified:** 21-NOV-08  
**Supplier:** O2Si  
**Description:** ICP-MS DOE Liquid Spike Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H2O(NH4)2SiF6  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

# Standard Logbook

**Serial ID:** UI091102-41      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930216  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

**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:** ENVIRONMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI100205-01      **Opened:** 05-FEB-10      **Lot Number :** 1018514  
**Name:** METALSPIKE-1      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**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



# Standard Logbook

**Serial ID:** UI100205-06      **Opened:** 05-FEB-10      **Lot Number :** 1018515  
**Name:** METALSPIKE-2      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UI100205-A      **Opened:** 05-FEB-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 05-FEB-10      **Lot Number :** 1018516  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI100205-B      **Opened:** 05-FEB-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 05-FEB-10      **Lot Number :** 1018516  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI100310-48      **Opened:** 19-MAR-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSA      **Received:** 12-MAR-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 19-MAR-11      **Lot Number :** 1019141  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

**Serial ID:** UI100317-06      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-MAR-10      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019161  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

**Serial ID:** UI100317-07      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-MAR-10      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019162  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

**Serial ID:** UI100317-08      **Opened:** 17-MAR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-MAR-10      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-MAR-11      **Lot Number :** 1019163  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI100318-11      **Opened:** 18-MAR-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 18-MAR-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 15-APR-10      **Lot Number :** 1018321  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** 02SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

# Standard Logbook

**Serial ID:** UI100325-40      **Opened:** 25-MAR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 25-MAR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 25-MAR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** Q2SI  
**Description:** ICP HIGH RANGE STD SOLUTION A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

**Serial ID:** UI100325-41      **Opened:** 25-MAR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 25-MAR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 25-MAR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** Q2SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

**Serial ID:** UI100405-12      **Opened:** 05-APR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 05-APR-10      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019466  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** Q2SI  
**Description:** ICPMS ICSAB Master B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI100405-13      **Opened:** 05-APR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 05-APR-10      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019467  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** O2SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI100405-60      **Opened:** 05-APR-10      **Amount :** 5 mL  
**Name:** ICPMS High Range Standard      **Received:** 05-APR-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019464  
**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		

# Standard Logbook

**Serial ID:** UI100405-61      **Opened:** 05-APR-10      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 05-APR-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019464  
**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:** ICPMS Cal SPIKE B      **Received:** 26-FEB-10      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 26-FEB-11      **Lot Number :** 21-104JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS100226-02      **Opened:** 26-FEB-10      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMS Cal SPIKE A      **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

# Standard Logbook

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Sodium	1000 mg/L		

**Serial ID:** UMS100226-03      **Opened:** 26-FEB-10      **Amount :** 250 ml  
**Name:** ICPMSCaSPIKEC      **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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100301-01      **Opened:** 01-MAR-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 01-MAR-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 02-MAR-10      **Solvent :** 1mL HNO3 + TypeI H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 1st Source 200 ug/L  
**Comments:** Prepare fresh daily

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100301-02      **Opened:** 01-MAR-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Intermediate      **Expires:** 02-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100301-01a      **Opened:** 01-MAR-10      **Pipet Id :** Hq1289245  
**Name:** MHGWORKCAL0.2CRA      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.2/CRA  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

**Serial ID:** WHG100301-02      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.5      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

**Serial ID:** WHG100301-03      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL2.0      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 2.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

**Serial ID:** WHG100301-04      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL5.0CCV      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 5.0/CCV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100301-05      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL10.0      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 10.0  
**Comments:** None



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

**Serial ID:** WHG100301-06      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORK5.0ICV      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100301-13      **Opened:** 01-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGLIQLCSMSSPIKE      **Received:** 01-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 08-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury working intermediate standard for LCS/MS  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100326-42      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1%HNO3 -1289705  
**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.
WI100326-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100326-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100326-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100326-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100326-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100326-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100326-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100326-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100326-43      **Opened:** 26-MAR-10      **Balance Id:** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id:** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent:** 3%HCL and 1%HNO3 -1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

**Serial ID:** WI100326-44      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1 %HNO3-1289705  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

**Serial ID:** WI100326-45      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL and 1%HNO3 -1289705  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

**Serial ID:** WI100326-46      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL AND 1%HNO3-1289705  
**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

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100326-47      **Opened:** 26-MAR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 27-MAR-10      **Solvent :** 3%HCL &1%HNO3-1289705  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100411-04      **Opened:** 11-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 11-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 12-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1296562  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100411-04A      **Opened:** 11-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 11-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expres:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100411-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100411-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100411-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100411-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100411-05      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 11-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100411-06      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 11-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100411-07      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 11-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 12-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100411-08      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 11-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1296562  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** WMS100411-70      **Opened:** 11-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 11-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 12-APR-10      **Solvent :** 2%HNO3/1%HCl - 1298562  
**Employee:** Paul Boyd  
**Supplier:** 02SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100413-04      **Opened:** 13-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 13-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 14-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1300209  
**Supplier:** GEL  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100413-04A      **Opened:** 13-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 13-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100413-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
WMS100413-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100413-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100413-05      **Opened:** 13-APR-10      **Balance Id:** 40245216  
**Name:** ICPMS ICV      **Received:** 13-APR-10      **Pipet Id:** 3541598  
**Type:** Working      **Expires:** 14-APR-10      **Solvent:** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100413-06      **Opened:** 13-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 13-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100413-07      **Opened:** 13-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 13-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 14-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L



# Standard Logbook

**Serial ID:** WMS100413-08      **Opened:** 13-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 13-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

# Standard Logbook

**Serial ID:** 1156689-A      **Opened:** 20-JUL-09      **Lot Number :** 41226920  
**Name:** B-KMnO4(VWR)-MER      **Received:** 20-JUL-09  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin      **Verified:** 07-AUG-07  
**Supplier:** VWR  
**Description:** Potassium Permanganate  
**Comments:** None

**Serial ID:** 1176183      **Opened:** 24-AUG-09      **Lot Number :** H20001  
**Name:** B-H2SO4-MER      **Received:** 24-AUG-09  
**Type:** Reagent/Solvent      **Expires:** 24-AUG-10  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt  
**Description:** Sulfuric Acid, Concentrated  
**Comments:** None

**Serial ID:** 1215906      **Opened:** 06-NOV-09      **Lot Number :** H44465  
**Name:** B-K2S2O8-MER      **Received:** 06-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 06-NOV-10  
**Employee:** Tara Griffin  
**Supplier:** J.T BAKER  
**Description:** Potassium Persulfate Concentrate.  
**Comments:** None

**Serial ID:** 1228372-A      **Opened:** 12-NOV-09      **Lot Number :** 49215936  
**Name:** B-NH2OH.HCl-MER      **Received:** 12-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 12-NOV-10  
**Employee:** Tara Griffin  
**Supplier:** Fisher Scientific  
**Description:** Hydroxylamine Hydrochloride  
**Comments:** None

**Serial ID:** 1255532-C      **Opened:** 15-JAN-10      **Balance Id :** BAL-002  
**Name:** B-NaCl.NH2OH.HCl-MER      **Received:** 15-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 15-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Hg reducing agent  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

# Standard Logbook

**Serial ID:** 1274391-1      **Opened:** 24-FEB-10      **Instrument Id :** MERCURY  
**Name:** B-HNO3-MER      **Received:** 24-FEB-10      **Lot Number :** H44025  
**Type:** Reagent/Solvent      **Expires:** 24-FEB-11  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt Chemicals  
**Description:** NITRIC ACID  
**Comments:** None

**Serial ID:** 1274397-C      **Opened:** 24-FEB-10      **Balance Id :** BAL-002  
**Name:** B-KMnO4-MER      **Received:** 24-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:** 1274969      **Opened:** 24-FEB-10      **Lot Number :** J 04043 L  
**Name:** I-HNO3      **Received:** 24-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 24-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1274973      **Opened:** 24-FEB-10      **Lot Number :** J02039  
**Name:** I-HCL      **Received:** 24-FEB-10      **Preservative Id :** 5 none  
**Type:** Reagent/Solvent      **Expires:** 24-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID  
**Comments:** None

**Serial ID:** 1276435-C      **Opened:** 28-FEB-10      **Balance Id :** BAL-002  
**Name:** B-K2S2O8-MER      **Received:** 28-FEB-10  
**Type:** Reagent/Solvent      **Expires:** 28-AUG-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% Potassium Persulfate  
**Comments:** None

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916      Opened: 02-MAR-10      Lot Number : J02039  
 Name: I-HCL      Received: 02-MAR-10      Preservative\_Id : 5 none  
 Type: Reagent/Solvent      Expires: 02-MAR-11  
 Employee: Francena Armstrong  
 Supplier: J.T. BAKER  
 Description: HYDROCHLORIC ACID  
 Comments: None

Serial ID: 1277919      Opened: 02-MAR-10      Lot Number : J 04043 L  
 Name: I-HNO3      Received: 02-MAR-10  
 Type: Reagent/Solvent      Expires: 02-MAR-11  
 Employee: Francena Armstrong  
 Supplier: BAKER  
 Description: Nitric Acid CONC.  
 Comments: None

Serial ID: 1289705      Opened: 22-MAR-10      Amount : 20 L  
 Name: B-ICP-RINSE SOLN      Received: 12-MAR-10      Lot Number : H04040+G34050  
 Type: Reagent/Solvent      Expires: 28-MAR-10      Solvent : 3%HCL+1%HNO3  
 Employee: Helen Camello  
 Supplier: GEL  
 Description: 3%HCL+1%HNO3 RINSE SOLN.  
 Comments: None

Serial ID: 1291278      Opened: 25-MAR-10      Lot Number : J 08035 L  
 Name: I-HNO3      Received: 25-MAR-10  
 Type: Reagent/Solvent      Expires: 25-MAR-11  
 Employee: Anthony Green  
 Supplier: BAKER  
 Description: Nitric Acid CONC.  
 Comments: None

Serial ID: 1296562      Opened: 05-APR-10      Solvent : Type I Water  
 Name: B-2%HNO3/1%HCl-ICPMS      Received: 05-APR-10  
 Type: Reagent/Solvent      Expires: 12-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1300209      Opened: 12-APR-10      Solvent :      Type I Water  
Name: B-2%HNO3/1%HCl-CPMS      Received: 12-APR-10  
Type: Reagent/Solvent      Expires: 19-APR-10  
Employee: Paul Boyd  
Supplier: GEL  
Description: 2%HNO3/1%HCl Solution (Type I Water)  
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2075**

**Method/Analysis Information**

**Product:**            **pH**

**Analytical Batch:** 959517    **Method:** SW9045C pH

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

<b>Sample ID</b>	<b>Client ID</b>
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467
248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
1202057930	248045001(RE36-10-7414) Sample Duplicate (DUP)
1202057931	248045010(RE36-10-7463) Sample Duplicate (DUP)
1202057932	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

**Preparation/Analytical Method Verification**



The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

#### **Calibration Information**

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

#### **Initial Calibration**

All initial calibration requirements have been met for this SDG.

#### **Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

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

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

The LCS spike recovery met the acceptance limits.

##### **Quality Control (QC) Designation**

The following samples were selected for QC analysis: 248045001 (RE36-10-7414) and 248045010 (RE36-10-7463).

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

The RPD between the sample and its duplicate met the acceptance limits.

#### **Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Holding Times**

The following samples from this sample group were received by the lab outside of the method specified holding time: 248045001 (RE36-10-7414), 248045002 (RE36-10-7413), 248045003 (RE36-10-7462), 248045004 (RE36-10-7465), 248045005 (RE36-10-7473), 248045006 (RE36-10-7471), 248045007 (RE36-10-7472), 248045008 (RE36-10-7468), 248045009 (RE36-10-7464), 248045010 (RE36-10-7463), 248045011 (RE36-10-7475), 248045012 (RE36-10-7466), 248045013 (RE36-10-7476), 248045014 (RE36-10-7461), 248045015 (RE36-10-7467), 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515).

##### **Sample Re-analysis**

The samples in this SDG did not require re-analysis.

#### **Miscellaneous Information**

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

A DER was not required for this SDG.

##### **Additional Comments**

Additional comments were not required for this SDG.

##### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Method/Analysis Information**

**Product:** Cyanide, Total

**Analytical Batch:** 957580, 958163 and 960509    **Method:** SW9012A Cyanide and Total

**Prep Batch :** 957579, 958162 and 960507    **Method:** SSW846 9010B Prep

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

<b>Sample ID</b>	<b>Client ID</b>
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467
248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
1202053292	Method Blank (MB)
1202053293	247907001(RE15-10-8019) Sample Duplicate (DUP)
1202053294	247907002(RE15-10-8013) Sample Duplicate (DUP)
1202053295	247907001(RE15-10-8019) Matrix Spike (MS)
1202053296	247907002(RE15-10-8013) Matrix Spike (MS)
1202053297	247907001(RE15-10-8019) Matrix Spike Duplicate (MSD)
1202053298	247907002(RE15-10-8013) Matrix Spike Duplicate (MSD)
1202053299	Laboratory Control Sample (LCS)
1202054773	Method Blank (MB)
1202054774	248065006(RE11-10-1696) Sample Duplicate (DUP)
1202054775	248002001(RE36-10-8490) Sample Duplicate (DUP)
1202054776	248065006(RE11-10-1696) Matrix Spike (MS)
1202054777	248002001(RE36-10-8490) Matrix Spike (MS)
1202054778	248065006(RE11-10-1696) Matrix Spike Duplicate (MSD)
1202054779	248002001(RE36-10-8490) Matrix Spike Duplicate (MSD)
1202054780	Laboratory Control Sample (LCS)
1202060268	Method Blank (MB)
1202060269	248045015(RE36-10-7467) Sample Duplicate (DUP)
1202060270	248045015(RE36-10-7467) Matrix Spike (MS)
1202060271	248045015(RE36-10-7467) Matrix Spike Duplicate (MSD)
1202060272	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: 247907001 (RE15-10-8019), 247907002 (RE15-10-8013)- Batch 957580, 248002001 (RE36-10-8490), 248065006 (RE11-10-1696)- Batch 958163 and 248045015 (RE36-10-7467)- Batch 960509.

##### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202053295 (RE15-10-8019) and 1202053296 (RE15-10-8013)- Batch 957580.

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

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202053297 (RE15-10-8019) and 1202053298 (RE15-10-8013)- Batch 957580.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 1202053295 (RE15-10-8019) and 1202053297 (RE15-10-8019)- Batch 957580.

##### **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. 1202053293 (RE15-10-8019)- Batch 957580 and 1202054774 (RE11-10-1696)- Batch 958163.

### **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: 1202053299 (LCS)- Batch 957580, 1202054780 (LCS)- Batch 958163 and 1202060272 (LCS)- Batch 960509.

#### **Sample Re-analysis**

The following samples were re-analyzed due to instrument failure: 1202053295 (RE15-10-8019), 1202053297 (RE15-10-8019), 1202053298 (RE15-10-8013)- Batch 957580 and 1202054779 (RE36-10-8490)- Batch 958163. The following samples were re-analyzed due to CCV failure: 1202054773 (MB), 1202054775 (RE36-10-8490), 1202054777 (RE36-10-8490), 1202054780 (LCS)- Batch 958163, 1202060270 (RE36-10-7467), 1202060271 (RE36-10-7467), 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515)- Batch 960509.

### **Miscellaneous Information**

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

The following DER was generated for this SDG: 800862 1202053295 (RE15-10-8019), 1202053296 (RE15-10-8013), 1202053297 (RE15-10-8019) and 1202053298 (RE15-10-8013)- Batch 957580. The following DER was generated for this SDG: 800786 248045001 (RE36-10-7414), 248045002 (RE36-10-7413), 248045003 (RE36-10-7462), 248045004 (RE36-10-7465), 248045005 (RE36-10-7473), 248045006 (RE36-10-7471), 248045007 (RE36-10-7472), 248045008 (RE36-10-7468), 248045009 (RE36-10-7464), 248045010 (RE36-10-7463) and 248045011 (RE36-10-7475)- Batch 958163. The following DER was generated for this SDG: 800779 248045015 (RE36-10-7467), 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515)- Batch 960509.

#### **Additional Comments**

Additional comments were not required for this SDG.

#### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

### Method/Analysis Information

**Product:** Ion Chromatography  
**Analytical Batch:** 962075 **Method:** EPA 300.0 Nitrate in Soil  
**Prep Batch :** 962074 **Method:** EPA 300.0 PREP

### Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248045001	RE36-10-7414
248045002	RE36-10-7413
248045003	RE36-10-7462
248045004	RE36-10-7465
248045005	RE36-10-7473
248045006	RE36-10-7471
248045007	RE36-10-7472
248045008	RE36-10-7468
248045009	RE36-10-7464
248045010	RE36-10-7463
248045011	RE36-10-7475
248045012	RE36-10-7466
248045013	RE36-10-7476
248045014	RE36-10-7461
248045015	RE36-10-7467
248045016	RE36-10-7469
248045017	RE36-10-7470
248045018	RE36-10-7515
1202063598	Method Blank (MB)
1202063599	248045001(RE36-10-7414) Sample Duplicate (DUP)
1202063600	248045018(RE36-10-7515) Sample Duplicate (DUP)
1202063601	248045001(RE36-10-7414) Matrix Spike (MS)
1202063602	248045018(RE36-10-7515) Matrix Spike (MS)
1202063603	248045001(RE36-10-7414) Matrix Spike Duplicate (MSD)
1202063604	248045018(RE36-10-7515) Matrix Spike Duplicate (MSD)
1202063605	Laboratory Control Sample (LCS)
1202078659	Method Blank (MB)
1202078660	Laboratory Control Sample (LCS)

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

### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC, and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

**Calibration Information**

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

**Initial Calibration**

All initial calibration requirements have been met for this SDG.

**Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

**Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

**Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The 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: 248045001 (RE36-10-7414) and 248045018 (RE36-10-7515).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202063602 (RE36-10-7515).

**Matrix Spike Duplicate (MSD) Recovery Statement**

The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202063604 (RE36-10-7515).

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPDs between the spike and spike duplicate met the acceptance limits.

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

The RPD between the sample and its duplicate met the acceptance limits.

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.



**Holding Times**

Samples was initially put on the instrument to analysis within holding; however, due to instrument failure the holding times had expired prior to reextraction of the samples. 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515).

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-analysis**

The following samples and associated QC were re-extracted and re-analyzed due to instrument failure: 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515).

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DER was generated for this SDG: 808943 1202063602 (RE36-10-7515), 1202063604 (RE36-10-7515), 248045016 (RE36-10-7469), 248045017 (RE36-10-7470) and 248045018 (RE36-10-7515).

**Manual Integrations**

Manual integrations were not required for the samples in this SDG.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Nick-Cole A. Elmore Date: 3.24.10

# Sample Data Summary

## GEL LABORATORIES LLC

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

### Certificate of Analysis Report for

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

Client SDG: 10-2075 GEL Work Order: 248045

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

- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

Nick-Cole A. Elmore

3.24.10

# 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: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7414  
Sample ID: 248045001  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 21.1%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.75	0.010	0.100	SU	1	LXA1	03/01/10	1838	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	73.1	269	ug/kg	1	AXC2	03/05/10	1245	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.376	1.25	mg/kg	1	GXM	03/19/10	1836	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7413  
Sample ID: 248045002  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 20.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 18.9C	H	7.40	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		868	84.3	310	ug/kg	1	AXC2	03/05/10	1246	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.372	1.24	mg/kg	1	GXM	03/19/10	2036	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7462  
Sample ID: 248045003  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 7.92%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	8.12	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2	03/05/10	1305	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.323	1.08	mg/kg	1	GXM	03/19/10	2106	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7465  
Sample ID: 248045004  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 22.3%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.73	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	87.5	322	ug/kg	1	AXC2	03/05/10	1306	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.380	1.27	mg/kg	1	GXM	03/19/10	2136	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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



# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7473  
Sample ID: 248045005  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 23.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 18.9C	H	7.35	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		376	83.9	309	ug/kg	1	AXC2	03/05/10	1307	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.25	0.393	1.31	mg/kg	1	GXM	03/19/10	2206	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7471  
Sample ID: 248045006  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 29.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.72	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	88.1	324	ug/kg	1	AXC2	03/05/10	1308	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.426	1.42	mg/kg	1	GXM	03/19/10	2335	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7472  
Sample ID: 248045007  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 21.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.39	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	85.3	314	ug/kg	1	AXC2	03/05/10	1309	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.381	1.27	mg/kg	1	GXM	03/20/10	0005	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7468  
Sample ID: 248045008  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 26.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	7.63	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	98.2	89.0	327	ug/kg	1	AXC2	03/05/10	1309	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.408	1.36	mg/kg	1	GXM	03/20/10	0035	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7464  
Sample ID: 248045009  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 7.05%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.0C	H	7.37	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.3	259	ug/kg	1	AXC2	03/05/10	1310	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.56	0.323	1.08	mg/kg	1	GXM	03/20/10	0105	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7463  
Sample ID: 248045010  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 8.23%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	7.82	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	71.3	262	ug/kg	1	AXC2	03/05/10	1311	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.87	0.321	1.07	mg/kg	1	GXM	03/20/10	0135	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7475  
Sample ID: 248045011  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 27.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.4C	H	7.52	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	120	89.8	330	ug/kg	1	AXC2	03/05/10	1312	958163	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.412	1.37	mg/kg	1	GXM	03/20/10	0205	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1349	958162

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7466  
Sample ID: 248045012  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 20.5%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.2C	H	7.31	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	134	77.7	286	ug/kg	1	AXC2	03/04/10	1519	957580	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.375	1.25	mg/kg	1	GXM	03/20/10	0235	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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



# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7476  
Sample ID: 248045013  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 17%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.4C	H	7.77	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2	03/04/10	1520	957580	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.361	1.20	mg/kg	1	GXM	03/20/10	0305	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7461  
Sample ID: 248045014  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 12.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.2C	H	8.11	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2	03/04/10	1521	957580	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.344	1.15	mg/kg	1	GXM	03/20/10	0335	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1301	957579

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7467  
Sample ID: 248045015  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 16.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.4C	H	7.56	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		427	77.2	284	ug/kg	1	AXC2	03/05/10	1203	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.66	0.354	1.18	mg/kg	1	GXM	03/20/10	0404	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/19/10	1220	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7469  
Sample ID: 248045016  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 12.5%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.9C	H	6.28	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		327	73.3	270	ug/kg	1	AXC2	03/05/10	1227	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	h	19.9	0.343	1.14	mg/kg	1	GXM	03/24/10	0102	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7470  
Sample ID: 248045017  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 14.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.3C	H	7.08	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	77.0	72.2	265	ug/kg	1	AXC2	03/05/10	1228	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	h	2.91	0.349	1.16	mg/kg	1	GXM	03/24/10	0132	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2075

Client Sample ID: RE36-10-7515  
Sample ID: 248045018  
Matrix: R  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client  
Moisture: 20.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.1C	H	7.49	0.010	0.100	SU	1	LXA1	03/01/10	1839	959517	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	91.7	81.0	298	ug/kg	1	AXC2	03/05/10	1229	960509	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	h	1.84	0.374	1.25	mg/kg	1	GXM	03/24/10	0202	962075	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/23/10	1144	962074
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1346	960507

### The following Analytical Methods were performed

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

# **Quality Control Summary**

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: March 24, 2010

Page 1 of 3

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

Contact: Ms. Joylene Valdez

Workorder: 248045

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Electrode Analysis</b>											
Batch	959517										
QC1202057930	248045001	DUP									
pH		H	7.75	H	7.72	SU	0.388	(0%-10%)	LXA1	03/01/10	18:38
QC1202057931	248045010	DUP									
pH		H	7.82	H	7.82	SU	0.00	(0%-10%)		03/01/10	18:39
QC1202057932	LCS										
pH	7.00				7.03	SU	100	(95%-105%)		03/01/10	18:38
<b>Flow Injection Analysis</b>											
Batch	957580										
QC1202053293	247907001	DUP									
Cyanide, Total		U	ND	J	194	ug/kg	200	(+/-293)	AXC2	03/04/10	14:49
QC1202053294	247907002	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			03/04/10	14:53
QC1202053299	LCS										
Cyanide, Total	67900				46800	ug/kg	68.9	(32%-157%)		03/04/10	14:44
QC1202053292	MB										
Cyanide, Total				U	250	ug/kg				03/04/10	14:43
QC1202053295	247907001	MS									
Cyanide, Total	5640	U	ND		2710	ug/kg	47.7	(26%-158%)		03/04/10	15:01
QC1202053296	247907002	MS									
Cyanide, Total	6260	U	ND		2750	ug/kg	44	(26%-158%)		03/04/10	14:54
QC1202053297	247907001	MSD									
Cyanide, Total	5860	U	ND		3870	ug/kg	35.3*	65.7	(0%-30%)	03/04/10	14:51
QC1202053298	247907002	MSD									
Cyanide, Total	6380	U	ND		2620	ug/kg	5.08	41	(0%-30%)	03/04/10	15:02
Batch	958163										
QC1202054774	248065006	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	03/05/10	13:17
QC1202054775	248002001	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			03/05/10	12:33
QC1202054780	LCS										
Cyanide, Total	67900				90800	ug/kg	134	(32%-157%)		03/05/10	12:31
QC1202054773	MB										
Cyanide, Total				U	250	ug/kg				03/05/10	12:30
QC1202054776	248065006	MS									
Cyanide, Total	6060	U	ND		5880	ug/kg	97.1	(26%-158%)		03/05/10	13:18
QC1202054777	248002001	MS									
Cyanide, Total	4880	U	ND		5120	ug/kg	105	(26%-158%)		03/05/10	12:33
QC1202054778	248065006	MSD									
Cyanide, Total	5510	U	ND		5390	ug/kg	8.81	97.8	(0%-30%)	03/05/10	13:19
QC1202054779	248002001	MSD									
Cyanide, Total	4970	U	ND		4330	ug/kg	16.9	87	(0%-30%)	03/05/10	13:04
Batch	960509										
QC1202060269	248045015	DUP									



# GEL LABORATORIES LLC

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

## QC Summary

Workorder: 248045

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	960509										
Cyanide, Total		427		425	ug/kg	0.618	^	(+/-301)	AXC2	03/05/10	12:04
QC1202060272	LCS										
Cyanide, Total	67900			88500	ug/kg		130	(32%-157%)		03/05/10	12:02
QC1202060268	MB										
Cyanide, Total			U	250	ug/kg					03/05/10	12:01
QC1202060270	248045015	MS									
Cyanide, Total	5780	427		6940	ug/kg		113	(26%-158%)		03/05/10	12:25
QC1202060271	248045015	MSD									
Cyanide, Total	6010	427		6560	ug/kg	5.69	102	(0%-30%)		03/05/10	12:26
<b>Ion Chromatography</b>											
Batch	962075										
QC1202063599	248045001	DUP									
Nitrate-N		U	ND	U	ND	mg/kg	N/A		GXM3	03/19/10	19:06
QC1202063600	248045018	DUP									
Nitrate-N		h	1.84	h	1.84	mg/kg	0.275	^	(+/-1.24)		03/24/10 02:32
QC1202063605	LCS										
Nitrate-N	50.0			47.4	mg/kg		94.8	(90%-110%)		03/19/10	18:06
QC1202078660	LCS										
Nitrate-N	50.0			45.8	mg/kg		91.5	(90%-110%)		03/24/10	00:32
QC1202063598	MB										
Nitrate-N			U	1.00	mg/kg					03/19/10	17:36
QC1202078659	MB										
Nitrate-N			U	1.00	mg/kg					03/24/10	00:02
QC1202063601	248045001	MS									
Nitrate-N	63.1	U	ND	59.5	mg/kg		94.2	(90%-110%)		03/19/10	19:36
QC1202063602	248045018	MS									
Nitrate-N	62.2	h	1.84	h	55.4	mg/kg	86.2	*(90%-110%)		03/24/10	03:01
QC1202063603	248045001	MSD									
Nitrate-N	62.9	U	ND	59.2	mg/kg	0.463	94	(0%-20%)		03/19/10	20:06
QC1202063604	248045018	MSD									
Nitrate-N	62.3	h	1.84	h	55.7	mg/kg	0.395	86.3	*(0%-20%)	03/24/10	03:31

### Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

\*\* Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

BD Results are either below the MDC or tracer recovery is low

C Analyte has been confirmed by GC/MS analysis

D Results are reported from a diluted aliquot of the sample

E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range

## GEL LABORATORIES LLC

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

### QC Summary

Workorder: 248045

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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									
UJ	Gamma Spectroscopy--	Uncertain identification									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--	Particulates passed through the filter, however no free liquids were observed.									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--	The 2:1 depletion requirement was not met for this sample									
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# **Instrument QC Data Summary**

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 16:38

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2075

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	04-MAR-2010 14:05:55	OM_3-4-2010_13-55-23	151	150	101	(90%-110%)	Yes
CCV	04-MAR-2010 14:32:38	OM_3-4-2010_13-55-23	104	100	104	(90%-110%)	Yes
CCV	04-MAR-2010 14:45:01	OM_3-4-2010_13-55-23	104	100	104	(90%-110%)	Yes
CCV	04-MAR-2010 14:57:33	OM_3-4-2010_13-55-23	105	100	105	(90%-110%)	Yes
CCV	04-MAR-2010 15:09:58	OM_3-4-2010_13-55-23	103	100	103	(90%-110%)	Yes
CCV	04-MAR-2010 15:22:30	OM_3-4-2010_13-55-23	103	100	103	(90%-110%)	Yes
ICV	05-MAR-2010 10:22:22	OM_3-5-2010_10-11-54	148	150	98.7	(90%-110%)	Yes
CCV	05-MAR-2010 11:52:38	OM_3-5-2010_11-39-23	101	100	101	(90%-110%)	Yes
CCV	05-MAR-2010 12:05:04	OM_3-5-2010_11-39-23	106	100	106	(90%-110%)	Yes
CCV	05-MAR-2010 12:22:14	OM_3-5-2010_12-20-43	105	100	105	(90%-110%)	Yes
CCV	05-MAR-2010 12:34:50	OM_3-5-2010_12-20-43	107	100	107	(90%-110%)	Yes
CCV	05-MAR-2010 12:47:22	OM_3-5-2010_12-20-43	107	100	107	(90%-110%)	Yes
CCV	05-MAR-2010 13:00:56	OM_3-5-2010_12-59-25	104	100	104	(90%-110%)	Yes
CCV	05-MAR-2010 13:13:25	OM_3-5-2010_12-59-25	105	100	105	(90%-110%)	Yes
CCV	05-MAR-2010 13:26:03	OM_3-5-2010_12-59-25	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	04-MAR-2010 14:07:45	OM_3-4-2010_13-55-23	-1.31	10	Yes
CCB	04-MAR-2010 14:34:28	OM_3-4-2010_13-55-23	-1.42	10	Yes
CCB	04-MAR-2010 14:46:51	OM_3-4-2010_13-55-23	-1.45	10	Yes
CCB	04-MAR-2010 14:59:22	OM_3-4-2010_13-55-23	-0.946	10	Yes
CCB	04-MAR-2010 15:11:48	OM_3-4-2010_13-55-23	-1.4	10	Yes
CCB	04-MAR-2010 15:24:20	OM_3-4-2010_13-55-23	-1.05	10	Yes
ICB	05-MAR-2010 10:24:13	OM_3-5-2010_10-11-54	-0.846	10	Yes
CCB	05-MAR-2010 11:54:29	OM_3-5-2010_11-39-23	-1.03	10	Yes
CCB	05-MAR-2010 12:06:54	OM_3-5-2010_11-39-23	-1.64	10	Yes
CCB	05-MAR-2010 12:24:05	OM_3-5-2010_12-20-43	-1.6	10	Yes
CCB	05-MAR-2010 12:36:40	OM_3-5-2010_12-20-43	-1.63	10	Yes
CCB	05-MAR-2010 12:49:11	OM_3-5-2010_12-20-43	-1.54	10	Yes
CCB	05-MAR-2010 13:02:46	OM_3-5-2010_12-59-25	-1.5	10	Yes
CCB	05-MAR-2010 13:15:15	OM_3-5-2010_12-59-25	-1.45	10	Yes
CCB	05-MAR-2010 13:27:53	OM_3-5-2010_12-59-25	-1.66	10	Yes

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 16:38

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2075

Ion Chromatography

Method: EPA 300.0

Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
<b>ICV</b>	<b>19-MAR-2010 10:09:00</b>	<b>100319</b>	<b>4.7643</b>	<b>5</b>	<b>95.3</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	19-MAR-2010 16:37:00	100319	7.4808	7.5	99.7	(90%-110%)	Yes
CCV	19-MAR-2010 22:35:00	100319	4.7359	5	94.7	(90%-110%)	Yes
CCV	20-MAR-2010 04:34:00	100319	7.4838	7.5	99.8	(90%-110%)	Yes
<b>ICV</b>	<b>23-MAR-2010 14:34:00</b>	<b>100323</b>	<b>4.8331</b>	<b>5</b>	<b>96.7</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	23-MAR-2010 23:02:00	100323	4.5743	5	91.5	(90%-110%)	Yes
CCV	24-MAR-2010 04:01:00	100323	7.5924	7.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>19-MAR-2010 10:39:00</b>	<b>100319</b>	<b>0</b>	<b>0.1</b>	<b>Yes</b>
CCB	19-MAR-2010 17:07:00	100319	0	0.1	Yes
CCB	19-MAR-2010 23:05:00	100319	0	0.1	Yes
CCB	20-MAR-2010 05:04:00	100319	0	0.1	Yes
<b>ICB</b>	<b>23-MAR-2010 15:04:00</b>	<b>100323</b>	<b>0</b>	<b>0.1</b>	<b>Yes</b>
CCB	23-MAR-2010 23:32:00	100323	0	0.1	Yes
CCB	24-MAR-2010 04:31:00	100323	0	0.1	Yes

# Cyanide, Total

# Prep Logbook

## Cyanide Sample Distillation

<b>Batch ID: 957579.0</b>		Verified by:			
Analyst:	Alan Stanley				
Method:	SW846 9010B Prep				
Lab SOP:	GL-GC-E-067 REV# 13				
Instrument:	Sartorius Balance B-001				
Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053299	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202053295	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053296	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053297	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053298	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202053292 MB	04-MAR-2010 13:01:00	Soil	0.5	25	50	>12
1202053299 LCS	04-MAR-2010 13:01:00	Soil	0.25	25	100	>12
247907001	04-MAR-2010 13:01:00	Soil	0.54	25	46.2963	>12
1202053293 DUP (247907001)	04-MAR-2010 13:01:00	Soil	0.51	25	49.01961	>12
1202053295 MS (247907001)	04-MAR-2010 13:01:00	Soil	0.53	25	47.16981	>12
1202053297 MSD (247907001)	04-MAR-2010 13:01:00	Soil	0.51	25	49.01961	>12
247907002	04-MAR-2010 13:01:00	Soil	0.57	25	43.85965	>12
1202053294 DUP (247907002)	04-MAR-2010 13:01:00	Soil	0.52	25	48.07692	>12
1202053296 MS (247907002)	04-MAR-2010 13:01:00	Soil	0.51	25	49.01961	>12
1202053298 MSD (247907002)	04-MAR-2010 13:01:00	Soil	0.5	25	50	>12
247907003	04-MAR-2010 13:01:00	Soil	0.56	25	44.64286	>12
247907004	04-MAR-2010 13:01:00	Soil	0.54	25	46.2963	>12
247907005	04-MAR-2010 13:01:00	Soil	0.51	25	49.01961	>12
247907006	04-MAR-2010 13:01:00	Soil	0.53	25	47.16981	>12
247907007	04-MAR-2010 13:01:00	Soil	0.56	25	44.64286	>12
247907008	04-MAR-2010 13:01:00	Soil	0.55	25	45.45455	>12
247907009	04-MAR-2010 13:01:00	Soil	0.5	25	50	>12
247907010	04-MAR-2010 13:01:00	Soil	0.54	25	46.2963	>12
247907011	04-MAR-2010 13:01:00	Soil	0.5	25	50	>12
247907012	04-MAR-2010 13:01:00	Soil	0.54	25	46.2963	>12
247907013	04-MAR-2010 13:01:00	Soil	0.53	25	47.16981	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

**Batch ID:** 957579.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053299	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202053295	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053296	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053297	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053298	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
247907014	04-MAR-2010 13:01:00	Soil	0.56	25	44.64286	>12
247907015	04-MAR-2010 13:01:00	Soil	0.55	25	45.45455	>12
247907016	04-MAR-2010 13:01:00	Soil	0.52	25	48.07692	>12
247907017	04-MAR-2010 13:01:00	Soil	0.58	25	43.10345	>12
248045012	04-MAR-2010 13:01:00	Soil	0.55	25	45.45455	>12
248045013	04-MAR-2010 13:01:00	Soil	0.58	25	43.10345	>12
248045014	04-MAR-2010 13:01:00	Soil	0.52	25	48.07692	>12

Reagent/Solvent Lot ID	Description	Amount	Comments:
1260189-C	50% H2SO4 CN Prep	2.5 mL	
1270661-C	Bismuth Nitrate Solution	1.25 mL	
1270663-C	0.8N H3NO3S	1.25 mL	
1270669-C	51% MgCl2 Soln	1 mL	
1273851-C	0.25N Sodium Hydroxide Solution	25 mL	
WCN100304-07	150 ppb CN Distilled ICV Standard	.0375 mL	



Prep Logbook

Cyanide Sample Distillation

<b>Batch ID:</b> 960507.0 <b>Analyst:</b> Alan Stanley <b>Method:</b> SW/846 9010B Prep <b>Lab SOP:</b> GL-GC-E-067 REV# 13 <b>Instrument:</b> Sartorius Balance B-001	Verified by:			Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
	LCS	1202060272	Total Cyanide Solid LCS	URF1200957-01	.25	g			
	MS	1202060270	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL			
	MSD	1202060271	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL			

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202060268 MB	04-MAR-2010 13:46:00	Soil	0.5	25	50	>12
1202060272 LCS	04-MAR-2010 13:46:00	Soil	0.25	25	100	>12
248045015	04-MAR-2010 13:46:00	Soil	0.53	25	47.16981	>12
1202060269 DUP (248045015)	04-MAR-2010 13:46:00	Soil	0.5	25	50	>12
1202060270 MS (248045015)	04-MAR-2010 13:46:00	Soil	0.52	25	48.07692	>12
1202060271 MSD (248045015)	04-MAR-2010 13:46:00	Soil	0.5	25	50	>12
248045016	04-MAR-2010 13:46:00	Soil	0.53	25	47.16981	>12
248045017	04-MAR-2010 13:46:00	Soil	0.55	25	45.45455	>12
248045018	04-MAR-2010 13:46:00	Soil	0.53	25	47.16981	>12

Reagent/Solvent Lot ID	Description	Amount	Comments:
1260189-C	50% H2SO4 CN Prep	2.5 mL	
1270661-C	Bismuth Nitrate Solution	1.25 mL	
1270663-C	0.8N H3NO3S	1.25 mL	
1270669-C	51% MgCl2 Soln	1 mL	
1273851-C	0.25N Sodium Hydroxide Solution	25 mL	
WCN100304-07	150 ppb CN Distilled ICV Standard	.0375 mL	

# Prep Logbook

## Cyanide Sample Distillation

<b>Batch ID:</b> 958162.0	<b>Verified by:</b>	<b>Type</b>	<b>Sample Id</b>	<b>Description</b>	<b>Serial Number</b>	<b>Spike Amount</b>	<b>Spike Units</b>
<b>Analyst:</b> Alan Stanley		LCS	1202054780	Total Cyanide Solid LCS	URF1200957-01	.25	g
<b>Method:</b> SW846 9010B Prep		MS	1202054776	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
<b>Lab SOP:</b> GL-GC-E-067 REV# 13		MS	1202054777	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
<b>Instrument:</b> Sartorius Balance B-001		MSD	1202054778	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
		MSD	1202054779	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202054773 MB	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
1202054780 LCS	04-MAR-2010 13:49:00	Soil	0.25	25	100	>12
248002001	04-MAR-2010 13:49:00	Soil	0.54	25	46.2963	>12
1202054775 DUP (248002001)	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
1202054777 MS (248002001)	04-MAR-2010 13:49:00	Soil	0.54	25	46.2963	>12
1202054779 MSD (248002001)	04-MAR-2010 13:49:00	Soil	0.53	25	47.16981	>12
248002002	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
248002003	04-MAR-2010 13:49:00	Soil	0.53	25	47.16981	>12
248002004	04-MAR-2010 13:49:00	Soil	0.55	25	45.45455	>12
248002005	04-MAR-2010 13:49:00	Soil	0.59	25	42.37288	>12
248002006	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
248002007	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
248002008	04-MAR-2010 13:49:00	Soil	0.51	25	49.01961	>12
248045001	04-MAR-2010 13:49:00	Soil	0.59	25	42.37288	>12
248045002	04-MAR-2010 13:49:00	Soil	0.51	25	49.01961	>12
248045003	04-MAR-2010 13:49:00	Soil	0.51	25	49.01961	>12
248045004	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
248045005	04-MAR-2010 13:49:00	Soil	0.53	25	47.16981	>12
248045006	04-MAR-2010 13:49:00	Soil	0.55	25	45.45455	>12
248045007	04-MAR-2010 13:49:00	Soil	0.51	25	49.01961	>12
248045008	04-MAR-2010 13:49:00	Soil	0.52	25	48.07692	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

**Batch ID:** 958162.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054780	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202054776	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054777	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054778	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054779	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248045009	04-MAR-2010 13:49:00	Soil	0.52	25	48.07692	>12
248045010	04-MAR-2010 13:49:00	Soil	0.52	25	48.07692	>12
248045011	04-MAR-2010 13:49:00	Soil	0.52	25	48.07692	>12
248065006	04-MAR-2010 13:49:00	Soil	0.58	25	43.10345	>12
1202054774 DUP (248065006)	04-MAR-2010 13:49:00	Soil	0.55	25	45.45455	>12
1202054776 MS (248065006)	04-MAR-2010 13:49:00	Soil	0.5	25	50	>12
1202054778 MSD (248065006)	04-MAR-2010 13:49:00	Soil	0.55	25	45.45455	>12

Reagent/Solvent Lot ID	Description	Amount	Comments:
1260189-C	50% H2SO4 CN Prep	2.5 mL	
1270661-C	Bismuth Nitrate Solution	1.25 mL	
1270663-C	0.8N H3NO3S	1.25 mL	
1270669-C	51% MgCl2 Soln	1 mL	
1273851-C	0.25N Sodium Hydroxide Solution	25 mL	
WCN100304-07	150 ppb CN Distilled ICV Standard	.0375 mL	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/4/2010 13:58:46	OM_3-4-2010_13-55-23
150 ppb		1	axc2	3/4/2010 13:59:38	OM_3-4-2010_13-55-23
100 ppb		1	axc2	3/4/2010 14:00:30	OM_3-4-2010_13-55-23
50 ppb		1	axc2	3/4/2010 14:01:23	OM_3-4-2010_13-55-23
10 ppb		1	axc2	3/4/2010 14:02:16	OM_3-4-2010_13-55-23
CRDL 5.0 ppb		1	axc2	3/4/2010 14:03:10	OM_3-4-2010_13-55-23
ICAL-00		1	axc2	3/4/2010 14:04:04	OM_3-4-2010_13-55-23
ICV		1	axc2	3/4/2010 14:05:55	OM_3-4-2010_13-55-23
ICB		1	axc2	3/4/2010 14:07:45	OM_3-4-2010_13-55-23
CRDL		1	axc2	3/4/2010 14:09:35	OM_3-4-2010_13-55-23
1202053284	957578	1	axc2	3/4/2010 14:11:25	OM_3-4-2010_13-55-23
1202053291	957578	25	axc2	3/4/2010 14:12:18	OM_3-4-2010_13-55-23
247899001	957578	1	axc2	3/4/2010 14:13:11	OM_3-4-2010_13-55-23
1202053285	957578	1	axc2	3/4/2010 14:14:05	OM_3-4-2010_13-55-23
1202053287	957578	1	axc2	3/4/2010 14:14:58	OM_3-4-2010_13-55-23
1202053289	957578	1	axc2	3/4/2010 14:15:51	OM_3-4-2010_13-55-23
247899002	957578	1	axc2	3/4/2010 14:16:44	OM_3-4-2010_13-55-23
1202053286	957578	1	axc2	3/4/2010 14:17:36	OM_3-4-2010_13-55-23
1202053288	957578	1	axc2	3/4/2010 14:18:29	OM_3-4-2010_13-55-23
1202053290	957578	1	axc2	3/4/2010 14:19:21	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:20:13	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:22:04	OM_3-4-2010_13-55-23
247899003	957578	1	axc2	3/4/2010 14:23:52	OM_3-4-2010_13-55-23
247899004	957578	1	axc2	3/4/2010 14:24:44	OM_3-4-2010_13-55-23
247899005	957578	1	axc2	3/4/2010 14:25:35	OM_3-4-2010_13-55-23
247899006	957578	1	axc2	3/4/2010 14:26:28	OM_3-4-2010_13-55-23
247899007	957578	1	axc2	3/4/2010 14:27:19	OM_3-4-2010_13-55-23
247899008	957578	1	axc2	3/4/2010 14:28:13	OM_3-4-2010_13-55-23
247899009	957578	1	axc2	3/4/2010 14:29:06	OM_3-4-2010_13-55-23
247899010	957578	1	axc2	3/4/2010 14:29:59	OM_3-4-2010_13-55-23
247899011	957578	1	axc2	3/4/2010 14:30:53	OM_3-4-2010_13-55-23
247899012	957578	1	axc2	3/4/2010 14:31:46	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:32:38	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:34:28	OM_3-4-2010_13-55-23
247899013	957578	1	axc2	3/4/2010 14:36:18	OM_3-4-2010_13-55-23
247899014	957578	1	axc2	3/4/2010 14:37:11	OM_3-4-2010_13-55-23
247899015	957578	1	axc2	3/4/2010 14:38:03	OM_3-4-2010_13-55-23
247899016	957578	1	axc2	3/4/2010 14:38:56	OM_3-4-2010_13-55-23
247899017	957578	1	axc2	3/4/2010 14:39:48	OM_3-4-2010_13-55-23
247899018	957578	1	axc2	3/4/2010 14:40:41	OM_3-4-2010_13-55-23
247899019	957578	1	axc2	3/4/2010 14:41:33	OM_3-4-2010_13-55-23
247899020	957578	1	axc2	3/4/2010 14:42:25	OM_3-4-2010_13-55-23
1202053292	957580	1	axc2	3/4/2010 14:43:17	OM_3-4-2010_13-55-23
1202053299	957580	25	axc2	3/4/2010 14:44:08	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:45:01	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:46:51	OM_3-4-2010_13-55-23
247907001	957580	1	axc2	3/4/2010 14:48:41	OM_3-4-2010_13-55-23
1202053293	957580	1	axc2	3/4/2010 14:49:35	OM_3-4-2010_13-55-23
1202053295*	957580	1	axc2	3/4/2010 14:50:28	OM_3-4-2010_13-55-23
1202053297	957580	1	axc2	3/4/2010 14:51:22	OM_3-4-2010_13-55-23
247907002	957580	1	axc2	3/4/2010 14:52:15	OM_3-4-2010_13-55-23
1202053294	957580	1	axc2	3/4/2010 14:53:09	OM_3-4-2010_13-55-23
1202053296	957580	1	axc2	3/4/2010 14:54:02	OM_3-4-2010_13-55-23
1202053298*	957580	1	axc2	3/4/2010 14:54:55	OM_3-4-2010_13-55-23
247907003*	957580	1	axc2	3/4/2010 14:55:47	OM_3-4-2010_13-55-23
247907004	957580	1	axc2	3/4/2010 14:56:40	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:57:33	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:59:22	OM_3-4-2010_13-55-23

1202053295	957580	1	axc2	3/4/2010	15:01:12	OM_3-4-2010_13-55-23
1202053298	957580	1	axc2	3/4/2010	15:02:05	OM_3-4-2010_13-55-23
247907003	957580	1	axc2	3/4/2010	15:02:58	OM_3-4-2010_13-55-23
247907004	957580	1	axc2	3/4/2010	15:03:50	OM_3-4-2010_13-55-23
247907005	957580	1	axc2	3/4/2010	15:04:43	OM_3-4-2010_13-55-23
247907006	957580	1	axc2	3/4/2010	15:05:35	OM_3-4-2010_13-55-23
247907007	957580	1	axc2	3/4/2010	15:06:28	OM_3-4-2010_13-55-23
247907008	957580	1	axc2	3/4/2010	15:07:20	OM_3-4-2010_13-55-23
247907009	957580	1	axc2	3/4/2010	15:08:11	OM_3-4-2010_13-55-23
247907010	957580	1	axc2	3/4/2010	15:09:06	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:09:58	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:11:48	OM_3-4-2010_13-55-23
247907011	957580	1	axc2	3/4/2010	15:13:39	OM_3-4-2010_13-55-23
247907012	957580	1	axc2	3/4/2010	15:14:32	OM_3-4-2010_13-55-23
247907013	957580	1	axc2	3/4/2010	15:15:27	OM_3-4-2010_13-55-23
247907014	957580	1	axc2	3/4/2010	15:16:20	OM_3-4-2010_13-55-23
247907015	957580	1	axc2	3/4/2010	15:17:13	OM_3-4-2010_13-55-23
247907016	957580	1	axc2	3/4/2010	15:18:07	OM_3-4-2010_13-55-23
247907017	957580	1	axc2	3/4/2010	15:18:59	OM_3-4-2010_13-55-23
248045012	957580	1	axc2	3/4/2010	15:19:52	OM_3-4-2010_13-55-23
248045013	957580	1	axc2	3/4/2010	15:20:45	OM_3-4-2010_13-55-23
248045014	957580	1	axc2	3/4/2010	15:21:38	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:22:30	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:24:20	OM_3-4-2010_13-55-23
1202060243	960499	1	axc2	3/4/2010	15:26:09	OM_3-4-2010_13-55-23
1202060250	960499	1	axc2	3/4/2010	15:27:01	OM_3-4-2010_13-55-23
247908001	960499	1	axc2	3/4/2010	15:27:53	OM_3-4-2010_13-55-23
247908002	960499	1	axc2	3/4/2010	15:28:47	OM_3-4-2010_13-55-23
247908003	960499	1	axc2	3/4/2010	15:29:41	OM_3-4-2010_13-55-23
247997001	960499	1	axc2	3/4/2010	15:30:34	OM_3-4-2010_13-55-23
248001001	960499	1	axc2	3/4/2010	15:31:29	OM_3-4-2010_13-55-23
248034001	960499	1	axc2	3/4/2010	15:32:22	OM_3-4-2010_13-55-23
248038001	960499	1	axc2	3/4/2010	15:33:15	OM_3-4-2010_13-55-23
1202060244	960499	1	axc2	3/4/2010	15:34:09	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:35:01	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:36:53	OM_3-4-2010_13-55-23
1202060246	960499	1	axc2	3/4/2010	15:38:42	OM_3-4-2010_13-55-23
1202060248	960499	1	axc2	3/4/2010	15:39:36	OM_3-4-2010_13-55-23
248038002	960499	1	axc2	3/4/2010	15:40:29	OM_3-4-2010_13-55-23
1202060245	960499	1	axc2	3/4/2010	15:41:22	OM_3-4-2010_13-55-23
1202060247	960499	1	axc2	3/4/2010	15:42:15	OM_3-4-2010_13-55-23
1202060249	960499	1	axc2	3/4/2010	15:43:07	OM_3-4-2010_13-55-23
248039001	960499	1	axc2	3/4/2010	15:44:01	OM_3-4-2010_13-55-23
248046001	960499	1	axc2	3/4/2010	15:44:52	OM_3-4-2010_13-55-23
248046002	960499	1	axc2	3/4/2010	15:45:45	OM_3-4-2010_13-55-23
248053001	960499	1	axc2	3/4/2010	15:46:39	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:47:31	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:49:22	OM_3-4-2010_13-55-23
248053002	960499	1	axc2	3/4/2010	15:51:13	OM_3-4-2010_13-55-23
248053003	960499	1	axc2	3/4/2010	15:52:07	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:52:59	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:54:49	OM_3-4-2010_13-55-23

Author: axc2

Date : 3/4/2010

Original Run Filename: OM\_3-4-2010\_13-55-23.OMN created 3/4/2010 13:55:23  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-4-2010\_13-55-23.OMN last modified 3/4/2010 15:55:54  
 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)				
WCN100304-01	1	S1	200	9.08	3/4/2010@13:58:46			200 ppb
WCN100304-02	1	S2	150	6.91	3/4/2010@13:59:38			150 ppb
WCN100304-03	1	S3	100	4.35	3/4/2010@14:00:30			100 ppb
WCN100304-04	1	S4	50.0	2.45	3/4/2010@14:01:23			50 ppb
WCN100304-05	1	S5	10.0	0.578	3/4/2010@14:02:16			10 ppb
WCN100304-06	1	S6	5.00	0.340	3/4/2010@14:03:10			CRDL 5.0 ppb
WCN100304-08	1	S7	0.00	0.0240	3/4/2010@14:04:04			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99948 > 0.99500					
Message			Pass					
Action			Continue					
WCN100304-07	1	S8	151	6.88	3/4/2010@14:05:55			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			0.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100304-08	1	S7	-1.31	0.0240	3/4/2010@14:07:45			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.31 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.31 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100304-06	1	S6	5.86	0.346	3/4/2010@14:09:35			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.86 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.86 > 2.50					
Message			Pass					
Action			None					
1202053284 957578 MB	1	1	-2.31	-0.0206	3/4/2010@14:11:25			
1202053291  LCS	1	2	18.3	0.904	3/4/2010@14:12:18		25.00	
247899001	1	3	-0.820	0.0461	3/4/2010@14:13:11			
1202053285  DUP	1	4	-0.872	0.0438	3/4/2010@14:14:05			
1202053287  MS	1	5	100	4.59	3/4/2010@14:14:58			
1202053289  MSD	1	6	99.8	4.57	3/4/2010@14:15:51			
247899002	1	7	1.56	0.153	3/4/2010@14:16:44			
1202053286  DUP	1	8	2.02	0.174	3/4/2010@14:17:36			
1202053288  MS	1	9	87.4	4.01	3/4/2010@14:18:29			
1202053290  MSD	1	10	94.8	4.35	3/4/2010@14:19:21			
WCN100304-03	1	S3	103	4.72	3/4/2010@14:20:13			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.1 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.38	0.0208	3/4/2010@14:22:04			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.38 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.38 > -5.00					
Message			CCB Passed					
Action			Continue					
247899003	1	11	-0.646	0.0540	3/4/2010@14:23:52			
247899004	1	12	-0.530	0.0592	3/4/2010@14:24:44			
247899005	1	13	-1.15	0.0313	3/4/2010@14:25:35			
247899006	1	14	0.280	0.0956	3/4/2010@14:26:28			
247899007	1	15	0.0899	0.0871	3/4/2010@14:27:19			
247899008	1	16	1.52	0.151	3/4/2010@14:28:13			
247899009	1	17	5.29	0.321	3/4/2010@14:29:06			
247899010	1	18	0.0677	0.0861	3/4/2010@14:29:59			
247899011	1	19	2.55	0.198	3/4/2010@14:30:53			
247899012	1	20	-0.401	0.0650	3/4/2010@14:31:46			
WCN100304-03	1	S3	104	4.77	3/4/2010@14:32:38			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.42	0.0192	3/4/2010@14:34:28			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.42 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.42 > -5.00					
Message			CCB Passed					
Action			Continue					
247899013	1	21	1.98	0.172	3/4/2010@14:36:18			
247899014	1	22	-0.282	0.0703	3/4/2010@14:37:11			
247899015	1	23	-0.685	0.0522	3/4/2010@14:38:03			
247899016	1	24	-1.13	0.0322	3/4/2010@14:38:56			
247899017	1	25	0.385	0.100	3/4/2010@14:39:48			
247899018	1	26	-0.640	0.0543	3/4/2010@14:40:41			
247899019	1	27	0.0545	0.0855	3/4/2010@14:41:33			
247899020	1	28	1.88	0.168	3/4/2010@14:42:25			
1202053292 957580 MB	1	29	-1.43	0.0185	3/4/2010@14:43:17			
1202053299 LCS	1	30	18.7	0.924	3/4/2010@14:44:08		25.00	
WCN100304-03	1	S3	104	4.75	3/4/2010@14:45:01			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.45	0.0178	3/4/2010@14:46:51			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit						
Result:		-1.45 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.45 > -5.00				
Message		CCB Passed				
Action		Continue				
247907001	1	31	0.423	0.102	3/4/2010@14:48:41	
1202053293	DUP	1	32	3.32	0.232	3/4/2010@14:49:35
1202053295	MS	1	33	45.9	2.15	3/4/2010@14:50:28
1202053297	MSD	1	34	66.1	3.06	3/4/2010@14:51:22
247907002		1	35	-0.678	0.0526	3/4/2010@14:52:15
1202053294	DUP	1	36	-0.764	0.0487	3/4/2010@14:53:09
1202053296	MS	1	37	44.0	2.06	3/4/2010@14:54:02
1202053298	MSD	1	38	36.8	1.74	3/4/2010@14:54:55
247907003		1	39	147	6.70	3/4/2010@14:55:47
247907004		1	40	515	23.2	3/4/2010@14:56:40
WCN100304-03		1	S3	105	4.80	3/4/2010@14:57:33
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		4.8 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		4.8 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100304-08	1	S7	-0.946	0.0405	3/4/2010@14:59:22	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-0.946 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-0.946 > -5.00				
Message		CCB Passed				
Action		Continue				
1202053295	MS	1	33	48.1	2.24	3/4/2010@15:01:12
1202053298	MSD	1	38	41.0	1.93	3/4/2010@15:02:05
247907003		1	39	-0.540	0.0588	3/4/2010@15:02:58
247907004		1	40	-0.705	0.0513	3/4/2010@15:03:50
247907005		1	41	0.810	0.119	3/4/2010@15:04:43
247907006		1	42	-1.32	0.0235	3/4/2010@15:05:35
247907007		1	43	-0.570	0.0574	3/4/2010@15:06:28
247907008		1	44	0.767	0.118	3/4/2010@15:07:20
247907009		1	45	-1.10	0.0334	3/4/2010@15:08:11
247907010		1	46	-0.113	0.0779	3/4/2010@15:09:06
WCN100304-03		1	S3	103	4.72	3/4/2010@15:09:58
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		3.1 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.1 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100304-08	1	S7	-1.40	0.0200	3/4/2010@15:11:48	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.40 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.40 > -5.00				
Message		CCB Passed				
Action		Continue				



247907011	1	47	0.796	0.119	3/4/2010@15:13:39		
247907012	1	48	-0.529	0.0593	3/4/2010@15:14:32		
247907013	1	49	-0.631	0.0547	3/4/2010@15:15:27		
247907014	1	50	-1.12	0.0329	3/4/2010@15:16:20		
247907015	1	51	-0.547	0.0584	3/4/2010@15:17:13		
247907016	1	52	-0.602	0.0560	3/4/2010@15:18:07		
247907017	1	53	-0.0840	0.0793	3/4/2010@15:18:59		
248045012	1	54	2.35	0.189	3/4/2010@15:19:52		
248045013	1	55	0.0806	0.0867	3/4/2010@15:20:45		
248045014	1	56	-0.941	0.0407	3/4/2010@15:21:38		
WCN100304-03	1	S3	103	4.71	3/4/2010@15:22:30		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.05	0.0360	3/4/2010@15:24:20		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.05 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.05 > -5.00				
Message			CCB Passed				
Action			Continue				
1202060243 960499 MB	1	57	-1.44	0.0185	3/4/2010@15:26:09		
1202060250 LCS	1	58	54.7	2.54	3/4/2010@15:27:01		
247908001	1	59	-1.24	0.0273	3/4/2010@15:27:53		
247908002	1	60	-1.23	0.0275	3/4/2010@15:28:47		
247908003	1	61	-1.31	0.0241	3/4/2010@15:29:41		
247997001	1	62	-1.39	0.0205	3/4/2010@15:30:34		
248001001	1	63	-1.27	0.0260	3/4/2010@15:31:29		
248034001	1	64	-1.28	0.0256	3/4/2010@15:32:22		
248038001	1	65	-1.45	0.0180	3/4/2010@15:33:15		
1202060244 DUP	1	66	-1.77	0.00344	3/4/2010@15:34:09		
WCN100304-03	1	S3	103	4.72	3/4/2010@15:35:01		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.1 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.1 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-0.945	0.0405	3/4/2010@15:36:53		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.945 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.945 > -5.00				
Message			CCB Passed				
Action			Continue				
1202060246 MS	1	67	115	5.25	3/4/2010@15:38:42		
1202060248 MSD	1	68	113	5.14	3/4/2010@15:39:36		
248038002	1	69	-1.15	0.0315	3/4/2010@15:40:29		
1202060245 DUP	1	70	-1.85	-3.69e-4	3/4/2010@15:41:22		
1202060247 MS	1	71	106	4.86	3/4/2010@15:42:15		
1202060249 MSD	1	72	117	5.36	3/4/2010@15:43:07		
248039001	1	73	-0.969	0.0395	3/4/2010@15:44:01		
248046001	1	74	-1.39	0.0206	3/4/2010@15:44:52		

248046002	1	75	-1.19	0.0296	3/4/2010@15:45:45		
248053001	1	76	-1.46	0.0172	3/4/2010@15:46:39		
WCN100304-03	1	S3	105	4.80	3/4/2010@15:47:31		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.39	0.0205	3/4/2010@15:49:22		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.39 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.39 > -5.00				
Message			CCB Passed				
Action			Continue				
248053002	1	77	-1.84	3.13e-4	3/4/2010@15:51:13		
248053003	1	78	-1.69	0.00722	3/4/2010@15:52:07		
WCN100304-03	1	S3	104	4.77	3/4/2010@15:52:59		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.14	0.0318	3/4/2010@15:54:49		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.14 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.14 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM\_3-4-2010\_13-55-23.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

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.08	0.603	-0.2	3/4/2010	13:59:49
2	150	1	6.91	0.459	-1.3	3/4/2010	14:00:41
3	100	1	4.35	0.290	4.9	3/4/2010	14:01:33
4	50.0	1	2.45	0.161	-4.8	3/4/2010	14:02:26
5	10.0	1	0.578	0.0367	-7.9	3/4/2010	14:03:19
6	5.00	1	0.340	0.0210	-9.3	3/4/2010	14:04:13
7	0.00	1	0.0240	7.56e-4		3/4/2010	14:05:07

Peak Area(V.s)

9.08

0.00

0.00

TCYANIDE concentration, ug/L

200

Area = 0.0449 \* Conc + 0.0865  
 Conc = 22.2 \* Area - 1.85  
 Correlation Coefficient (r) = 0.99948

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/5/2010 10:15:13	OM_3-5-2010_10-11-54
150 ppb		1	axc2	3/5/2010 10:16:05	OM_3-5-2010_10-11-54
100 ppb		1	axc2	3/5/2010 10:16:58	OM_3-5-2010_10-11-54
50 ppb		1	axc2	3/5/2010 10:17:51	OM_3-5-2010_10-11-54
10 ppb		1	axc2	3/5/2010 10:18:44	OM_3-5-2010_10-11-54
CRDL 5.0 ppb		1	axc2	3/5/2010 10:19:37	OM_3-5-2010_10-11-54
ICAL-00		1	axc2	3/5/2010 10:20:32	OM_3-5-2010_10-11-54
ICV		1	axc2	3/5/2010 10:22:22	OM_3-5-2010_10-11-54
ICB		1	axc2	3/5/2010 10:24:13	OM_3-5-2010_10-11-54
CRDL		1	axc2	3/5/2010 10:26:03	OM_3-5-2010_10-11-54
1202054753	958158	1	axc2	3/5/2010 10:27:52	OM_3-5-2010_10-11-54
1202054760	958158	25	axc2	3/5/2010 10:28:46	OM_3-5-2010_10-11-54
248000001	958158	1	axc2	3/5/2010 10:29:39	OM_3-5-2010_10-11-54
248000002	958158	1	axc2	3/5/2010 10:30:32	OM_3-5-2010_10-11-54
248000003	958158	1	axc2	3/5/2010 10:31:25	OM_3-5-2010_10-11-54
248000004	958158	1	axc2	3/5/2010 10:32:18	OM_3-5-2010_10-11-54
248000005	958158	1	axc2	3/5/2010 10:33:11	OM_3-5-2010_10-11-54
248033001	958158	1	axc2	3/5/2010 10:34:03	OM_3-5-2010_10-11-54
248033002	958158	1	axc2	3/5/2010 10:34:55	OM_3-5-2010_10-11-54
248033003	958158	1	axc2	3/5/2010 10:35:47	OM_3-5-2010_10-11-54
CCV		1	axc2	3/5/2010 10:36:40	OM_3-5-2010_10-11-54
CCB		1	axc2	3/5/2010 10:38:30	OM_3-5-2010_10-11-54
248033004	958158	1	axc2	3/5/2010 10:40:18	OM_3-5-2010_10-11-54
248033005	958158	1	axc2	3/5/2010 10:41:10	OM_3-5-2010_10-11-54
248033006	958158	1	axc2	3/5/2010 10:42:02	OM_3-5-2010_10-11-54
248055015	958158	1	axc2	3/5/2010 10:42:53	OM_3-5-2010_10-11-54
1202054754	958158	1	axc2	3/5/2010 10:43:45	OM_3-5-2010_10-11-54
1202054756	958158	1	axc2	3/5/2010 10:44:39	OM_3-5-2010_10-11-54
1202054758	958158	1	axc2	3/5/2010 10:45:32	OM_3-5-2010_10-11-54
248055016	958158	1	axc2	3/5/2010 10:46:26	OM_3-5-2010_10-11-54
1202054755	958158	1	axc2	3/5/2010 10:47:19	OM_3-5-2010_10-11-54
1202054757	958158	1	axc2	3/5/2010 10:48:12	OM_3-5-2010_10-11-54
CCV		1	axc2	3/5/2010 10:49:05	OM_3-5-2010_10-11-54
CCB		1	axc2	3/5/2010 10:50:54	OM_3-5-2010_10-11-54
1202054759	958158	1	axc2	3/5/2010 10:52:43	OM_3-5-2010_10-11-54
248055017	958158	1	axc2	3/5/2010 10:53:37	OM_3-5-2010_10-11-54
248055018	958158	1	axc2	3/5/2010 10:54:29	OM_3-5-2010_10-11-54
248055019	958158	1	axc2	3/5/2010 10:55:22	OM_3-5-2010_10-11-54
248055020	958158	1	axc2	3/5/2010 10:56:14	OM_3-5-2010_10-11-54
248065005	958158	1	axc2	3/5/2010 10:57:06	OM_3-5-2010_10-11-54
248065007	958158	1	axc2	3/5/2010 10:57:58	OM_3-5-2010_10-11-54
248065008	958158	1	axc2	3/5/2010 10:58:51	OM_3-5-2010_10-11-54
1202054761	958161	1	axc2	3/5/2010 10:59:42	OM_3-5-2010_10-11-54
1202054768	958161	25	axc2	3/5/2010 11:00:34	OM_3-5-2010_10-11-54
CCV		1	axc2	3/5/2010 11:01:27	OM_3-5-2010_10-11-54
CCB		1	axc2	3/5/2010 11:03:17	OM_3-5-2010_10-11-54
248033007	958161	1	axc2	3/5/2010 11:05:07	OM_3-5-2010_10-11-54
1202054762	958161	1	axc2	3/5/2010 11:06:01	OM_3-5-2010_10-11-54
1202054764	958161	1	axc2	3/5/2010 11:06:54	OM_3-5-2010_10-11-54
1202054766	958161	1	axc2	3/5/2010 11:07:48	OM_3-5-2010_10-11-54
248033008	958161	1	axc2	3/5/2010 11:08:41	OM_3-5-2010_10-11-54
1202054763	958161	1	axc2	3/5/2010 11:09:34	OM_3-5-2010_10-11-54
1202054765	958161	1	axc2	3/5/2010 11:10:28	OM_3-5-2010_10-11-54
1202054767	958161	1	axc2	3/5/2010 11:11:20	OM_3-5-2010_10-11-54
248033009	958161	1	axc2	3/5/2010 11:12:13	OM_3-5-2010_10-11-54
248041001	958161	1	axc2	3/5/2010 11:13:05	OM_3-5-2010_10-11-54
CCV		1	axc2	3/5/2010 11:13:58	OM_3-5-2010_10-11-54
CCB		1	axc2	3/5/2010 11:15:48	OM_3-5-2010_10-11-54

248041002*	958161	1	axc2	3/5/2010	11:17:36	OM_3-5-2010_10-11-54
248041003*	958161	1	axc2	3/5/2010	11:18:28	OM_3-5-2010_10-11-54
248041004*	958161	1	axc2	3/5/2010	11:19:21	OM_3-5-2010_10-11-54
248041005*	958161	1	axc2	3/5/2010	11:20:12	OM_3-5-2010_10-11-54
248058001*	958161	1	axc2	3/5/2010	11:21:05	OM_3-5-2010_10-11-54
248058002*	958161	1	axc2	3/5/2010	11:21:58	OM_3-5-2010_10-11-54
248058003*	958161	1	axc2	3/5/2010	11:22:53	OM_3-5-2010_10-11-54
248058004*	958161	1	axc2	3/5/2010	11:23:46	OM_3-5-2010_10-11-54
248058005*	958161	1	axc2	3/5/2010	11:24:40	OM_3-5-2010_10-11-54
248058006*	958161	1	axc2	3/5/2010	11:25:34	OM_3-5-2010_10-11-54
CCV		1	axc2	3/5/2010	11:26:26	OM_3-5-2010_10-11-54

Original Run Filename: OM\_3-5-2010\_10-11-54.OMN created 3/5/2010 10:11:54  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-5-2010\_10-11-54.OMN last modified 3/5/2010 11:27:33  
 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)				
WCN100305-01	1	S1	200	9.13	3/5/2010@10:15:13			200 ppb
WCN100305-02	1	S2	150	6.89	3/5/2010@10:16:05			150 ppb
WCN100305-03	1	S3	100	4.52	3/5/2010@10:16:58			100 ppb
WCN100305-04	1	S4	50.0	2.40	3/5/2010@10:17:51			50 ppb
WCN100305-05	1	S5	10.0	0.566	3/5/2010@10:18:44			10 ppb
WCN100305-06	1	S6	5.00	0.329	3/5/2010@10:19:37			CRDL 5.0 ppb
WCN100305-08	1	S7	0.00	0.00105	3/5/2010@10:20:32			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99987 > 0.99500					
Message			Pass					
Action			Continue					
WCN100305-07	1	S8	148	6.78	3/5/2010@10:22:22			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-1.2 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-1.2 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100305-08	1	S7	-0.846	0.0363	3/5/2010@10:24:13			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.846 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.846 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100305-06	1	S6	5.75	0.335	3/5/2010@10:26:03			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.75 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.75 > 2.50					
Message			Pass					
Action			None					
1202054753 958158 MB	1	1	-1.10	0.0246	3/5/2010@10:27:52			
1202054760 LCS	1	2	31.3	1.49	3/5/2010@10:28:46		25.00	
248000001	1	3	-0.686	0.0435	3/5/2010@10:29:39			
248000002	1	4	-1.65	-1.40e-4	3/5/2010@10:30:32			
248000003	1	5	-0.583	0.0482	3/5/2010@10:31:25			
248000004	1	6	-1.10	0.0249	3/5/2010@10:32:18			
248000005	1	7	-0.0458	0.0725	3/5/2010@10:33:11			
248033001	1	8	0.690	0.106	3/5/2010@10:34:03			
248033002	1	9	2.55	0.190	3/5/2010@10:34:55			
248033003	1	10	0.898	0.115	3/5/2010@10:35:47			
WCN100305-03	1	S3	105	4.81	3/5/2010@10:36:40			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.7 < 10.0					

			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	4.7 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100305-08	1	S7		-0.978	0.0303	3/5/2010@10:38:30			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-0.978 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-0.978 > -5.00					
			Message	CCB Passed					
			Action	Continue					
248033004	1	11		0.725	0.107	3/5/2010@10:40:18			
248033005	1	12		-0.492	0.0523	3/5/2010@10:41:10			
248033006	1	13		-0.189	0.0660	3/5/2010@10:42:02			
248055015	1	14		5.42	0.320	3/5/2010@10:42:53			
1202054754 DUP	1	15		9.09	0.486	3/5/2010@10:43:45			
1202054756 MS	1	16		89.2	4.11	3/5/2010@10:44:39			
1202054758 MSD	1	17		84.4	3.89	3/5/2010@10:45:32			
248055016	1	18		-1.65	-1.35e-4	3/5/2010@10:46:26			
1202054755 DUP	1	19		-0.941	0.0320	3/5/2010@10:47:19			
1202054757 MS	1	20		96.7	4.45	3/5/2010@10:48:12			
WCN100305-03	1	S3		106	4.87	3/5/2010@10:49:05			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	5.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	5.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100305-08	1	S7		-0.905	0.0336	3/5/2010@10:50:54			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-0.905 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-0.905 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202054759 MSD	1	21		95.1	4.38	3/5/2010@10:52:43			
248055017	1	22		-1.41	0.0106	3/5/2010@10:53:37			
248055018	1	23		73.0	3.38	3/5/2010@10:54:29			
248055019	1	24		-1.65	-1.34e-4	3/5/2010@10:55:22			
248055020	1	25		0.757	0.109	3/5/2010@10:56:14			
248065005	1	26		0.299	0.0881	3/5/2010@10:57:06			
248065007	1	27		0.579	0.101	3/5/2010@10:57:58			
248065008	1	28		1.27	0.132	3/5/2010@10:58:51			
1202054761 958161 MB	1	29		-1.17	0.0216	3/5/2010@10:59:42			
1202054768 LCS	1	30		22.4	1.09	3/5/2010@11:00:34		25.00	
WCN100305-03	1	S3		105	4.84	3/5/2010@11:01:27			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	5.4 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	5.4 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100305-08	1	S7		-1.66	-5.98e-4	3/5/2010@11:03:17			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				
248033007	1	31	-0.405	0.0562	3/5/2010@11:05:07	
1202054762	DUP	1	32	-0.286	0.0616	3/5/2010@11:06:01
1202054764	MS	1	33	92.5	4.26	3/5/2010@11:06:54
1202054766	MSD	1	34	85.6	3.95	3/5/2010@11:07:48
248033008		1	35	-0.629	0.0461	3/5/2010@11:08:41
1202054763	DUP	1	36	-0.450	0.0542	3/5/2010@11:09:34
1202054765	MS	1	37	79.3	3.66	3/5/2010@11:10:28
1202054767	MSD	1	38	98.5	4.53	3/5/2010@11:11:20
248033009		1	39	0.790	0.110	3/5/2010@11:12:13
248041001		1	40	-0.284	0.0617	3/5/2010@11:13:05
WCN100305-03		1	S3	105	4.84	3/5/2010@11:13:58
Known Conc:			100			CCV
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				
WCN100305-08	1	S7	-1.65	0.00	3/5/2010@11:15:48	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:		-1.65 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.65 > -5.00				
Message		CCB Passed				
Action		Continue				
248041002	1	41	0.0447	0.0766	3/5/2010@11:17:36	
248041003	1	42	3.12	0.216	3/5/2010@11:18:28	
248041004	1	43	-0.946	0.0317	3/5/2010@11:19:21	
248041005	1	44	0.799	0.111	3/5/2010@11:20:12	
248058001	1	45	0.398	0.0926	3/5/2010@11:21:05	
248058002	1	46	-0.864	0.0354	3/5/2010@11:21:58	
248058003	1	47	-1.65	-3.53e-4	3/5/2010@11:22:53	
248058004	1	48	2.77	0.200	3/5/2010@11:23:46	
248058005	1	49	0.181	0.0827	3/5/2010@11:24:40	
248058006	1	50	-0.752	0.0405	3/5/2010@11:25:34	
WCN100305-03	1	S3	114	5.24	3/5/2010@11:26:26	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:		14.1 > 10.0				
Message		CCV Failed				
Action		Stop Run				
DQM Test: < - Percent Relative Difference						
Result:		14.1 > 10.0				
Message		CCV Passed				
Action		Continue				

Analyte Properties Table for OM\_3-5-2010\_10-11-54.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

Channel 1: Current View

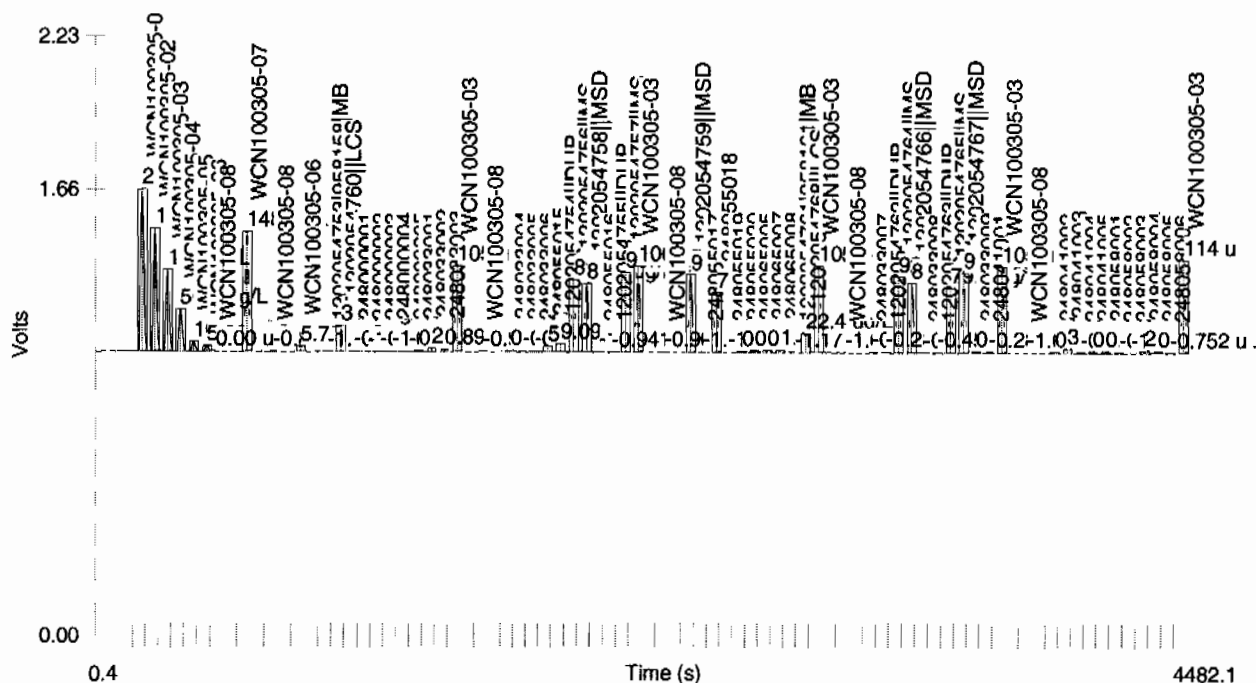
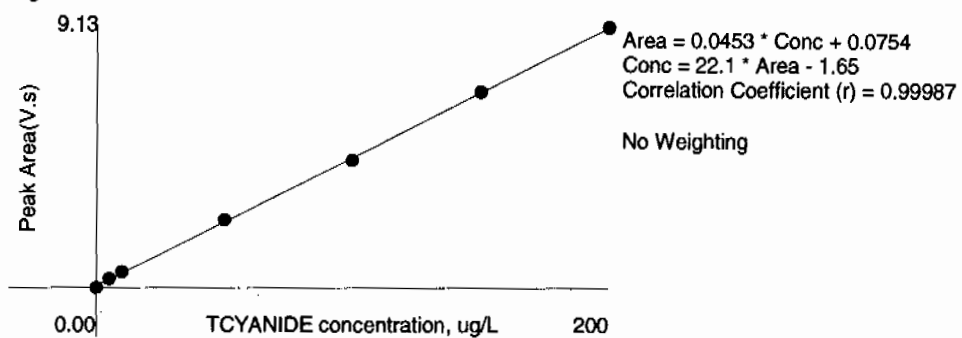


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.13	0.605	-0.1	3/5/2010	10:16:16
2	150	1	6.89	0.460	-0.4	3/5/2010	10:17:08
3	100	1	4.52	0.305	1.8	3/5/2010	10:18:01
4	50.0	1	2.40	0.159	-2.7	3/5/2010	10:18:54
5	10.0	1	0.566	0.0371	-7.2	3/5/2010	10:19:47
6	5.00	1	0.329	0.0204	-9.1	3/5/2010	10:20:41
7	0.00	1	0.00105	-7.02e-5		3/5/2010	10:21:35

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/5/2010 11:40:09	OM_3-5-2010_11-39-23
CCB		1	axc2	3/5/2010 11:42:00	OM_3-5-2010_11-39-23
248041002	958161	1	axc2	3/5/2010 11:43:48	OM_3-5-2010_11-39-23
248041003	958161	1	axc2	3/5/2010 11:44:40	OM_3-5-2010_11-39-23
248041004	958161	1	axc2	3/5/2010 11:45:33	OM_3-5-2010_11-39-23
248041005	958161	1	axc2	3/5/2010 11:46:25	OM_3-5-2010_11-39-23
248058001	958161	1	axc2	3/5/2010 11:47:17	OM_3-5-2010_11-39-23
248058002	958161	1	axc2	3/5/2010 11:48:11	OM_3-5-2010_11-39-23
248058003	958161	1	axc2	3/5/2010 11:49:05	OM_3-5-2010_11-39-23
248058004	958161	1	axc2	3/5/2010 11:49:59	OM_3-5-2010_11-39-23
248058005	958161	1	axc2	3/5/2010 11:50:52	OM_3-5-2010_11-39-23
248058006	958161	1	axc2	3/5/2010 11:51:46	OM_3-5-2010_11-39-23
CCV		1	axc2	3/5/2010 11:52:38	OM_3-5-2010_11-39-23
CCB		1	axc2	3/5/2010 11:54:29	OM_3-5-2010_11-39-23
248058007	958161	1	axc2	3/5/2010 11:56:18	OM_3-5-2010_11-39-23
248058008	958161	1	axc2	3/5/2010 11:57:11	OM_3-5-2010_11-39-23
248065001	958161	1	axc2	3/5/2010 11:58:05	OM_3-5-2010_11-39-23
248065002	958161	1	axc2	3/5/2010 11:58:58	OM_3-5-2010_11-39-23
248065003	958161	1	axc2	3/5/2010 11:59:50	OM_3-5-2010_11-39-23
248065004	958161	1	axc2	3/5/2010 12:00:43	OM_3-5-2010_11-39-23
1202060268	960509	1	axc2	3/5/2010 12:01:35	OM_3-5-2010_11-39-23
1202060272	960509	25	axc2	3/5/2010 12:02:28	OM_3-5-2010_11-39-23
248045015	960509	1	axc2	3/5/2010 12:03:19	OM_3-5-2010_11-39-23
1202060269	960509	1	axc2	3/5/2010 12:04:12	OM_3-5-2010_11-39-23
CCV		1	axc2	3/5/2010 12:05:04	OM_3-5-2010_11-39-23
CCB		1	axc2	3/5/2010 12:06:54	OM_3-5-2010_11-39-23
1202060270*	960509	1	axc2	3/5/2010 12:08:44	OM_3-5-2010_11-39-23
1202060271*	960509	1	axc2	3/5/2010 12:09:39	OM_3-5-2010_11-39-23
248045016*	960509	1	axc2	3/5/2010 12:10:33	OM_3-5-2010_11-39-23
248045017*	960509	1	axc2	3/5/2010 12:11:27	OM_3-5-2010_11-39-23
248045018*	960509	1	axc2	3/5/2010 12:12:21	OM_3-5-2010_11-39-23
1202054773*	958163	1	axc2	3/5/2010 12:13:14	OM_3-5-2010_11-39-23
1202054780*	958163	25	axc2	3/5/2010 12:14:08	OM_3-5-2010_11-39-23
248002001*	958163	1	axc2	3/5/2010 12:15:01	OM_3-5-2010_11-39-23
1202054775*	958163	1	axc2	3/5/2010 12:15:54	OM_3-5-2010_11-39-23
1202054777*	958163	1	axc2	3/5/2010 12:16:47	OM_3-5-2010_11-39-23
CCV		1	axc2	3/5/2010 12:17:39	OM_3-5-2010_11-39-23

Original Run Filename: OM\_3-5-2010\_11-39-23.OMN created 3/5/2010 11:39:23  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-5-2010\_11-39-23.OMN last modified 3/5/2010 12:18:43  
 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)				
WCN100305-03	1	S3	103	4.74	3/5/2010@11:40:09			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.1 < 10.0					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100305-08	1	S7	-1.19	0.0205	3/5/2010@11:42:00			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.19 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.19 > -5.00					
Message			CCB Passed					
Action			Continue					
248041002 958161	1	41	-0.154	0.0676	3/5/2010@11:43:48			
248041003	1	42	3.71	0.243	3/5/2010@11:44:40			
248041004	1	43	-1.57	0.00365	3/5/2010@11:45:33			
248041005	1	44	0.278	0.0871	3/5/2010@11:46:25			
248058001	1	45	0.584	0.101	3/5/2010@11:47:17			
248058002	1	46	-0.938	0.0321	3/5/2010@11:48:11			
248058003	1	47	-1.64	4.38e-4	3/5/2010@11:49:05			
248058004	1	48	3.51	0.234	3/5/2010@11:49:59			
248058005	1	49	0.209	0.0840	3/5/2010@11:50:52			
248058006	1	50	-1.65	-2.07e-4	3/5/2010@11:51:46			
WCN100305-03	1	S3	101	4.63	3/5/2010@11:52:38			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100305-08	1	S7	-1.03	0.0277	3/5/2010@11:54:29			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.03 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.03 > -5.00					
Message			CCB Passed					
Action			Continue					
248058007	1	51	-1.96	-0.0140	3/5/2010@11:56:18			
248058008	1	52	-0.359	0.0583	3/5/2010@11:57:11			
248065001	1	53	-0.690	0.0433	3/5/2010@11:58:05			
248065002	1	54	-0.808	0.0380	3/5/2010@11:58:58			
248065003	1	55	-0.965	0.0309	3/5/2010@11:59:50			

248065004	1	56	-0.443	0.0545	3/5/2010@12:00:43		
1202060268 960509 MB	1	57	-1.65	0.00	3/5/2010@12:01:35		
1202060272  LCS	1	58	35.4	1.68	3/5/2010@12:02:28	25.00	
248045015	1	59	7.53	0.415	3/5/2010@12:03:19		
1202060269  DUP	1	60	7.06	0.394	3/5/2010@12:04:12		
WCN100305-03	1	S3	106	4.89	3/5/2010@12:05:04		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				
WCN100305-08	1	S7	-1.64	3.30e-4	3/5/2010@12:06:54		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.64 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.64 > -5.00				
Message			CCB Passed				
Action			Continue				
1202060270  MS	1	61	107	4.92	3/5/2010@12:08:44		
1202060271  MSD	1	62	97.7	4.50	3/5/2010@12:09:39		
248045016	1	63	6.02	0.347	3/5/2010@12:10:33		
248045017	1	64	1.77	0.155	3/5/2010@12:11:27		
248045018	1	65	1.29	0.133	3/5/2010@12:12:21		
1202054773 958163 MB	1	66	-1.21	0.0197	3/5/2010@12:13:14		
1202054780  LCS	1	67	35.1	1.67	3/5/2010@12:14:08	25.00	
248002001	1	68	-1.65	-1.88e-4	3/5/2010@12:15:01		
1202054775  DUP	1	69	-1.66	-4.62e-4	3/5/2010@12:15:54		
1202054777  MS	1	70	105	4.84	3/5/2010@12:16:47		
WCN100305-03	1	S3	119	5.47	3/5/2010@12:17:39		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			19.2 > 10.0				
Message			CCV Failed				
Action			Stop Run				
DQM Test: < - Percent Relative Difference							
Result:			19.2 > 10.0				
Message			CCV Passed				
Action			Continue				

Analyte Properties Table for OM\_3-5-2010\_11-39-23.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

[illegible]

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.13	0.605	-0.1	3/5/2010	10:16:16
2	150	1	6.89	0.460	-0.4	3/5/2010	10:17:08
3	100	1	4.52	0.305	1.8	3/5/2010	10:18:01
4	50.0	1	2.40	0.159	-2.7	3/5/2010	10:18:54
5	10.0	1	0.566	0.0371	-7.2	3/5/2010	10:19:47
6	5.00	1	0.329	0.0204	-9.1	3/5/2010	10:20:41
7	0.00	1	0.00105	-7.02e-5		3/5/2010	10:21:35

Peak Area(V.s)

9.13

0.00

TCYANIDE concentration, ug/L

200

Area = 0.0453 \* Conc + 0.0754  
Conc = 22.1 \* Area - 1.65  
Correlation Coefficient (r) = 0.99987

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/5/2010 12:22:14	OM_3-5-2010_12-20-43
CCB		1	axc2	3/5/2010 12:24:05	OM_3-5-2010_12-20-43
1202060270	960509	1	axc2	3/5/2010 12:25:55	OM_3-5-2010_12-20-43
1202060271	960509	1	axc2	3/5/2010 12:26:50	OM_3-5-2010_12-20-43
248045016	960509	1	axc2	3/5/2010 12:27:44	OM_3-5-2010_12-20-43
248045017	960509	1	axc2	3/5/2010 12:28:38	OM_3-5-2010_12-20-43
248045018	960509	1	axc2	3/5/2010 12:29:31	OM_3-5-2010_12-20-43
1202054773	958163	1	axc2	3/5/2010 12:30:25	OM_3-5-2010_12-20-43
1202054780	958163	25	axc2	3/5/2010 12:31:18	OM_3-5-2010_12-20-43
248002001	958163	1	axc2	3/5/2010 12:32:11	OM_3-5-2010_12-20-43
1202054775	958163	1	axc2	3/5/2010 12:33:05	OM_3-5-2010_12-20-43
1202054777	958163	1	axc2	3/5/2010 12:33:57	OM_3-5-2010_12-20-43
CCV		1	axc2	3/5/2010 12:34:50	OM_3-5-2010_12-20-43
CCB		1	axc2	3/5/2010 12:36:40	OM_3-5-2010_12-20-43
1202054779*	958163	1	axc2	3/5/2010 12:38:29	OM_3-5-2010_12-20-43
248002002	958163	1	axc2	3/5/2010 12:39:22	OM_3-5-2010_12-20-43
248002003	958163	1	axc2	3/5/2010 12:40:14	OM_3-5-2010_12-20-43
248002004	958163	1	axc2	3/5/2010 12:41:06	OM_3-5-2010_12-20-43
248002005	958163	1	axc2	3/5/2010 12:41:58	OM_3-5-2010_12-20-43
248002006	958163	1	axc2	3/5/2010 12:42:53	OM_3-5-2010_12-20-43
248002007	958163	1	axc2	3/5/2010 12:43:47	OM_3-5-2010_12-20-43
248002008	958163	1	axc2	3/5/2010 12:44:41	OM_3-5-2010_12-20-43
248045001	958163	1	axc2	3/5/2010 12:45:35	OM_3-5-2010_12-20-43
248045002	958163	1	axc2	3/5/2010 12:46:29	OM_3-5-2010_12-20-43
CCV		1	axc2	3/5/2010 12:47:22	OM_3-5-2010_12-20-43
CCB		1	axc2	3/5/2010 12:49:11	OM_3-5-2010_12-20-43

Original Run Filename: OM\_3-5-2010\_12-20-43.OMN created 3/5/2010 12:20:43  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-5-2010\_12-20-43.OMN last modified 3/5/2010 12:51:21  
 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		Detection Time	ADF	MDF	Description
			TCYANIDE	Area (Vs)				
WCN100305-03	1	S3	105	4.83	3/5/2010@12:22:14			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100305-08	1	S7	-1.60	0.00218	3/5/2010@12:24:05			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.60 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.60 > -5.00					
Message			CCB Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
1202060270 960509 MS	1	61	120	5.52	3/5/2010@12:25:55			
1202060271 MSD	1	62	109	5.01	3/5/2010@12:26:50			
248045016	1	63	6.06	0.349	3/5/2010@12:27:44			
248045017	1	64	1.45	0.140	3/5/2010@12:28:38			
248045018	1	65	1.54	0.144	3/5/2010@12:29:31			
1202054773 958163 MB	1	66	-1.91	-0.0119	3/5/2010@12:30:25			
1202054780 LCS	1	67	36.3	1.72	3/5/2010@12:31:18		25.00	
248002001	1	68	-0.533	0.0504	3/5/2010@12:32:11			
1202054775 DUP	1	69	-1.64	3.85e-4	3/5/2010@12:33:05			
1202054777 MS	1	70	105	4.83	3/5/2010@12:33:57			
WCN100305-03	1	S3	107	4.92	3/5/2010@12:34:50			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			7.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			7.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100305-08	1	S7	-1.63	8.15e-4	3/5/2010@12:36:40			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.63 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.63 > -5.00					
Message			CCB Passed					
Action			Continue					
1202054779 MSD	1	71	139	6.38	3/5/2010@12:38:29			
248002002	1	72	-0.615	0.0467	3/5/2010@12:39:22			
248002003	1	73	-1.02	0.0285	3/5/2010@12:40:14			
248002004	1	74	-1.65	-2.18e-4	3/5/2010@12:41:06			
248002005	1	75	-0.435	0.0548	3/5/2010@12:41:58			



248002006	1	76	-0.910	0.0334	3/5/2010@12:42:53		
248002007	1	77	-1.08	0.0255	3/5/2010@12:43:47		
248002008	1	78	-1.65	0.00	3/5/2010@12:44:41		
248045001	1	79	1.21	0.129	3/5/2010@12:45:35		
248045002	1	80	14.0	0.710	3/5/2010@12:46:29		
WCN100305-03	1	S3	107	4.91	3/5/2010@12:47:22		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.8 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.8 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100305-08	1	S7	-1.54	0.00502	3/5/2010@12:49:11		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.54 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.54 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM\_3-5-2010\_12-20-43.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

Channel 1: Current View

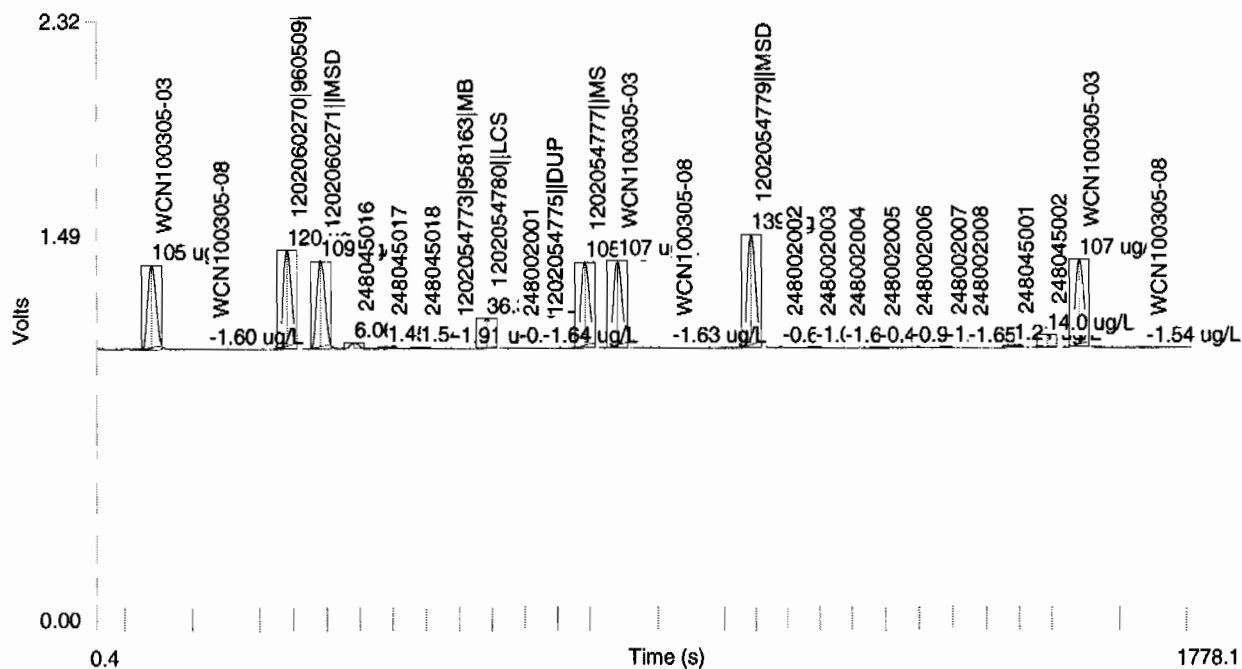
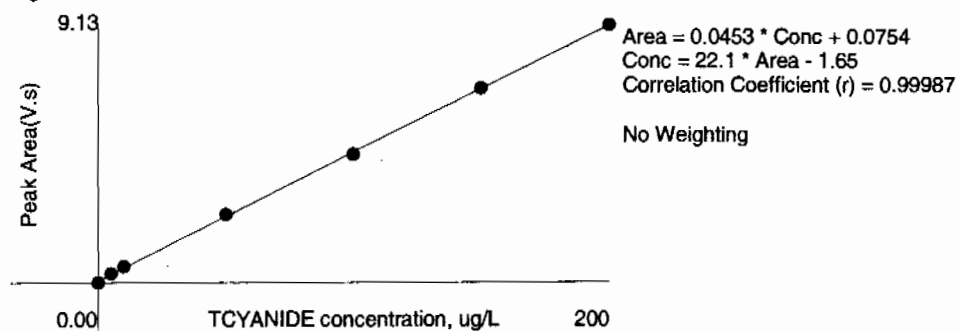


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.13	0.605	-0.1	3/5/2010	10:16:16
2	150	1	6.89	0.460	-0.4	3/5/2010	10:17:08
3	100	1	4.52	0.305	1.8	3/5/2010	10:18:01
4	50.0	1	2.40	0.159	-2.7	3/5/2010	10:18:54
5	10.0	1	0.566	0.0371	-7.2	3/5/2010	10:19:47
6	5.00	1	0.329	0.0204	-9.1	3/5/2010	10:20:41
7	0.00	1	0.00105	-7.02e-5		3/5/2010	10:21:35

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/5/2010 13:00:56	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:02:46	OM_3-5-2010_12-59-25
1202054779	958163	1	axc2	3/5/2010 13:04:35	OM_3-5-2010_12-59-25
248045003	958163	1	axc2	3/5/2010 13:05:29	OM_3-5-2010_12-59-25
248045004	958163	1	axc2	3/5/2010 13:06:22	OM_3-5-2010_12-59-25
248045005	958163	1	axc2	3/5/2010 13:07:16	OM_3-5-2010_12-59-25
248045006	958163	1	axc2	3/5/2010 13:08:09	OM_3-5-2010_12-59-25
248045007	958163	1	axc2	3/5/2010 13:09:02	OM_3-5-2010_12-59-25
248045008	958163	1	axc2	3/5/2010 13:09:55	OM_3-5-2010_12-59-25
248045009	958163	1	axc2	3/5/2010 13:10:48	OM_3-5-2010_12-59-25
248045010	958163	1	axc2	3/5/2010 13:11:40	OM_3-5-2010_12-59-25
248045011	958163	1	axc2	3/5/2010 13:12:33	OM_3-5-2010_12-59-25
CCV		1	axc2	3/5/2010 13:13:25	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:15:15	OM_3-5-2010_12-59-25
248065006	958163	1	axc2	3/5/2010 13:17:03	OM_3-5-2010_12-59-25
1202054774	958163	1	axc2	3/5/2010 13:17:58	OM_3-5-2010_12-59-25
1202054776	958163	1	axc2	3/5/2010 13:18:52	OM_3-5-2010_12-59-25
1202054778	958163	1	axc2	3/5/2010 13:19:47	OM_3-5-2010_12-59-25
1202057104	959202	1	axc2	3/5/2010 13:20:41	OM_3-5-2010_12-59-25
1202057111	959202	25	axc2	3/5/2010 13:21:36	OM_3-5-2010_12-59-25
248183001	959202	1	axc2	3/5/2010 13:22:30	OM_3-5-2010_12-59-25
1202057105	959202	1	axc2	3/5/2010 13:23:23	OM_3-5-2010_12-59-25
1202057107	959202	1	axc2	3/5/2010 13:24:17	OM_3-5-2010_12-59-25
1202057109	959202	1	axc2	3/5/2010 13:25:11	OM_3-5-2010_12-59-25
CCV		1	axc2	3/5/2010 13:26:03	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:27:53	OM_3-5-2010_12-59-25
248183002	959202	1	axc2	3/5/2010 13:29:42	OM_3-5-2010_12-59-25
1202057106	959202	1	axc2	3/5/2010 13:30:36	OM_3-5-2010_12-59-25
1202057108	959202	1	axc2	3/5/2010 13:31:29	OM_3-5-2010_12-59-25
1202057110	959202	1	axc2	3/5/2010 13:32:21	OM_3-5-2010_12-59-25
248183003	959202	1	axc2	3/5/2010 13:33:14	OM_3-5-2010_12-59-25
248183004	959202	1	axc2	3/5/2010 13:34:07	OM_3-5-2010_12-59-25
248183005	959202	1	axc2	3/5/2010 13:35:02	OM_3-5-2010_12-59-25
248183006	959202	1	axc2	3/5/2010 13:35:56	OM_3-5-2010_12-59-25
248183007	959202	1	axc2	3/5/2010 13:36:51	OM_3-5-2010_12-59-25
248183008	959202	1	axc2	3/5/2010 13:37:45	OM_3-5-2010_12-59-25
CCV		1	axc2	3/5/2010 13:38:38	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:40:28	OM_3-5-2010_12-59-25
248183009	959202	1	axc2	3/5/2010 13:42:18	OM_3-5-2010_12-59-25
248183010	959202	1	axc2	3/5/2010 13:43:12	OM_3-5-2010_12-59-25
248183011	959202	1	axc2	3/5/2010 13:44:06	OM_3-5-2010_12-59-25
248183012	959202	1	axc2	3/5/2010 13:45:00	OM_3-5-2010_12-59-25
248183013	959202	1	axc2	3/5/2010 13:45:54	OM_3-5-2010_12-59-25
248183014	959202	1	axc2	3/5/2010 13:46:48	OM_3-5-2010_12-59-25
248183015	959202	1	axc2	3/5/2010 13:47:41	OM_3-5-2010_12-59-25
248183016	959202	1	axc2	3/5/2010 13:48:34	OM_3-5-2010_12-59-25
248183017	959202	1	axc2	3/5/2010 13:49:27	OM_3-5-2010_12-59-25
248183018	959202	1	axc2	3/5/2010 13:50:20	OM_3-5-2010_12-59-25
CCV		1	axc2	3/5/2010 13:51:12	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:53:02	OM_3-5-2010_12-59-25
248183019	959202	1	axc2	3/5/2010 13:54:51	OM_3-5-2010_12-59-25
248183020	959202	1	axc2	3/5/2010 13:55:47	OM_3-5-2010_12-59-25
CCV		1	axc2	3/5/2010 13:56:39	OM_3-5-2010_12-59-25
CCB		1	axc2	3/5/2010 13:58:29	OM_3-5-2010_12-59-25

Original Run Filename: OM\_3-5-2010\_12-59-25.OMN created 3/5/2010 12:59:25  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-5-2010\_12-59-25.OMN last modified 3/5/2010 13:59:33  
 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)				
WCN100305-03	1	S3	104	4.78	3/5/2010@13:00:56			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100305-08	1	S7	-1.50	0.00643	3/5/2010@13:02:46			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					
1202054779 958163 MSD	1	71	87.0	4.01	3/5/2010@13:04:35			
248045003	1	81	-0.726	0.0417	3/5/2010@13:05:29			
248045004	1	82	1.25	0.131	3/5/2010@13:06:22			
248045005	1	83	6.10	0.351	3/5/2010@13:07:16			
248045006	1	84	-0.0764	0.0711	3/5/2010@13:08:09			
248045007	1	85	-0.784	0.0390	3/5/2010@13:09:02			
248045008	1	86	1.50	0.142	3/5/2010@13:09:55			
248045009	1	87	-0.484	0.0526	3/5/2010@13:10:48			
248045010	1	88	-0.142	0.0681	3/5/2010@13:11:40			
248045011	1	89	1.82	0.157	3/5/2010@13:12:33			
WCN100305-03	1	S3	105	4.83	3/5/2010@13:13:25			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100305-08	1	S7	-1.45	0.00892	3/5/2010@13:15:15			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.45 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.45 > -5.00					
Message			CCB Passed					
Action			Continue					
248065006	1	90	-0.322	0.0600	3/5/2010@13:17:03			
1202054774 DUP	1	91	-0.441	0.0546	3/5/2010@13:17:58			
1202054776 MS	1	92	97.1	4.47	3/5/2010@13:18:52			
1202054778 MSD	1	93	97.8	4.50	3/5/2010@13:19:47			
1202057104 959202 MB	1	94	-1.36	0.0129	3/5/2010@13:20:41			

1202057111	LCS	1	95	30.7	1.47	3/5/2010@13:21:36	25.00	
248183001		1	96	-0.947	0.0317	3/5/2010@13:22:30		
1202057105	DUP	1	97	-0.982	0.0301	3/5/2010@13:23:23		
1202057107	MS	1	98	113	5.17	3/5/2010@13:24:17		
1202057109	MSD	1	99	112	5.14	3/5/2010@13:25:11		
WCN100305-03		1	S3	107	4.90	3/5/2010@13:26:03		CCV
Known Conc: 100								
DQM Test: > + Percent Relative Difference								
Result: 6.5 < 10.0								
Message CCB Passed								
Action Continue								
DQM Test: < - Percent Relative Difference								
Result: 6.5 < 10.0								
Message CCB Passed								
Action Continue								
WCN100305-08		1	S7	-1.66	-4.12e-4	3/5/2010@13:27:53		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								
248183002		1	100	0.0185	0.0754	3/5/2010@13:29:42		
1202057106	DUP	1	101	-0.274	0.0621	3/5/2010@13:30:36		
1202057108	MS	1	102	105	4.85	3/5/2010@13:31:29		
1202057110	MSD	1	103	111	5.11	3/5/2010@13:32:21		
248183003		1	104	-0.428	0.0552	3/5/2010@13:33:14		
248183004		1	105	0.0174	0.0753	3/5/2010@13:34:07		
248183005		1	106	-1.44	0.00943	3/5/2010@13:35:02		
248183006		1	107	-1.64	3.97e-4	3/5/2010@13:35:56		
248183007		1	108	-2.06	-0.0187	3/5/2010@13:36:51		
248183008		1	109	-1.56	0.00387	3/5/2010@13:37:45		
WCN100305-03		1	S3	105	4.82	3/5/2010@13:38:38		CCV
Known Conc: 100								
DQM Test: > + Percent Relative Difference								
Result: 4.9 < 10.0								
Message CCB Passed								
Action Continue								
DQM Test: < - Percent Relative Difference								
Result: 4.9 < 10.0								
Message CCB Passed								
Action Continue								
WCN100305-08		1	S7	-1.68	-0.00168	3/5/2010@13:40:28		CCB
Known Conc: 0.00								
DQM Test: > + Concentration Limit								
Result: -1.68 < 5.00								
Message CCB Passed								
Action Continue								
DQM Test: < - Concentration Limit								
Result: -1.68 > -5.00								
Message CCB Passed								
Action Continue								
248183009		1	110	0.891	0.115	3/5/2010@13:42:18		
248183010		1	111	0.210	0.0841	3/5/2010@13:43:12		
248183011		1	112	-1.65	-1.62e-4	3/5/2010@13:44:06		
248183012		1	113	3.27	0.222	3/5/2010@13:45:00		
248183013		1	114	-1.65	-1.86e-4	3/5/2010@13:45:54		
248183014		1	115	-1.27	0.0171	3/5/2010@13:46:48		
248183015		1	116	-0.422	0.0554	3/5/2010@13:47:41		
248183016		1	117	-1.66	-4.15e-4	3/5/2010@13:48:34		
248183017		1	118	-0.990	0.0297	3/5/2010@13:49:27		
248183018		1	119	4.94	0.298	3/5/2010@13:50:20		
WCN100305-03		1	S3	105	4.84	3/5/2010@13:51:12		CCV
Known Conc: 100								
DQM Test: > + Percent Relative Difference								

Result: 5.3 < 10.0						
Message CCB Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 5.3 < 10.0						
Message CCB Passed						
Action Continue						
WCN100305-08	1	S7	-1.64	1.96e-4	3/5/2010@13:53:02	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -1.64 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -1.64 > -5.00						
Message CCB Passed						
Action Continue						
248183019	1	120	1.26	0.131	3/5/2010@13:54:51	
248183020	1	121	1.38	0.137	3/5/2010@13:55:47	
WCN100305-03	1	S3	105	4.84	3/5/2010@13:56:39	CCV
Known Conc: 100						
DQM Test: > + Percent Relative Difference						
Result: 5.2 < 10.0						
Message CCB Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 5.2 < 10.0						
Message CCB Passed						
Action Continue						
WCN100305-08	1	S7	-1.25	0.0182	3/5/2010@13:58:29	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -1.25 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -1.25 > -5.00						
Message CCB Passed						
Action Continue						

Analyte Properties Table for OM\_3-5-2010\_12-59-25.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

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.13	0.605	-0.1	3/5/2010	10:16:16
2	150	1	6.89	0.460	-0.4	3/5/2010	10:17:08
3	100	1	4.52	0.305	1.8	3/5/2010	10:18:01
4	50.0	1	2.40	0.159	-2.7	3/5/2010	10:18:54
5	10.0	1	0.566	0.0371	-7.2	3/5/2010	10:19:47
6	5.00	1	0.329	0.0204	-9.1	3/5/2010	10:20:41
7	0.00	1	0.00105	-7.02e-5		3/5/2010	10:21:35

Peak Area(V.s)

9.13

0.00

TCYANIDE concentration, ug/L

200

Area = 0.0453 \* Conc + 0.0754  
 Conc = 22.1 \* Area - 1.65  
 Correlation Coefficient (r) = 0.99987

No Weighting

# **Ion Chromatography**



# Prep Logbook

## Ion Chromatography (IC)

Batch ID: 962074.0

Analyst: Greg Milton

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202063605	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
LCS	1202078660	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202063601	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202063602	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202063603	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202063604	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202063598 MB	19-MAR-2010 12:20:00	Soil	4	40	10	
1202063605 LCS	19-MAR-2010 12:20:00	Soil	4	40	10	
248045001	19-MAR-2010 12:20:00	Soil	4.05	40	9.87654	
1202063599 DUP (248045001)	19-MAR-2010 12:20:00	Soil	4.04	40	9.90099	
1202063601 MS (248045001)	19-MAR-2010 12:20:00	Soil	4.02	40	9.95025	
1202063603 MSD (248045001)	19-MAR-2010 12:20:00	Soil	4.03	40	9.92556	
248045002	19-MAR-2010 12:20:00	Soil	4.08	40	9.80392	
248045003	19-MAR-2010 12:20:00	Soil	4.04	40	9.90099	
248045004	19-MAR-2010 12:20:00	Soil	4.06	40	9.85222	
248045005	19-MAR-2010 12:20:00	Soil	4	40	10	
248045006	19-MAR-2010 12:20:00	Soil	4.01	40	9.97506	
248045007	19-MAR-2010 12:20:00	Soil	4.03	40	9.92556	
248045008	19-MAR-2010 12:20:00	Soil	4	40	10	
248045009	19-MAR-2010 12:20:00	Soil	4	40	10	
248045010	19-MAR-2010 12:20:00	Soil	4.07	40	9.82801	
248045011	19-MAR-2010 12:20:00	Soil	4	40	10	
248045012	19-MAR-2010 12:20:00	Soil	4.02	40	9.95025	
248045013	19-MAR-2010 12:20:00	Soil	4	40	10	
248045014	19-MAR-2010 12:20:00	Soil	4	40	10	
248045015	19-MAR-2010 12:20:00	Soil	4.08	40	9.80392	
248045016	19-MAR-2010 12:20:00	Soil	4.06	40	9.85222	
248045017	19-MAR-2010 12:20:00	Soil	4.03	40	9.92556	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

<b>Batch ID:</b> 962074.0	<b>Verified by:</b>	<b>Type</b>	<b>Sample Id</b>	<b>Description</b>	<b>Serial Number</b>	<b>Spike Amount</b>	<b>Spike Units</b>
<b>Analyst:</b> Greg Milton		LCS	1202063605	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
<b>Method:</b> EPA 300.0 PREP		LCS	1202078660	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
<b>Lab SOP:</b> GL-GC-E-086 REV# 17		MS	1202063601	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
<b>Instrument:</b> Sartorius Balance B-001		MS	1202063602	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
		MSD	1202063603	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
		MSD	1202063604	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248045018	19-MAR-2010 12:20:00	Soil	4.11	40	9.73236	
1202063600 DUP (248045018)	19-MAR-2010 12:20:00	Soil	4.12	40	9.70874	
1202063602 MS (248045018)	19-MAR-2010 12:20:00	Soil	4.08	40	9.80392	
1202063604 MSD (248045018)	19-MAR-2010 12:20:00	Soil	4.08	40	9.80392	
1202078659 MB	23-MAR-2010 11:44:00	Soil	4	40	10	
1202078660 LCS	23-MAR-2010 11:44:00	Soil	4	40	10	
248045016 - 2	23-MAR-2010 11:44:00	Soil	4	40	10	
248045017 - 2	23-MAR-2010 11:44:00	Soil	4.01	40	9.97506	
248045018 - 2	23-MAR-2010 11:44:00	Soil	4.05	40	9.87654	
1202063600 - 2 DUP (248045018)	23-MAR-2010 11:44:00	Soil	4.08	40	9.80392	
1202063602 - 2 MS (248045018)	23-MAR-2010 11:44:00	Soil	4.06	40	9.85222	
1202063604 - 2 MSD (248045018)	23-MAR-2010 11:44:00	Soil	4.05	40	9.87654	

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

Analytical Logbook version 1 11-04-2002

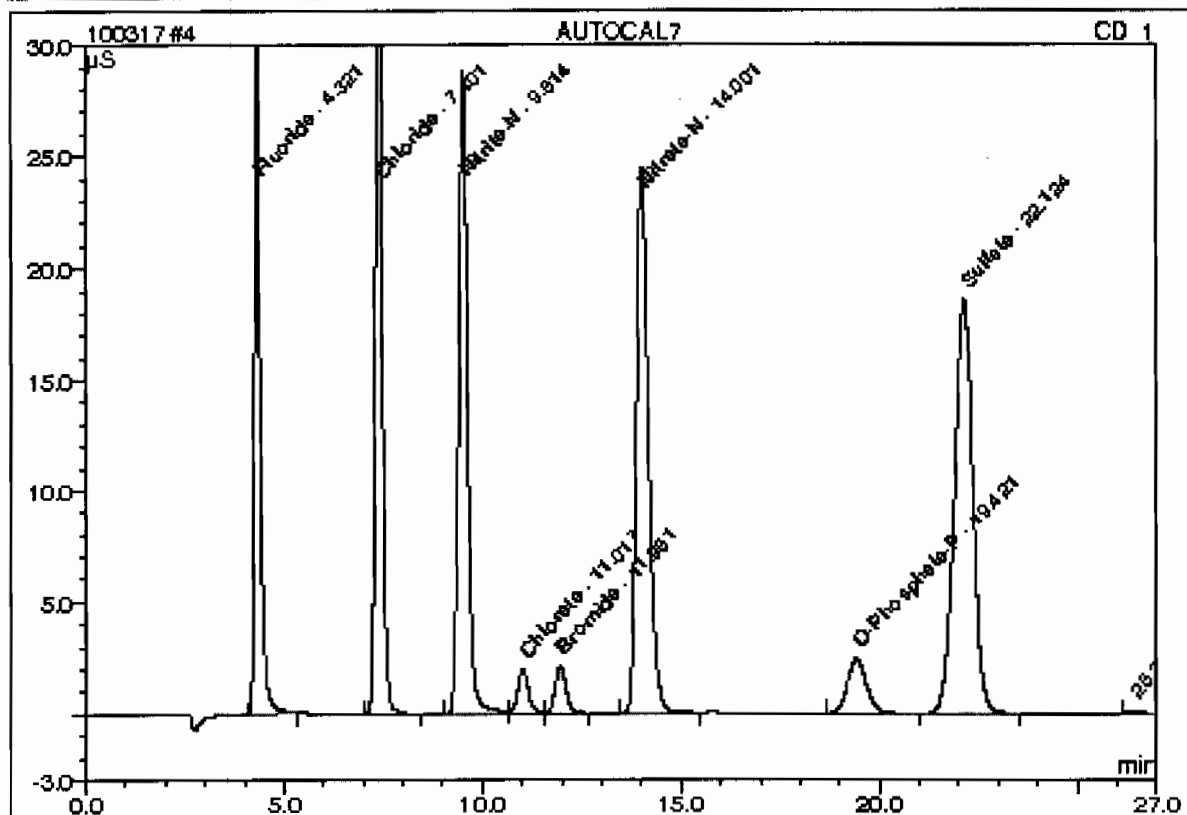
GEL Laboratories LLC

This is runlog for Sequence 100323.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/17/10 09:15		1	100323	GXM3
ICAL-06	03/17/10 09:45		1	100323	GXM3
ICAL-05	03/17/10 10:15		1	100323	GXM3
ICAL-04	03/17/10 10:45		1	100323	GXM3
ICAL-03	03/17/10 11:15		1	100323	GXM3
ICAL-02	03/17/10 11:45		1	100323	GXM3
ICAL-01	03/17/10 13:14		1	100323	GXM3

**4 AUTOCAL7**

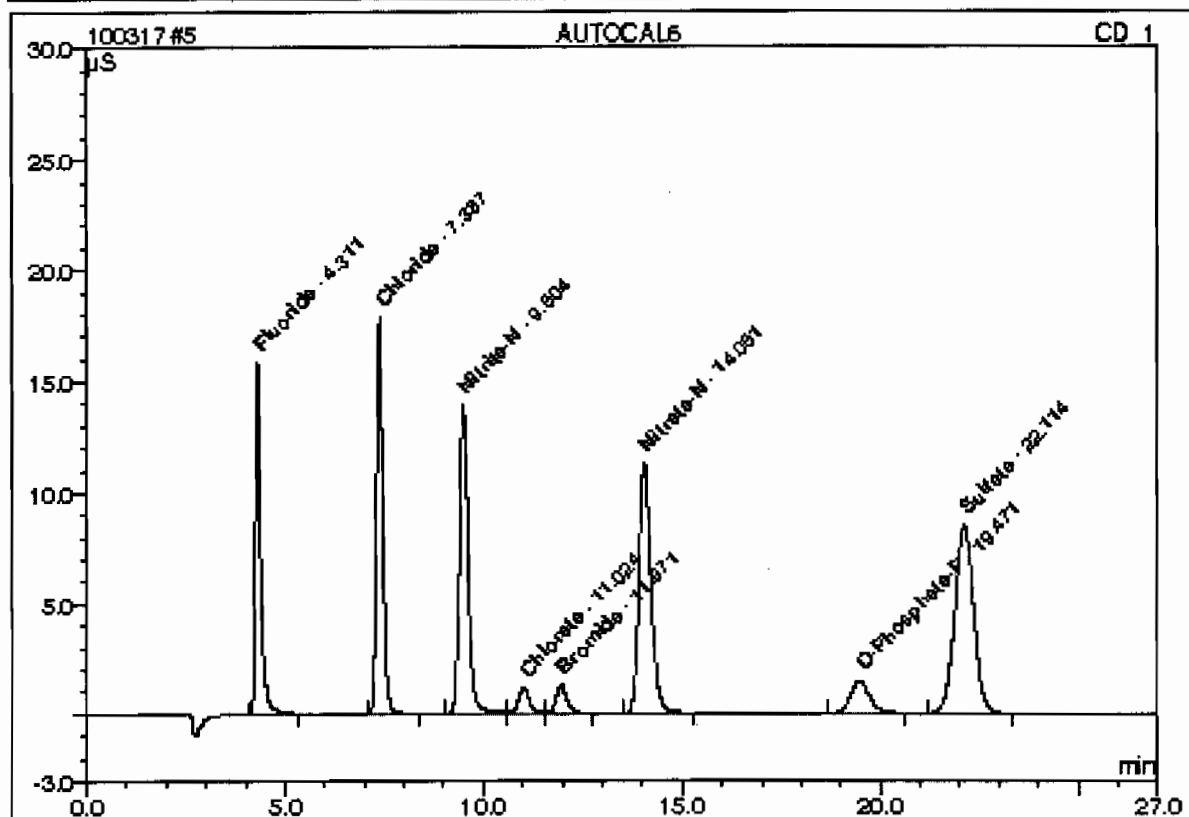
Sample Name:	AUTOCAL7	Injection Volume:	50.0
Vial Number:	4	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 9:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.32	Fluoride	10.0000	10.0024		5.01638	12.24
2	7.40	Chloride	20.0000	20.0097		7.37427	18.00
3	9.51	Nitrite-N	10.0000	10.0083		7.36725	17.98
4	11.02	Chlorate	5.0000	5.0490		0.60961	1.49
5	11.96	Bromide	5.0000	5.0206		0.64557	1.58
6	14.00	Nitrate-N	10.0000	10.0123		8.56118	20.89
7	19.42	O-Phosphate-P	5.0000	5.0000		1.32928	3.24
8	22.12	Sulfate	40.0000	40.0384		10.04798	24.52
Total:				105.1408	0.000	40.952	99.94

**5 AUTOCAL6**

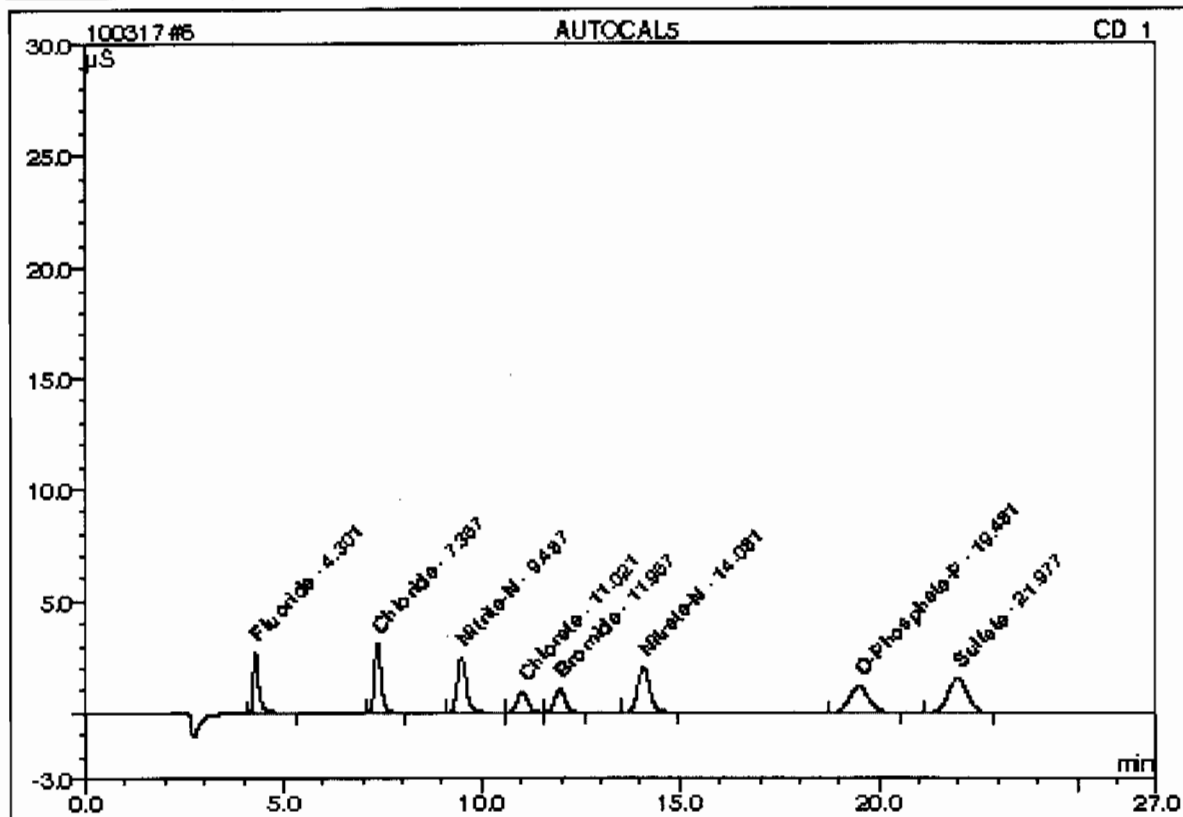
Sample Name:	AUTOCAL6	Injection Volume:	50.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 9:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	5.0000	4.8820		2.42594	12.44
2	7.39	Chloride	10.0000	9.3500		3.36519	17.26
3	9.50	Nitrite-N	5.0000	4.8693		3.54551	18.19
4	11.02	Chlorate	3.0000	2.9878		0.36137	1.85
5	11.97	Bromide	3.0000	2.9986		0.38556	1.98
6	14.05	Nitrate-N	5.0000	4.7145		3.94401	20.23
7	19.47	O-Phosphate-P	3.0000	2.9536		0.77886	4.00
8	22.11	Sulfate	20.0000	19.0326		4.68879	24.05
Total:				51.7885	0.000	19.495	100.00

**6 AUTOCAL5**

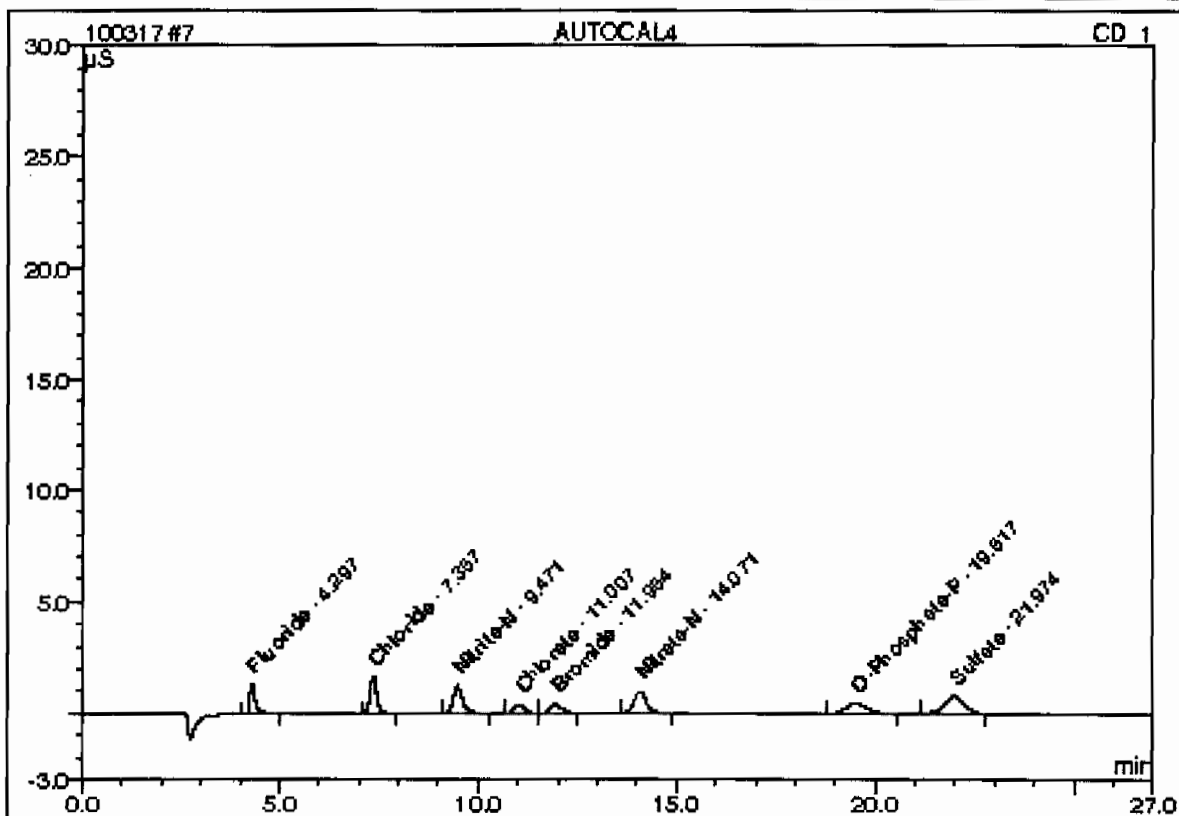
Sample Name:	AUTOCAL5	Injection Volume:	50.0
Vial Number:	6	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 10:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	1.0000	0.9378		0.44618	9.89
2	7.37	Chloride	2.0000	1.8432		0.61004	13.52
3	9.49	Nitrite-N	1.0000	0.9327		0.64234	14.24
4	11.02	Chlorate	2.5000	2.3781		0.28403	6.30
5	11.97	Bromide	2.5000	2.4513		0.31361	6.95
6	14.08	Nitrate-N	1.0000	0.9208		0.70455	15.62
7	19.48	O-Phosphate-P	2.5000	2.4823		0.65221	14.46
8	21.98	Sulfate	4.0000	3.7504		0.85753	19.01
Total:				15.6967	0.000	4.511	100.00

**7 AUTOCAL4**

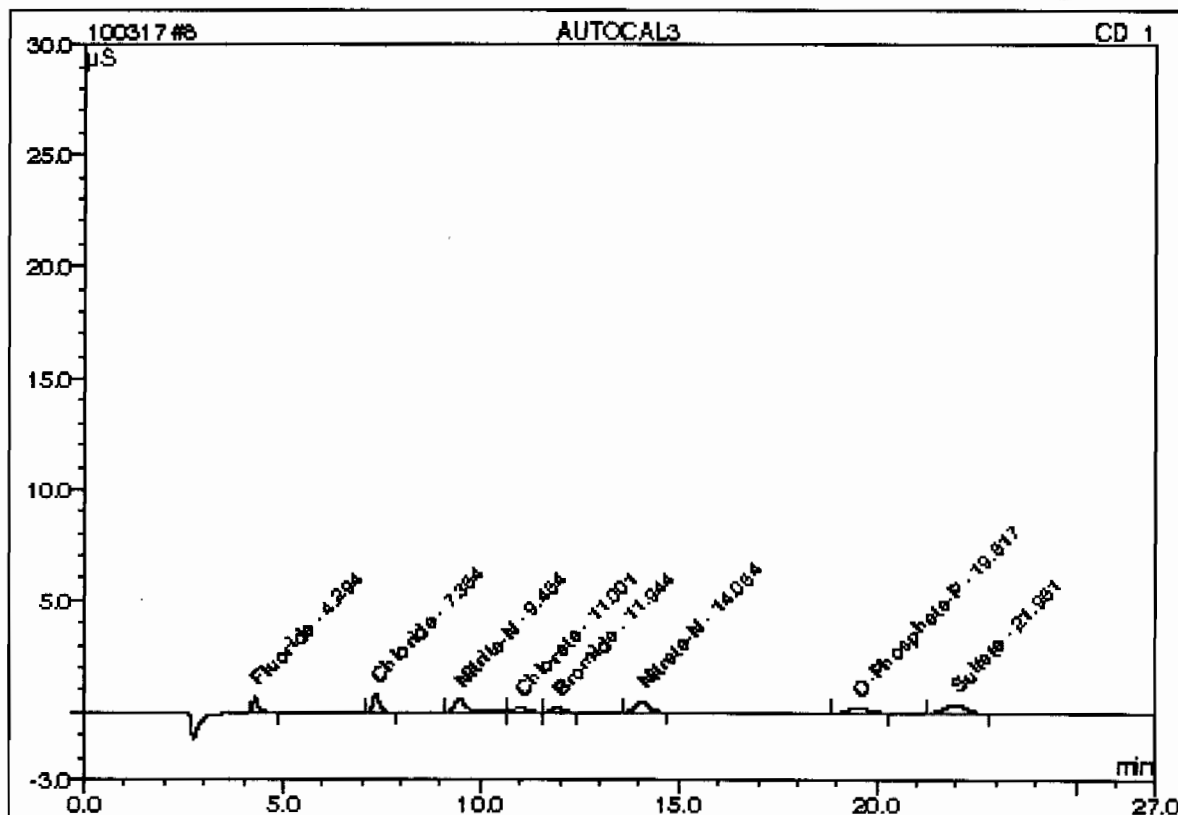
Sample Name:	AUTOCAL4	Injection Volume:	50.0
Vial Number:	7	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 10:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	0.5000	0.4925		0.21806	10.30
2	7.36	Chloride	1.0000	1.0806		0.32478	15.34
3	9.47	Nitrite-N	0.5000	0.4940		0.31326	14.80
4	11.01	Chlorate	1.0000	0.9498		0.10889	5.13
5	11.95	Bromide	1.0000	0.9722		0.12171	5.75
6	14.07	Nitrate-N	0.5000	0.5111		0.34644	16.36
7	19.52	O-Phosphate-P	1.0000	0.9993		0.25849	12.21
8	21.97	Sulfate	2.0000	2.0534		0.42575	20.11
Total:				7.5529	0.000	2.117	100.00

**8 AUTOCAL3**

Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 11:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC ED86;300;9056

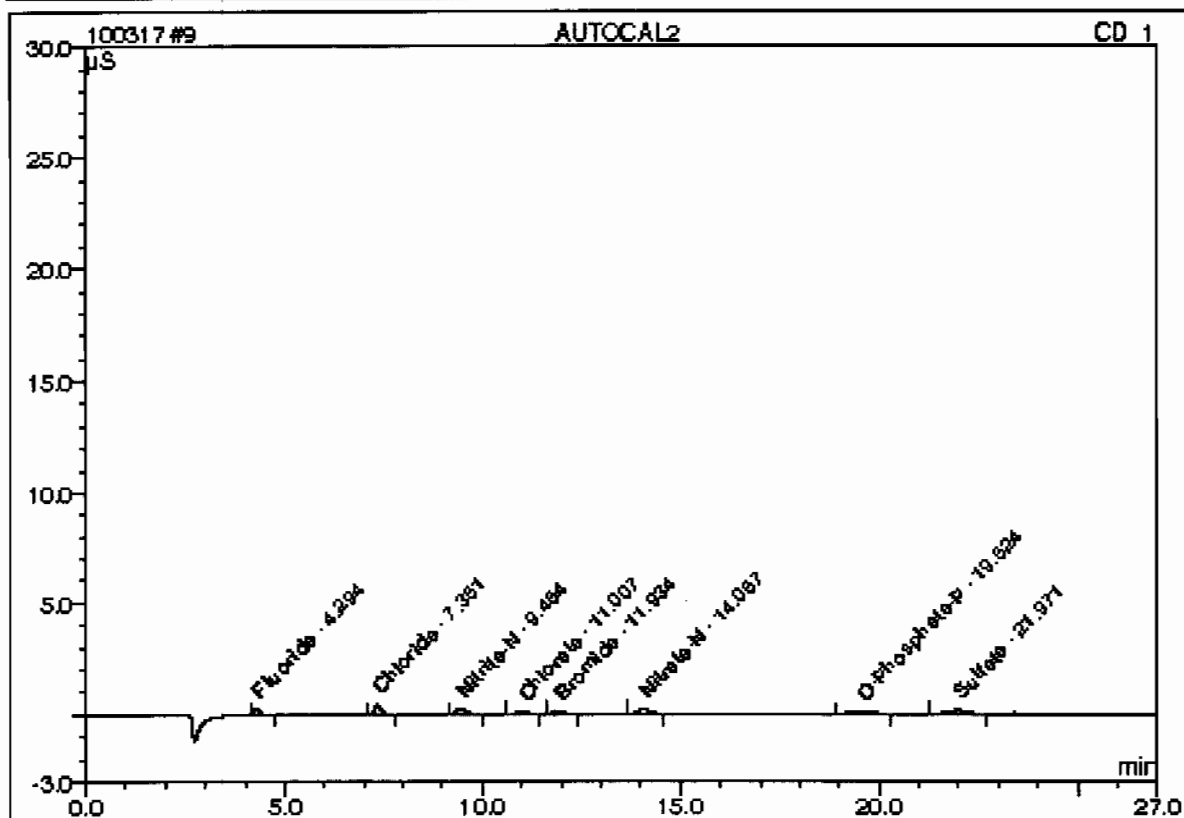


No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.2500	0.2772		0.10608	9.31
2	7.35	Chloride	0.5000	0.6486		0.16371	14.36
3	9.46	Nitrite-N	0.2500	0.3510		0.21980	19.28
4	11.00	Chlorate	0.5000	0.6270		0.07382	6.48
5	11.94	Bromide	0.5000	0.5232		0.06434	5.64
6	14.06	Nitrate-N	0.2500	0.3124		0.17066	14.97
7	19.52	O-Phosphate-P	0.5000	0.5128		0.13076	11.47
8	21.96	Sulfate	1.0000	1.2128		0.21096	18.51
Total:				4.4648	0.000	1.140	100.00



**9 AUTOCAL2**

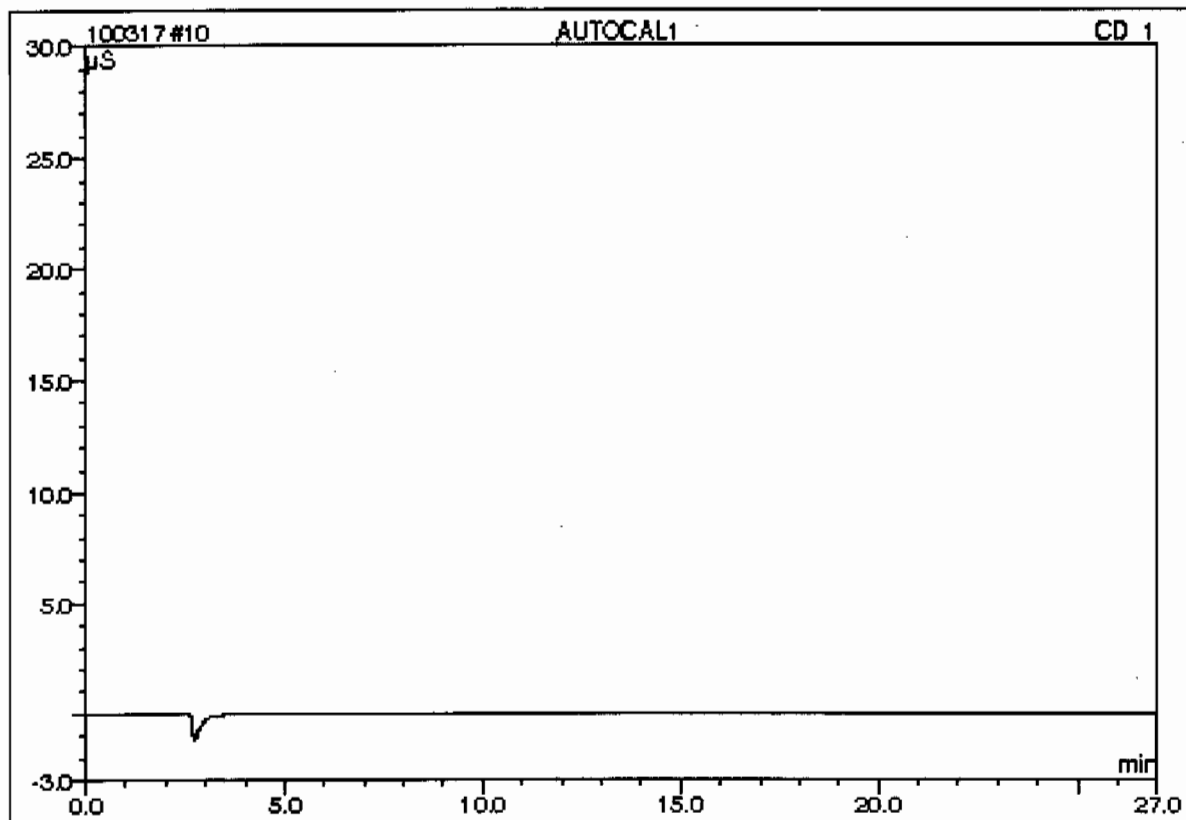
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	9	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 11:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.29	Fluoride	0.1000	0.1392		0.04186	9.37
2	7.35	Chloride	0.2000	0.3749		0.07965	17.83
3	9.46	Nitrite-N	0.1000	0.1279		0.06080	13.61
4	11.01	Chlorate	0.2000	0.1981		0.02196	4.92
5	11.93	Bromide	0.2000	0.2157		0.02531	5.67
6	14.07	Nitrate-N	0.1000	0.1723		0.06679	14.95
7	19.52	O-Phosphate-P	0.2000	0.2351		0.06039	13.52
8	21.97	Sulfate	0.4000	0.6629		0.08998	20.14
Total:				2.1261	0.000	0.447	100.00

**10 AUTOCAL1**

Sample Name:	AUTOCAL1	Injection Volume:	50.0
Vial Number:	10	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**10 AUTOCAL1**

Sample Name: AUTOCAL1

Vial Number: 10

Sample Type: standard

Control Program: AS23

Quantif. Method: 100317an

Recording Time: 3/17/2010 13:14

Run Time (min): 27.00

Injection Volume: 50.0

Channel: CD\_1

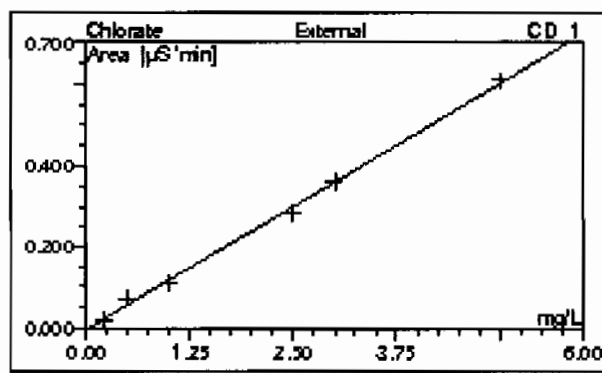
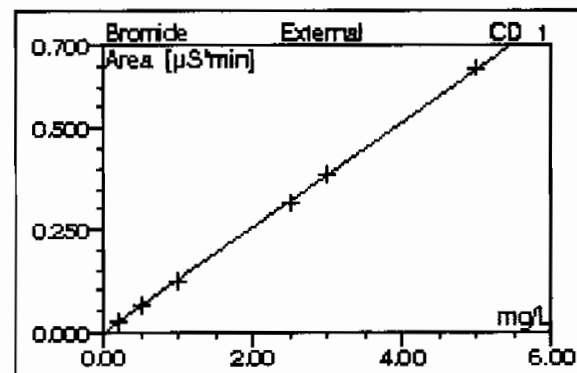
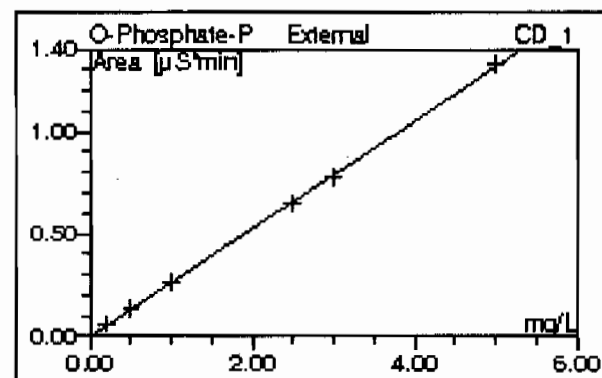
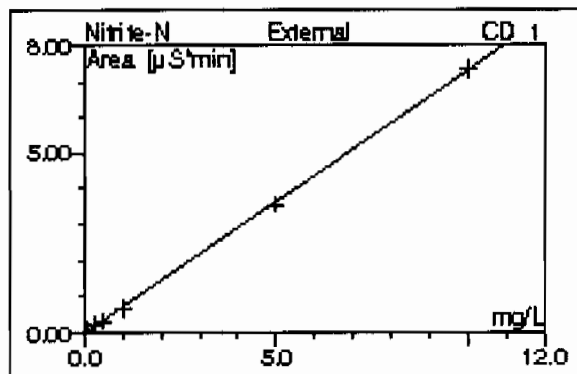
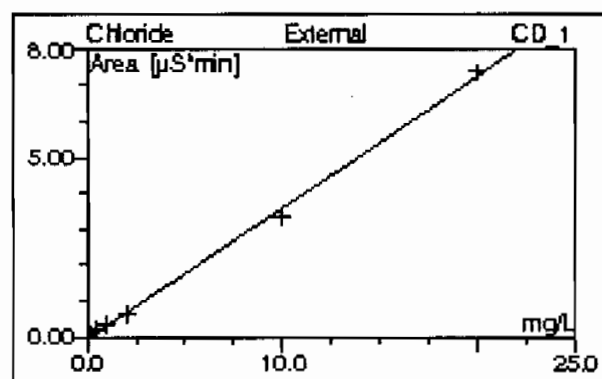
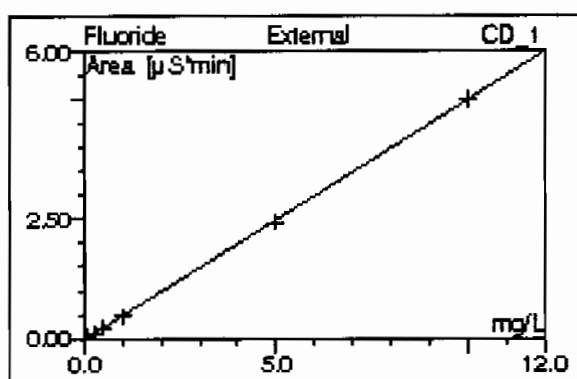
Dilution Factor: 1.0000

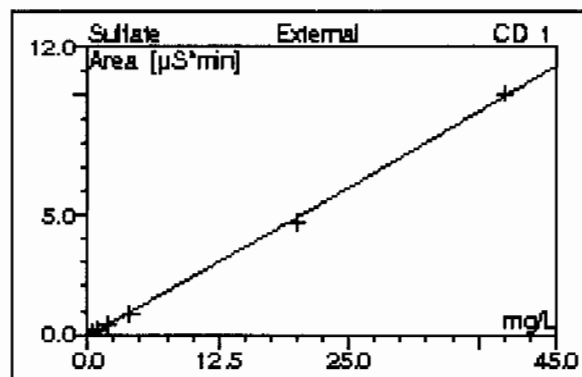
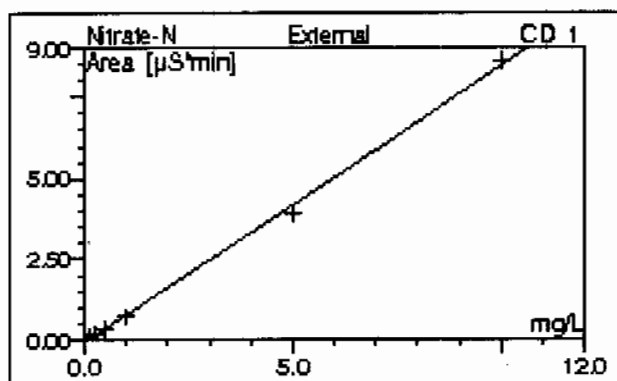
Sample Weight: 1.0000

Sample Amount: 1.0000

Analyst: GXM3

Column: AS23-002714;GLGCE086;300;9056





No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOH	99.9751	-0.0280	0.5015	0.0000
n.a.	n.a.	Chloride	0LOH	99.8150	-0.0574	0.3656	0.0000
n.a.	n.a.	Nitrite-N	0LOH	99.9510	-0.0332	0.7348	0.0000
n.a.	n.a.	Chlorate	0LOH	99.7338	-0.0020	0.1208	0.0000
n.a.	n.a.	Bromide	0LOH	99.9700	-0.0025	0.1290	0.0000
n.a.	n.a.	Nitrate-N	0LOH	99.8613	-0.0800	0.8518	0.0000
n.a.	n.a.	O-Phosphate-P	0LOH	99.9667	-0.0017	0.2641	0.0000
n.a.	n.a.	Sulfate	0LOH	99.8983	-0.0758	0.2500	0.0000
Average:				99.8964	-0.0351	0.4022	0.0000

This is runlog for Sequence 100317.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/17/10 08:45		1	100317	GXM3
ICAL-07	03/17/10 09:15		1	100317	GXM3
ICAL-06	03/17/10 09:45		1	100317	GXM3
ICAL-05	03/17/10 10:15		1	100317	GXM3
ICAL-04	03/17/10 10:45		1	100317	GXM3
ICAL-03	03/17/10 11:15		1	100317	GXM3
ICAL-02	03/17/10 11:45		1	100317	GXM3
ICAL-01	03/17/10 13:14		1	100317	GXM3
ICV	03/17/10 13:43		1	100317	GXM3
ICB	03/17/10 14:12		1	100317	GXM3
1202066399	03/17/10 14:42	963224	1	100317	GXM3
1202066402	03/17/10 15:11	963224	1	100317	GXM3
247261004	03/17/10 15:41	963224	1	100317	GXM3
1202066400	03/17/10 16:11	963224	1	100317	GXM3
1202066401	03/17/10 16:41	963224	1	100317	GXM3
247431002	03/17/10 17:10	963224	1	100317	GXM3
247817001	03/17/10 17:40	963224	1	100317	GXM3
247829001	03/17/10 18:10	963224	1	100317	GXM3
248024002	03/17/10 18:40	963224	1	100317	GXM3
248024004	03/17/10 19:10	963224	1	100317	GXM3
CVH	03/17/10 19:40		1	100317	GXM3
CCB	03/17/10 20:10		1	100317	GXM3
1202063619	03/17/10 20:39	962082	1	100317	GXM3
1202063626	03/17/10 21:09	962082	1	100317	GXM3
248666001	03/17/10 21:39	962082	1	100317	GXM3
1202063620	03/17/10 22:09	962082	1	100317	GXM3
1202063622	03/17/10 22:39	962082	1	100317	GXM3
1202063624	03/17/10 23:09	962082	1	100317	GXM3

248666002

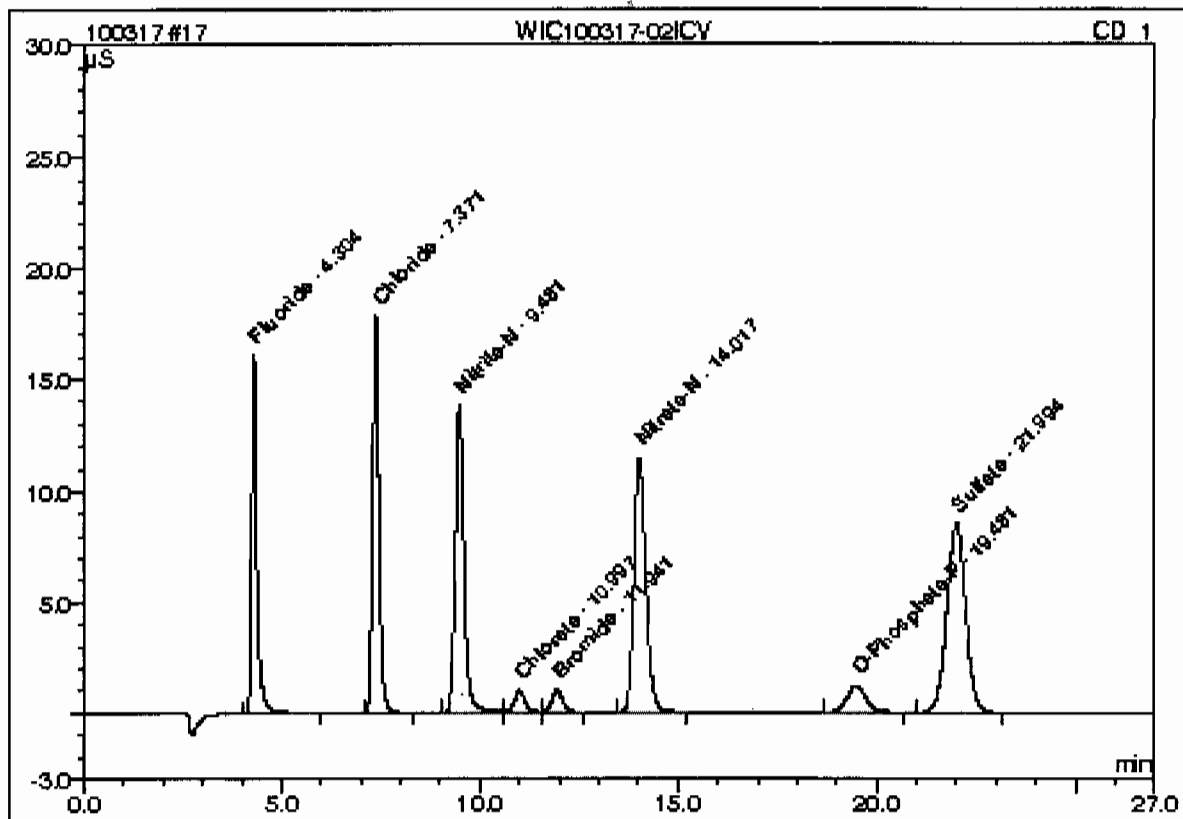
03/17/10 23:39 962082 1

100317

GXM3

**17 WIC100317-02ICV**

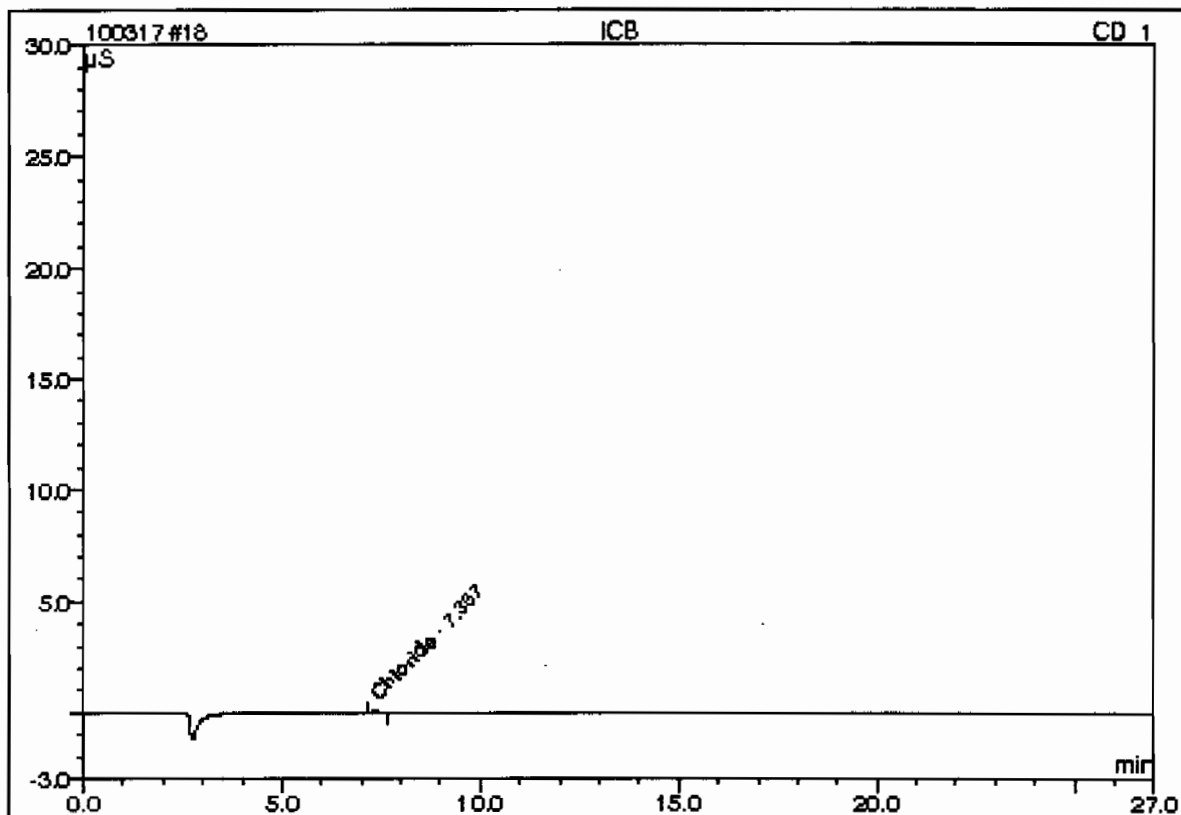
Sample Name:	WIC100317-02ICV	Injection Volume:	50.0
Vial Number:	11	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 13:43	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9617		2.46032	12.79
2	7.37	Chloride	n.a.	9.3464		3.35930	17.46
3	9.48	Nitrite-N	n.a.	4.8136		3.50372	18.21
4	11.00	Chlorate	n.a.	2.4909		0.29883	1.55
5	11.94	Bromide	n.a.	2.4926		0.31900	1.66
6	14.02	Nitrate-N	n.a.	4.7581		3.97314	20.65
7	19.48	O-Phosphate-P	n.a.	2.5072		0.66041	3.43
8	21.99	Sulfate	n.a.	18.9605		4.66474	24.25
Total:				50.3309	0.000	19.239	100.00

**18 ICB**

Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	12	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/17/2010 14:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.36	Chloride	n.a.	0.1862		0.01068	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1862	0.000	0.011	100.00



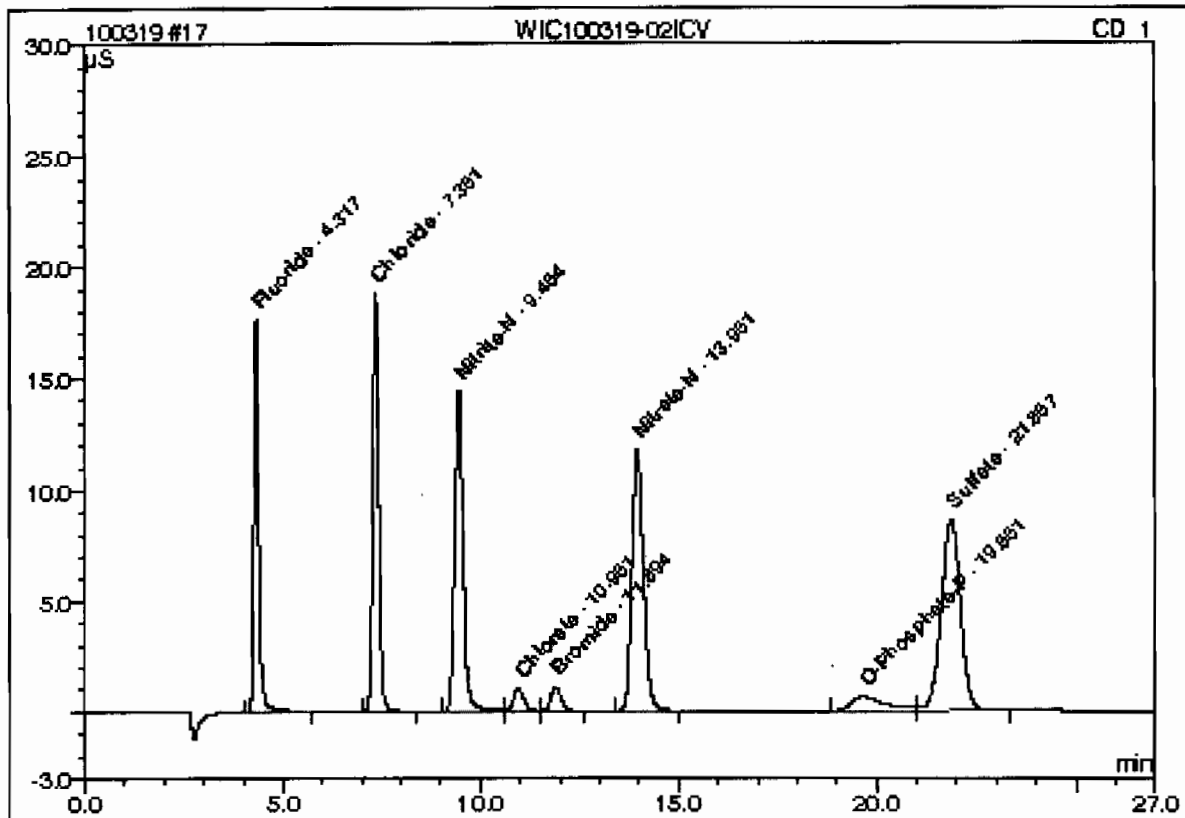
This is runlog for Sequence 100319.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/19/10 08:40		1	100319	GXM3
BLK	03/19/10 09:09		1	100319	GXM3
BLK	03/19/10 09:39		1	100319	GXM3
ICV	03/19/10 10:09		1	100319	GXM3
ICB	03/19/10 10:39		1	100319	GXM3
247283001	03/19/10 11:09	963203	5000	100319	GXM3
1202066345	03/19/10 11:38	963203	5000	100319	GXM3
1202066346	03/19/10 12:08	963203	5000	100319	GXM3
1202066347	03/19/10 12:38	963203	5000	100319	GXM3
CCV	03/19/10 13:08		1	100319	GXM3
CCB	03/19/10 13:38		1	100319	GXM3
1202076083	03/19/10 14:08	967294	1	100319	GXM3
1202076084	03/19/10 14:38	967294	1	100319	GXM3
249328001	03/19/10 15:08	967294	1	100319	GXM3
1202076085	03/19/10 15:38	967294	1	100319	GXM3
1202076086	03/19/10 16:07	967294	1	100319	GXM3
CVH	03/19/10 16:37		1	100319	GXM3
CCB	03/19/10 17:07		1	100319	GXM3
1202063598	03/19/10 17:36	962075	1	100319	GXM3
1202063605	03/19/10 18:06	962075	1	100319	GXM3
248045001	03/19/10 18:36	962075	1	100319	GXM3
1202063599	03/19/10 19:06	962075	1	100319	GXM3
1202063601	03/19/10 19:36	962075	1	100319	GXM3
1202063603	03/19/10 20:06	962075	1	100319	GXM3
248045002	03/19/10 20:36	962075	1	100319	GXM3
248045003	03/19/10 21:06	962075	1	100319	GXM3
248045004	03/19/10 21:36	962075	1	100319	GXM3
248045005	03/19/10 22:06	962075	1	100319	GXM3

CCV	03/19/10 22:35	1	100319	GXM3
CCB	03/19/10 23:05	1	100319	GXM3
248045006	03/19/10 23:35 962075 1		100319	GXM3

**17 WIC100319-02ICV**

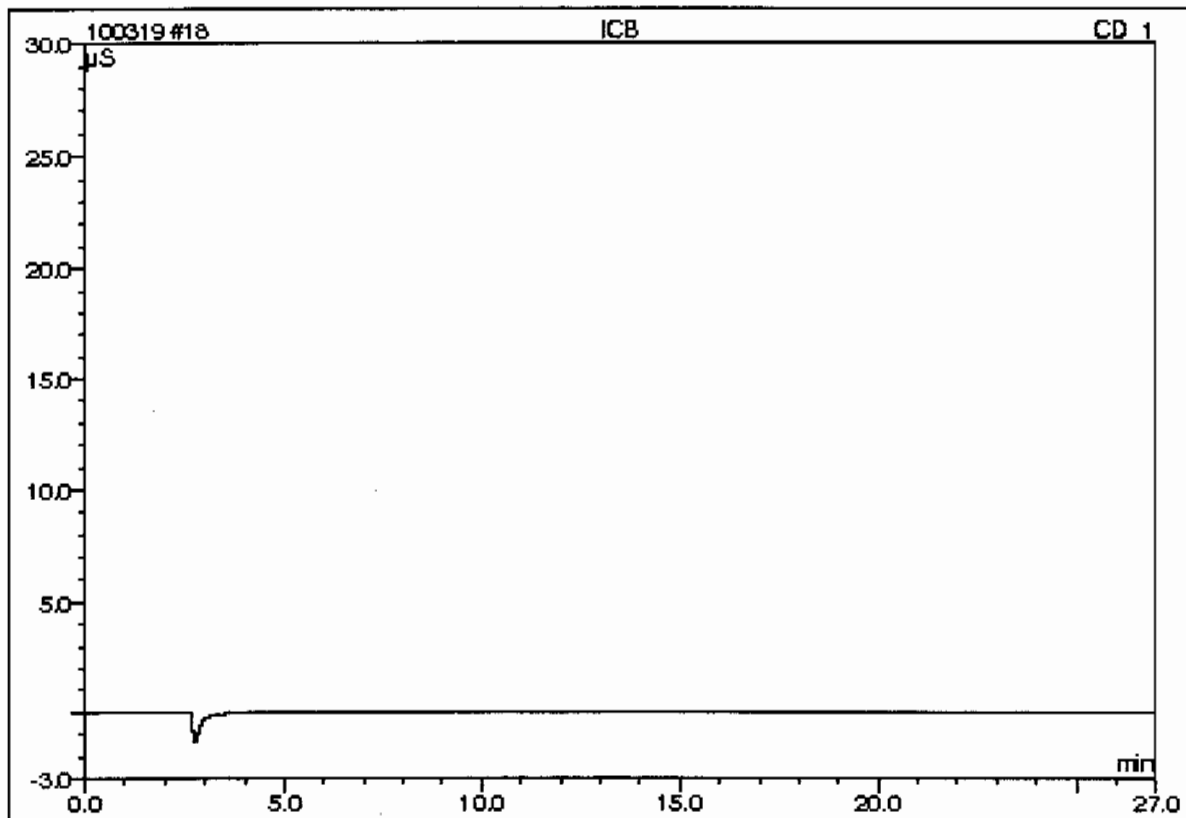
Sample Name:	WIC100319-02ICV	Injection Volume:	50.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 10:09	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	n.a.	5.0402		2.49968	12.89
2	7.36	Chloride	n.a.	9.4058		3.36100	17.44
3	9.45	Nitrite-N	n.a.	4.8047		3.49721	18.04
4	10.95	Chlorate	n.a.	2.4960		0.29944	1.54
5	11.89	Bromide	n.a.	2.5073		0.32090	1.66
6	13.95	Nitrate-N	n.a.	4.7643		3.97845	20.52
7	19.66	O-Phosphate-P	n.a.	2.3704		0.62430	3.22
8	21.86	Sulfate	n.a.	19.4456		4.78603	24.69
Total:				50.8343	0.000	19.387	100.00

**18 ICB**

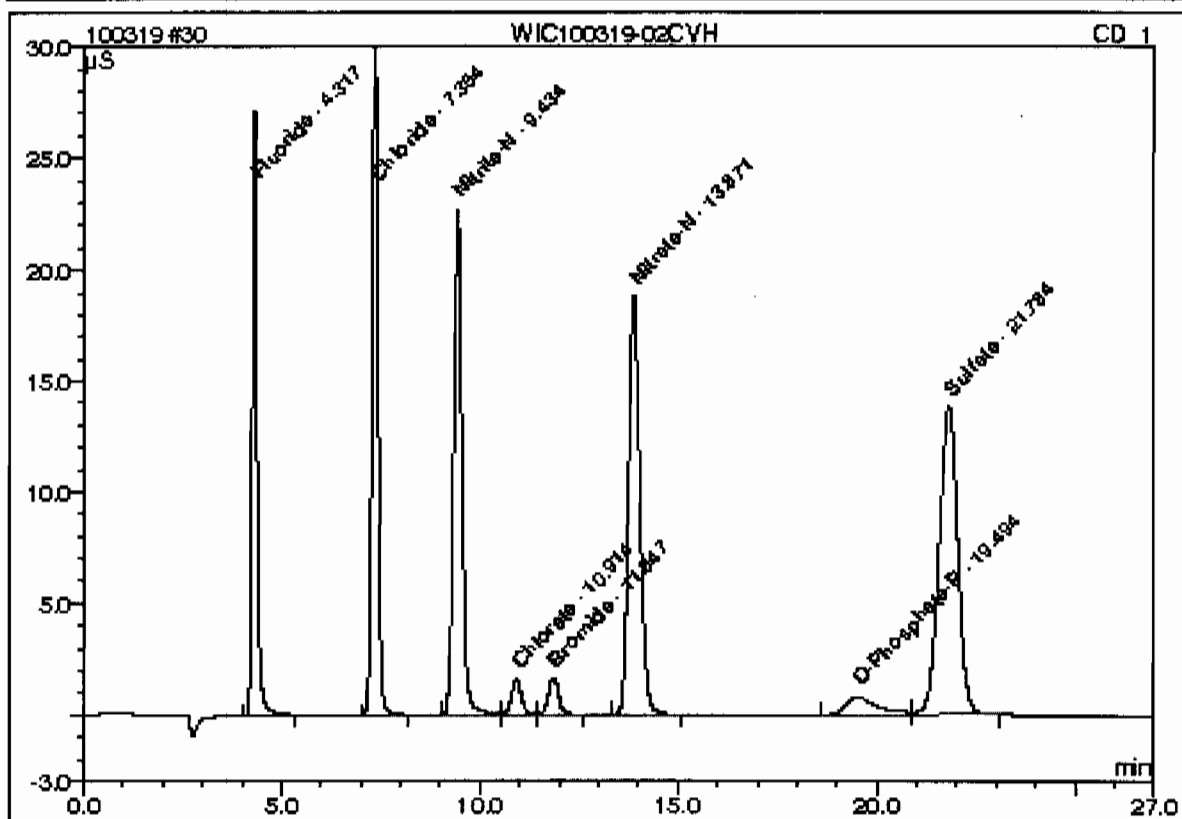
Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	5	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 10:39	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**30 WIC100319-02CVH**

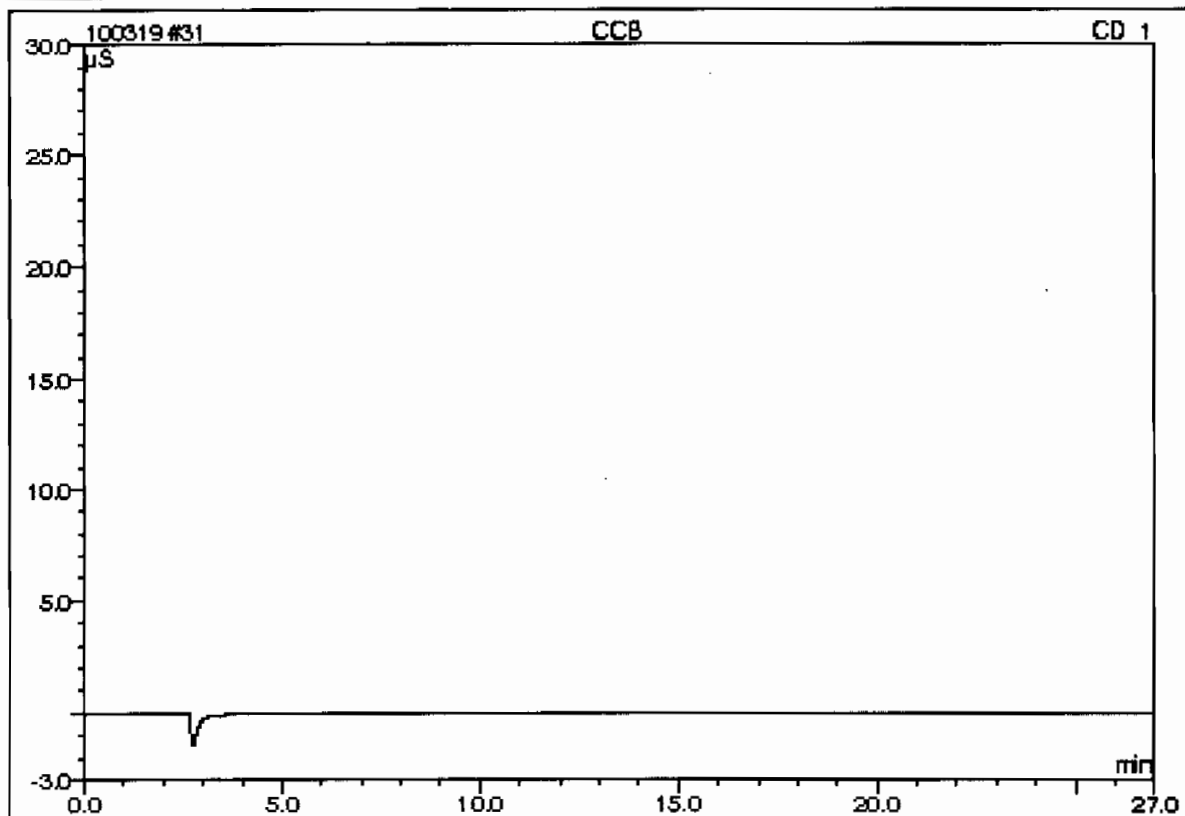
Sample Name:	WIC100319-02CVH	Injection Volume:	50.0
Vial Number:	17	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 16:37	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	n.a.	7.7028		3.83497	12.70
2	7.35	Chloride	n.a.	14.9146		5.39479	17.87
3	9.43	Nitrite-N	n.a.	7.5245		5.49568	18.20
4	10.91	Chlorate	n.a.	3.8382		0.46152	1.53
5	11.85	Bromide	n.a.	3.8140		0.48945	1.62
6	13.87	Nitrate-N	n.a.	7.4808		6.29243	20.84
7	19.49	O-Phosphate-P	n.a.	2.8497		0.75087	2.49
8	21.78	Sulfate	n.a.	30.1970		7.47408	24.75
Total:				78.3215	0.000	30.194	100.00

**31 CCB**

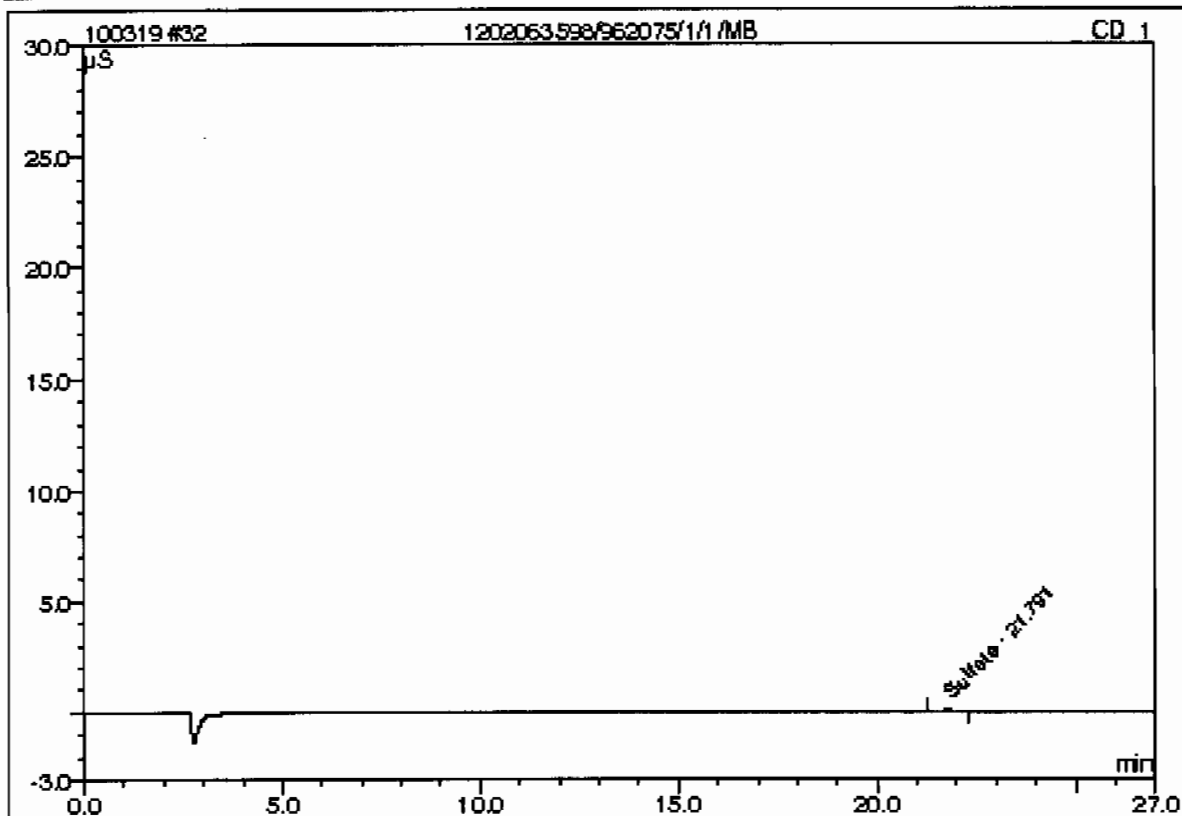
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	18	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 17:07	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**32 1202063598/962075/1/1/MB**

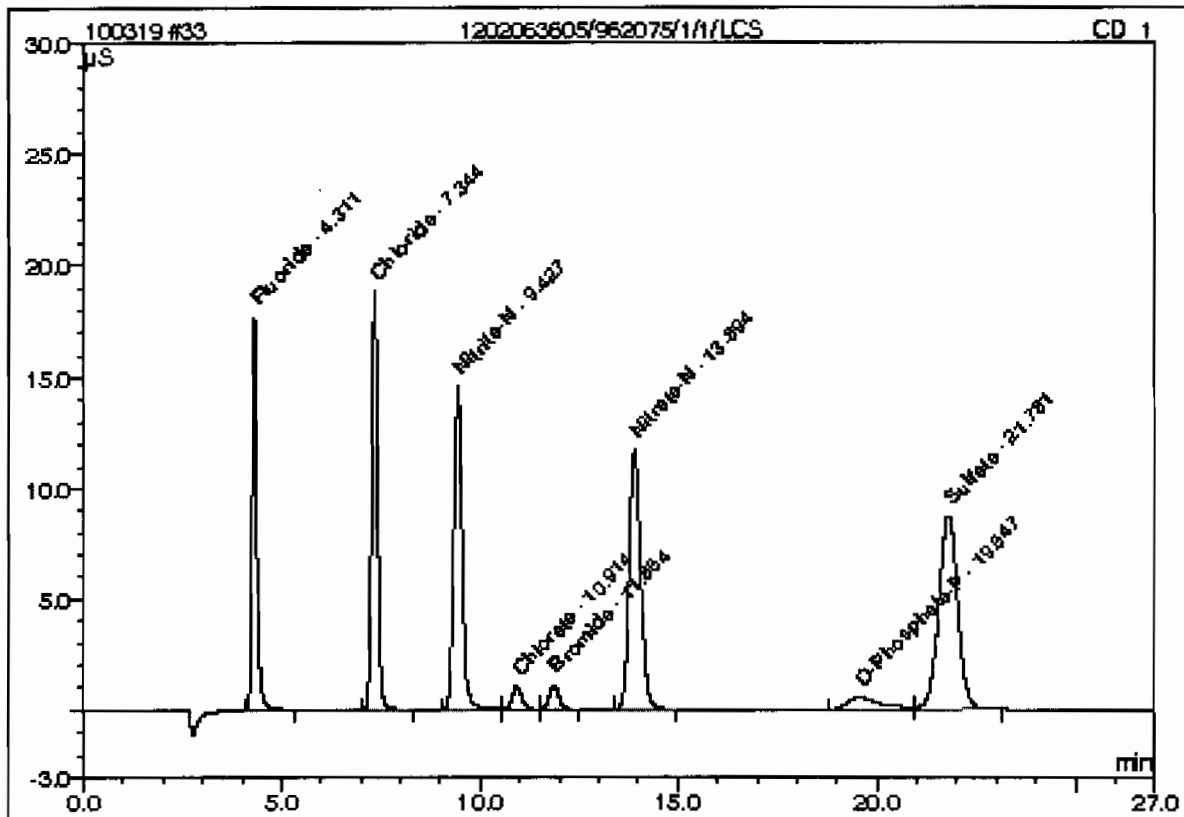
Sample Name:	1202063598/962075/1/1/MB	Injection Volume:	50.0
Vial Number:	19	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 17:36	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.79	Sulfate	n.a.	0.3789		0.01898	100.00
Total:				0.3789	0.000	0.019	100.00

**33 1202063605/962075/1/1/LCS**

Sample Name:	1202063605/962075/1/1/LCS	Injection Volume:	50.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 16:06	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

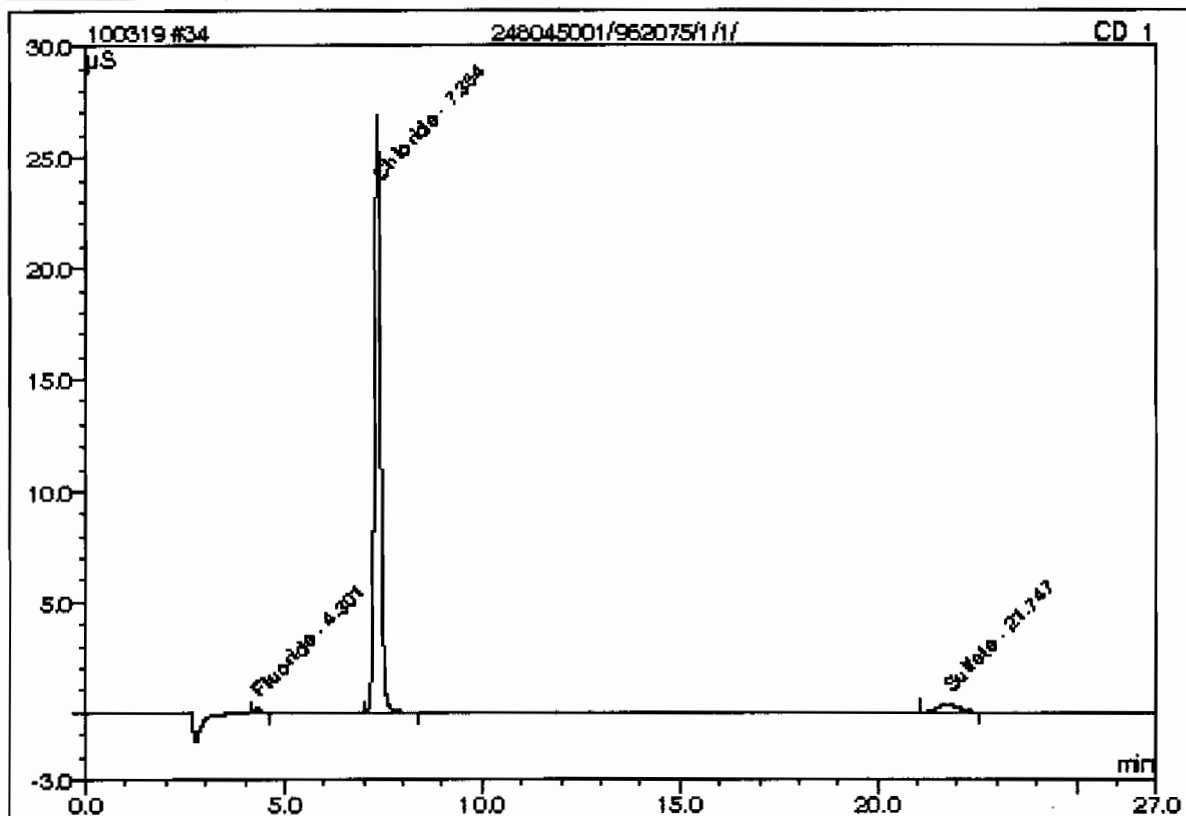


No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.9977		2.47840	12.85
2	7.34	Chloride	n.a.	9.4084		3.38194	17.53
3	9.43	Nitrite-N	n.a.	4.8622		3.53949	18.35
4	10.91	Chlorate	n.a.	2.4820		0.29776	1.54
5	11.85	Bromide	n.a.	2.4953		0.31936	1.66
6	13.89	Nitrate-N	n.a.	4.7389		3.95684	20.51
7	19.55	O-Phosphate-P	n.a.	2.0254		0.53318	2.76
8	21.78	Sulfate	n.a.	19.4461		4.78614	24.81
Total:				50.4561	0.000	19.293	100.00



**34 248045001/962075/1/1/**

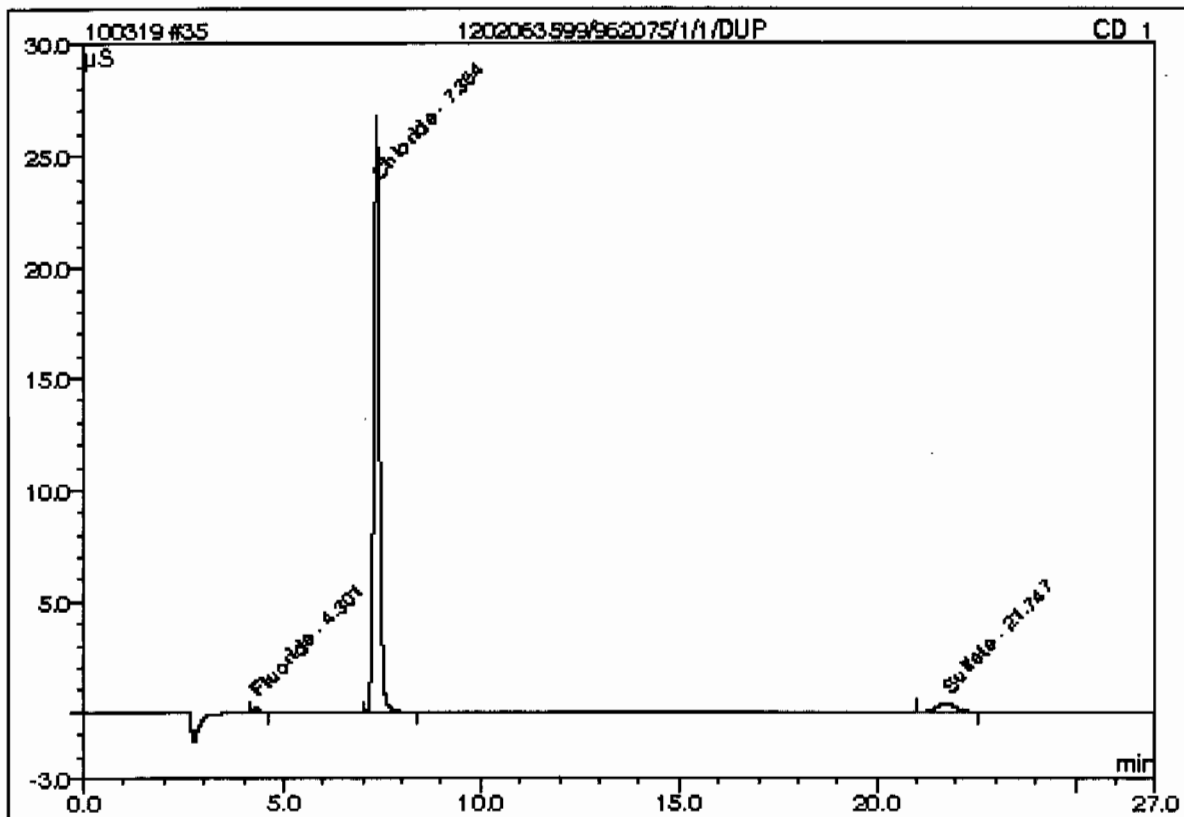
Sample Name:	248045001/962075/1/1/	Injection Volume:	50.0
Vial Number:	21	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 18:36	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1217		0.03305	0.66
2	7.35	Chloride	n.a.	13.1701		4.75709	95.34
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.75	Sulfate	n.a.	1.0999		0.19922	3.99
Total:				14.3917	0.000	4.989	100.00

**35 1202063599/962075/1/1/DUP**

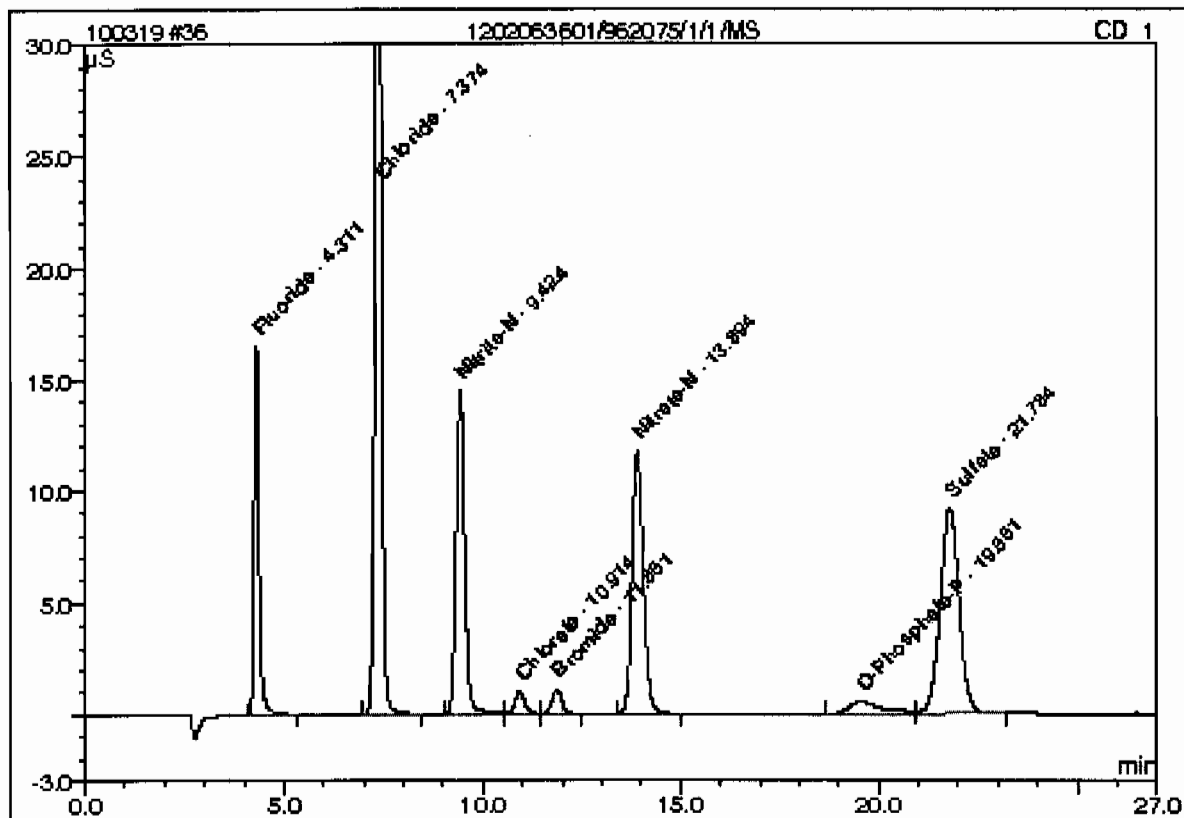
Sample Name:	1202063599/962075/1/1/DUP	Injection Volume:	50.0
Vial Number:	22	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 19:06	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.1174		0.03091	0.62
2	7.35	Chloride	n.a.	13.1246		4.74043	95.37
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.75	Sulfate	n.a.	1.1009		0.19947	4.01
Total:				14.3428	0.000	4.971	100.00

**36 1202063601/962075/1/1/MS**

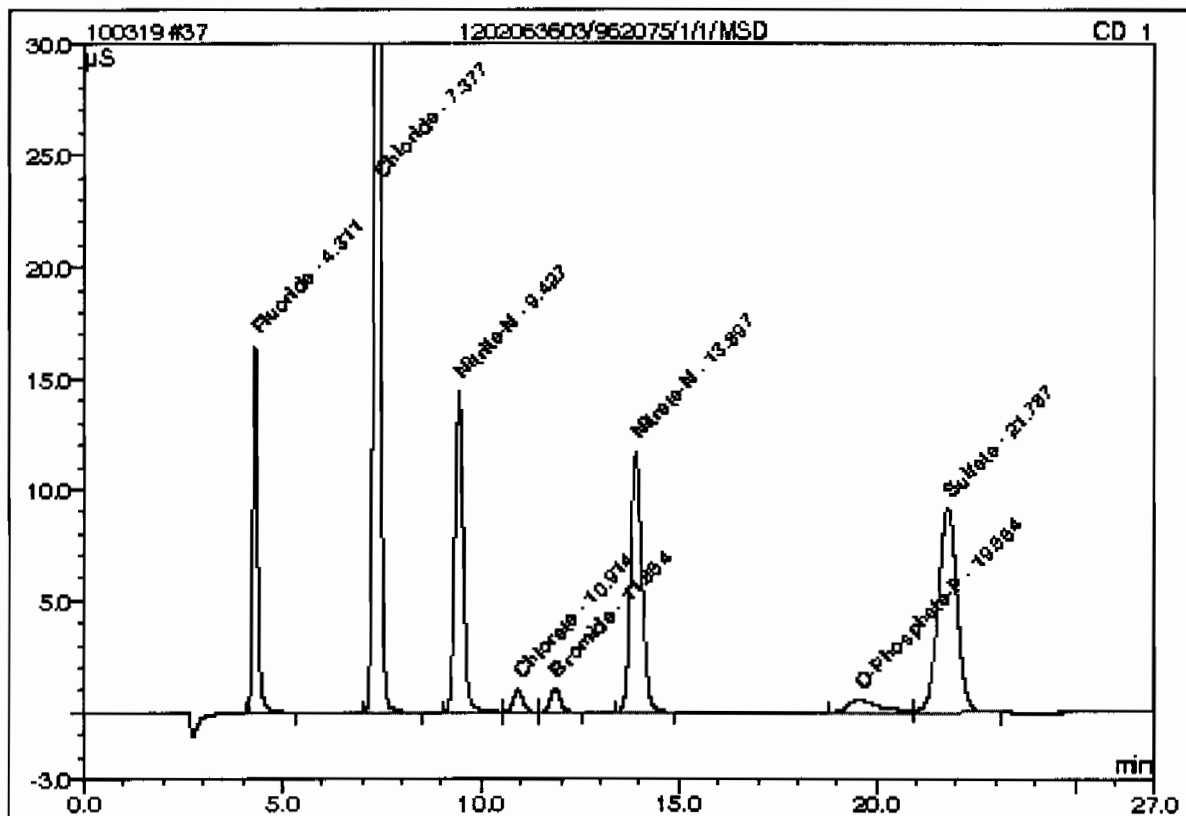
Sample Name:	1202063601/962075/1/1/MS	Injection Volume:	50.0
Vial Number:	23	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 19:36	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.7225		2.34035	9.32
2	7.37	Chloride	n.a.	25.3090		9.19457	36.62
3	9.42	Nitrite-N	n.a.	4.8070		3.49893	13.93
4	10.91	Chlorate	n.a.	2.4540		0.29437	1.17
5	11.85	Bromide	n.a.	2.4626		0.31514	1.26
6	13.89	Nitrate-N	n.a.	4.7123		3.93417	15.67
7	19.55	O-Phosphate-P	n.a.	1.9982		0.52599	2.09
8	21.78	Sulfate	n.a.	20.3246		5.00579	19.94
Total:				66.7901	0.000	25.109	100.00

**37 1202063603/962075/1/1/MSD**

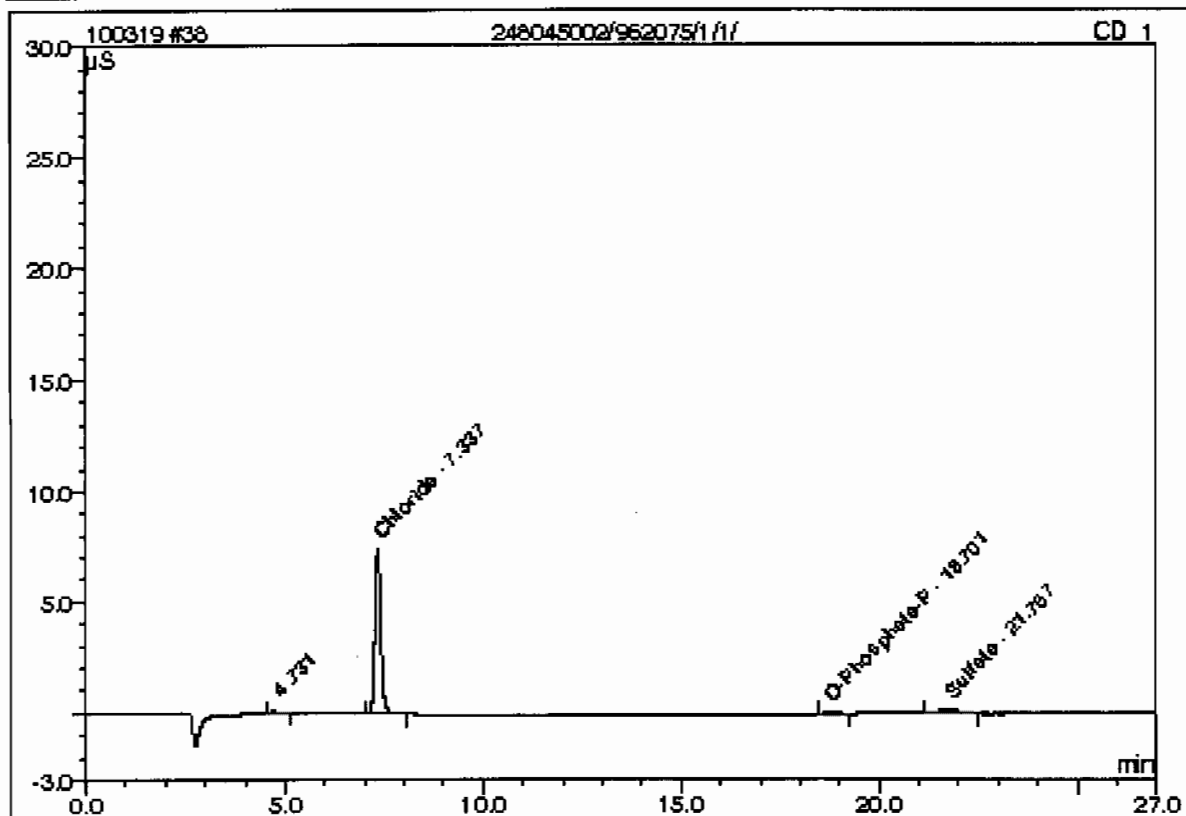
Sample Name:	1202063603/962075/1/1/MSD	Injection Volume:	50.0
Vial Number:	24	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 20:06	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %
1	4.31	Fluoride	n.a.	4.7090		2.33361	9.31
2	7.38	Chloride	n.a.	25.3060		9.19349	36.66
3	9.43	Nitrate-N	n.a.	4.8096		3.50081	13.96
4	10.91	Chlorate	n.a.	2.4680		0.29606	1.18
5	11.85	Bromide	n.a.	2.4630		0.31518	1.26
6	13.90	Nitrate-N	n.a.	4.7022		3.92551	15.65
7	19.55	O-Phosphate-P	n.a.	1.9818		0.52167	2.08
8	21.79	Sulfate	n.a.	20.2691		4.99191	19.91
Total:				66.7087	0.000	25.078	100.00

**38 248045002/962075/1/1/**

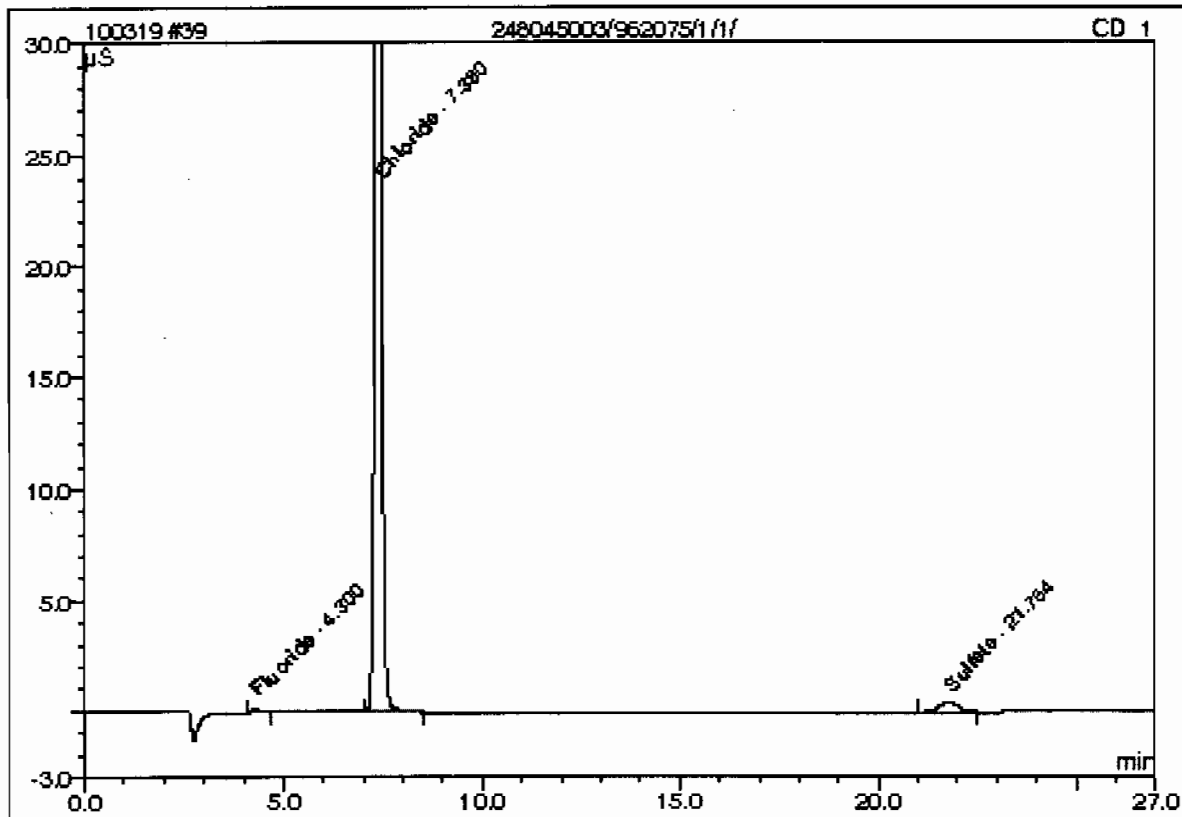
Sample Name:	248045002/962075/1/1/	Injection Volume:	50.0
Vial Number:	25	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 20:36	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
2	7.34	Chloride	n.a.	3.8616		1.35426	90.56
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	18.70	O-Phosphate-P	n.a.	0.0708		0.01701	1.14
4	21.78	Sulfate	n.a.	0.7290		0.10651	7.12
Total:				4.6614	0.000	1.478	98.82

**39 248045003/962075/1/1/**

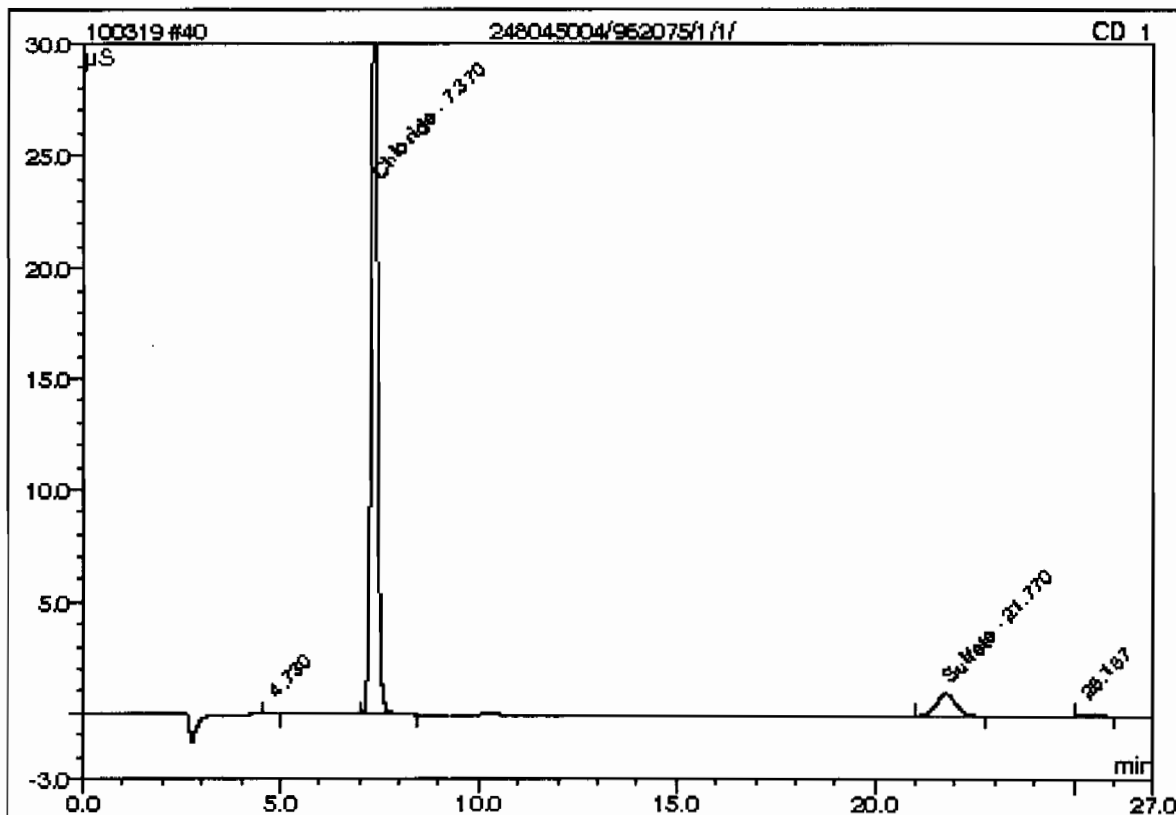
Sample Name:	248045003/962075/1/1/	Injection Volume:	50.0
Vial Number:	26	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 21:06	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.1217		0.03305	0.34
2	7.38	Chloride	n.a.	25.8561		9.39457	97.22
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.76	Sulfate	n.a.	1.2450		0.23551	2.44
Total:				27.2227	0.000	9.663	100.00

**40 248045004/962075/1/1/**

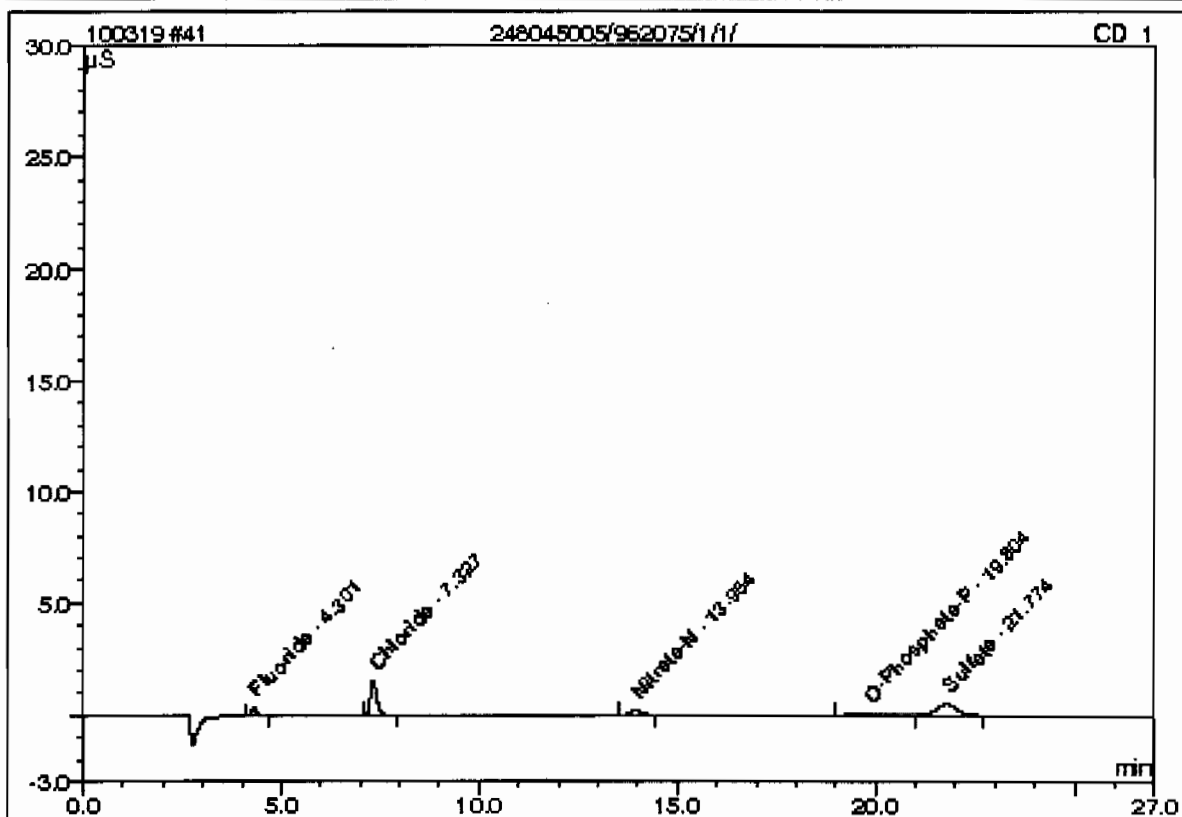
Sample Name:	248045004/962075/1/1/	Injection Volume:	50.0
Vial Number:	27	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 21:36	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
2	7.37	Chloride	n.a.	19.1331		6.93693	92.18
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.77	Sulfate	n.a.	2.4830		0.54505	7.24
Total:				21.6162	0.000	7.482	99.42

**41 248045005/962075/1/1/**

Sample Name:	248045005/962075/1/1/	Injection Volume:	50.0
Vial Number:	28	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 22:08	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086; 300; 9056

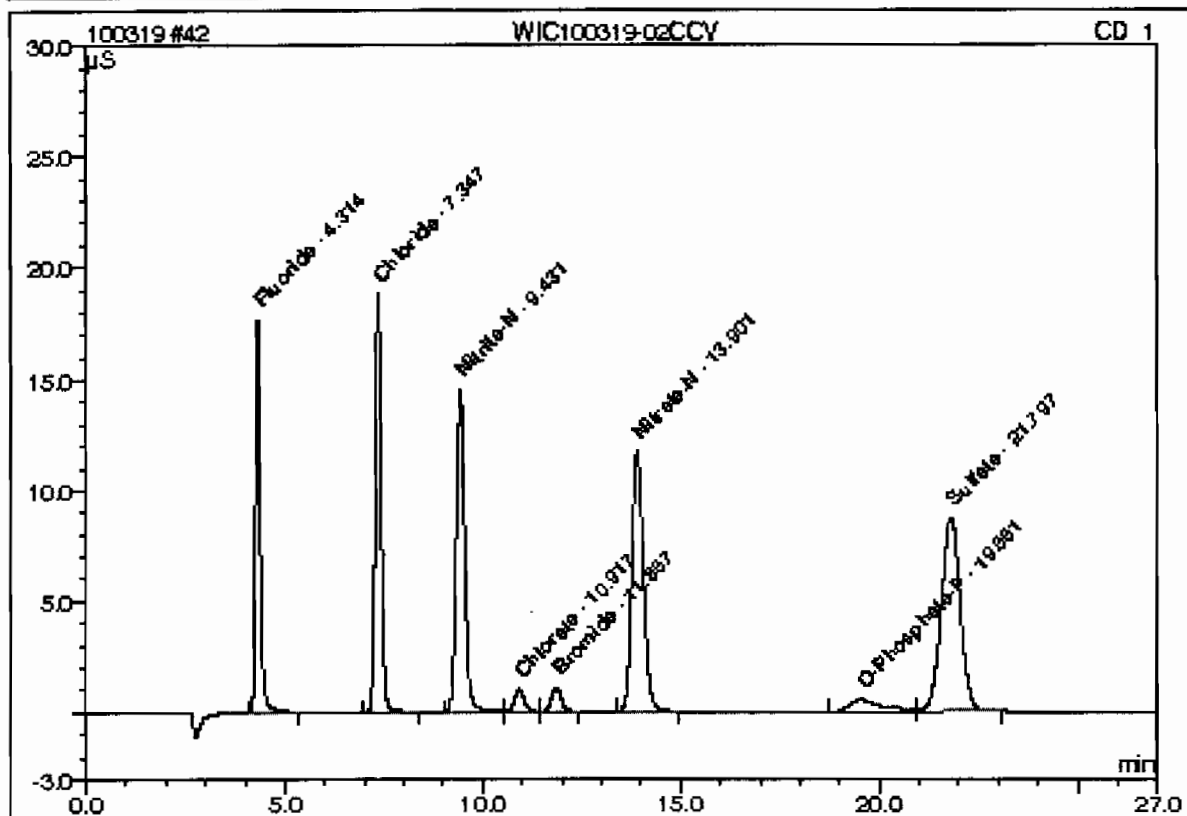


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1572		0.05085	6.07
2	7.33	Chloride	n.a.	0.9332		0.28375	33.87
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.95	Nitrate-N	n.a.	0.1720		0.06651	7.94
4	19.80	O-Phosphate-P	n.a.	0.3749		0.09731	11.61
5	21.77	Sulfate	n.a.	1.6606		0.33943	40.51
Total:				3.2979	0.000	0.838	100.00



**42 WIC100319-02CCV**

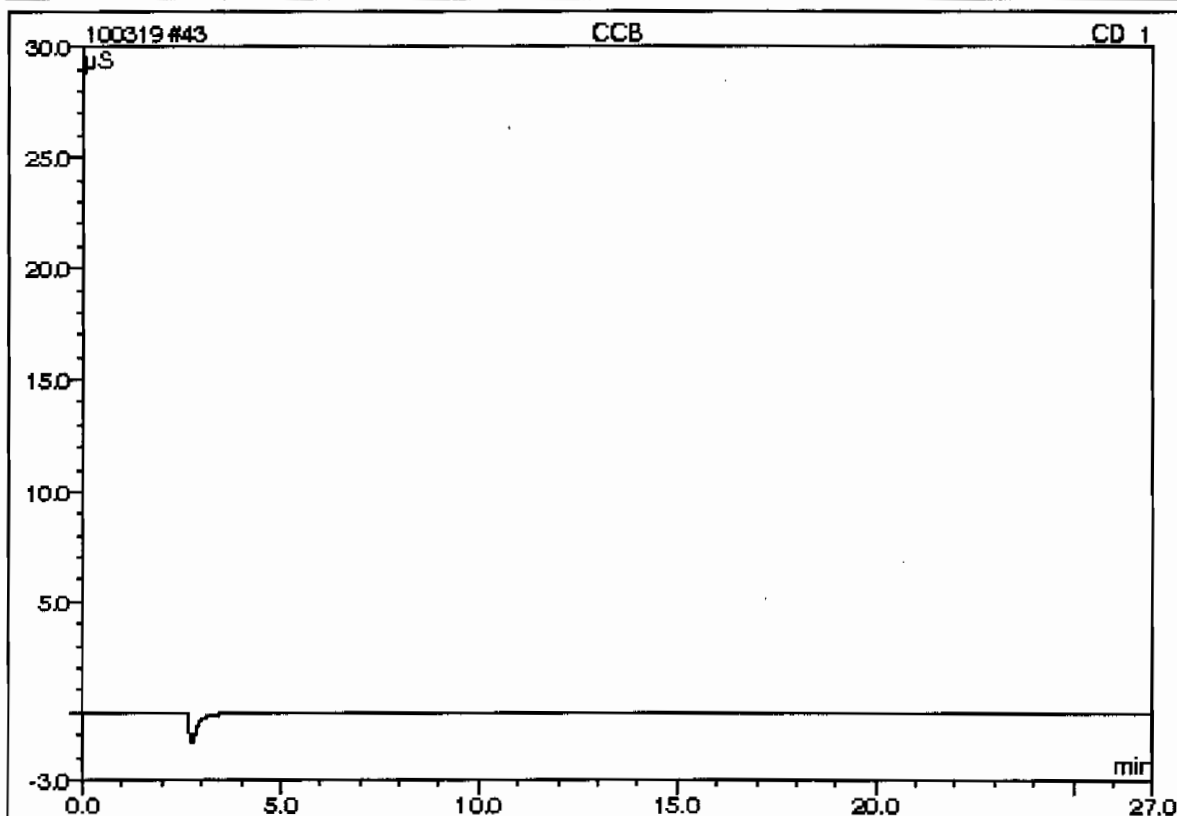
Sample Name:	WIC100319-02CCV	Injection Volume:	50.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 22:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.31	Fluoride	n.a.	5.0015		2.48030	12.90
2	7.35	Chloride	n.a.	9.4122		3.38334	17.59
3	9.43	Nitrite-N	n.a.	4.8548		3.53403	18.38
4	10.92	Chlorate	n.a.	2.4454		0.29333	1.53
5	11.86	Bromide	n.a.	2.4755		0.31680	1.65
6	13.90	Nitrate-N	n.a.	4.7359		3.95427	20.56
7	19.55	O-Phosphate-P	n.a.	1.8621		0.49007	2.55
8	21.80	Sulfate	n.a.	19.4119		4.77760	24.84
Total:				50.1994	0.000	19.230	100.00

**43 CCB**

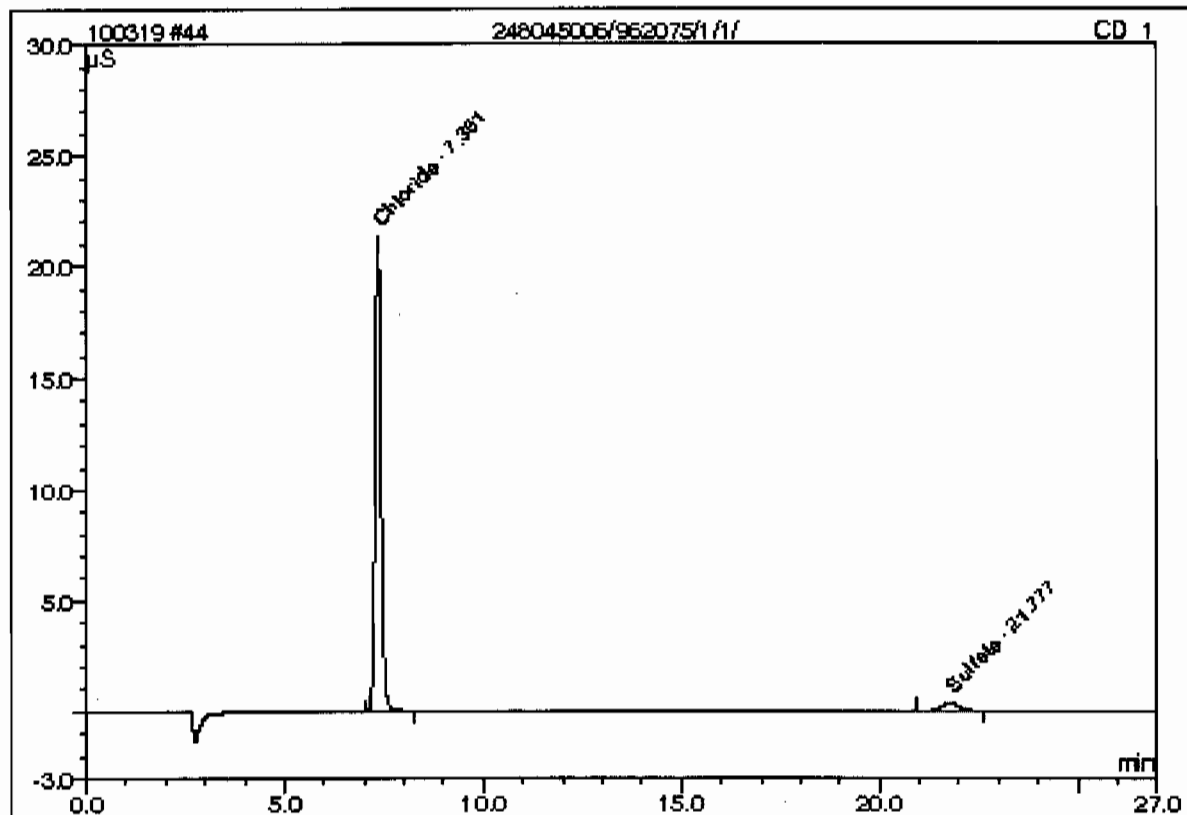
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	30	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 23:05	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**44 248045006/962075/1/1/**

Sample Name:	248045006/962075/1/1/	Injection Volume:	50.0
Vial Number:	31	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/19/2010 23:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



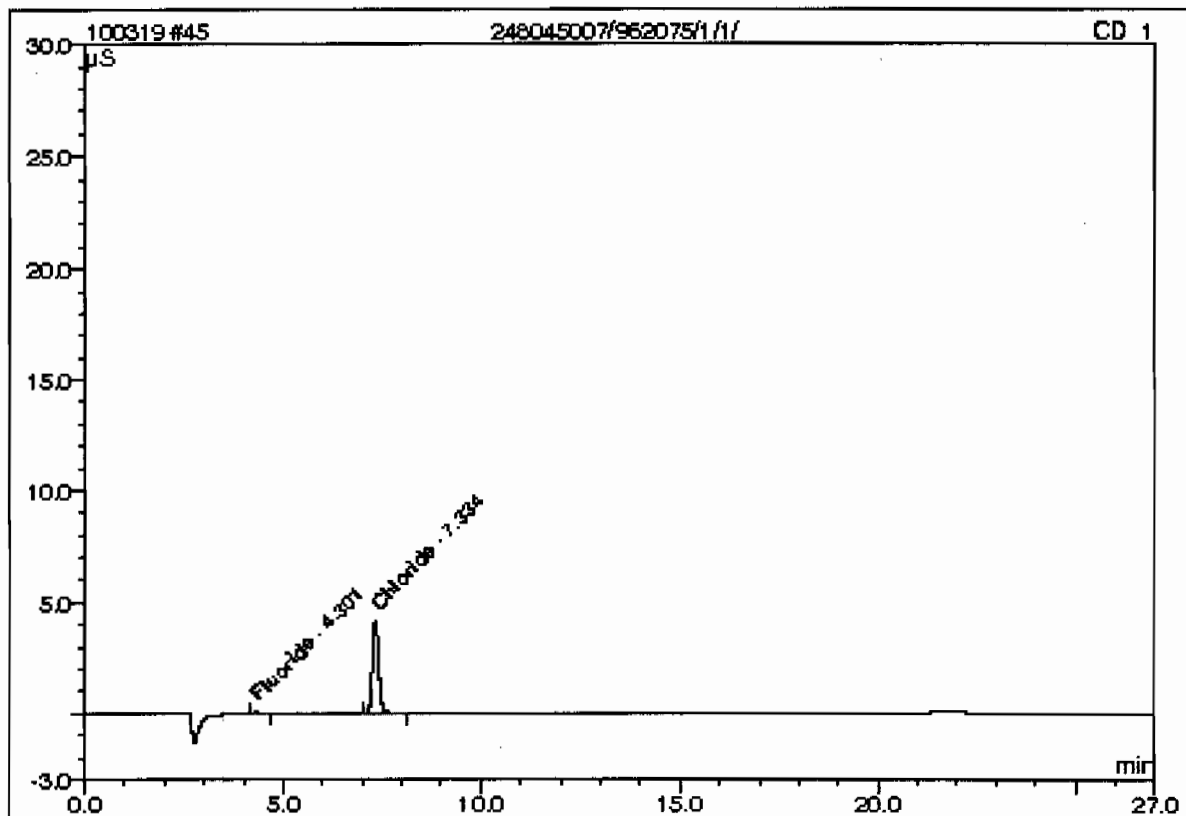
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.35	Chloride	n.a.	10.5348		3.79372	95.58
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	21.78	Sulfate	n.a.	1.0039		0.17524	4.42
Total:				11.5387	0.000	3.969	100.00

This is runlog for Sequence 100319.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248045007	03/20/10 00:05	962075	1	100319	GXM3
248045008	03/20/10 00:35	962075	1	100319	GXM3
248045009	03/20/10 01:05	962075	1	100319	GXM3
248045010	03/20/10 01:35	962075	1	100319	GXM3
248045011	03/20/10 02:05	962075	1	100319	GXM3
248045012	03/20/10 02:35	962075	1	100319	GXM3
248045013	03/20/10 03:05	962075	1	100319	GXM3
248045014	03/20/10 03:35	962075	1	100319	GXM3
248045015	03/20/10 04:04	962075	1	100319	GXM3
CVH	03/20/10 04:34		1	100319	GXM3
CCB	03/20/10 05:04		1	100319	GXM3

**45 248045007/962075/1/1/**

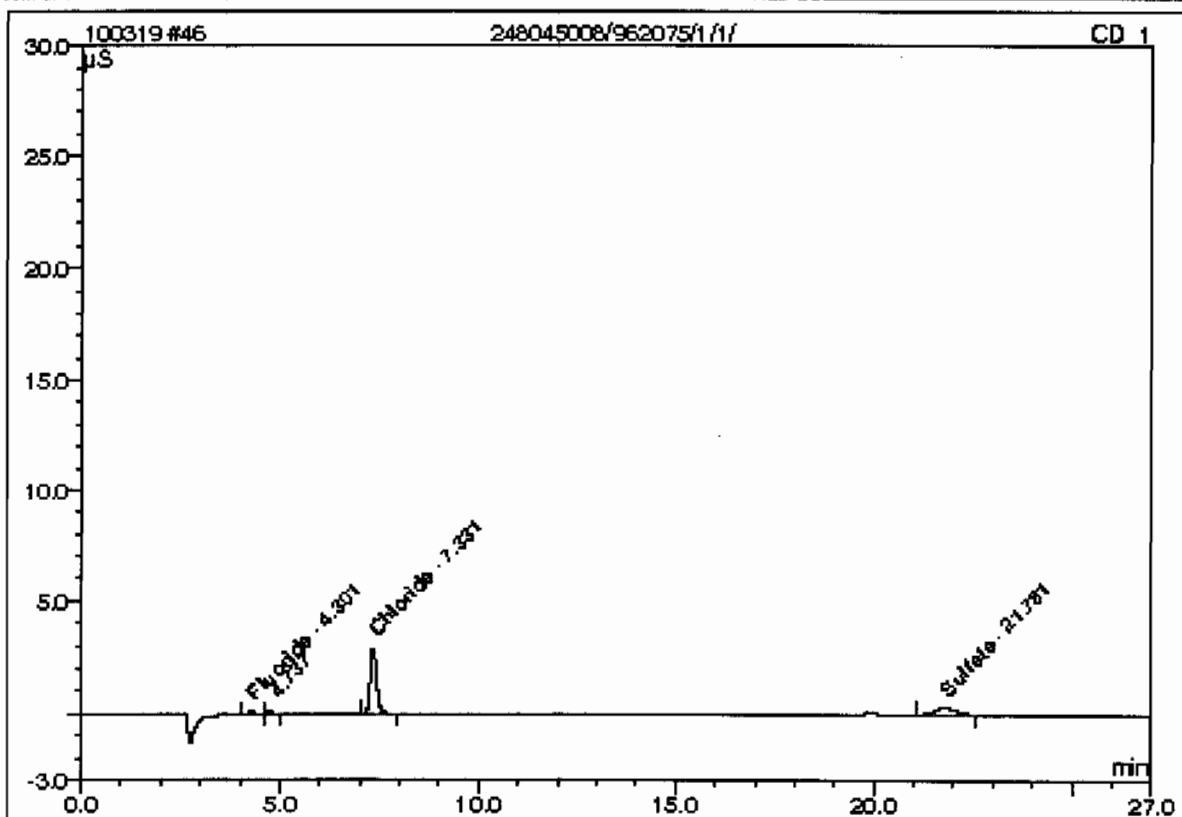
Sample Name:	248045007/962075/1/1/	Injection Volume:	50.0
Vial Number:	32	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 0:05	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.0819		0.01313	1.68
2	7.33	Chloride	n.a.	2.2587		0.76828	98.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				2.3406	0.000	0.781	100.00

**46 248045008/962075/1/1/**

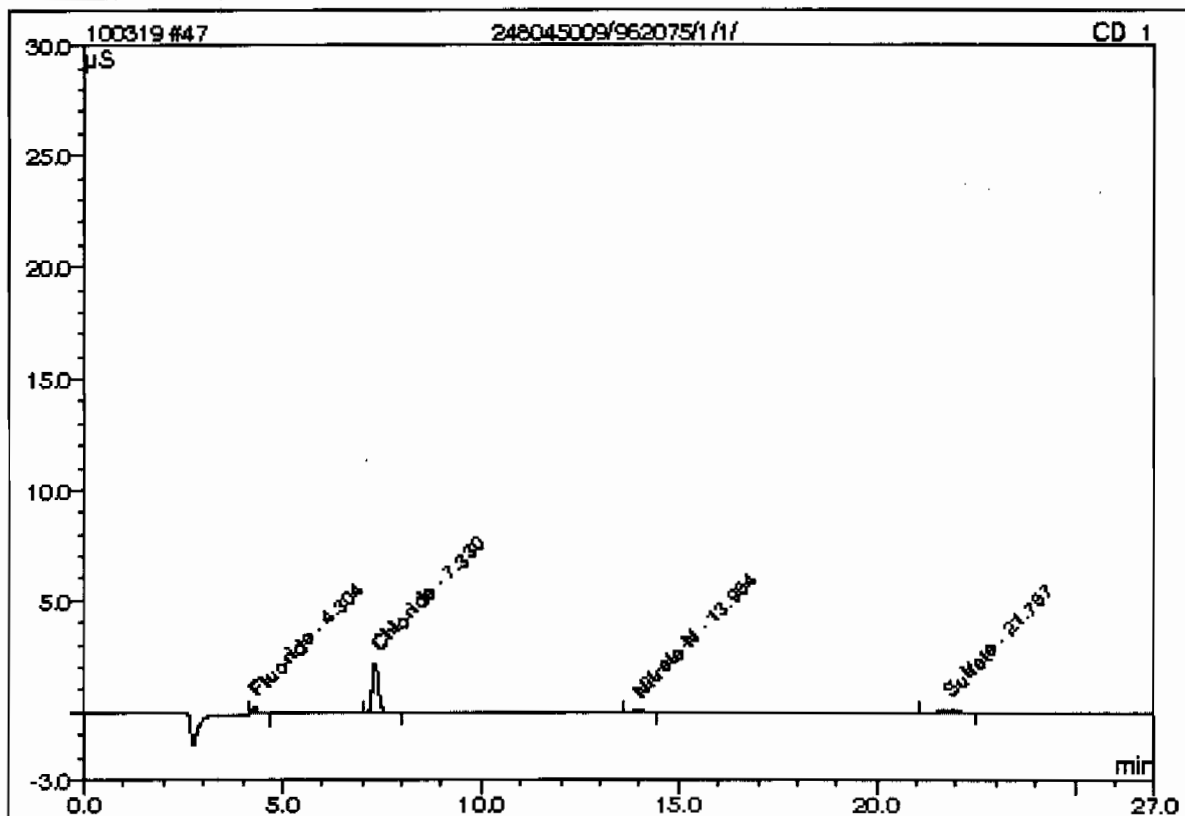
Sample Name:	248045008/962075/1/1/	Injection Volume:	50.0
Vial Number:	33	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 0:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.1001		0.02225	2.97
3	7.33	Chloride	n.a.	1.6384		0.54154	72.28
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.78	Sulfate	n.a.	0.9958		0.17321	23.12
Total:				2.7344	0.000	0.737	98.37

**47 248045009/962075/1/1/**

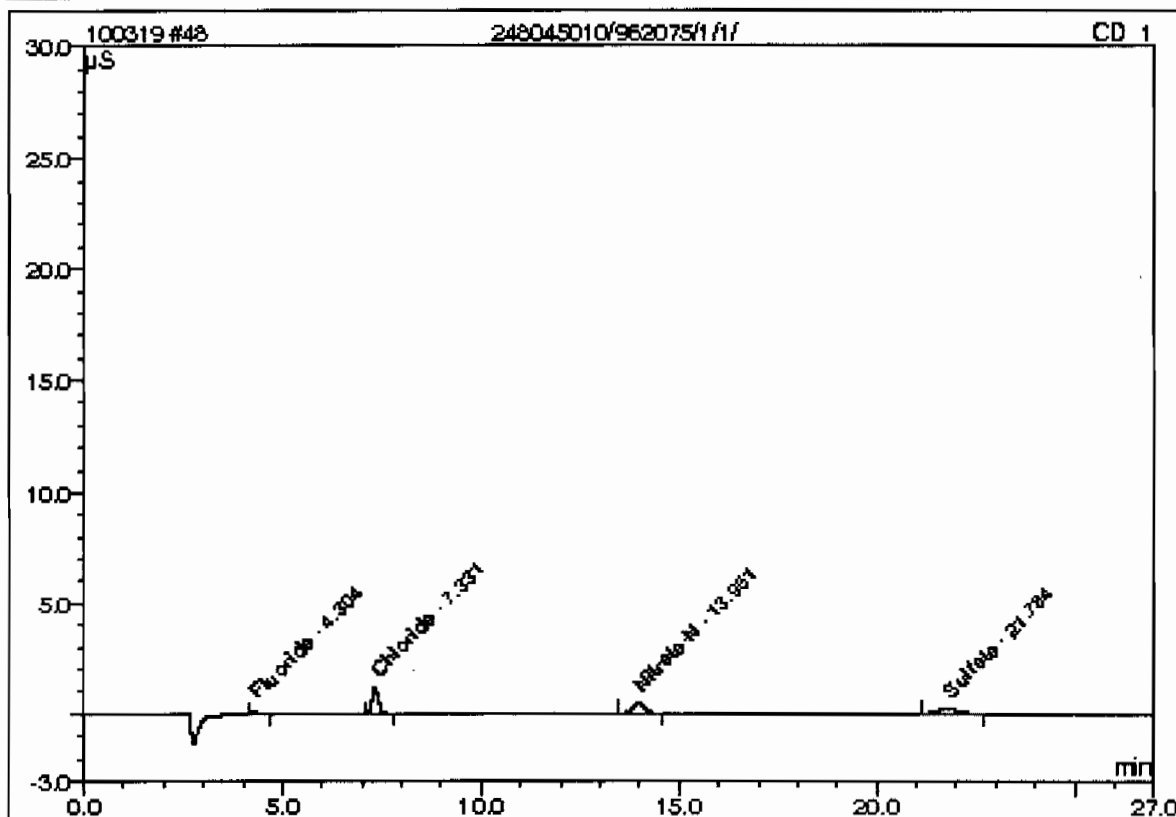
Sample Name:	248045009/962075/1/1/	Injection Volume:	50.0
Vial Number:	34	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 1:05	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9058



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1353		0.03989	6.63
2	7.33	Chloride	n.a.	1.2972		0.41681	69.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.95	Nitrate-N	n.a.	0.1447		0.04324	7.19
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.77	Sulfate	n.a.	0.7083		0.10132	16.85
Total:				2.2855	0.000	0.601	100.00

**48 248045010/962075/1/1/**

Sample Name:	248045010/962075/1/1/	Injection Volume:	50.0
Vial Number:	35	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 1:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC ED86; 300; 9056

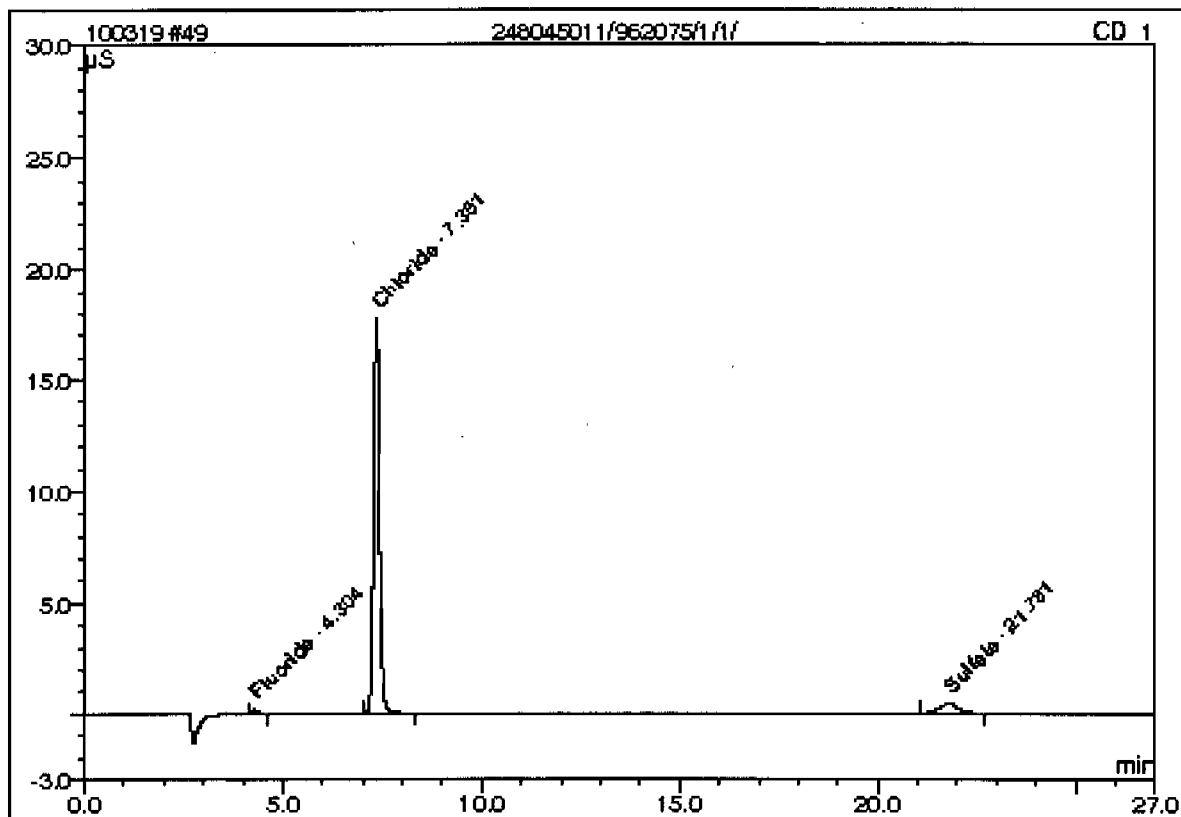


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1021		0.02328	4.69
2	7.33	Chloride	n.a.	0.7455		0.21514	43.36
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.95	Nitrate-N	n.a.	0.2677		0.14805	29.83
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.78	Sulfate	n.a.	0.7421		0.10979	22.12
Total:				1.8575	0.000	0.496	100.00



**49 248045011/962075/1/1/**

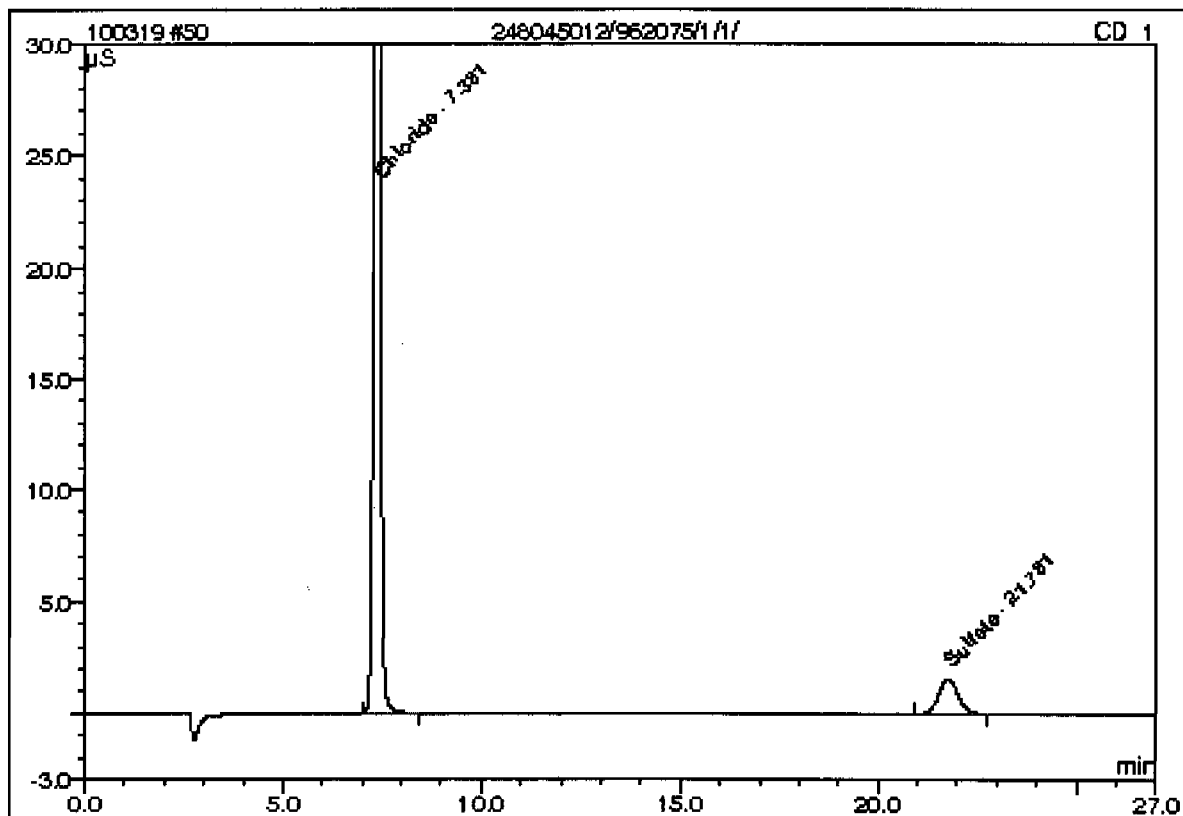
Sample Name:	248045011/962075/1/1/	Injection Volume:	50.0
Vial Number:	36	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 2:05	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1059		0.02513	0.73
2	7.35	Chloride	n.a.	8.8418		3.17483	92.29
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.78	Sulfate	n.a.	1.2634		0.24011	6.98
Total:				10.2111	0.000	3.440	100.00

**50 248045012/962075/1/1/**

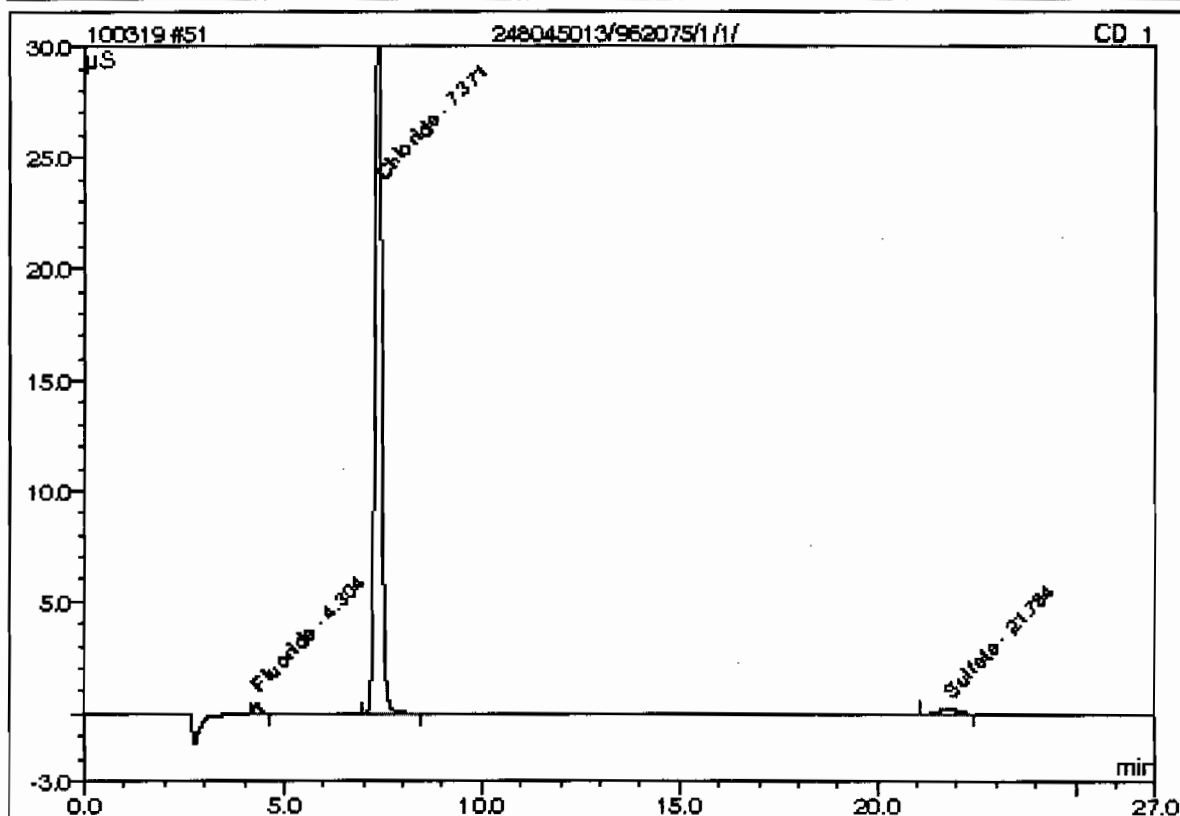
Sample Name:	248045012/962075/1/1/	Injection Volume:	50.0
Vial Number:	37	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 2:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.38	Chloride	n.a.	25.2048		9.15647	91.28
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	21.78	Sulfate	n.a.	3.8028		0.87500	8.72
Total:				29.0075	0.000	10.031	100.00

**51 248045013/962075/1/1/**

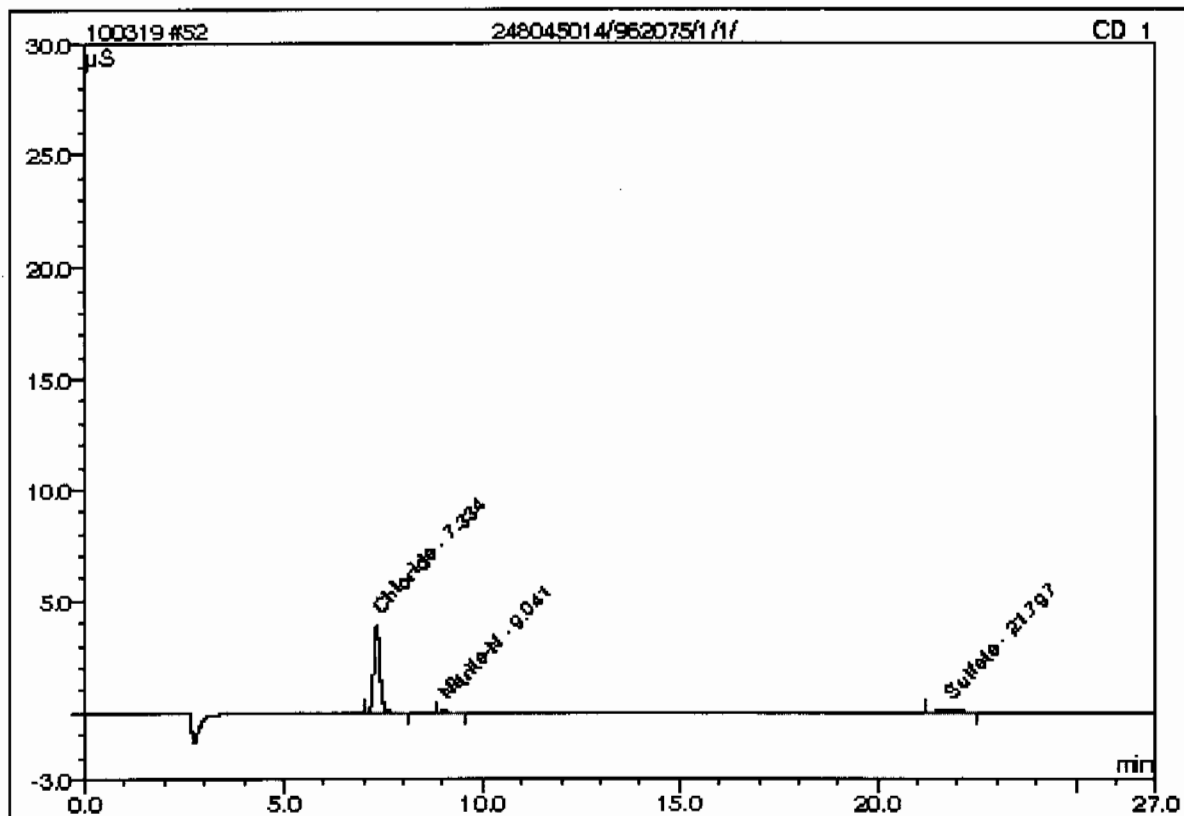
Sample Name:	248045013/962075/1/1/	Injection Volume:	50.0
Vial Number:	38	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 3:05	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.2002		0.07246	1.00
2	7.37	Chloride	n.a.	19.4154		7.04012	97.34
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.78	Sulfate	n.a.	0.7813		0.11957	1.65
Total:				20.3970	0.000	7.232	100.00

**52 248045014/962075/1/1/**

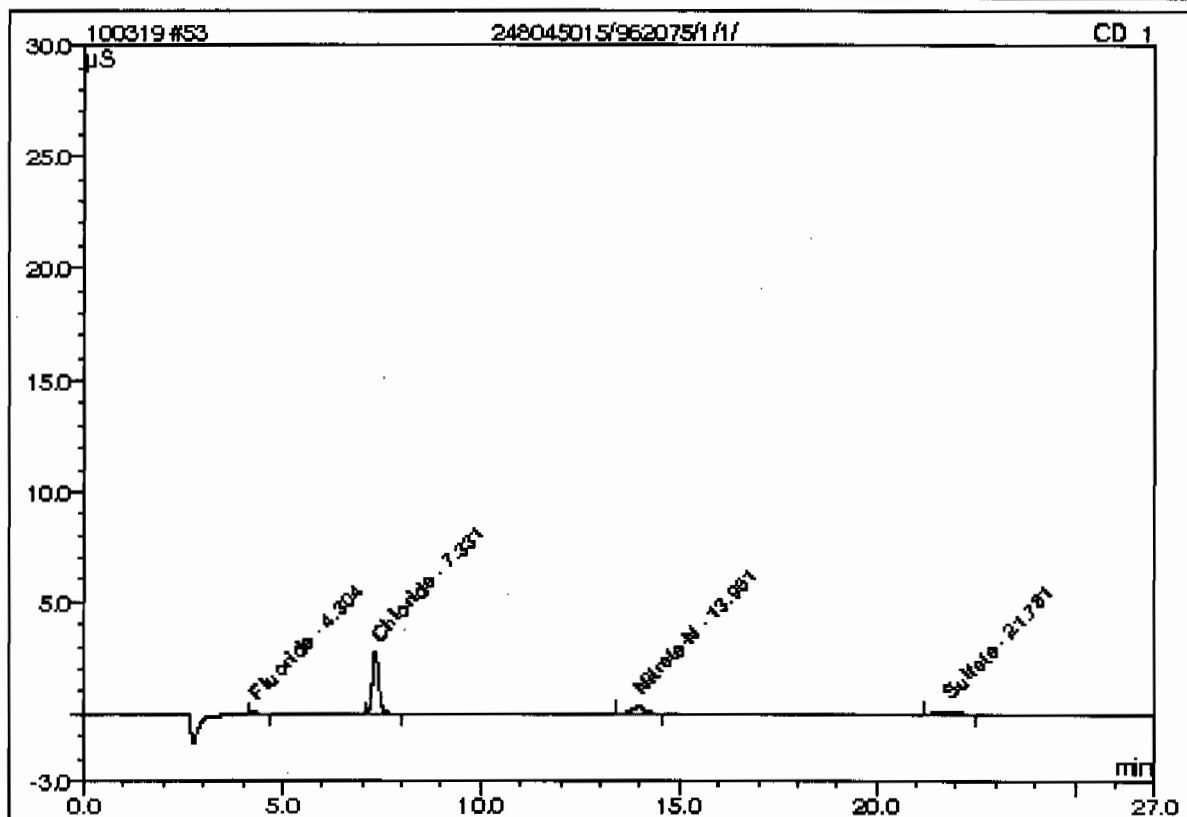
Sample Name:	248045014/962075/1/1/	Injection Volume:	50.0
Vial Number:	39	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 3:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.33	Chloride	n.a.	2.1575		0.73129	90.54
2	9.04	Nitrite-N	n.a.	0.0601		0.01101	1.36
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.80	Sulfate	n.a.	0.5646		0.06539	8.10
Total:				2.7822	0.000	0.808	100.00

**53 248045015/962075/1/1/**

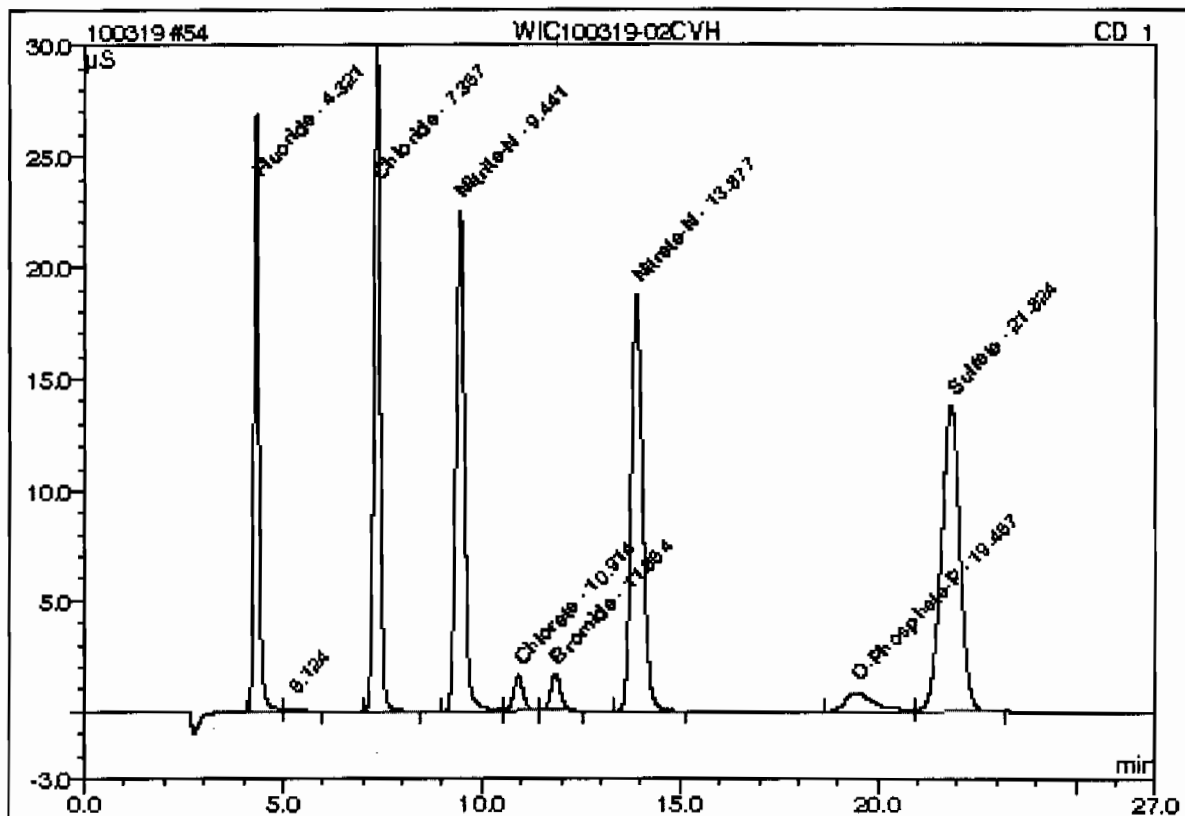
Sample Name:	248045015/962075/1/1/	Injection Volume:	50.0
Vial Number:	40	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 4:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 8056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.1016		0.02297	3.19
2	7.33	Chloride	n.a.	1.5725		0.51746	71.69
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.95	Nitrate-N	n.a.	0.2254		0.11200	15.56
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.78	Sulfate	n.a.	0.5725		0.06738	9.36
Total:				2.4720	0.000	0.720	100.00

**54 WIC100319-02CVH**

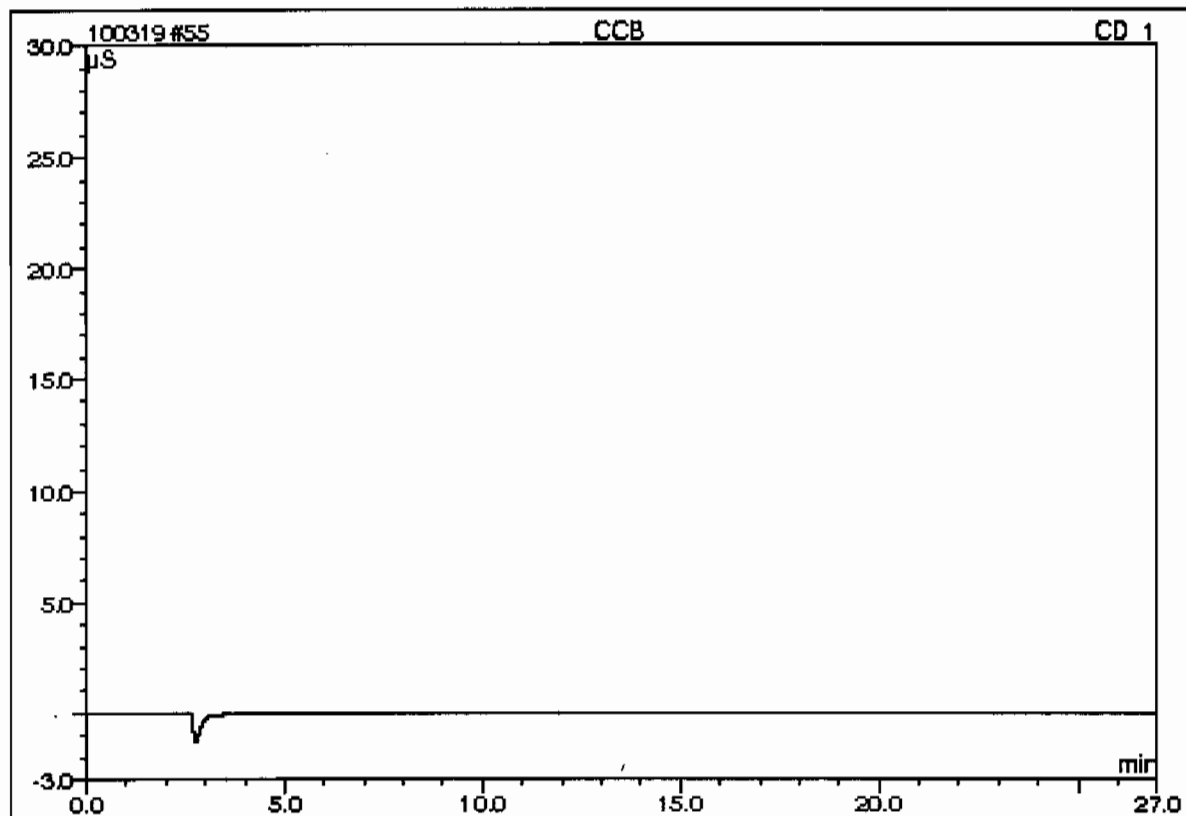
Sample Name:	WIC100319-02CVH	Injection Volume:	50.0
Vial Number:	41	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 4:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.32	Fluoride	n.a.	7.7183		3.84275	12.72
3	7.36	Chloride	n.a.	14.9681		5.41435	17.93
4	9.44	Nitrite-N	n.a.	7.5095		5.48466	18.16
5	10.91	Chlorate	n.a.	3.6665		0.44079	1.46
6	11.85	Bromide	n.a.	3.6901		0.47347	1.57
7	13.88	Nitrate-N	n.a.	7.4838		6.29503	20.84
8	19.46	O-Phosphate-P	n.a.	2.7652		0.72856	2.41
9	21.82	Sulfate	n.a.	30.1509		7.46256	24.71
Total:				77.9525	0.000	30.142	99.80

**55 CCB**

Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	42	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/20/2010 5:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

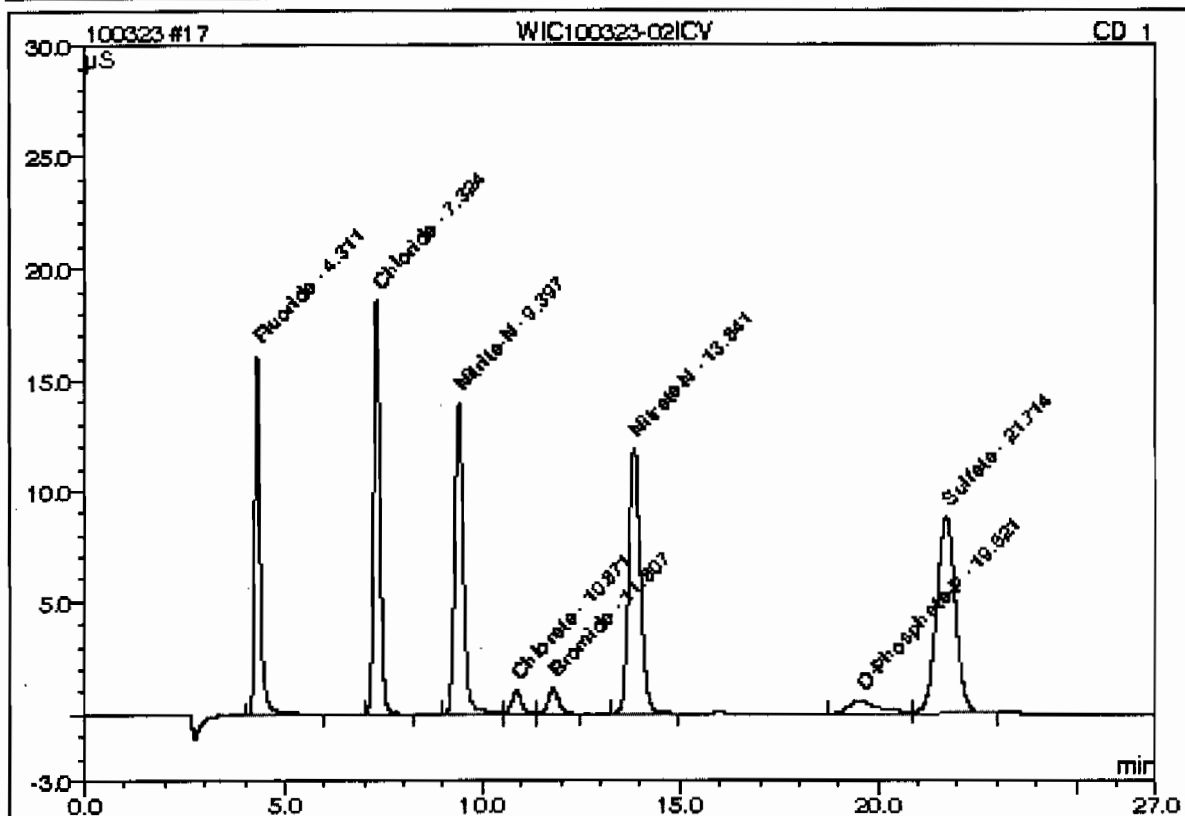
This is runlog for Sequence 100323.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 12:35		1	100323	GXM3
BLK	03/23/10 13:05		1	100323	GXM3
BLK	03/23/10 14:05		1	100323	GXM3
ICV	03/23/10 14:34		1	100323	GXM3
ICB	03/23/10 15:04		1	100323	GXM3
1202076091	03/23/10 15:34	967295	1	100323	GXM3
1202076092	03/23/10 16:04	967295	1	100323	GXM3
247966010	03/23/10 16:34	967295	100	100323	GXM3
248103002	03/23/10 17:03	967295	100	100323	GXM3
248109001	03/23/10 17:33	967295	100	100323	GXM3
248686003	03/23/10 18:03	967295	1	100323	GXM3
1202076093	03/23/10 18:33	967295	1	100323	GXM3
1202076094	03/23/10 19:03	967295	1	100323	GXM3
CVH	03/23/10 19:33		1	100323	GXM3
CCB	03/23/10 20:03		1	100323	GXM3
1202073477	03/23/10 20:33	966200	1	100323	GXM3
1202073479	03/23/10 21:03	966200	1	100323	GXM3
247966010	03/23/10 21:32	967295	20000	100323	GXM3
248103002	03/23/10 22:02	967295	20000	100323	GXM3
248109001	03/23/10 22:32	967295	20000	100323	GXM3
CCV	03/23/10 23:02		1	100323	GXM3
CCB	03/23/10 23:32		1	100323	GXM3



**17 WIC100323-02ICV**

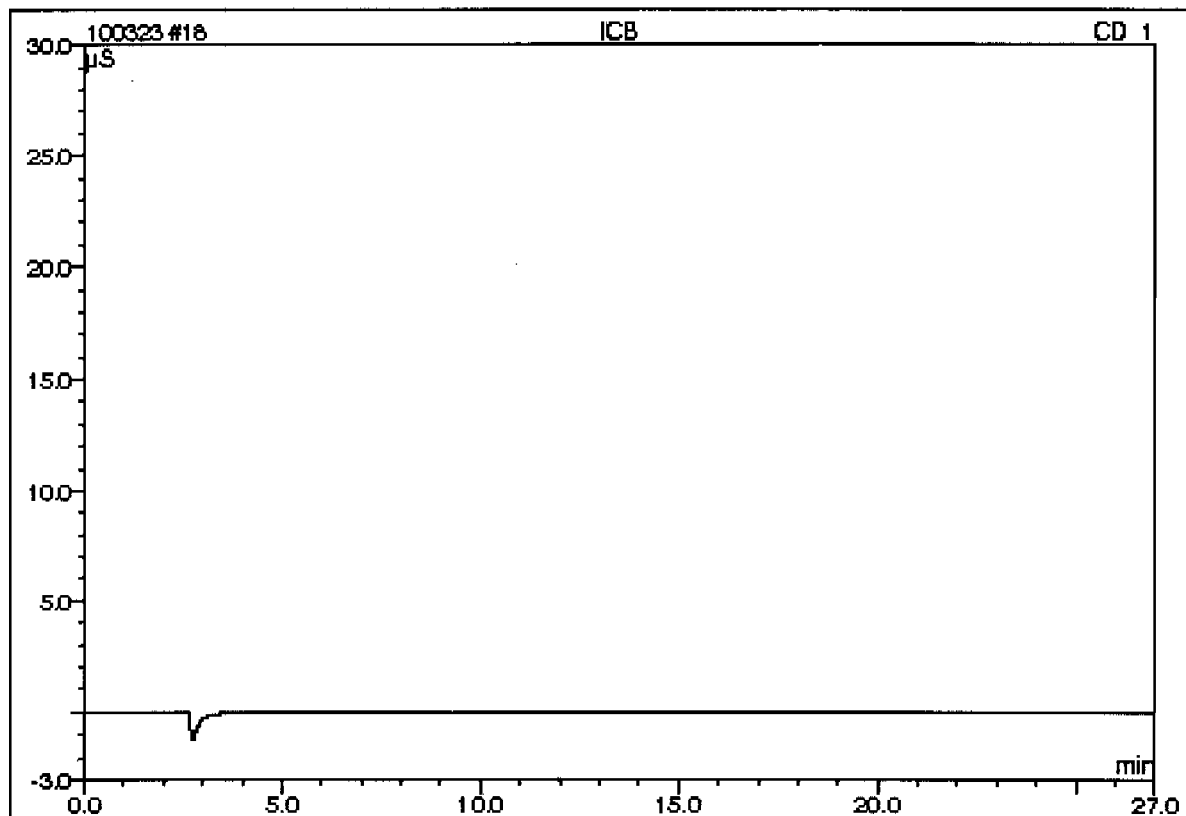
Sample Name:	WIC100323-02ICV	Injection Volume:	50.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/23/2010 14:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.0037		2.48141	12.80
2	7.32	Chloride	n.a.	9.4899		3.41175	17.60
3	9.40	Nitrite-N	n.a.	4.8165		3.50591	18.08
4	10.87	Chlorate	n.a.	2.5705		0.30844	1.59
5	11.81	Bromide	n.a.	2.5425		0.32545	1.68
6	13.84	Nitrate-N	n.a.	4.8331		4.03704	20.82
7	19.52	O-Phosphate-P	n.a.	1.9495		0.51313	2.65
8	21.71	Sulfate	n.a.	19.5300		4.80714	24.79
Total:				50.7358	0.000	19.390	100.00

**18 ICB**

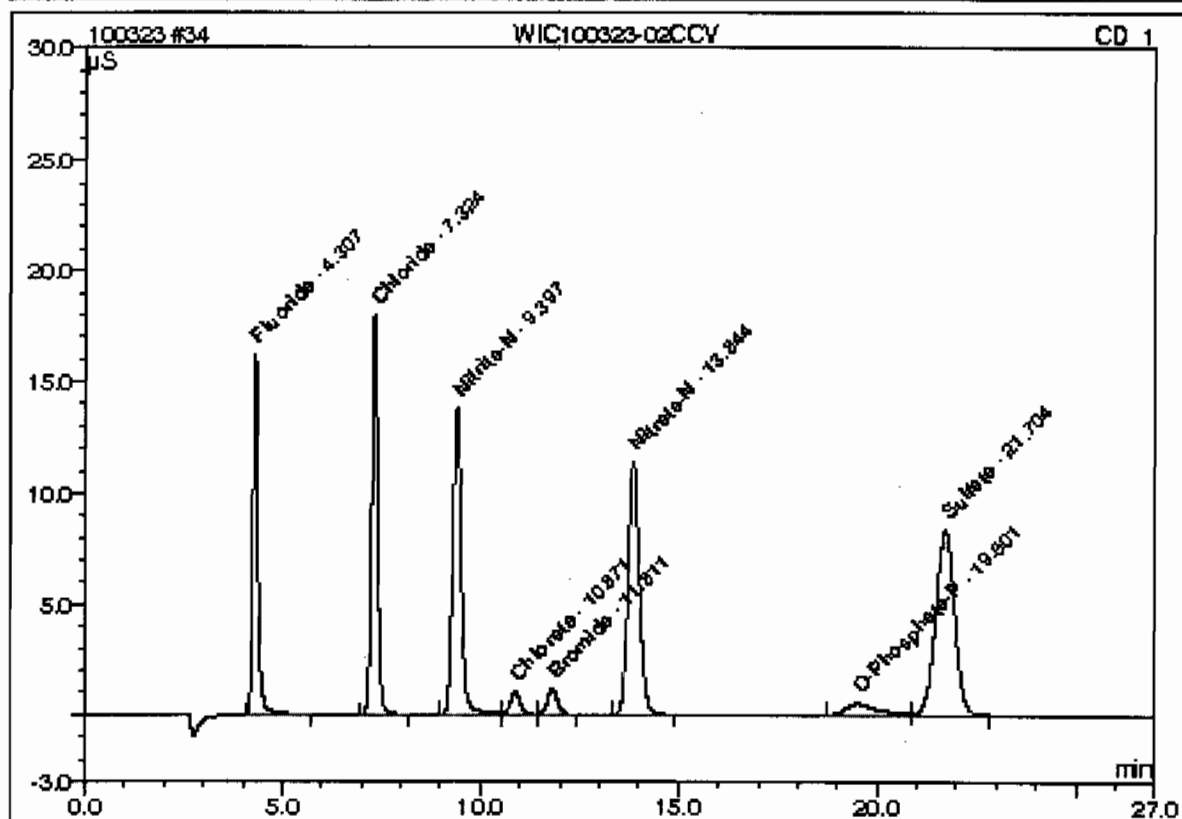
Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/23/2010 15:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**34 WIC100323-02CCV**

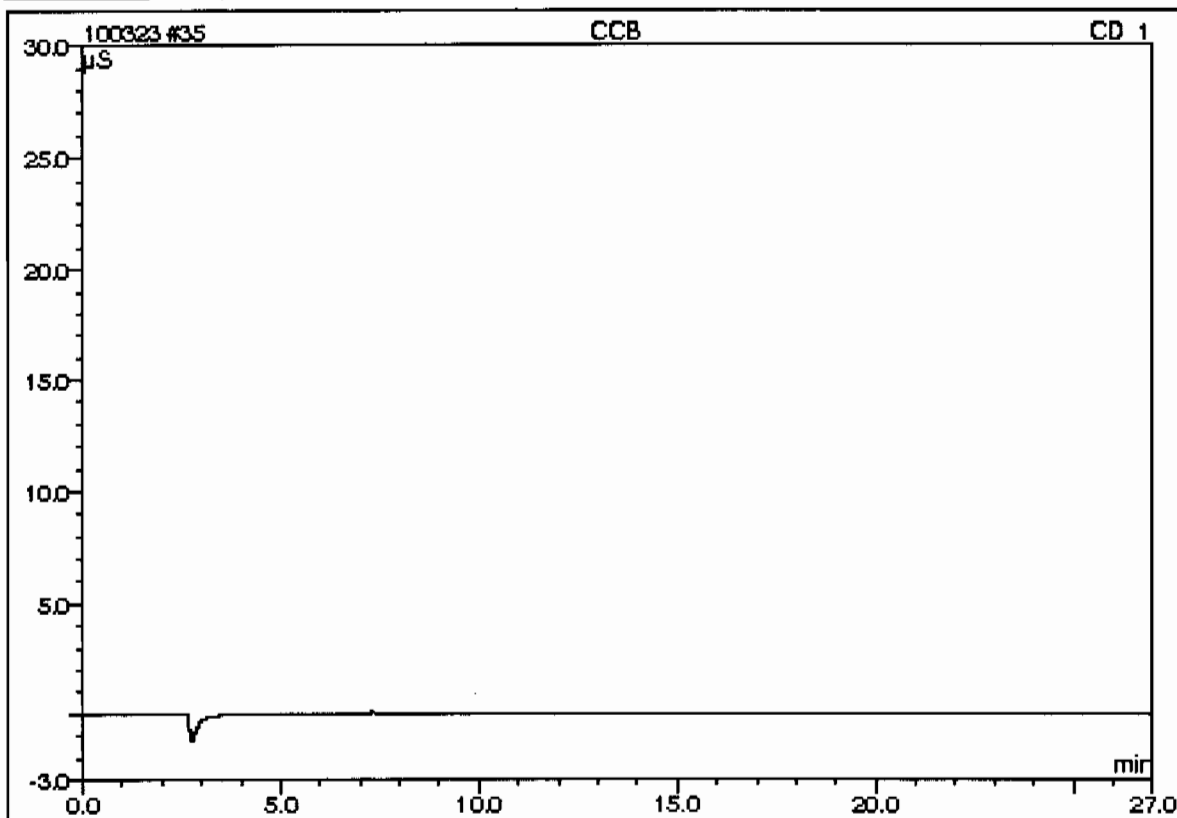
Sample Name:	WIC100323-02CCV	Injection Volume:	50.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/23/2010 23:02	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.7889		2.37365	12.83
2	7.32	Chloride	n.a.	9.0543		3.25252	17.59
3	9.40	Nitrite-N	n.a.	4.6766		3.40307	18.40
4	10.87	Chlorate	n.a.	2.5620		0.30741	1.66
5	11.81	Bromide	n.a.	2.5366		0.32468	1.76
6	13.84	Nitrate-N	n.a.	4.5743		3.81660	20.64
7	19.50	O-Phosphate-P	n.a.	1.7035		0.44816	2.42
8	21.70	Sulfate	n.a.	18.5741		4.56814	24.70
Total:				48.4702	0.000	18.494	100.00

**35 CCB**

Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	21	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/23/2010 23:32	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



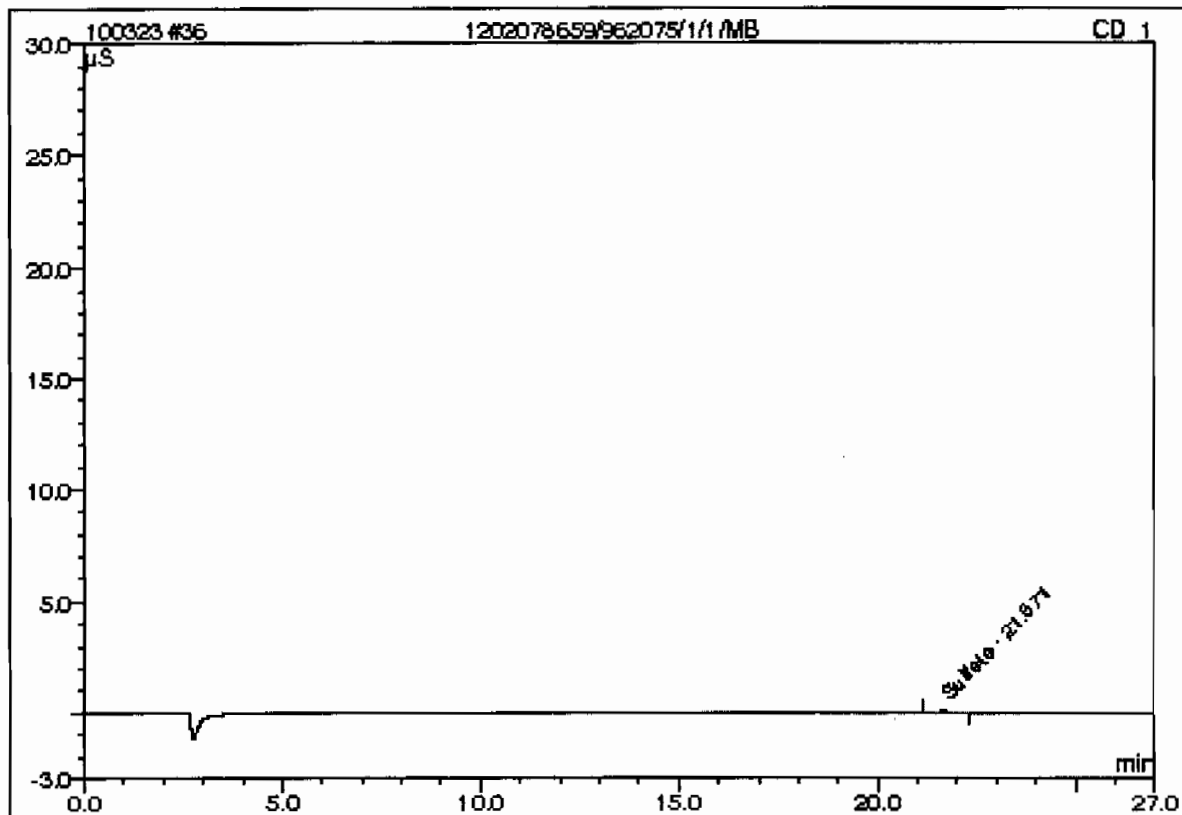
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100323.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202078659	03/24/10 00:02	962075	1	100323	GXM3
1202078660	03/24/10 00:32	962075	1	100323	GXM3
248045016	03/24/10 01:02	962075	1	100323	GXM3
248045017	03/24/10 01:32	962075	1	100323	GXM3
248045018	03/24/10 02:02	962075	1	100323	GXM3
1202063600	03/24/10 02:32	962075	1	100323	GXM3
1202063602	03/24/10 03:01	962075	1	100323	GXM3
1202063604	03/24/10 03:31	962075	1	100323	GXM3
CVH	03/24/10 04:01		1	100323	GXM3
CCB	03/24/10 04:31		1	100323	GXM3
249328001	03/24/10 05:01	967294	2	100323	GXM3
1202076085	03/24/10 05:31	967294	2	100323	GXM3
1202076086	03/24/10 06:01	967294	2	100323	GXM3
CCV	03/24/10 06:31		1	100323	GXM3
CCB	03/24/10 07:01		1	100323	GXM3
1202075413	03/24/10 07:31	967018	1	100323	GXM3
1202075420	03/24/10 08:01	967018	1	100323	GXM3
248371001	03/24/10 08:30	967018	1	100323	GXM3
1202075414	03/24/10 09:00	967018	1	100323	GXM3
1202075416	03/24/10 09:30	967018	1	100323	GXM3
1202075418	03/24/10 10:00	967018	1	100323	GXM3
248371002	03/24/10 10:30	967018	1	100323	GXM3
248371003	03/24/10 11:00	967018	1	100323	GXM3
248371004	03/24/10 11:30	967018	1	100323	GXM3

**36 1202078659/962075/1/1/MB**

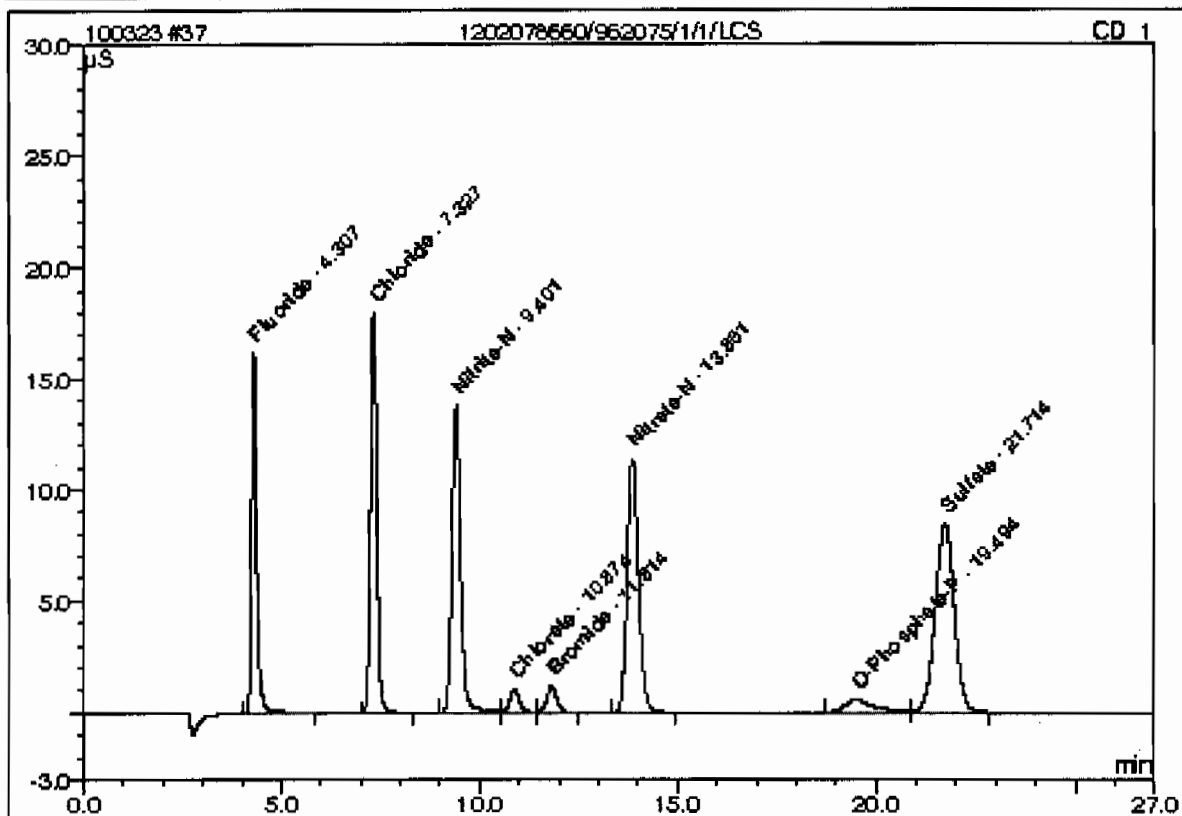
Sample Name:	1202078659/962075/1/1/MB	Injection Volume:	50.0
Vial Number:	22	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 0:02	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.67	Sulfate	n.a.	0.3760		0.01824	100.00
Total:				0.3760	0.000	0.018	100.00

**37 1202078660/962075/1/1/LCS**

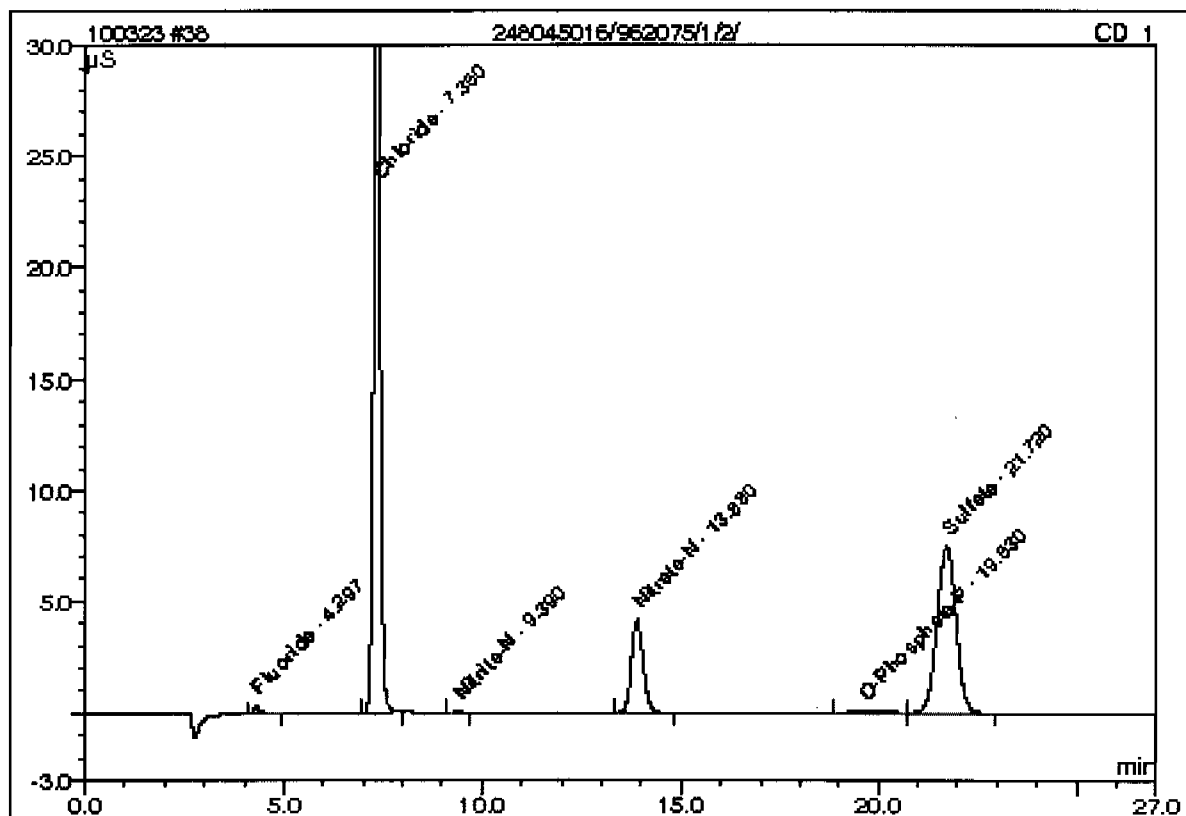
Sample Name:	1202078660/962075/1/1/LCS	Injection Volume:	50.0
Vial Number:	23	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 0:32	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.8073		2.38289	12.85
2	7.33	Chloride	n.a.	9.0965		3.26794	17.62
3	9.40	Nitrite-N	n.a.	4.6783		3.40431	18.35
4	10.87	Chlorate	n.a.	2.5593		0.30709	1.66
5	11.81	Bromide	n.a.	2.5468		0.32599	1.76
6	13.85	Nitrate-N	n.a.	4.5760		3.81807	20.58
7	19.49	O-Phosphate-P	n.a.	1.7393		0.45763	2.47
8	21.71	Sulfate	n.a.	18.6460		4.58611	24.72
Total:				48.6495	0.000	18.550	100.00

**38 248045016/962075/1/2/**

Sample Name:	248045016/962075/1/2/	Injection Volume:	50.0
Vial Number:	24	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 1:02	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC ED86;300;9056

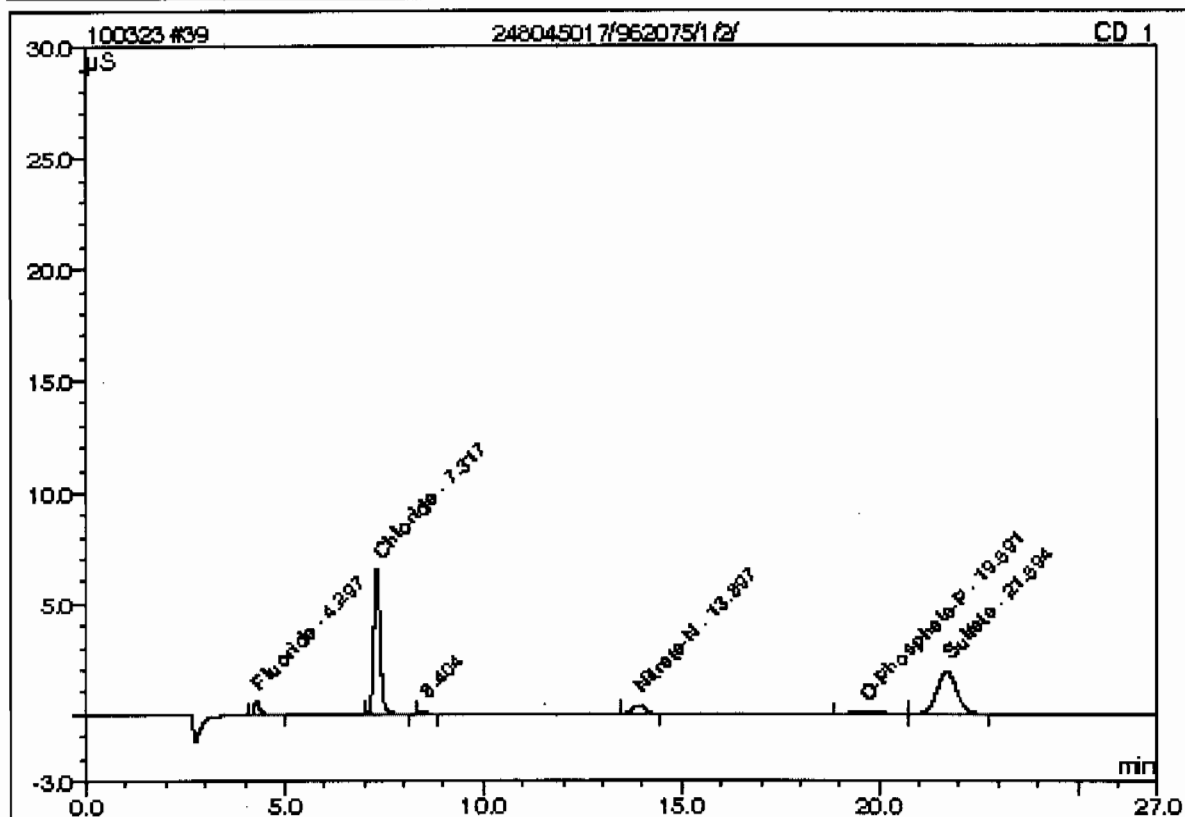


No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.1836		0.06410	0.50
2	7.35	Chloride	n.a.	20.0378		7.26765	56.33
3	9.39	Nitrite-N	n.a.	0.0614		0.01194	0.09
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
4	13.88	Nitrate-N	n.a.	1.7448		1.40633	10.90
5	19.83	O-Phosphate-P	n.a.	0.3189		0.08252	0.64
6	21.72	Sulfate	n.a.	16.5766		4.06873	31.54
Total:				38.9232	0.000	12.901	100.00



**39 248045017/962075/1/2/**

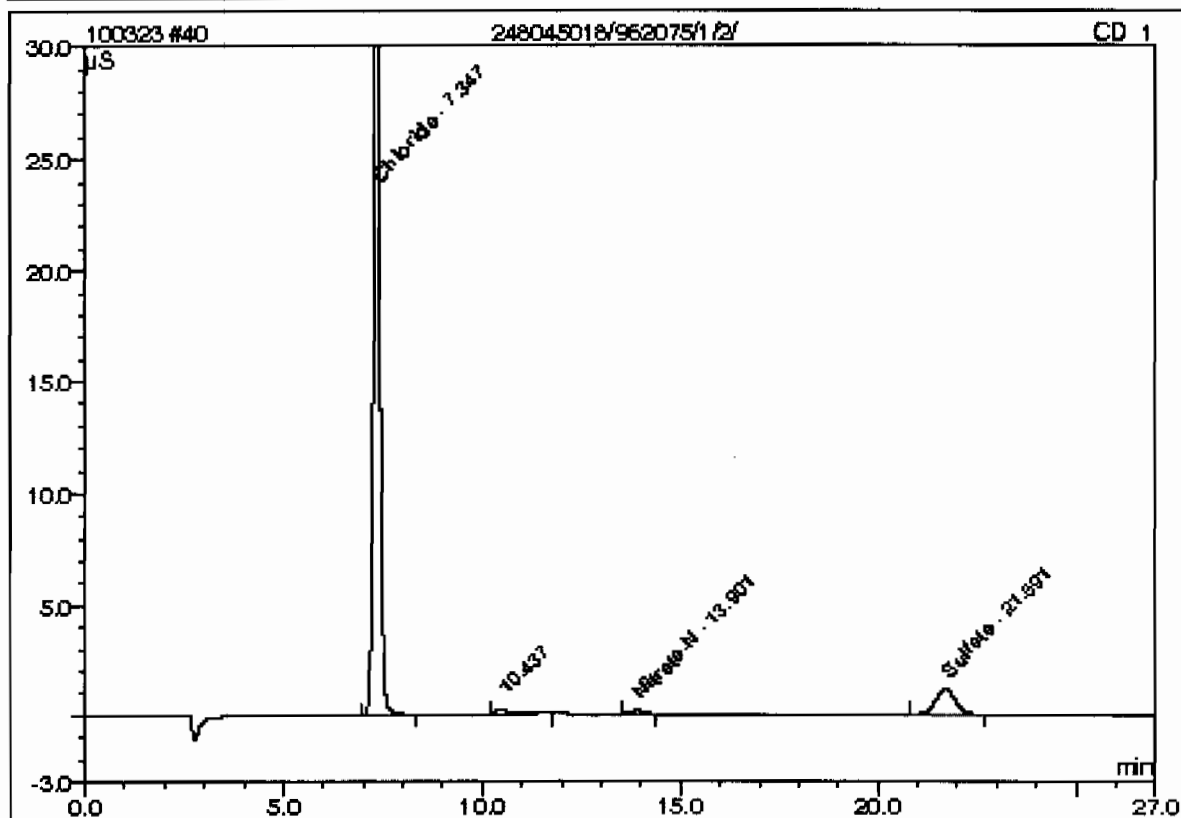
Sample Name:	248045017/962075/1/2/	Injection Volume:	50.0
Vial Number:	25	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 1:32	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.30	Fluoride	n.a.	0.2492		0.09700	3.72
2	7.32	Chloride	n.a.	3.4932		1.21959	46.77
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
4	13.90	Nitrate-N	n.a.	0.2498		0.13282	5.09
5	19.59	O-Phosphate-P	n.a.	0.2694		0.06945	2.66
6	21.69	Sulfate	n.a.	4.6095		1.07670	41.29
Total:				8.8711	0.000	2.596	99.54

**40 248045018/962075/1/2/**

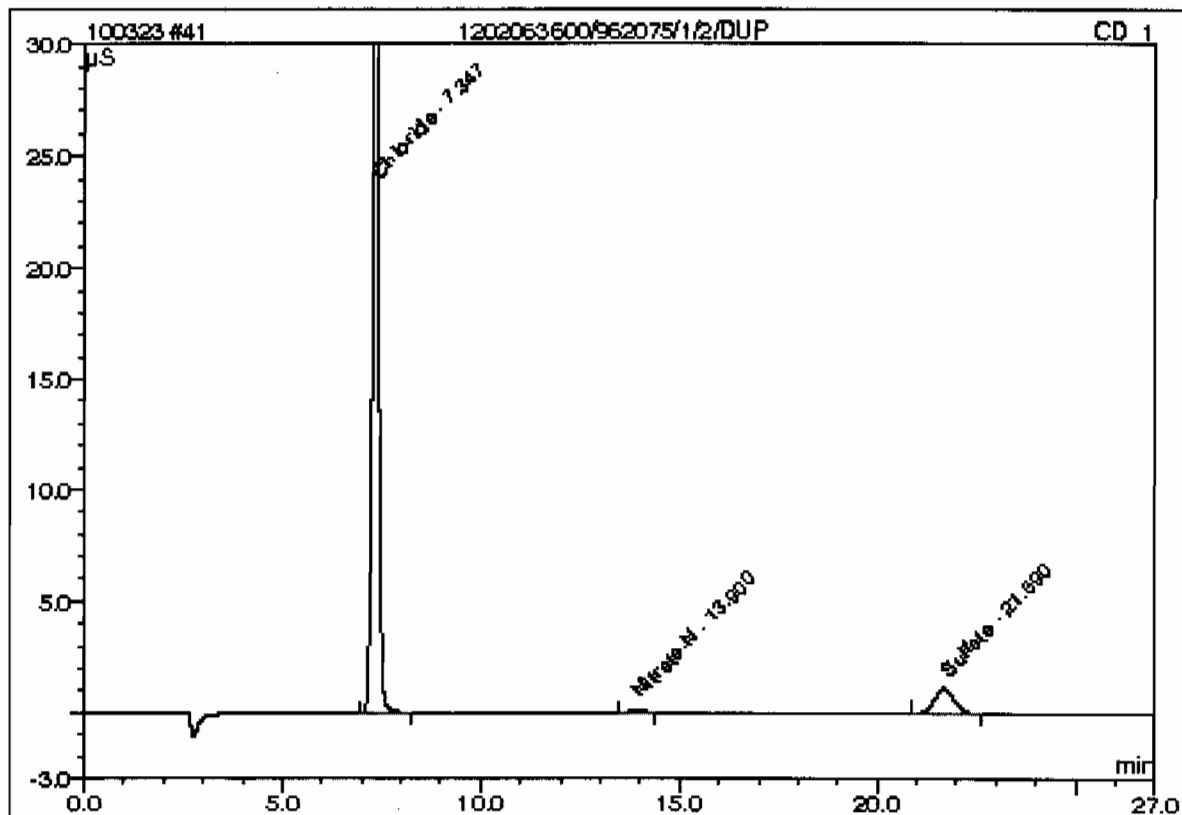
Sample Name:	248045018/962075/1/2/	Injection Volume:	50.0
Vial Number:	26	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 2:02	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.35	Chloride	n.a.	18.7190		6.78552	89.44
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.90	Nitrate-N	n.a.	0.1473		0.04550	0.60
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.69	Sulfate	n.a.	2.8928		0.64751	8.53
Total:				21.7591	0.000	7.479	98.57

**41 1202063600/962075/1/2/DUP**

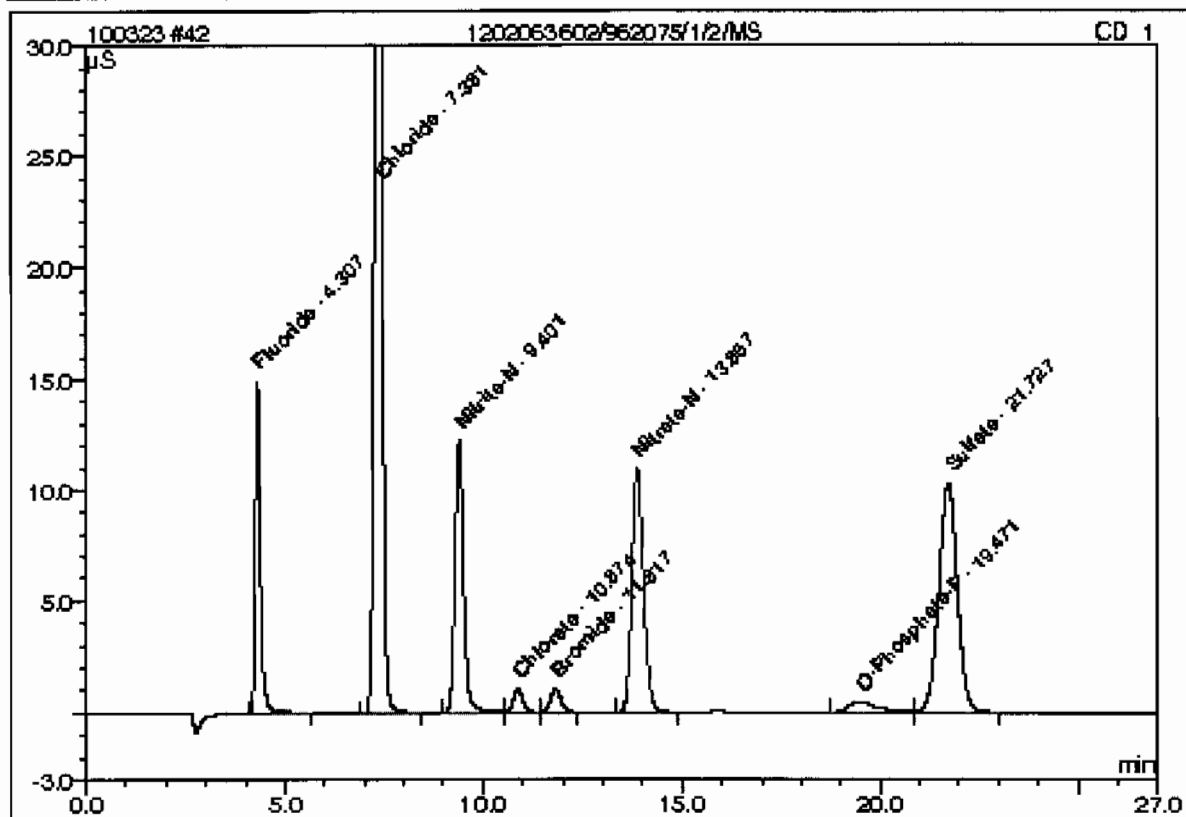
Sample Name:	1202063600/962075/1/2/DUP	Injection Volume:	50.0
Vial Number:	27	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 2:32	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.35	Chloride	n.a.	18.7147		6.78396	90.89
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.90	Nitrate-N	n.a.	0.1488		0.04675	0.63
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.69	Sulfate	n.a.	2.8355		0.63316	8.48
Total:				21.6989	0.000	7.464	100.00

**42 1202063602/962075/1/2/MS**

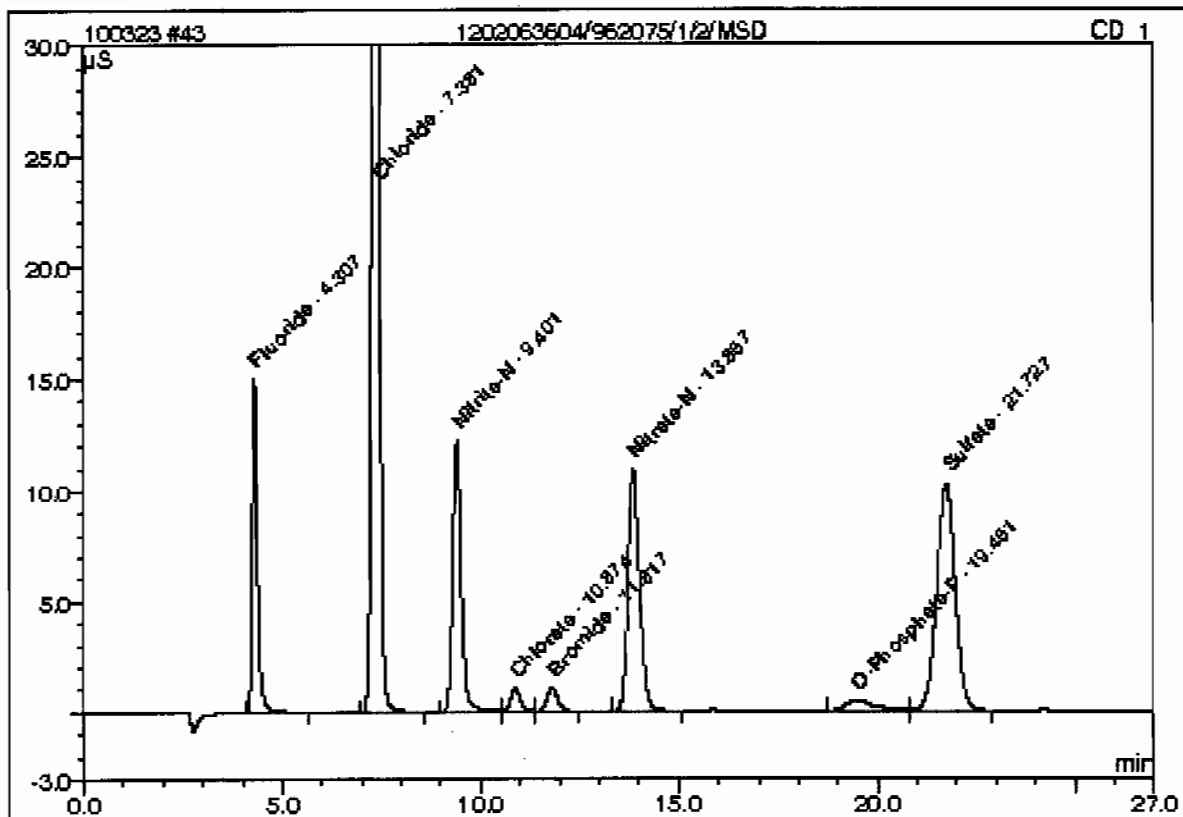
Sample Name:	1202063602/962075/1/2/MS	Injection Volume:	50.0
Vial Number:	28	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 3:01	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED88;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.4925		2.22500	7.63
2	7.38	Chloride	n.a.	37.4693		13.63991	46.78
3	9.40	Nitrite-N	n.a.	4.1564		3.02086	10.36
4	10.87	Chlorate	n.a.	2.4302		0.29150	1.00
5	11.82	Bromide	n.a.	2.4198		0.30962	1.06
6	13.86	Nitrate-N	n.a.	4.4566		3.71637	12.74
7	19.47	O-Phosphate-P	n.a.	1.5321		0.40291	1.38
8	21.73	Sulfate	n.a.	22.5178		5.55414	19.05
Total:				79.4748	0.000	29.160	100.00

**43 1202063604/962075/1/2/MSD**

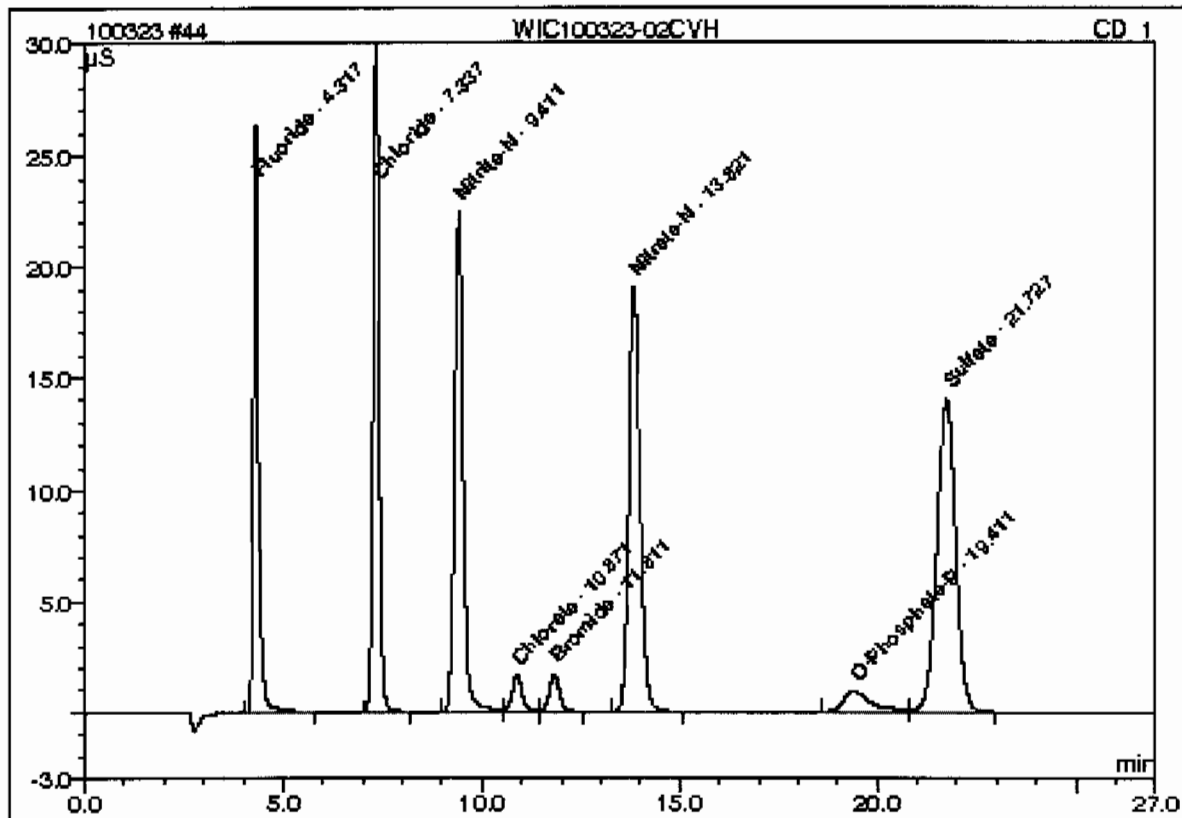
Sample Name:	1202063604/962075/1/2/MSD	Injection Volume:	50.0
Vial Number:	29	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 3:31	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.31	Fluoride	n.a.	4.4903		2.22394	7.62
2	7.38	Chloride	n.a.	37.4394		13.62899	46.72
3	9.40	Nitrite-N	n.a.	4.1662		3.02603	10.36
4	10.87	Chlorate	n.a.	2.4766		0.29710	1.02
5	11.82	Bromide	n.a.	2.4892		0.31856	1.09
6	13.86	Nitrate-N	n.a.	4.4632		3.72195	12.76
7	19.46	O-Phosphate-P	n.a.	1.5306		0.40252	1.38
8	21.73	Sulfate	n.a.	22.5036		5.55058	19.03
Total:				79.5592	0.000	29.172	100.00

**44 WIC100323-02CVH**

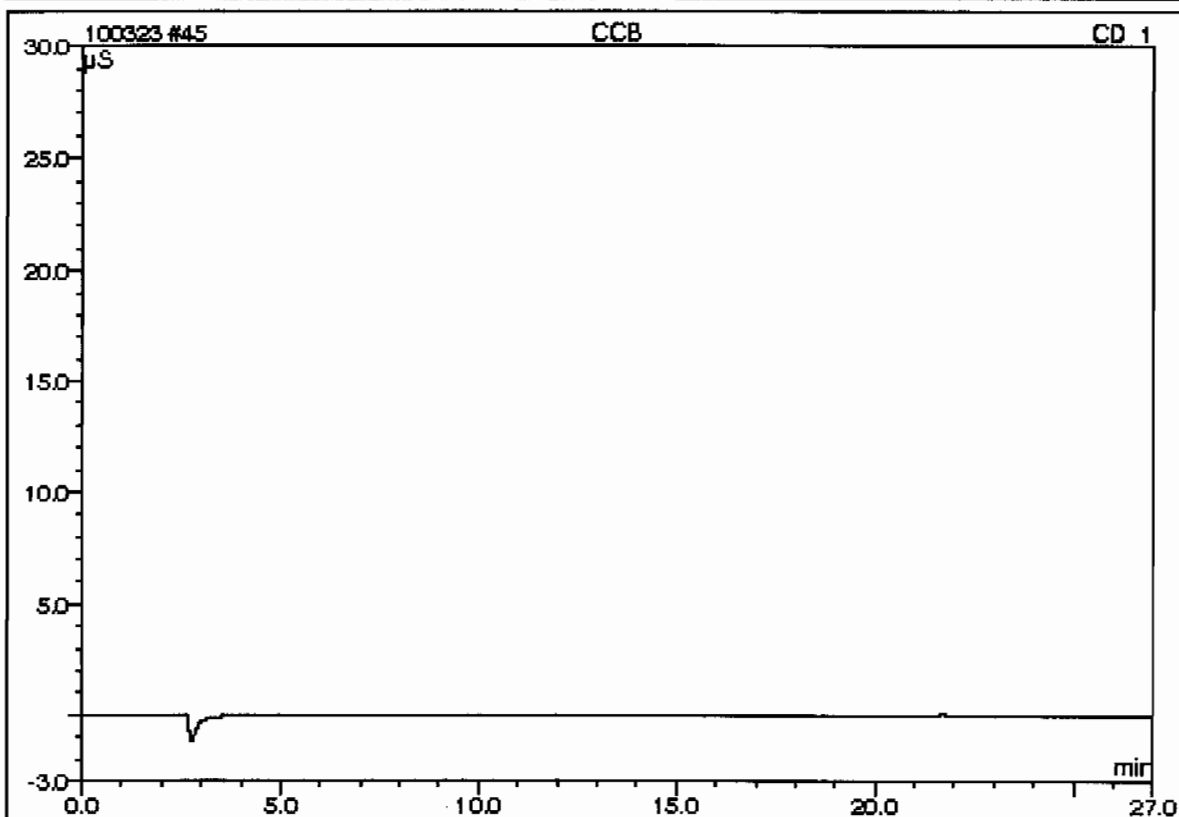
Sample Name:	WIC100323-02CVH	Injection Volume:	50.0
Vial Number:	30	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 4:01	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	n.a.	7.7831		3.87527	12.69
2	7.34	Chloride	n.a.	15.1206		5.47011	17.92
3	9.41	Nitrite-N	n.a.	7.6060		5.55553	18.20
4	10.87	Chlorate	n.a.	3.9379		0.47356	1.55
5	11.81	Bromide	n.a.	3.8781		0.49771	1.63
6	13.82	Nitrate-N	n.a.	7.5924		6.38757	20.92
7	19.41	O-Phosphate-P	n.a.	2.7959		0.73667	2.41
8	21.73	Sulfate	n.a.	30.4391		7.53462	24.68
Total:				79.1533	0.000	30.531	100.00

**45 CCB**

Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	31	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100317an	Sample Amount:	1.0000
Recording Time:	3/24/2010 4:31	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**pH**



# pH / Corrosivity LogBook

Analyst: LXA1  
 Batch: 959517  
 Lab SOP: GL-GC-E-008 REV# 17  
 Description: pH  
 Method: SW846 9045C/9045D

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202057932 LCS		Soil	5:00	5:05	01-MAR-10 18:38	pH	20	20	7.03	19.7°C	7	100.429	
1202057932 LCS		Soil	5:00	5:05	01-MAR-10 18:38	pH 2	20	20	7.03	19.7°C	7	100.429	
248025001		Soil	5:00	5:05	01-MAR-10 18:38	pH	20	20	9.67	19.2°C			
248025001		Soil	5:00	5:05	01-MAR-10 18:38	pH 2	20	20	9.66	19.2°C			
248025002		Soil	5:00	5:05	01-MAR-10 18:38	pH	20	20	8.7	19.1°C			
248025002		Soil	5:00	5:05	01-MAR-10 18:38	pH 2	20	20	8.71	19.1°C			
248045001		Soil	5:00	5:05	01-MAR-10 18:38	pH	20	20	7.75	19.0°C			
248045001		Soil	5:00	5:05	01-MAR-10 18:38	pH 2	20	20	7.75	19.0°C			
1202057930 DUP	248045001	Soil	5:00	5:05	01-MAR-10 18:38	pH	20	20	7.72	19.1°C			.388
1202057930 DUP	248045001	Soil	5:00	5:05	01-MAR-10 18:38	pH 2	20	20	7.72	19.1°C			.388
CCV			5:00	5:05	01-MAR-10 18:38	pH	20	20	7.05	19.2°C	7	100.714	
CCV			5:00	5:05	01-MAR-10 18:38	pH 2	20	20	7	19.2°C	7	100	
248045002		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.4	18.9°C			
248045002		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.41	18.9°C			
248045003		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	8.12	19.1°C			
248045003		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	8.11	19.1°C			
248045004		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.73	19.0°C			
248045004		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.72	19.0°C			
248045005		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.35	18.9°C			
248045005		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.36	18.9°C			
248045006		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.72	19.0°C			
248045006		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.73	19.0°C			
CCV			5:00	5:05	01-MAR-10 18:39	pH	20	20	7.05	18.9°C	7	100.714	
CCV			5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.05	19.0°C	7	100.714	
248045007		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.39	19.0°C			
248045007		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.39	19.0°C			
248045008		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.63	19.1°C			
248045008		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.64	19.1°C			

GEL Laboratories LLC

Page# \_\_\_\_\_

# pH / Corrosivity LogBook

Analyst: LXA1  
 Batch: 959517  
 Lab SOP: GL-GC-E-008 REV# 17  
 Description: pH  
 Method: SW846 9045C/9045D

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(ml)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248045009		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.37	19.0°C			
248045009		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.38	19.1°C			
248045010		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.82	19.1°C			
248045010		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.82	19.1°C			
1202057931 DUP	248045010	Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.82	19.1°C			0
1202057931 DUP	248045010	Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.81	19.2°C			.128
CCV			5:00	5:05	01-MAR-10 18:39	pH	20	20	7.02	19.2°C	7	100.286	
CCV			5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.02	19.2°C	7	100.286	
248045011		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.52	19.4°C			
248045011		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.52	19.4°C			
248045012		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.31	19.2°C			
248045012		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.31	19.2°C			
248045013		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.77	19.4°C			
248045013		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.76	19.4°C			
248045014		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	8.11	19.2°C			
248045014		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	8.1	19.3°C			
248045015		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.56	19.4°C			
248045015		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.56	19.4°C			
CCV			5:00	5:05	01-MAR-10 18:39	pH	20	20	7.02	19.1°C	7	100.286	
CCV			5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.02	19.1°C	7	100.286	
248045016		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	6.28	19.9°C			
248045016		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	6.28	19.9°C			
248045017		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.08	19.3°C			
248045017		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.08	19.3°C			
248045018		Soil	5:00	5:05	01-MAR-10 18:39	pH	20	20	7.49	19.1°C			
248045018		Soil	5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.49	19.1°C			
CCV			5:00	5:05	01-MAR-10 18:39	pH	20	20	7.02	19.4°C	7	100.286	
CCV			5:00	5:05	01-MAR-10 18:39	pH 2	20	20	7.02	19.4°C	7	100.286	

pH / Corrosivity LogBook

Calibration Information:				Comments:			
Run Date:	01-MAR-10 11:24						
Instrument:	PHX370						
Analyst:	LXA1						
	Standard	Observed	Theoretical	C	%Recovery		
11:24	IMM100301-PH1	4.01	4	SU	20.5	100.25	
11:24	IMM100301-PH2	7.04	7	SU	20.5	100.57	
11:24	UPH100301-PH3	10.05	10	SU	20.5	100.5	
11:24	UPH100301-PH4	2.04	2	SU	20.5	102	
11:24	UPH100301-PH5	12.08	12	SU	20.5	100.67	
11:24	IMM100301-PH6	7.02	7	SU	20.5	100.29	

# Miscellaneous

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 08-MAR-10	<b>Division:</b>	<b>Quality Criteria:</b>	<b>Type:</b>
<b>Instrument Type:</b>	<b>Test / Method:</b> SW846 9012A	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 960509	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248045(10-2075)</b> <b>Application Issues:</b> Container scanning event for custody missed			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. Container scanning event for custody missed:  248045 015, 016, 017, 018		1. Due to analyst oversight, the following samples were not scanned prior to analysis. However, samples were in custody of the analyst during time of analysis .	

**Originator's Name:**

Ashley Earl

08-MAR-10

**Data Validator/Group Leader:**

Elzbieta Szulc

19-MAR-10

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 08-MAR-10	<b>Division:</b>	<b>Quality Criteria:</b>	<b>Type:</b>
<b>Instrument Type:</b>	<b>Test / Method:</b> SW846 9012A	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 958163	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248002(10-2028-1),248045(10-2075),248065(10-2086) <b>Application Issues:</b> Container scanning event for custody missed			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Container scanning event for custody missed:  248002 001, 002, 003, 004, 005, 006, 007, 008 248045 001, 002, 003, 004, 005, 006, 007, 0081 009, 010, 011 248065 006		1. Due to analyst oversight, samples were not scanned prior to analysis. However, samples were in custody of the analyst during time of analysis.	

**Originator's Name:**

Ashley Earl

08-MAR-10

**Data Validator/Group Leader:**

Elzbieta Szulc

13-MAR-10

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 08-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LACHAT Flow Injection Analyzer	<b>Test / Method:</b> SW846 9012A	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 957580	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 247907(10-2013), 248045(10-2075) <b>Application Issues:</b> Failed RPD for MS/MSD, or PS/PSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed RPD for MS/MSD, or PS/PSD: QC 1202053295MS 1202053297MSD  2. Failed recovery for MS/MSD: QC 1202053295MS 1202053297MSD  3. Failed recovery for MS/MSD: QC 1202053296MS 1202053298MSD		1. The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits due to the heterogenous matrix of the sample (soil sample).  2. The Matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result (soil sample).  3. 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(soil sample).	

**Originator's Name:**

Ashley Earl

08-MAR-10

**Data Validator/Group Leader:**

Elzbieta Szulc

17-MAR-10

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 24-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> IC	<b>Test / Method:</b> EPA 300.0	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 962075	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248045(10-2075)</b> <b>Application Issues:</b> Failed Recovery for MS/PS Sample Analyzed out of Holding Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed Recovery for MS/MSD: QC 1202063602MS, 1202063604MSD  2. Sample Analyzed out of Holding 248045016, 248045017 and 248045018		1.) The spike recovery and spike duplicate recovery for nitrate fall outside of the GEL acceptance limits but within the client specified limits.  2.) Samples was initially put on the instrument to analysis within holding; however they had to be re-extracted out of batch and reanalyzed due to instrument failure. The holding times had expired prior to reanalysis of re-extracted samples.	

**Originator's Name:**

Greg Milton

24-MAR-10

**Data Validator/Group Leader:**

Mary Sherwood

24-MAR-10



# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2075-1**

**Method/Analysis Information**

**Product:** Cyanide, Total

**Analytical Batch:** 960499      **Method:** SW9012A Cyanide and Total

**Prep Batch :** 960498      **Method:** SSW846 9010B Prep

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

<b>Sample ID</b>	<b>Client ID</b>
248046001	RE36-10-7528
248046002	RE36-10-7527
1202060243	Method Blank (MB)
1202060244	248038001(RE11-10-1684) Sample Duplicate (DUP)
1202060245	248038002(RE11-10-1683) Sample Duplicate (DUP)
1202060246	248038001(RE11-10-1684) Matrix Spike (MS)
1202060247	248038002(RE11-10-1683) Matrix Spike (MS)
1202060248	248038001(RE11-10-1684) Matrix Spike Duplicate (MSD)
1202060249	248038002(RE11-10-1683) Matrix Spike Duplicate (MSD)
1202060250	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

**Calibration Information**

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

**Initial Calibration**

All initial calibration requirements have been met for this SDG.

**Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

**Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

**Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recovery met the acceptance limits.

**Quality Control (QC) Designation**

The following samples were selected for QC analysis: 248038001 (RE11-10-1684) and 248038002 (RE11-10-1683).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The MS/PS recoveries for this sample set were within the required acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries for this sample set were within the required acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPDs between the spike and spike duplicate met the acceptance limits.

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

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202060245 (RE11-10-1683).

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

**Holding Times**

All samples in this SDG met the specified holding time.

**Sample Preservation/Integrity**

All the samples from this sample group met the preservation and integrity requirements of the method.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-analysis**

The samples in this SDG did not require re-analysis.

### **Miscellaneous Information**

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

A DER was not required for this SDG.

#### **Additional Comments**

Additional comments were not required for this SDG.

#### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

### **Method/Analysis Information**

**Product:** Nitrate Nitrite by Cadmium Reduction

**Analytical Batch:** 958150

**Method:** EPA 353.2 Nitrogen and Nitrate/Nitrite

### **Sample Analysis**

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

<b>Sample ID</b>	<b>Client ID</b>
248046001	RE36-10-7528
248046002	RE36-10-7527
1202054725	Method Blank (MB)
1202054726	247793001(RE15-10-8330) Sample Duplicate (DUP)
1202054727	248044001(CAPA-10-12770) Sample Duplicate (DUP)
1202054728	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054729	247793001(RE15-10-8330) Post Spike (PS)
1202054730	248044001(CAPA-10-12770) Post Spike (PS)
1202054731	248074001(SWWS46-10-13636) Post Spike (PS)
1202054732	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

### **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 Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

### **Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

### **Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

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

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

The MB analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recovery met the acceptance limits.

**Quality Control (QC) Designation**

The following samples were selected for QC analysis: 247793001 (RE15-10-8330), 248044001 (CAPA-10-12770) and 248074001 (SWWS46-10-13636).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The MS/PS recoveries for this sample set were within the required 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. 1202054726 (RE15-10-8330).

**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: 1202054728 (SWWS46-10-13636) and 1202054731 (SWWS46-10-13636). The following samples in this sample group were diluted due to matrix interference: 1202054726 (RE15-10-8330), 1202054727 (CAPA-10-12770), 1202054729 (RE15-10-8330), 1202054730 (CAPA-10-12770), 248046001 (RE36-10-7528) and 248046002 (RE36-10-7527).

**Sample Re-analysis**

The samples in this SDG did not require re-analysis.

**Miscellaneous Information**

**Data Exception (DER) Documentation**

A DER was not required for this SDG.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:  
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be

scanned and inserted into the electronic package.



**Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Nick A. Emano Date: 3-23-10

# Sample Data Summary

## GEL LABORATORIES LLC

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

### Certificate of Analysis Report for

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

Client SDG: 10-2075-1 GEL Work Order: 248046

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

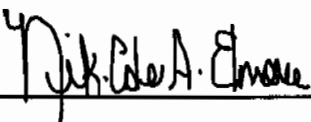
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

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

 3-23-10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 22, 2010

Client SDG: 10-2075-1

Client Sample ID: RE36-10-7528  
Sample ID: 248046001  
Matrix: W  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/04/10	1544	960499	1
<b>Nutrient Analysis</b>											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	U	ND	0.100	0.500	mg/L	10	AXH3	03/03/10	1142	958150	2

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1259	960498

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 22, 2010

Client SDG: 10-2075-1

Client Sample ID: RE36-10-7527  
Sample ID: 248046002  
Matrix: W  
Collect Date: 20-FEB-10 12:00  
Receive Date: 25-FEB-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/04/10	1545	960499	1
<b>Nutrient Analysis</b>											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	03/03/10	1116	958150	2

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/04/10	1259	960498

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

# **Quality Control Summary**

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: March 22, 2010

Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 248046

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	960499										
QC1202060244	248038001	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	03/04/10	15:34
QC1202060245	248038002	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A			03/04/10	15:41
QC1202060250	LCS										
Cyanide, Total	50.0				54.7	ug/L	109	(90%-110%)		03/04/10	15:27
QC1202060243	MB										
Cyanide, Total			U	5.00	ug/L					03/04/10	15:26
QC1202060246	248038001	MS									
Cyanide, Total	100	U	ND		115	ug/L	115	(60%-144%)		03/04/10	15:38
QC1202060247	248038002	MS									
Cyanide, Total	100	U	ND		106	ug/L	106	(60%-144%)		03/04/10	15:42
QC1202060248	248038001	MSD									
Cyanide, Total	100	U	ND		113	ug/L	1.75	113	(0%-20%)	03/04/10	15:39
QC1202060249	248038002	MSD									
Cyanide, Total	100	U	ND		117	ug/L	9.87	117	(0%-20%)	03/04/10	15:43
<b>Nutrient Analysis</b>											
Batch	958150										
QC1202054726	247793001	DUP									
Nitrogen, Nitrate/Nitrite		U	ND	J	0.111	mg/L	200	(+/-0.500)	AXH3	03/03/10	11:38
QC1202054727	248044001	DUP									
Nitrogen, Nitrate/Nitrite			0.446		0.428	mg/L	4.12 ^	(+/-0.250)		03/03/10	11:11
QC1202054728	248074001	DUP									
Nitrogen, Nitrate/Nitrite			1.97		1.94	mg/L	1.28	(0%-20%)		03/03/10	11:28
QC1202054732	LCS										
Nitrogen, Nitrate/Nitrite	1.00				0.986	mg/L	98.6	(90%-110%)		03/03/10	10:50
QC1202054725	MB										
Nitrogen, Nitrate/Nitrite				J	0.0124	mg/L				03/03/10	10:49
QC1202054729	247793001	PS									
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.01	mg/L	100	(90%-110%)		03/03/10	11:40
QC1202054730	248044001	PS									
Nitrogen, Nitrate/Nitrite	1.00		0.0892		1.05	mg/L	96.1	(90%-110%)		03/03/10	11:12
QC1202054731	248074001	PS									
Nitrogen, Nitrate/Nitrite	1.00		0.393		1.39	mg/L	99.7	(90%-110%)		03/03/10	11:29

### 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: 248046

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.										
C	Analyte has been confirmed by GC/MS analysis										
D	Results are reported from a diluted aliquot of the sample										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
E	Organics--Concentration of the target analyte exceeds the instrument calibration range										
F	Estimated Value										
H	Analytical holding time was exceeded										
J	Value is estimated										
M	Matrix Related Failure										
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



# **Instrument QC Data Summary**

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 22-MAR-2010 19:03

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2075-1

Flow Injection Analysis

Method: SW846 9012A

Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	04-MAR-2010 14:05:55	OM_3-4-2010_13-55-23	151	150	101	(90%-110%)	Yes
CCV	04-MAR-2010 15:22:30	OM_3-4-2010_13-55-23	103	100	103	(90%-110%)	Yes
CCV	04-MAR-2010 15:35:01	OM_3-4-2010_13-55-23	103	100	103	(90%-110%)	Yes
CCV	04-MAR-2010 15:47:31	OM_3-4-2010_13-55-23	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	04-MAR-2010 14:07:45	OM_3-4-2010_13-55-23	-1.31	10	Yes
CCB	04-MAR-2010 15:24:20	OM_3-4-2010_13-55-23	-1.05	10	Yes
CCB	04-MAR-2010 15:36:53	OM_3-4-2010_13-55-23	-0.945	10	Yes
CCB	04-MAR-2010 15:49:22	OM_3-4-2010_13-55-23	-1.39	10	Yes

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 22-MAR-2010 19:03

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-2075-1**

**Nutrient Analysis**

**Method: EPA 353.2**

**Concentration Units:mg/L**

**Instrument: Lachat Quickchem FIA+ 8500 Series**

**Parmname: Nitrogen, Nitrate/Nitrite**

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
<b>ICV</b>	<b>03-MAR-2010 10:40:18</b>	<b>OM_3-3-2010_10-30-06</b>	<b>0.983</b>	<b>1</b>	<b>98.3</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	03-MAR-2010 11:01:46	OM_3-3-2010_10-30-06	0.983	1	98.3	(90%-110%)	Yes
CCV	03-MAR-2010 11:17:24	OM_3-3-2010_10-30-06	1	1	100	(90%-110%)	Yes
CCV	03-MAR-2010 11:34:09	OM_3-3-2010_10-30-06	0.985	1	98.5	(90%-110%)	Yes
CCV	03-MAR-2010 11:50:55	OM_3-3-2010_10-30-06	0.968	1	96.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>03-MAR-2010 10:42:40</b>	<b>OM_3-3-2010_10-30-06</b>	<b>0.00396</b>	<b>0.05</b>	<b>Yes</b>
CCB	03-MAR-2010 11:04:08	OM_3-3-2010_10-30-06	0.00204	0.05	Yes
CCB	03-MAR-2010 11:19:46	OM_3-3-2010_10-30-06	0.00357	0.05	Yes
CCB	03-MAR-2010 11:36:31	OM_3-3-2010_10-30-06	0.00385	0.05	Yes
CCB	03-MAR-2010 11:53:16	OM_3-3-2010_10-30-06	0.00438	0.05	Yes

# Cyanide, Total

# Prep Logbook

## Cyanide Sample Distillation

<b>Batch ID:</b> 960498.0	Verified by:	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
<b>Analyst:</b> Alan Stanley		LCS	1202060250	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
<b>Method:</b> SW846 9010B Prep		MS	1202060246	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
<b>Lab SOP:</b> GL-GC-E-067 REV# 13		MS	1202060247	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
<b>Instrument:</b> Sartorius Balance B-001		MSD	1202060248	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
		MSD	1202060249	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202060243 MB	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060250 LCS	04-MAR-2010 12:59:00	Water	25	25	1	>12
247908001	04-MAR-2010 12:59:00	Water	25	25	1	>12
247908002	04-MAR-2010 12:59:00	Water	25	25	1	>12
247908003	04-MAR-2010 12:59:00	Water	25	25	1	>12
247997001	04-MAR-2010 12:59:00	Water	25	25	1	>12
248001001	04-MAR-2010 12:59:00	Water	25	25	1	>12
248034001	04-MAR-2010 12:59:00	Water	25	25	1	>12
248038001	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060244 DUP (248038001)	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060246 MS (248038001)	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060248 MSD (248038001)	04-MAR-2010 12:59:00	Water	25	25	1	>12
248038002	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060245 DUP (248038002)	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060247 MS (248038002)	04-MAR-2010 12:59:00	Water	25	25	1	>12
1202060249 MSD (248038002)	04-MAR-2010 12:59:00	Water	25	25	1	>12
248039001	04-MAR-2010 12:59:00	Water	25	25	1	>12
248046001	04-MAR-2010 12:59:00	Water	25	25	1	>12
248046002	04-MAR-2010 12:59:00	Water	25	25	1	>12
248053001	04-MAR-2010 12:59:00	Water	25	25	1	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

**Batch ID:** 960498.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202060250	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202060246	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202060247	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202060248	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202060249	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248053002	04-MAR-2010 12:59:00	Water	25	25	1	>12
248053003	04-MAR-2010 12:59:00	Water	25	25	1	>12

## Comments:

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100304-07	150 ppb CN Distilled ICV Standard	.0375 mL

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/4/2010 13:58:46	OM_3-4-2010_13-55-23
150 ppb		1	axc2	3/4/2010 13:59:38	OM_3-4-2010_13-55-23
100 ppb		1	axc2	3/4/2010 14:00:30	OM_3-4-2010_13-55-23
50 ppb		1	axc2	3/4/2010 14:01:23	OM_3-4-2010_13-55-23
10 ppb		1	axc2	3/4/2010 14:02:16	OM_3-4-2010_13-55-23
CRDL 5.0 ppb		1	axc2	3/4/2010 14:03:10	OM_3-4-2010_13-55-23
ICAL-00		1	axc2	3/4/2010 14:04:04	OM_3-4-2010_13-55-23
ICV		1	axc2	3/4/2010 14:05:55	OM_3-4-2010_13-55-23
ICB		1	axc2	3/4/2010 14:07:45	OM_3-4-2010_13-55-23
CRDL		1	axc2	3/4/2010 14:09:35	OM_3-4-2010_13-55-23
1202053284	957578	1	axc2	3/4/2010 14:11:25	OM_3-4-2010_13-55-23
1202053291	957578	25	axc2	3/4/2010 14:12:18	OM_3-4-2010_13-55-23
247899001	957578	1	axc2	3/4/2010 14:13:11	OM_3-4-2010_13-55-23
1202053285	957578	1	axc2	3/4/2010 14:14:05	OM_3-4-2010_13-55-23
1202053287	957578	1	axc2	3/4/2010 14:14:58	OM_3-4-2010_13-55-23
1202053289	957578	1	axc2	3/4/2010 14:15:51	OM_3-4-2010_13-55-23
247899002	957578	1	axc2	3/4/2010 14:16:44	OM_3-4-2010_13-55-23
1202053286	957578	1	axc2	3/4/2010 14:17:36	OM_3-4-2010_13-55-23
1202053288	957578	1	axc2	3/4/2010 14:18:29	OM_3-4-2010_13-55-23
1202053290	957578	1	axc2	3/4/2010 14:19:21	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:20:13	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:22:04	OM_3-4-2010_13-55-23
247899003	957578	1	axc2	3/4/2010 14:23:52	OM_3-4-2010_13-55-23
247899004	957578	1	axc2	3/4/2010 14:24:44	OM_3-4-2010_13-55-23
247899005	957578	1	axc2	3/4/2010 14:25:35	OM_3-4-2010_13-55-23
247899006	957578	1	axc2	3/4/2010 14:26:28	OM_3-4-2010_13-55-23
247899007	957578	1	axc2	3/4/2010 14:27:19	OM_3-4-2010_13-55-23
247899008	957578	1	axc2	3/4/2010 14:28:13	OM_3-4-2010_13-55-23
247899009	957578	1	axc2	3/4/2010 14:29:06	OM_3-4-2010_13-55-23
247899010	957578	1	axc2	3/4/2010 14:29:59	OM_3-4-2010_13-55-23
247899011	957578	1	axc2	3/4/2010 14:30:53	OM_3-4-2010_13-55-23
247899012	957578	1	axc2	3/4/2010 14:31:46	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:32:38	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:34:28	OM_3-4-2010_13-55-23
247899013	957578	1	axc2	3/4/2010 14:36:18	OM_3-4-2010_13-55-23
247899014	957578	1	axc2	3/4/2010 14:37:11	OM_3-4-2010_13-55-23
247899015	957578	1	axc2	3/4/2010 14:38:03	OM_3-4-2010_13-55-23
247899016	957578	1	axc2	3/4/2010 14:38:56	OM_3-4-2010_13-55-23
247899017	957578	1	axc2	3/4/2010 14:39:48	OM_3-4-2010_13-55-23
247899018	957578	1	axc2	3/4/2010 14:40:41	OM_3-4-2010_13-55-23
247899019	957578	1	axc2	3/4/2010 14:41:33	OM_3-4-2010_13-55-23
247899020	957578	1	axc2	3/4/2010 14:42:25	OM_3-4-2010_13-55-23
1202053292	957580	1	axc2	3/4/2010 14:43:17	OM_3-4-2010_13-55-23
1202053299	957580	25	axc2	3/4/2010 14:44:08	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:45:01	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:46:51	OM_3-4-2010_13-55-23
247907001	957580	1	axc2	3/4/2010 14:48:41	OM_3-4-2010_13-55-23
1202053293	957580	1	axc2	3/4/2010 14:49:35	OM_3-4-2010_13-55-23
1202053295*	957580	1	axc2	3/4/2010 14:50:28	OM_3-4-2010_13-55-23
1202053297	957580	1	axc2	3/4/2010 14:51:22	OM_3-4-2010_13-55-23
247907002	957580	1	axc2	3/4/2010 14:52:15	OM_3-4-2010_13-55-23
1202053294	957580	1	axc2	3/4/2010 14:53:09	OM_3-4-2010_13-55-23
1202053296	957580	1	axc2	3/4/2010 14:54:02	OM_3-4-2010_13-55-23
1202053298*	957580	1	axc2	3/4/2010 14:54:55	OM_3-4-2010_13-55-23
247907003*	957580	1	axc2	3/4/2010 14:55:47	OM_3-4-2010_13-55-23
247907004	957580	1	axc2	3/4/2010 14:56:40	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010 14:57:33	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010 14:59:22	OM_3-4-2010_13-55-23

1202053295	957580	1	axc2	3/4/2010	15:01:12	OM_3-4-2010_13-55-23
1202053298	957580	1	axc2	3/4/2010	15:02:05	OM_3-4-2010_13-55-23
247907003	957580	1	axc2	3/4/2010	15:02:58	OM_3-4-2010_13-55-23
247907004	957580	1	axc2	3/4/2010	15:03:50	OM_3-4-2010_13-55-23
247907005	957580	1	axc2	3/4/2010	15:04:43	OM_3-4-2010_13-55-23
247907006	957580	1	axc2	3/4/2010	15:05:35	OM_3-4-2010_13-55-23
247907007	957580	1	axc2	3/4/2010	15:06:28	OM_3-4-2010_13-55-23
247907008	957580	1	axc2	3/4/2010	15:07:20	OM_3-4-2010_13-55-23
247907009	957580	1	axc2	3/4/2010	15:08:11	OM_3-4-2010_13-55-23
247907010	957580	1	axc2	3/4/2010	15:09:06	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:09:58	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:11:48	OM_3-4-2010_13-55-23
247907011	957580	1	axc2	3/4/2010	15:13:39	OM_3-4-2010_13-55-23
247907012	957580	1	axc2	3/4/2010	15:14:32	OM_3-4-2010_13-55-23
247907013	957580	1	axc2	3/4/2010	15:15:27	OM_3-4-2010_13-55-23
247907014	957580	1	axc2	3/4/2010	15:16:20	OM_3-4-2010_13-55-23
247907015	957580	1	axc2	3/4/2010	15:17:13	OM_3-4-2010_13-55-23
247907016	957580	1	axc2	3/4/2010	15:18:07	OM_3-4-2010_13-55-23
247907017	957580	1	axc2	3/4/2010	15:18:59	OM_3-4-2010_13-55-23
248045012	957580	1	axc2	3/4/2010	15:19:52	OM_3-4-2010_13-55-23
248045013	957580	1	axc2	3/4/2010	15:20:45	OM_3-4-2010_13-55-23
248045014	957580	1	axc2	3/4/2010	15:21:38	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:22:30	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:24:20	OM_3-4-2010_13-55-23
1202060243	960499	1	axc2	3/4/2010	15:26:09	OM_3-4-2010_13-55-23
1202060250	960499	1	axc2	3/4/2010	15:27:01	OM_3-4-2010_13-55-23
247908001	960499	1	axc2	3/4/2010	15:27:53	OM_3-4-2010_13-55-23
247908002	960499	1	axc2	3/4/2010	15:28:47	OM_3-4-2010_13-55-23
247908003	960499	1	axc2	3/4/2010	15:29:41	OM_3-4-2010_13-55-23
247997001	960499	1	axc2	3/4/2010	15:30:34	OM_3-4-2010_13-55-23
248001001	960499	1	axc2	3/4/2010	15:31:29	OM_3-4-2010_13-55-23
248034001	960499	1	axc2	3/4/2010	15:32:22	OM_3-4-2010_13-55-23
248038001	960499	1	axc2	3/4/2010	15:33:15	OM_3-4-2010_13-55-23
1202060244	960499	1	axc2	3/4/2010	15:34:09	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:35:01	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:36:53	OM_3-4-2010_13-55-23
1202060246	960499	1	axc2	3/4/2010	15:38:42	OM_3-4-2010_13-55-23
1202060248	960499	1	axc2	3/4/2010	15:39:36	OM_3-4-2010_13-55-23
248038002	960499	1	axc2	3/4/2010	15:40:29	OM_3-4-2010_13-55-23
1202060245	960499	1	axc2	3/4/2010	15:41:22	OM_3-4-2010_13-55-23
1202060247	960499	1	axc2	3/4/2010	15:42:15	OM_3-4-2010_13-55-23
1202060249	960499	1	axc2	3/4/2010	15:43:07	OM_3-4-2010_13-55-23
248039001	960499	1	axc2	3/4/2010	15:44:01	OM_3-4-2010_13-55-23
248046001	960499	1	axc2	3/4/2010	15:44:52	OM_3-4-2010_13-55-23
248046002	960499	1	axc2	3/4/2010	15:45:45	OM_3-4-2010_13-55-23
248053001	960499	1	axc2	3/4/2010	15:46:39	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:47:31	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:49:22	OM_3-4-2010_13-55-23
248053002	960499	1	axc2	3/4/2010	15:51:13	OM_3-4-2010_13-55-23
248053003	960499	1	axc2	3/4/2010	15:52:07	OM_3-4-2010_13-55-23
CCV		1	axc2	3/4/2010	15:52:59	OM_3-4-2010_13-55-23
CCB		1	axc2	3/4/2010	15:54:49	OM_3-4-2010_13-55-23



Original Run Filename: OM\_3-4-2010\_13-55-23.OMN created 3/4/2010 13:55:23  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-4-2010\_13-55-23.OMN last modified 3/4/2010 15:55:54  
 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)				
WCN100304-01	1	S1	200	9.08	3/4/2010@13:58:46			200 ppb
WCN100304-02	1	S2	150	6.91	3/4/2010@13:59:38			150 ppb
WCN100304-03	1	S3	100	4.35	3/4/2010@14:00:30			100 ppb
WCN100304-04	1	S4	50.0	2.45	3/4/2010@14:01:23			50 ppb
WCN100304-05	1	S5	10.0	0.578	3/4/2010@14:02:16			10 ppb
WCN100304-06	1	S6	5.00	0.340	3/4/2010@14:03:10			CRDL 5.0 ppb
WCN100304-08	1	S7	0.00	0.0240	3/4/2010@14:04:04			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99948 > 0.99500					
Message			Pass					
Action			Continue					
WCN100304-07	1	S8	151	6.88	3/4/2010@14:05:55			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			0.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100304-08	1	S7	-1.31	0.0240	3/4/2010@14:07:45			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.31 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.31 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100304-06	1	S6	5.86	0.346	3/4/2010@14:09:35			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.86 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.86 > 2.50					
Message			Pass					
Action			None					
1202053284 957578 MB	1	1	-2.31	-0.0206	3/4/2010@14:11:25			
1202053291 LCS	1	2	18.3	0.904	3/4/2010@14:12:18		25.00	
247899001	1	3	-0.820	0.0461	3/4/2010@14:13:11			
1202053285 DUP	1	4	-0.872	0.0438	3/4/2010@14:14:05			
1202053287 MS	1	5	100	4.59	3/4/2010@14:14:58			
1202053289 MSD	1	6	99.8	4.57	3/4/2010@14:15:51			
247899002	1	7	1.56	0.153	3/4/2010@14:16:44			
1202053286 DUP	1	8	2.02	0.174	3/4/2010@14:17:36			
1202053288 MS	1	9	87.4	4.01	3/4/2010@14:18:29			
1202053290 MSD	1	10	94.8	4.35	3/4/2010@14:19:21			
WCN100304-03	1	S3	103	4.72	3/4/2010@14:20:13			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.1 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.38	0.0208	3/4/2010@14:22:04			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.38 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.38 > -5.00					
Message			CCB Passed					
Action			Continue					
247899003	1	11	-0.646	0.0540	3/4/2010@14:23:52			
247899004	1	12	-0.530	0.0592	3/4/2010@14:24:44			
247899005	1	13	-1.15	0.0313	3/4/2010@14:25:35			
247899006	1	14	0.280	0.0956	3/4/2010@14:26:28			
247899007	1	15	0.0899	0.0871	3/4/2010@14:27:19			
247899008	1	16	1.52	0.151	3/4/2010@14:28:13			
247899009	1	17	5.29	0.321	3/4/2010@14:29:06			
247899010	1	18	0.0677	0.0861	3/4/2010@14:29:59			
247899011	1	19	2.55	0.198	3/4/2010@14:30:53			
247899012	1	20	-0.401	0.0650	3/4/2010@14:31:46			
WCN100304-03	1	S3	104	4.77	3/4/2010@14:32:38			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.42	0.0192	3/4/2010@14:34:28			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.42 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.42 > -5.00					
Message			CCB Passed					
Action			Continue					
247899013	1	21	1.98	0.172	3/4/2010@14:36:18			
247899014	1	22	-0.282	0.0703	3/4/2010@14:37:11			
247899015	1	23	-0.685	0.0522	3/4/2010@14:38:03			
247899016	1	24	-1.13	0.0322	3/4/2010@14:38:56			
247899017	1	25	0.385	0.100	3/4/2010@14:39:48			
247899018	1	26	-0.640	0.0543	3/4/2010@14:40:41			
247899019	1	27	0.0545	0.0855	3/4/2010@14:41:33			
247899020	1	28	1.88	0.168	3/4/2010@14:42:25			
1202053292 957580 MB	1	29	-1.43	0.0185	3/4/2010@14:43:17			
1202053299 LCS	1	30	18.7	0.924	3/4/2010@14:44:08		25.00	
WCN100304-03	1	S3	104	4.75	3/4/2010@14:45:01			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100304-08	1	S7	-1.45	0.0178	3/4/2010@14:46:51			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit						
Result:		-1.45 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.45 > -5.00				
Message		CCB Passed				
Action		Continue				
247907001	1	31	0.423	0.102	3/4/2010@14:48:41	
1202053293  DUP	1	32	3.32	0.232	3/4/2010@14:49:35	
1202053295  MS	1	33	45.9	2.15	3/4/2010@14:50:28	
1202053297  MSD	1	34	66.1	3.06	3/4/2010@14:51:22	
247907002	1	35	-0.678	0.0526	3/4/2010@14:52:15	
1202053294  DUP	1	36	-0.764	0.0487	3/4/2010@14:53:09	
1202053296  MS	1	37	44.0	2.06	3/4/2010@14:54:02	
1202053298  MSD	1	38	36.8	1.74	3/4/2010@14:54:55	
247907003	1	39	147	6.70	3/4/2010@14:55:47	
247907004	1	40	515	23.2	3/4/2010@14:56:40	
WCN100304-03	1	S3	105	4.80	3/4/2010@14:57:33	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		4.8 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		4.8 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100304-08	1	S7	-0.946	0.0405	3/4/2010@14:59:22	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-0.946 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-0.946 > -5.00				
Message		CCB Passed				
Action		Continue				
1202053295  MS	1	33	48.1	2.24	3/4/2010@15:01:12	
1202053298  MSD	1	38	41.0	1.93	3/4/2010@15:02:05	
247907003	1	39	-0.540	0.0588	3/4/2010@15:02:58	
247907004	1	40	-0.705	0.0513	3/4/2010@15:03:50	
247907005	1	41	0.810	0.119	3/4/2010@15:04:43	
247907006	1	42	-1.32	0.0235	3/4/2010@15:05:35	
247907007	1	43	-0.570	0.0574	3/4/2010@15:06:28	
247907008	1	44	0.767	0.118	3/4/2010@15:07:20	
247907009	1	45	-1.10	0.0334	3/4/2010@15:08:11	
247907010	1	46	-0.113	0.0779	3/4/2010@15:09:06	
WCN100304-03	1	S3	103	4.72	3/4/2010@15:09:58	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		3.1 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.1 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100304-08	1	S7	-1.40	0.0200	3/4/2010@15:11:48	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.40 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.40 > -5.00				
Message		CCB Passed				
Action		Continue				

247907011	1	47	0.796	0.119	3/4/2010@15:13:39		
247907012	1	48	-0.529	0.0593	3/4/2010@15:14:32		
247907013	1	49	-0.631	0.0547	3/4/2010@15:15:27		
247907014	1	50	-1.12	0.0329	3/4/2010@15:16:20		
247907015	1	51	-0.547	0.0584	3/4/2010@15:17:13		
247907016	1	52	-0.602	0.0560	3/4/2010@15:18:07		
247907017	1	53	-0.0840	0.0793	3/4/2010@15:18:59		
248045012	1	54	2.35	0.189	3/4/2010@15:19:52		
248045013	1	55	0.0806	0.0867	3/4/2010@15:20:45		
248045014	1	56	-0.941	0.0407	3/4/2010@15:21:38		
WCN100304-03	1	S3	103	4.71	3/4/2010@15:22:30		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.05	0.0360	3/4/2010@15:24:20		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.05 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.05 > -5.00				
Message			CCB Passed				
Action			Continue				
1202060243 960499 MB	1	57	-1.44	0.0185	3/4/2010@15:26:09		
1202060250 LCS	1	58	54.7	2.54	3/4/2010@15:27:01		
247908001	1	59	-1.24	0.0273	3/4/2010@15:27:53		
247908002	1	60	-1.23	0.0275	3/4/2010@15:28:47		
247908003	1	61	-1.31	0.0241	3/4/2010@15:29:41		
247997001	1	62	-1.39	0.0205	3/4/2010@15:30:34		
248001001	1	63	-1.27	0.0260	3/4/2010@15:31:29		
248034001	1	64	-1.28	0.0256	3/4/2010@15:32:22		
248038001	1	65	-1.45	0.0180	3/4/2010@15:33:15		
1202060244 DUP	1	66	-1.77	0.00344	3/4/2010@15:34:09		
WCN100304-03	1	S3	103	4.72	3/4/2010@15:35:01		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.1 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.1 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-0.945	0.0405	3/4/2010@15:36:53		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.945 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.945 > -5.00				
Message			CCB Passed				
Action			Continue				
1202060246 MS	1	67	115	5.25	3/4/2010@15:38:42		
1202060248 MSD	1	68	113	5.14	3/4/2010@15:39:36		
248038002	1	69	-1.15	0.0315	3/4/2010@15:40:29		
1202060245 DUP	1	70	-1.85	-3.69e-4	3/4/2010@15:41:22		
1202060247 MS	1	71	106	4.86	3/4/2010@15:42:15		
1202060249 MSD	1	72	117	5.36	3/4/2010@15:43:07		
248039001	1	73	-0.969	0.0395	3/4/2010@15:44:01		
248046001	1	74	-1.39	0.0206	3/4/2010@15:44:52		

248046002	1	75	-1.19	0.0296	3/4/2010@15:45:45		
248053001	1	76	-1.46	0.0172	3/4/2010@15:46:39		
WCN100304-03	1	S3	105	4.80	3/4/2010@15:47:31		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.39	0.0205	3/4/2010@15:49:22		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.39 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.39 > -5.00				
Message			CCB Passed				
Action			Continue				
248053002	1	77	-1.84	3.13e-4	3/4/2010@15:51:13		
248053003	1	78	-1.69	0.00722	3/4/2010@15:52:07		
WCN100304-03	1	S3	104	4.77	3/4/2010@15:52:59		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100304-08	1	S7	-1.14	0.0318	3/4/2010@15:54:49		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.14 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.14 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM\_3-4-2010\_13-55-23.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

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.08	0.603	-0.2	3/4/2010	13:59:49
2	150	1	6.91	0.459	-1.3	3/4/2010	14:00:41
3	100	1	4.35	0.290	4.9	3/4/2010	14:01:33
4	50.0	1	2.45	0.161	-4.8	3/4/2010	14:02:26
5	10.0	1	0.578	0.0367	-7.9	3/4/2010	14:03:19
6	5.00	1	0.340	0.0210	-9.3	3/4/2010	14:04:13
7	0.00	1	0.0240	7.56e-4		3/4/2010	14:05:07

Peak Area(V.s)

9.08

0.00

TCYANIDE concentration, ug/L

200

Area = 0.0449 \* Conc + 0.0865  
Conc = 22.2 \* Area - 1.85  
Correlation Coefficient (r) = 0.99948

No Weighting

# **Nitrate Nitrite by Cadmium Reduction**

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	3/3/2010 10:31:50	OM_3-3-2010_10-30-06
1.0 PPM		1	axh3	3/3/2010 10:33:02	OM_3-3-2010_10-30-06
0.5 ppm		1	axh3	3/3/2010 10:34:15	OM_3-3-2010_10-30-06
0.1 ppm		1	axh3	3/3/2010 10:35:29	OM_3-3-2010_10-30-06
0.05 ppm		1	axh3	3/3/2010 10:36:42	OM_3-3-2010_10-30-06
ICAL-00		1	axh3	3/3/2010 10:37:56	OM_3-3-2010_10-30-06
1.0 ppm ICB		1	axh3	3/3/2010 10:40:18	OM_3-3-2010_10-30-06
ICB		1	axh3	3/3/2010 10:42:40	OM_3-3-2010_10-30-06
Nitrate 1.0 ppm		1	axh3	3/3/2010 10:44:59	OM_3-3-2010_10-30-06
Nitrite 1.0 ppm		1	axh3	3/3/2010 10:47:19	OM_3-3-2010_10-30-06
1202054725	958150	1	axh3	3/3/2010 10:49:40	OM_3-3-2010_10-30-06
1202054732	958150	1	axh3	3/3/2010 10:50:53	OM_3-3-2010_10-30-06
247793001	958150	5	axh3	3/3/2010 10:52:06	OM_3-3-2010_10-30-06
1202054726	958150	5	axh3	3/3/2010 10:53:20	OM_3-3-2010_10-30-06
1202054729	958150	5	axh3	3/3/2010 10:54:32	OM_3-3-2010_10-30-06
247997001	958150	5	axh3	3/3/2010 10:55:44	OM_3-3-2010_10-30-06
248001001	958150	5	axh3	3/3/2010 10:56:57	OM_3-3-2010_10-30-06
248019001	958150	5	axh3	3/3/2010 10:58:10	OM_3-3-2010_10-30-06
248023001	958150	5	axh3	3/3/2010 10:59:22	OM_3-3-2010_10-30-06
248024002	958150	10	axh3	3/3/2010 11:00:34	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:01:46	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:04:08	OM_3-3-2010_10-30-06
248024004	958150	10	axh3	3/3/2010 11:05:20	OM_3-3-2010_10-30-06
248038001	958150	5	axh3	3/3/2010 11:06:32	OM_3-3-2010_10-30-06
248038002	958150	5	axh3	3/3/2010 11:07:44	OM_3-3-2010_10-30-06
248039001	958150	5	axh3	3/3/2010 11:08:55	OM_3-3-2010_10-30-06
248044001*	958150	5	axh3	3/3/2010 11:10:07	OM_3-3-2010_10-30-06
1202054727	958150	5	axh3	3/3/2010 11:11:20	OM_3-3-2010_10-30-06
1202054730	958150	5	axh3	3/3/2010 11:12:34	OM_3-3-2010_10-30-06
248044003	958150	5	axh3	3/3/2010 11:13:47	OM_3-3-2010_10-30-06
248046001	958150	5	axh3	3/3/2010 11:14:59	OM_3-3-2010_10-30-06
248046002	958150	5	axh3	3/3/2010 11:16:12	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:17:24	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:19:46	OM_3-3-2010_10-30-06
248044001	958150	5	axh3	3/3/2010 11:22:05	OM_3-3-2010_10-30-06
248053001	958150	5	axh3	3/3/2010 11:23:18	OM_3-3-2010_10-30-06
248053002	958150	5	axh3	3/3/2010 11:24:30	OM_3-3-2010_10-30-06
248053003	958150	5	axh3	3/3/2010 11:25:43	OM_3-3-2010_10-30-06
248074001	958150	5	axh3	3/3/2010 11:26:55	OM_3-3-2010_10-30-06
1202054728	958150	5	axh3	3/3/2010 11:28:07	OM_3-3-2010_10-30-06
1202054731	958150	5	axh3	3/3/2010 11:29:19	OM_3-3-2010_10-30-06
248074002	958150	5	axh3	3/3/2010 11:30:31	OM_3-3-2010_10-30-06
248074003	958150	5	axh3	3/3/2010 11:31:43	OM_3-3-2010_10-30-06
247793001	958150	10	axh3	3/3/2010 11:32:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:34:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:36:31	OM_3-3-2010_10-30-06
1202054726	958150	10	axh3	3/3/2010 11:38:51	OM_3-3-2010_10-30-06
1202054729	958150	10	axh3	3/3/2010 11:40:03	OM_3-3-2010_10-30-06
248039001	958150	10	axh3	3/3/2010 11:41:15	OM_3-3-2010_10-30-06
248046001	958150	10	axh3	3/3/2010 11:42:28	OM_3-3-2010_10-30-06
1202057088	959199	1	axh3	3/3/2010 11:43:39	OM_3-3-2010_10-30-06
1202057095	959199	1	axh3	3/3/2010 11:44:50	OM_3-3-2010_10-30-06
247853003	959199	5	axh3	3/3/2010 11:46:04	OM_3-3-2010_10-30-06
1202057089	959199	5	axh3	3/3/2010 11:47:17	OM_3-3-2010_10-30-06
1202057092	959199	5	axh3	3/3/2010 11:48:30	OM_3-3-2010_10-30-06
247853006	959199	25	axh3	3/3/2010 11:49:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:50:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:53:16	OM_3-3-2010_10-30-06



247853009	959199	5	axh3	3/3/2010	11:55:37	OM_3-3-2010_10-30-06
247853012	959199	10	axh3	3/3/2010	11:56:49	OM_3-3-2010_10-30-06
247853015	959199	10	axh3	3/3/2010	11:58:02	OM_3-3-2010_10-30-06
247853018	959199	50	axh3	3/3/2010	11:59:14	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:00:27	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:01:39	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:02:51	OM_3-3-2010_10-30-06
247966011	959199	5	axh3	3/3/2010	12:04:03	OM_3-3-2010_10-30-06
248044005	959199	5	axh3	3/3/2010	12:05:15	OM_3-3-2010_10-30-06
1202059915	959199	5	axh3	3/3/2010	12:06:27	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:07:39	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:10:01	OM_3-3-2010_10-30-06
1202059916	959199	5	axh3	3/3/2010	12:12:21	OM_3-3-2010_10-30-06
248072001	959199	5	axh3	3/3/2010	12:13:31	OM_3-3-2010_10-30-06
1202057091	959199	5	axh3	3/3/2010	12:14:43	OM_3-3-2010_10-30-06
1202057094	959199	5	axh3	3/3/2010	12:15:56	OM_3-3-2010_10-30-06
248072002	959199	5	axh3	3/3/2010	12:17:09	OM_3-3-2010_10-30-06
248072003	959199	5	axh3	3/3/2010	12:18:23	OM_3-3-2010_10-30-06
248103003	959199	5	axh3	3/3/2010	12:19:36	OM_3-3-2010_10-30-06
248108001	959199	5	axh3	3/3/2010	12:20:48	OM_3-3-2010_10-30-06
1202057090	959199	5	axh3	3/3/2010	12:22:01	OM_3-3-2010_10-30-06
1202057093	959199	5	axh3	3/3/2010	12:23:13	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:24:25	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:26:48	OM_3-3-2010_10-30-06
248117001	959199	5	axh3	3/3/2010	12:29:08	OM_3-3-2010_10-30-06
248126003	959199	5	axh3	3/3/2010	12:30:20	OM_3-3-2010_10-30-06
248127001	959199	5	axh3	3/3/2010	12:31:32	OM_3-3-2010_10-30-06
248199001	959199	5	axh3	3/3/2010	12:32:44	OM_3-3-2010_10-30-06
248238001	959199	5	axh3	3/3/2010	12:33:56	OM_3-3-2010_10-30-06
248238002	959199	5	axh3	3/3/2010	12:35:08	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:36:20	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:37:32	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:38:45	OM_3-3-2010_10-30-06
248108001	959199	10	axh3	3/3/2010	12:39:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:41:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:43:31	OM_3-3-2010_10-30-06
1202057090	959199	10	axh3	3/3/2010	12:45:52	OM_3-3-2010_10-30-06
1202057093	959199	10	axh3	3/3/2010	12:47:05	OM_3-3-2010_10-30-06
1202058290	959715	1	axh3	3/3/2010	12:48:17	OM_3-3-2010_10-30-06
1202058297	959715	1	axh3	3/3/2010	12:49:29	OM_3-3-2010_10-30-06
248044006	959715	5	axh3	3/3/2010	12:50:42	OM_3-3-2010_10-30-06
1202058291	959715	5	axh3	3/3/2010	12:51:54	OM_3-3-2010_10-30-06
1202058294	959715	5	axh3	3/3/2010	12:53:07	OM_3-3-2010_10-30-06
248164001	959715	5	axh3	3/3/2010	12:54:19	OM_3-3-2010_10-30-06
248164003	959715	5	axh3	3/3/2010	12:55:31	OM_3-3-2010_10-30-06
248261001	959715	5	axh3	3/3/2010	12:56:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:57:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:00:17	OM_3-3-2010_10-30-06
1202058292	959715	5	axh3	3/3/2010	13:02:37	OM_3-3-2010_10-30-06
1202058295	959715	5	axh3	3/3/2010	13:03:49	OM_3-3-2010_10-30-06
248298001	959715	5	axh3	3/3/2010	13:05:01	OM_3-3-2010_10-30-06
1202058293	959715	5	axh3	3/3/2010	13:06:15	OM_3-3-2010_10-30-06
1202058296	959715	5	axh3	3/3/2010	13:07:28	OM_3-3-2010_10-30-06
248298002	959715	5	axh3	3/3/2010	13:08:41	OM_3-3-2010_10-30-06
248298003	959715	5	axh3	3/3/2010	13:09:53	OM_3-3-2010_10-30-06
248382001	959715	5	axh3	3/3/2010	13:11:06	OM_3-3-2010_10-30-06
248382004	959715	5	axh3	3/3/2010	13:12:19	OM_3-3-2010_10-30-06
248401001	959715	5	axh3	3/3/2010	13:13:31	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	13:14:44	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:17:05	OM_3-3-2010_10-30-06

248401003	959715	5	axh3	3/3/2010	13:19:26	OM_3-3-2010_10-30-06
248401006	959715	5	axh3	3/3/2010	13:20:37	OM_3-3-2010_10-30-06
248407001	959715	5	axh3	3/3/2010	13:21:49	OM_3-3-2010_10-30-06
248419001	959715	5	axh3	3/3/2010	13:23:01	OM_3-3-2010_10-30-06
248419002	959715	5	axh3	3/3/2010	13:24:13	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	13:26:33	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:28:56	OM_3-3-2010_10-30-06

Original Run Filename: OM\_3-3-2010\_10-30-06.OMN created 3/3/2010 10:30:06  
 Original Run Author's Signature: [lachat]  
 Current Run Filename: OM\_3-3-2010\_10-30-06.OMN last modified 3/3/2010 13:30:17  
 Current Run Author's Signature: [lachat]  
 Description: EPA 353.2  
 Cadmium Culum 9056CAJ  
 LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			NO3 + NO2 Conc. (mg/L)	Area (Vs)				
WTR100303-26	1	S9	1.50	14.8	3/3/2010@10:31:50			1.5 PPM
WTR100303-25	1	S10	1.00	9.68	3/3/2010@10:33:02			1.0 PPM
WTR100303-24	1	S11	0.500	4.89	3/3/2010@10:34:15			0.5 ppm
WTR100303-23	1	S12	0.100	1.02	3/3/2010@10:35:29			0.1 ppm
WTR100303-21	1	S13	0.0500	0.312	3/3/2010@10:36:42			0.05 ppm
0.0ppm	1	S15	0.00	-0.0280	3/3/2010@10:37:56			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
Result:			0.99989 > 0.99500					
Message			Calibration Passed					
Action			Continue					
WTR100303-27 ICV	1	S16	0.983	9.62	3/3/2010@10:40:18			1.0 ppm ICV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.983 < 1.10					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.983 > 0.894					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
ICB	1	S15	0.00396	-0.0247	3/3/2010@10:42:40			ICB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00396 < 0.0500					
Message			ICB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00396 > -0.0500					
Message			ICB Passed					
Action			Continue					
WTR100303-22	1	S1	0.943	9.22	3/3/2010@10:44:59			Nitrate 1.0 ppm
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.943 < 1.10					
Message			Nitrate Standard Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.943 > 0.894					
Message			Nitrate Standard Passed					
Action			Continue					
WTR100303-28	1	S2	0.937	9.17	3/3/2010@10:47:19			Nitrite 1.0 ppm
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.937 < 1.10					
Message			Nitrite Standard Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.937 > 0.894					
Message			Nitrite Standard Passed					
Action			Continue					
1202054725 958150 MB	1	1	0.0124	0.0582	3/3/2010@10:49:40			
1202054732 LCS	1	2	0.986	9.65	3/3/2010@10:50:53			
247793001	1	3	-0.0329	-0.388	3/3/2010@10:52:06		5.00	
1202054726 DUP	1	4	-0.0360	-0.419	3/3/2010@10:53:20		5.00	
1202054729 PS	1	5	0.348	3.36	3/3/2010@10:54:32		5.00	

247997001	1	6	0.0124	0.0585	3/3/2010@10:55:44	5.00	
248001001	1	7	0.0131	0.0653	3/3/2010@10:56:57	5.00	
248019001	1	8	0.196	1.87	3/3/2010@10:58:10	5.00	
248023001	1	9	0.0844	0.767	3/3/2010@10:59:22	5.00	
248024002	1	10	0.425	4.12	3/3/2010@11:00:34	10.00	
WTR100303-25 CCV	1	S10	0.983	9.62	3/3/2010@11:01:46		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			0.983 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.983 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	0.00204	-0.0437	3/3/2010@11:04:08		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			0.00204 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.00204 > -0.0500				
Message			CCB Passed				
Action			Continue				
248024004	1	11	0.430	4.17	3/3/2010@11:05:20	10.00	
248038001	1	12	0.0214	0.147	3/3/2010@11:06:32	5.00	
248038002	1	13	0.0741	0.666	3/3/2010@11:07:44	5.00	
248039001	1	14	-0.0529	-0.584	3/3/2010@11:08:55	5.00	
248044001	1	15	2.97	29.2	3/3/2010@11:10:07	5.00	
1202054727  DUP	1	16	0.0856	0.779	3/3/2010@11:11:20	5.00	
1202054730  PS	1	17	1.05	10.3	3/3/2010@11:12:34	5.00	
248044003	1	18	0.0366	0.297	3/3/2010@11:13:47	5.00	
248046001	1	19	-0.0557	-0.613	3/3/2010@11:14:59	5.00	
248046002	1	20	-0.0479	-0.535	3/3/2010@11:16:12	5.00	
WTR100303-25 CCV	1	S10	1.00	9.80	3/3/2010@11:17:24		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			1.00 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.00 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	0.00357	-0.0286	3/3/2010@11:19:46		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			0.00357 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.00357 > -0.0500				
Message			CCB Passed				
Action			Continue				
248044001	1	15	0.0892	0.815	3/3/2010@11:22:05	5.00	
248053001	1	21	0.0149	0.0826	3/3/2010@11:23:18	5.00	
248053002	1	22	0.0149	0.0834	3/3/2010@11:24:30	5.00	
248053003	1	23	0.0120	0.0547	3/3/2010@11:25:43	5.00	
248074001	1	24	0.393	3.81	3/3/2010@11:26:55	5.00	
1202054728  DUP	1	25	0.388	3.76	3/3/2010@11:28:07	5.00	
1202054731  PS	1	26	1.39	13.6	3/3/2010@11:29:19	5.00	
248074002	1	27	0.131	1.23	3/3/2010@11:30:31	5.00	
248074003	1	28	0.276	2.66	3/3/2010@11:31:43	5.00	
247793001	1	3	0.00533	-0.0112	3/3/2010@11:32:57	10.00	
WTR100303-25 CCV	1	S10	0.985	9.64	3/3/2010@11:34:09		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							

		Result:	0.985 < 1.10				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.985 > 0.894				
		Message	CCV Passed				
		Action	Continue				
CCB	1	S15	0.00385	-0.0258	3/3/2010@11:36:31		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	0.00385 < 0.0500				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.00385 > -0.0500				
		Message	CCB Passed				
		Action	Continue				
1202054726 DUP	1	4	0.0111	0.0460	3/3/2010@11:38:51		10.00
1202054729 PS	1	5	1.01	9.86	3/3/2010@11:40:03		10.00
248039001	1	14	-0.0350	-0.408	3/3/2010@11:41:15		10.00
248046001	1	19	-0.0330	-0.389	3/3/2010@11:42:28		10.00
1202057088 959199 MB	1	29	0.0116	0.0509	3/3/2010@11:43:39		
1202057095 LCS	1	30	1.00	9.79	3/3/2010@11:44:50		
247853003	1	31	0.0341	0.272	3/3/2010@11:46:04		5.00
1202057089 DUP	1	32	0.0331	0.263	3/3/2010@11:47:17		5.00
1202057092 PS	1	33	1.02	10.0	3/3/2010@11:48:30		5.00
247853006	1	34	0.196	1.87	3/3/2010@11:49:43		25.00
WTR100303-25 CCV	1	S10	0.968	9.47	3/3/2010@11:50:55		1.0 ppm CCV
		Known Conc:	1.00				
DQM Test: > + Concentration Limit							
		Result:	0.968 < 1.10				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.968 > 0.894				
		Message	CCV Passed				
		Action	Continue				
CCB	1	S15	0.00438	-0.0206	3/3/2010@11:53:16		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	0.00438 < 0.0500				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.00438 > -0.0500				
		Message	CCB Passed				
		Action	Continue				
247853009	1	35	0.0177	0.110	3/3/2010@11:55:37		5.00
247853012	1	36	0.204	1.94	3/3/2010@11:56:49		10.00
247853015	1	37	0.219	2.09	3/3/2010@11:58:02		10.00
247853018	1	38	0.268	2.58	3/3/2010@11:59:14		50.00
247966003	1	39	-0.0241	-0.301	3/3/2010@12:00:27		5.00
1202057096 DUP	1	40	-0.0245	-0.305	3/3/2010@12:01:39		5.00
1202057097 PS	1	41	0.767	7.49	3/3/2010@12:02:51		5.00
247966011	1	42	-0.0241	-0.301	3/3/2010@12:04:03		5.00
248044005	1	43	0.00946	0.0294	3/3/2010@12:05:15		5.00
1202059915 DUP	1	89	0.00965	0.0313	3/3/2010@12:06:27		5.00
WTR100303-25 CCV	1	S10	0.981	9.60	3/3/2010@12:07:39		1.0 ppm CCV
		Known Conc:	1.00				
DQM Test: > + Concentration Limit							
		Result:	0.981 < 1.10				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.981 > 0.894				
		Message	CCV Passed				
		Action	Continue				
CCB	1	S15	0.00404	-0.0239	3/3/2010@12:10:01		CCB

Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00404 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00404 > -0.0500					
Message			CCB Passed					
Action			Continue					
1202059916  PS	1	90	1.04	10.2	3/3/2010@12:12:21	5.00		
248072001	1	44	0.170	1.61	3/3/2010@12:13:31	5.00		
1202057091  DUP	1	45	0.165	1.56	3/3/2010@12:14:43	5.00		
1202057094  PS	1	46	1.18	11.6	3/3/2010@12:15:56	5.00		
248072002	1	47	0.165	1.56	3/3/2010@12:17:09	5.00		
248072003	1	48	0.184	1.75	3/3/2010@12:18:23	5.00		
248103003	1	49	0.00535	-0.0110	3/3/2010@12:19:36	5.00		
248108001	1	50	-0.0372	-0.430	3/3/2010@12:20:48	5.00		
1202057090  DUP	1	51	-0.0370	-0.429	3/3/2010@12:22:01	5.00		
1202057093  PS	1	52	0.357	3.45	3/3/2010@12:23:13	5.00		
WTR100303-25 CCV	1	S10	1.01	9.89	3/3/2010@12:24:25		1.0 ppm CCV	
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			1.01 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.01 > 0.894					
Message			CCV Passed					
Action			Continue					
CCB	1	S15	0.00458	-0.0186	3/3/2010@12:26:48		CCB	
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00458 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00458 > -0.0500					
Message			CCB Passed					
Action			Continue					
248117001	1	53	-0.0357	-0.415	3/3/2010@12:29:08	5.00		
248126003	1	54	0.138	1.29	3/3/2010@12:30:20	5.00		
248127001	1	55	0.126	1.17	3/3/2010@12:31:32	5.00		
248199001	1	56	-0.0330	-0.389	3/3/2010@12:32:44	5.00		
248238001	1	57	0.0119	0.0531	3/3/2010@12:33:56	5.00		
248238002	1	58	0.0133	0.0676	3/3/2010@12:35:08	5.00		
247966003	1	39	-0.0228	-0.288	3/3/2010@12:36:20	5.00		
1202057096  DUP	1	40	-0.0241	-0.301	3/3/2010@12:37:32	5.00		
1202057097  PS	1	41	0.737	7.19	3/3/2010@12:38:45	5.00		
248108001	1	50	0.00805	0.0156	3/3/2010@12:39:57	10.00		
WTR100303-25 CCV	1	S10	1.02	10.0	3/3/2010@12:41:09		1.0 ppm CCV	
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			1.02 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.02 > 0.894					
Message			CCV Passed					
Action			Continue					
CCB	1	S15	0.00556	-0.00893	3/3/2010@12:43:31		CCB	
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00556 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00556 > -0.0500					
Message			CCB Passed					

			Action	Continue					
1202057090	DUP	1	51	0.0123	0.0576	3/3/2010@12:45:52		10.00	
1202057093	PS	1	52	1.10	10.8	3/3/2010@12:47:05		10.00	
1202058290	959715 MB	1	66	0.0112	0.0462	3/3/2010@12:48:17			
1202058297	LCS	1	67	1.02	10.0	3/3/2010@12:49:29			
248044006		1	68	0.00987	0.0335	3/3/2010@12:50:42		5.00	
1202058291	DUP	1	69	0.00950	0.0299	3/3/2010@12:51:54		5.00	
1202058294	PS	1	70	1.03	10.1	3/3/2010@12:53:07		5.00	
248164001		1	71	0.0321	0.253	3/3/2010@12:54:19		5.00	
248164003		1	72	0.0323	0.254	3/3/2010@12:55:31		5.00	
248261001		1	73	0.0490	0.418	3/3/2010@12:56:43		5.00	
WTR100303-25	CCV	1	S10	1.01	9.92	3/3/2010@12:57:55			1.0 ppm CCV
			Known Conc:	1.00					
DQM Test: > + Concentration Limit									
			Result:	1.01 < 1.10					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	1.01 > 0.894					
			Message	CCV Passed					
			Action	Continue					
CCB		1	S15	0.00422	-0.0221	3/3/2010@13:00:17			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	0.00422 < 0.0500					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	0.00422 > -0.0500					
			Message	CCB Passed					
			Action	Continue					
1202058292	DUP	1	74	0.0484	0.413	3/3/2010@13:02:37		5.00	
1202058295	PS	1	75	1.11	10.8	3/3/2010@13:03:49		5.00	
248298001		1	76	0.132	1.24	3/3/2010@13:05:01		5.00	
1202058293	DUP	1	77	0.126	1.18	3/3/2010@13:06:15		5.00	
1202058296	PS	1	78	1.18	11.6	3/3/2010@13:07:28		5.00	
248298002		1	79	0.127	1.19	3/3/2010@13:08:41		5.00	
248298003		1	80	0.152	1.44	3/3/2010@13:09:53		5.00	
248382001		1	81	0.146	1.37	3/3/2010@13:11:06		5.00	
248382004		1	82	0.151	1.42	3/3/2010@13:12:19		5.00	
248401001		1	83	0.0983	0.904	3/3/2010@13:13:31		5.00	
WTR100303-25	CCV	1	S10	1.02	9.94	3/3/2010@13:14:44			1.0 ppm CCV
			Known Conc:	1.00					
DQM Test: > + Concentration Limit									
			Result:	1.02 < 1.10					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	1.02 > 0.894					
			Message	CCV Passed					
			Action	Continue					
CCB		1	S15	0.00434	-0.0210	3/3/2010@13:17:05			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	0.00434 < 0.0500					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	0.00434 > -0.0500					
			Message	CCB Passed					
			Action	Continue					
248401003		1	84	0.0611	0.538	3/3/2010@13:19:26		5.00	
248401006		1	85	0.0756	0.681	3/3/2010@13:20:37		5.00	
248407001		1	86	0.0122	0.0564	3/3/2010@13:21:49		5.00	
248419001		1	87	0.0150	0.0844	3/3/2010@13:23:01		5.00	
248419002		1	88	0.0129	0.0637	3/3/2010@13:24:13		5.00	
WTR100303-25	CCV	1	S10	0.994	9.72	3/3/2010@13:26:33			1.0 ppm CCV
			Known Conc:	1.00					

DQM Test: > + Concentration Limit							
Result:	0.994	<	1.10				
Message	CCV Passed						
Action	Continue						
DQM Test: < - Concentration Limit							
Result:	0.994	>	0.894				
Message	CCV Passed						
Action	Continue						
CCB	1	S15	0.00455	-0.0189	3/3/2010@13:28:56		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:	0.00455	<	0.0500				
Message	CCB Passed						
Action	Continue						
DQM Test: < - Concentration Limit							
Result:	0.00455	>	-0.0500				
Message	CCB Passed						
Action	Continue						

Channel 1 (NO3 + NO2) : Current View

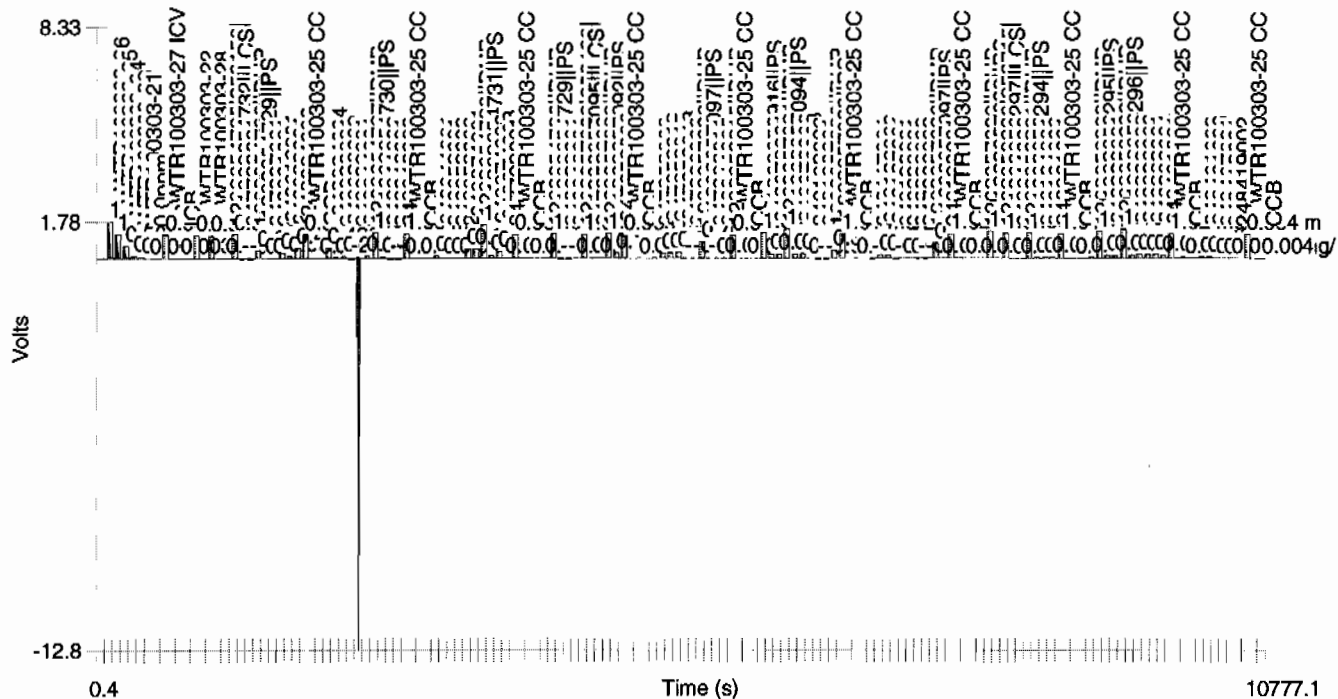


Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	14.8	1.22	-0.4	3/3/2010	10:33:10
2	1.00	1	9.68	0.804	1.1	3/3/2010	10:34:23
3	0.500	1	4.89	0.403	-0.6	3/3/2010	10:35:35
4	0.100	1	1.02	0.0833	-10.8	3/3/2010	10:36:48
5	0.0500	1	0.312	0.0247	27.4	3/3/2010	10:38:02
6	0.00	1	-0.0280	-0.00133		3/3/2010	10:39:16



Figure 1: NO3 + NO2

